Standard precision ball screws

Features

- **GP, GG, GE, GK 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

Series	Additional shaft-end machining	Surface treatment	Change of grease type	Change of nut direction	LUBSEAL
GP, DP FG, GG, HG FE, GE	○	○	○	○	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 µm).
- 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

Example model numbers

Series	Shaft diameter	Lead	Number of circuits	Combination	–	Flange type	Ball recirculation system	Wiper material	Thread direction	–	Overall screw shaft length	Shaft end type	Thread length	–	Accuracy grade	Axial clearance
FG	15	10	P	S	–	H	P	N	R	–	0900	X	0840	–	C5	F
DP	6 to 14	1 to 4	J			H	D	N			To be shown with a 4-digit number in metric units (mm)	B, X	To be shown with a 4-digit number in metric units (mm)		C3	F, S
FG	10 to 25	5 to 25	P			H	P	N				A, X			C5	F
FE															C7	M
GG	8 to 32	2 to 25	See specifications.	S	–	See specifications.	See specifications.	See specifications.	R	–		A, X		–	C5	F
GE							A								C7	M
GP	8 to 20	2 to 5										B, X			C3	F, S
HG		12 to 60	Q				Q					A, X			C5	F, H

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

□ Screw shaft diameter and lead combinations

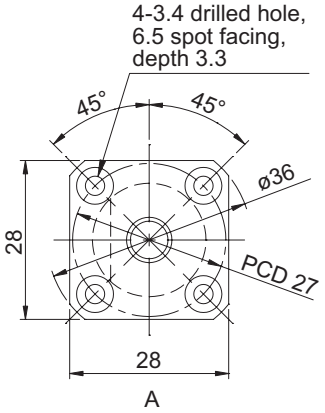
Screw shaft diameter (mm)	Lead (mm) 1	2	3	4	5	10	12	15	16	20	25	30	32	40	60
6	○														
8	○	● ○		●			□								
10		● ○		●		● ♦									
12		● ○	○	●	●	● ♦				● ♦		□			
14				○											
15		●		●	● ♦	● ♦		●		● □ ♦				□	
16									●				□		
20				●	●	● ♦				● □ ♦		□		□	□
25					● ♦	● ♦				●	● ♦				
32					●	●									

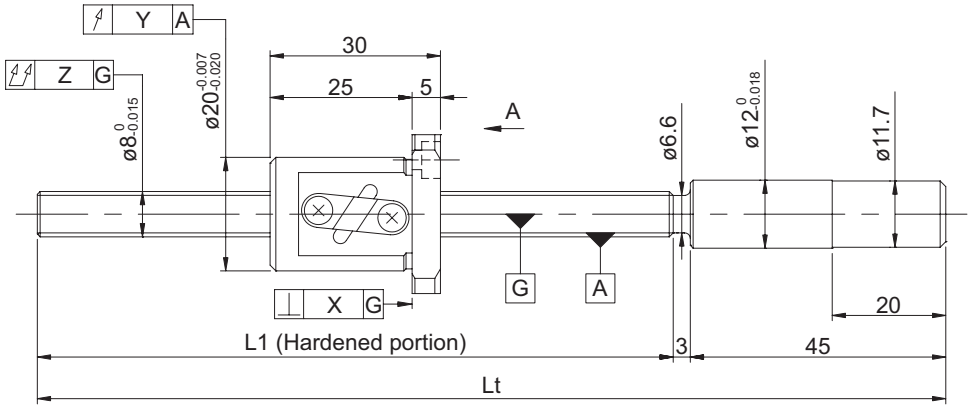
●: GP, GG, GE series
○: DP series (small lead)
□: HG series (large lead)
♦: FG, FE series (high rotational speed)

Screw shaft diameter ø8

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	8 - 2		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG0802DS-AANR-0215A	167	215	137	0.023	0.018	0.018
GE0802DS-AANR-0215A				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

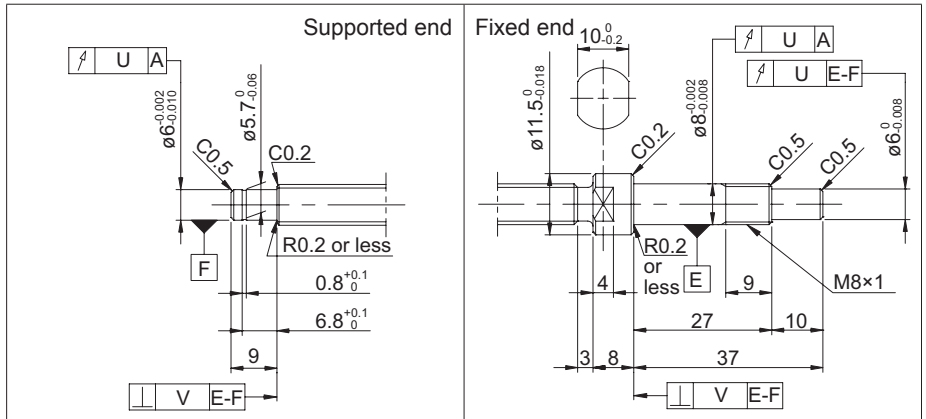
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

● Optional specifications

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.065	0.010	0.005	Up to 2.1	Up to 0.5	0.13
0.014	0.020	0.100	----	----	----	----	

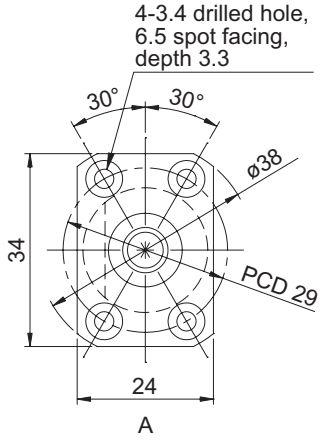
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

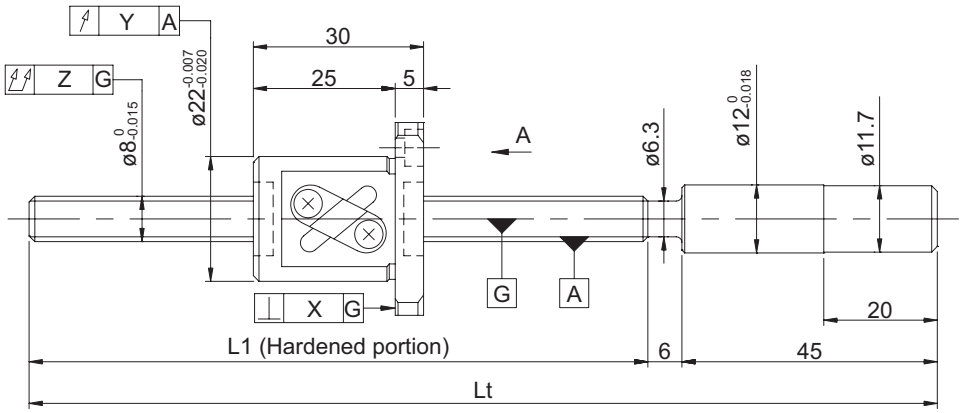
KURODA JENATEC

Screw shaft diameter ø8

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	8 - 4		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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 / 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 2.9	Up to 0.5	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Felt wiper		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG0804DS-BAFR-0215A	164	215	134	0.023	0.018	0.018
GG0804DS-BAFR-0340A	289	340	259			
GE0804DS-BAFR-0215A	164	215	134	0.05/300	----	----
GE0804DS-BAFR-0340A	289	340	259			

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

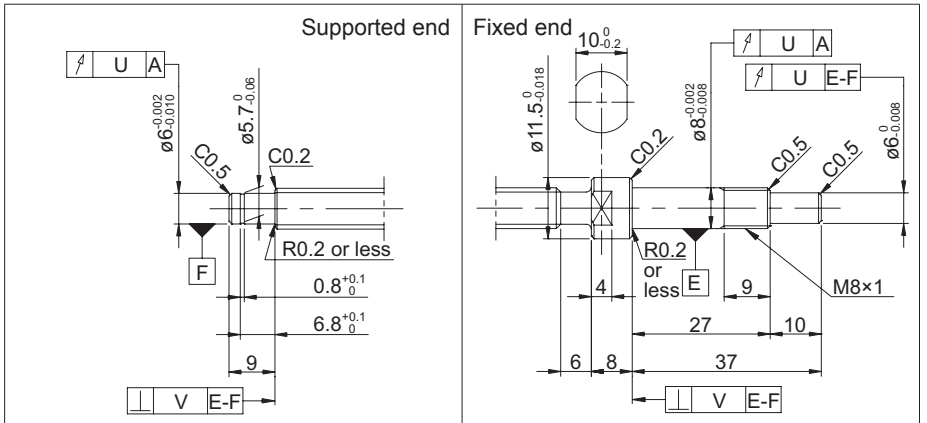
• Shaft end finish type

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

GG0804DS-BAFR-0340A → GG0804DS-BAFR-0340X0280-C5F
- 0340: Thread length
- 0280: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

• Optional specifications

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

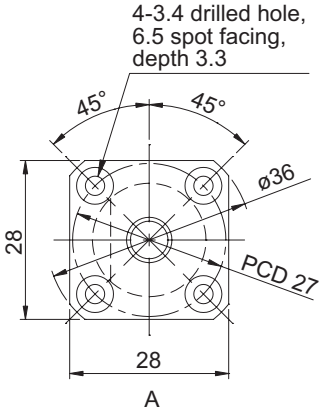
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.065	0.010	0.005	0.2 to 2.9	Up to 0.5	0.18
		0.075					0.22
0.014	0.020	0.100	----	----	----	----	0.18
							0.22

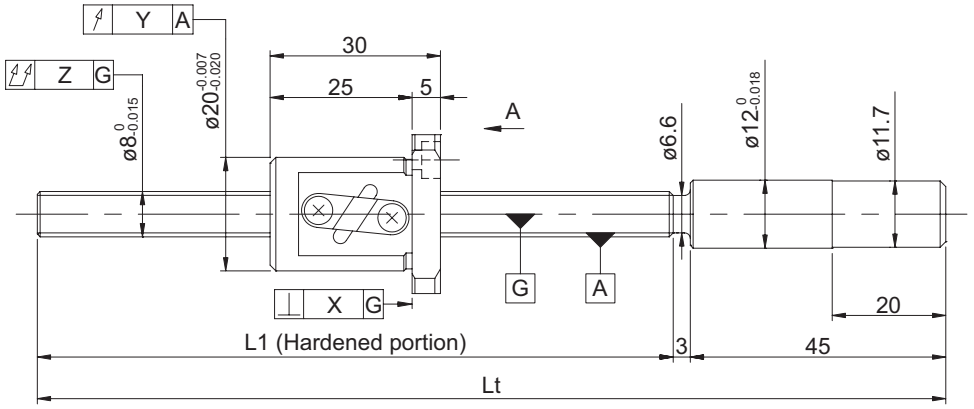
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft diameter ø8

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	8 - 2		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length		Maximum stroke (L1 - nut length)	Lead accuracy		
	L1	Lt		±E_c	e_c	e_{300}
GG0802DS-AANR-0215A	167	215	137	0.023	0.018	0.018
GE0802DS-AANR-0215A				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.

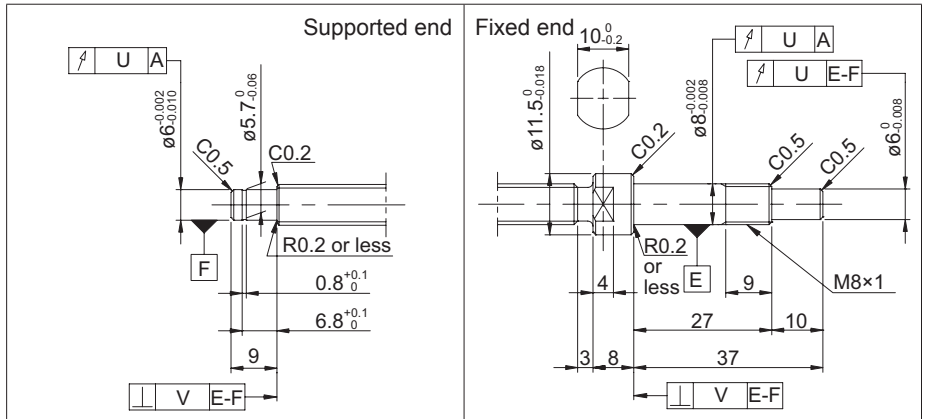
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

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

GG0802DS-AANR-0215A → GG0802DS-AANR-0215X0158-C5F

↳Thread length

↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

● Optional specifications

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

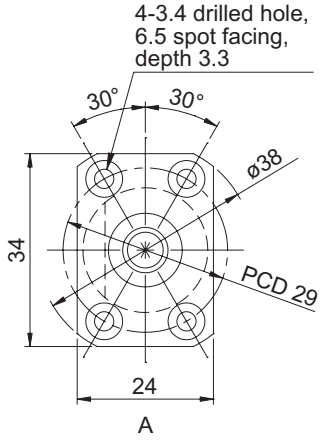
Accuracy of each part					Preload torque (N·cm)		Mass (kg)
X	Y	Z	U	V	Without clearance	With clearance	
0.010	0.012	0.065	0.010	0.005	Up to 2.1	Up to 0.5	0.13
0.014	0.020	0.100	----	----	----	----	

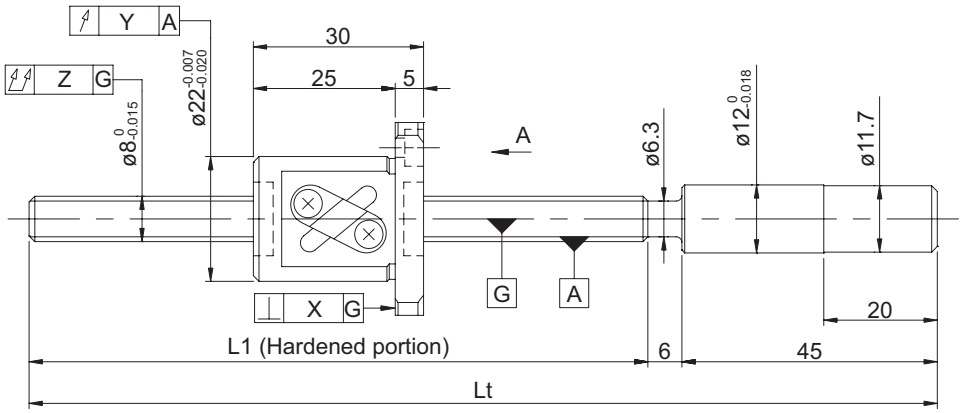
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

Screw shaft diameter ø8

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	8 - 4		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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 / 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 2.9	Up to 0.5	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Felt wiper		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG0804DS-BAFR-0215A	164	215	134	0.023	0.018	0.018
GG0804DS-BAFR-0340A	289	340	259			
GE0804DS-BAFR-0215A	164	215	134	0.05/300	----	----
GE0804DS-BAFR-0340A	289	340	259			

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

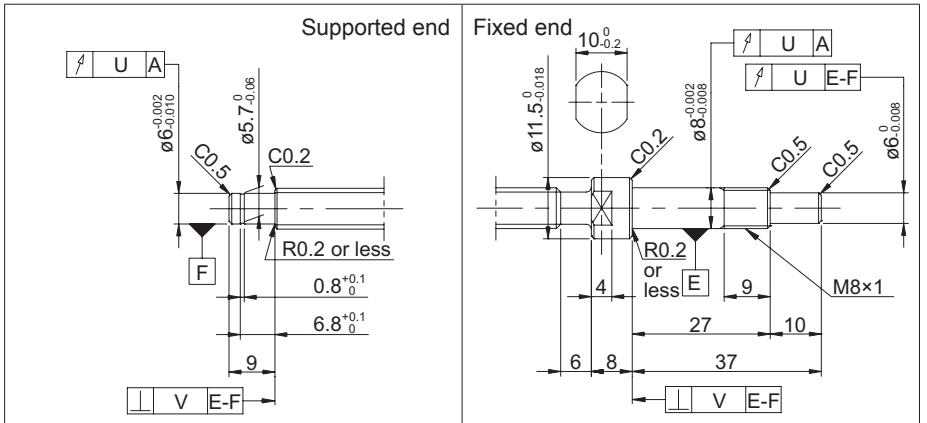
• Shaft end finish type

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

GG0804DS-BAFR-0340A → GG0804DS-BAFR-0340X0280-C5F
- 0340: Thread length
- 0280: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

• Optional specifications

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

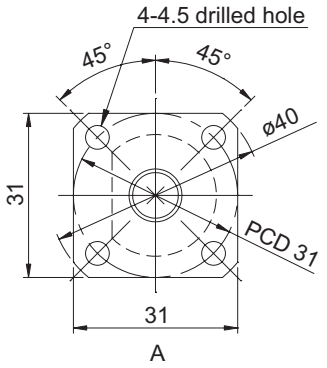
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.065	0.010	0.005	0.2 to 2.9	Up to 0.5	0.18
		0.075					0.22
0.014	0.020	0.100	----	----	----	----	0.18
							0.22

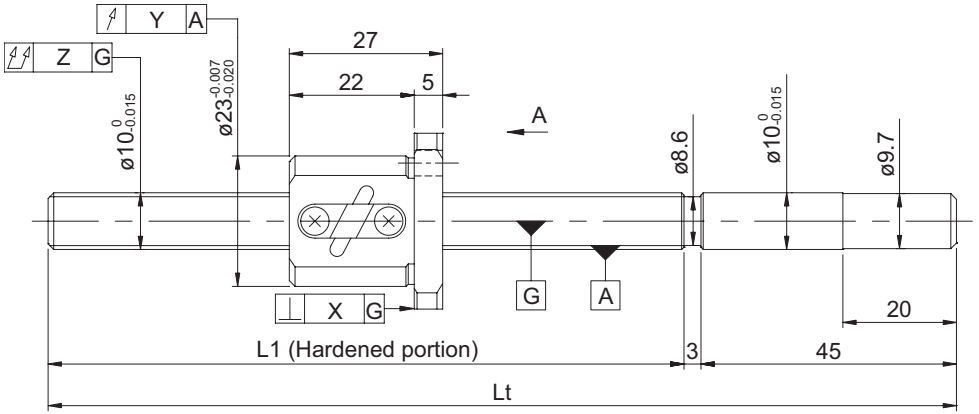
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft diameter ø10

Ball Screw Specifications

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	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1002DS-EANR-0250A	202	250	175	0.023	0.018	0.018
GG1002DS-EANR-0320A	272	320	245			
GE1002DS-EANR-0250A	202	250	175	0.05/300	----	----
GE1002DS-EANR-0320A	272	320	245			

• 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

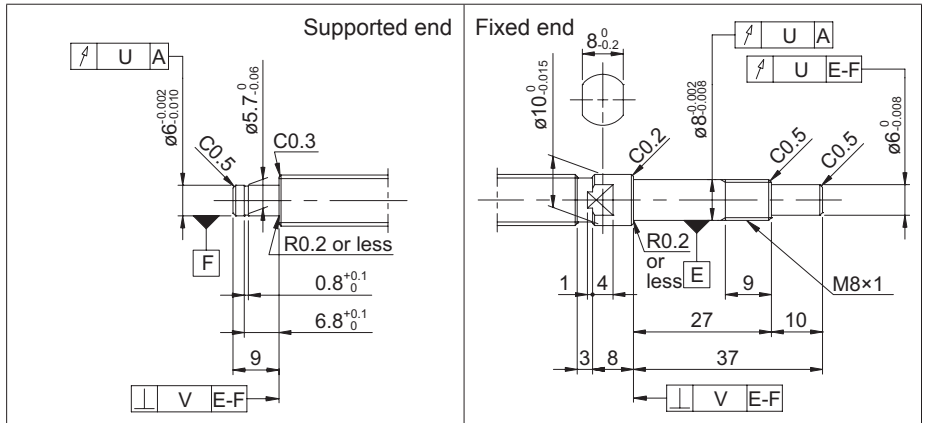
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG1002DS-EANR-0320A → GG1002DS-EANR-0320X0263-C5F

↳Thread length
↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

• Optional specifications

• Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

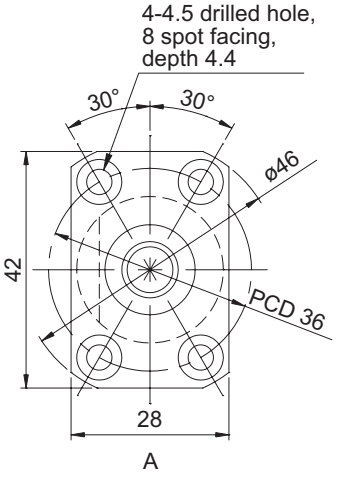
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.055	0.011	0.005	0.1 to 2.5	Up to 0.5	0.22
		0.065					0.26
0.014	0.020	0.080	----	----	----	----	0.22
		0.100					0.26

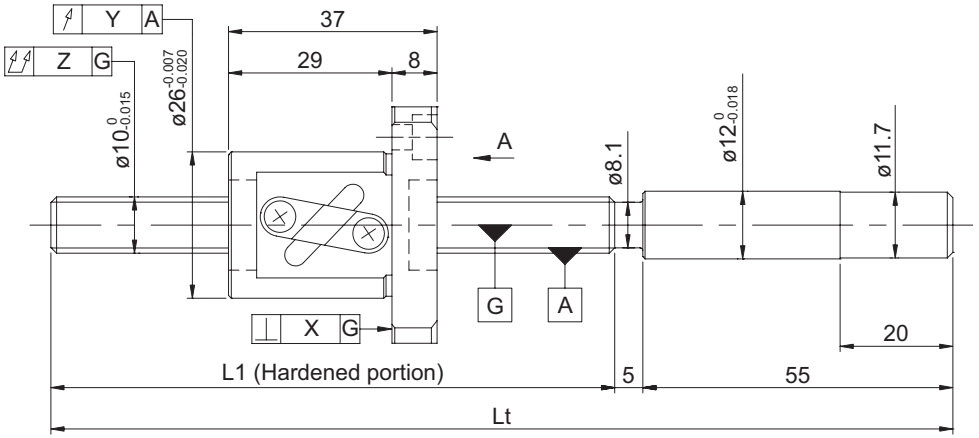
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft diameter ø10

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	10 - 4		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	2.3812		
Root diameter (mm)	8.1		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1004DS-BAPR-0255A	195	255	158	0.023	0.018	0.018
GG1004DS-BAPR-0385A	325	385	288	0.025	0.020	
GG1004DS-BAPR-0455A	395	455	358			
GE1004DS-BAPR-0255A	195	255	158	0.05/300	----	----
GE1004DS-BAPR-0385A	325	385	288			
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

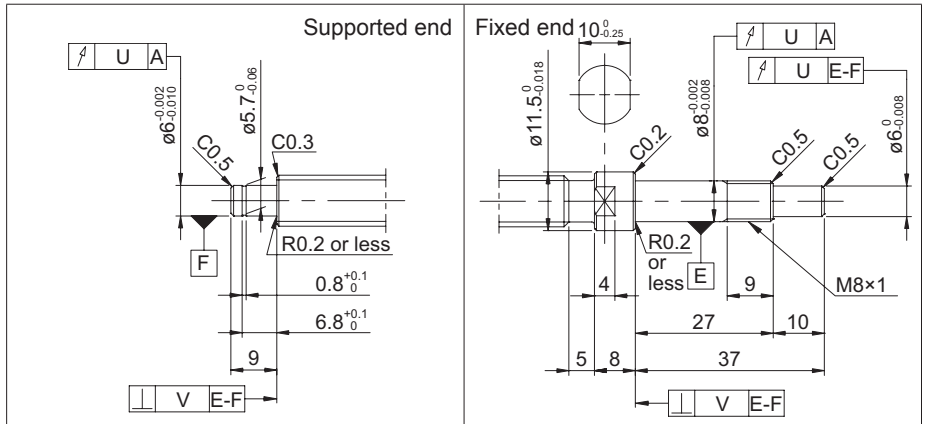
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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.

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

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

0445: Thread length
0386: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

● Optional specifications

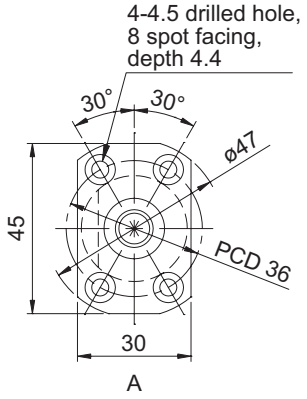
- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

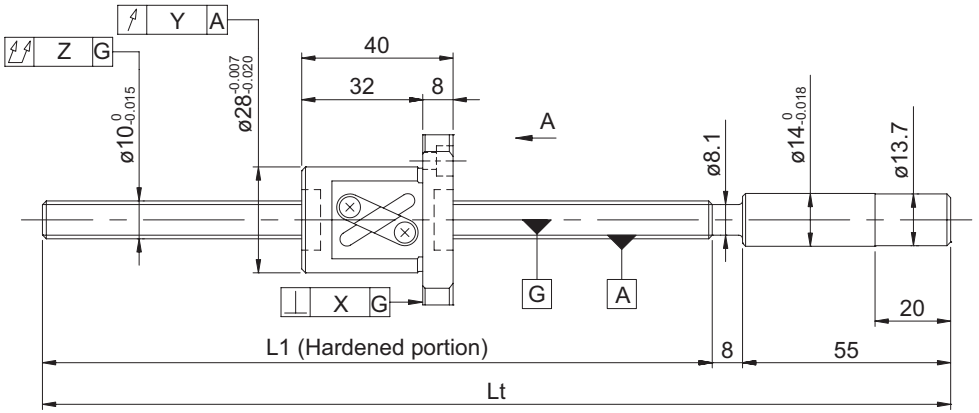
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.055	0.011	0.005	0.3 to 4.0	Up to 1.0	0.30
		0.065					0.36
		0.080					0.39
0.014	0.020	0.080	----	----	----	----	0.30
		0.100					0.36
		0.120					0.39

- **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.**

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	10 - 10		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	2.3812		
Root diameter (mm)	8.1		
Series	GG		GE
Basic dynamic load rating C (N)	2200		
Basic static load rating C0 (N)	3500		
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)	0.4 to 3.9	Up to 1.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Plastic wiper		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1010AS-BAPR-0255A	192	255	152	0.023	0.018	0.018
GG1010AS-BAPR-0455A	392	455	352	0.025	0.020	
GE1010AS-BAPR-0255A	192	255	152	0.05/300	----	----
GE1010AS-BAPR-0455A	392	455	352			

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

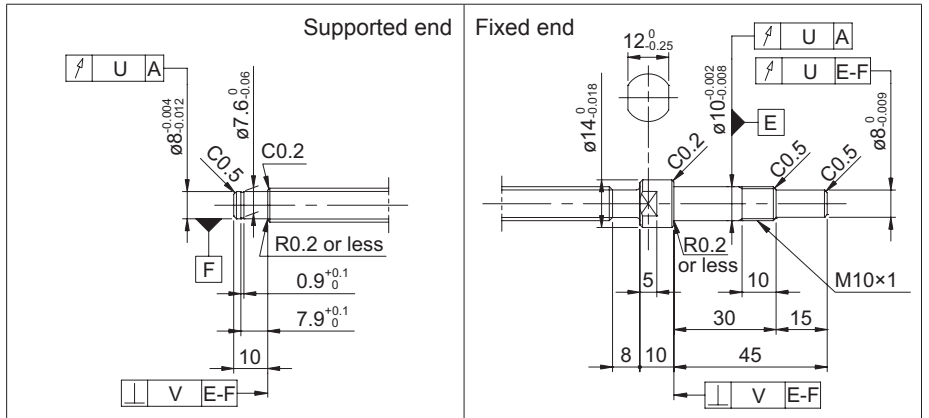
• Shaft end finish type

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

GG1010AS-BAPR-0455A → GG1010AS-BAPR-0455X0382-C5F
- 0382: Thread length
- 0455: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-8S (Square type)	BUK-10, BUK-10F (Square type)
BUM-8S (Round type)	BUM-10, BUM-10F (Round type)

• Optional specifications

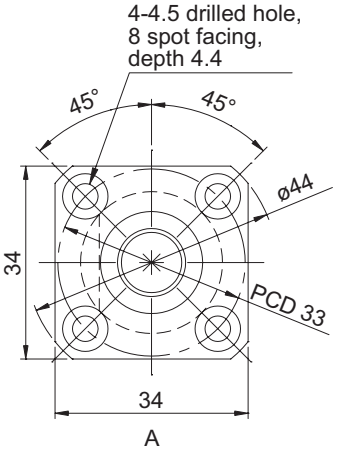
• Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

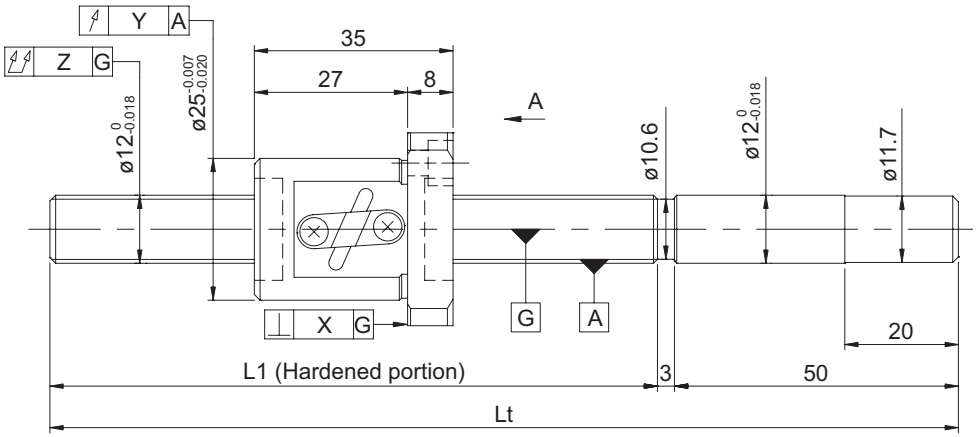
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.055	0.011	0.005	0.4 to 3.9	Up to 1.0	0.38
		0.080					0.49
0.014	0.020	0.080	----	----	----	----	0.38
		0.120					0.49

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	12 - 2		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	1.5875		
Root diameter (mm)	10.6		
Series	GG		GE
Basic dynamic load rating C (N)	2450		
Basic static load rating C0 (N)	4100		
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 3.4	Up to 1.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Plastic wiper		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1202DS-AAPR-0300A	247	300	212	0.023	0.018	0.018
GG1202DS-AAPR-0455A	402	455	367	0.027	0.020	
GE1202DS-AAPR-0300A	247	300	212	0.05/300	----	----
GE1202DS-AAPR-0455A	402	455	367			

- **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

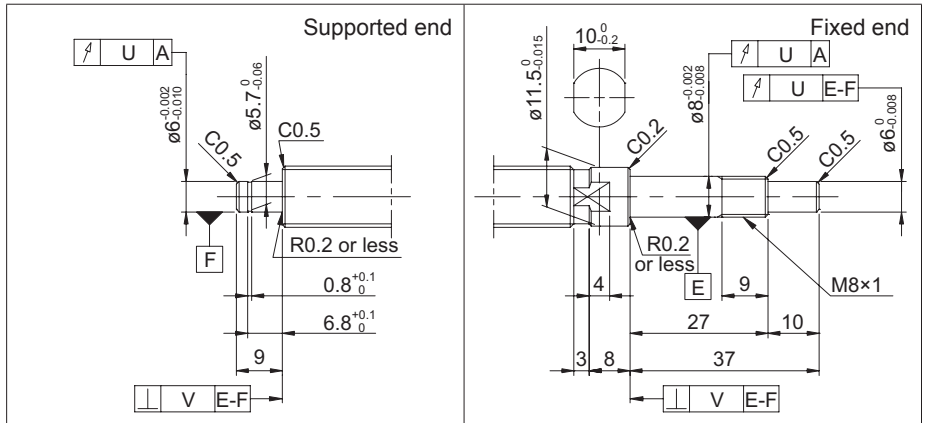
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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 → GG1202DS-AAPR-0450X0393-C5F

Thread length
Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-6S (Square type)	BUK-8, BUK-8F (Square type)
BUM-6S (Round type)	BUM-8, BUM-8F (Round type)

● Optional specifications

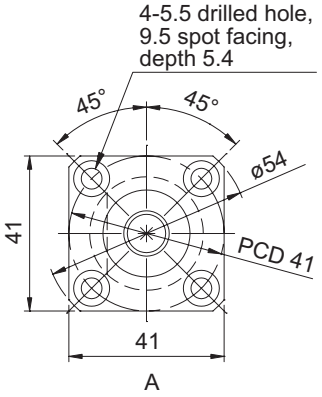
- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

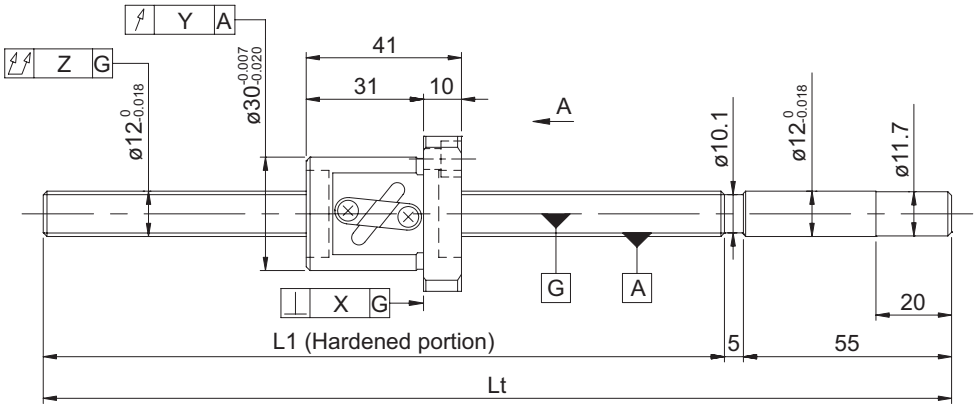
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.055	0.011	0.005	0.2 to 3.4	Up to 1.0	0.36
		0.080					0.48
0.014	0.020	0.080	----	----	----	----	0.36
		0.120					0.48

- **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.**

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	12 - 4		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	2.3812		
Root diameter (mm)	10.1		
Series	GG		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	Alvania Grease S2		





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

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

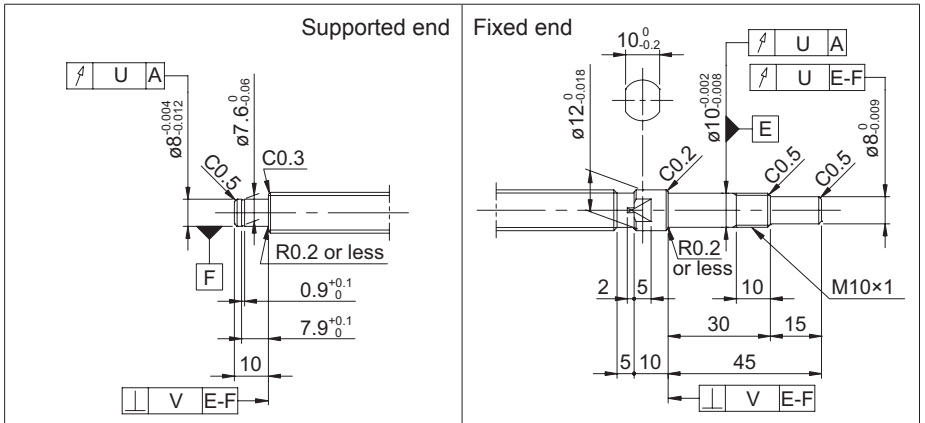
● Shaft end finish type

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

GG1204DS-AALR-0605A → GG1204DS-AALR-0605X0535-C5F
- 0605: Thread length
- 0535: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-8S (Square type)	BUK-10, BUK-10F (Square type)
BUM-8S (Round type)	BUM-10, BUM-10F (Round type)

● Optional specifications

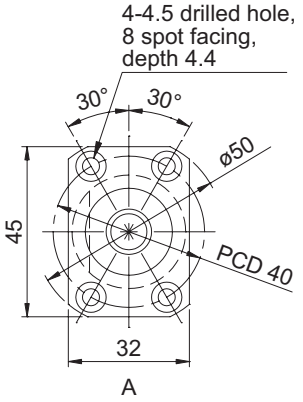
• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

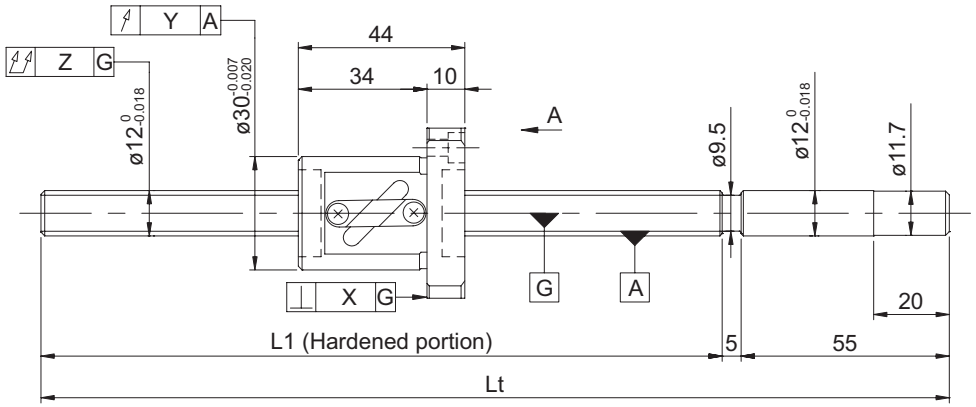
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.080	0.011	0.005	0.2 to 4.7	Up to 1.0	0.56
		0.090					0.70
0.014	0.020	0.120	----	----	----	----	0.56
		0.150					0.70

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	12 - 5		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	9.5		
Series	GG		GE
Basic dynamic load rating C (N)	5950		
Basic static load rating C0 (N)	9800		
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)	1.5 to 7.0	Up to 1.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1205DS-BALR-0305A	245	305	201	0.023	0.018	0.018
GG1205DS-BALR-0455A	395	455	351	0.025	0.020	
GE1205DS-BALR-0305A	245	305	201	0.05/300	----	----
GE1205DS-BALR-0455A	395	455	351			

- **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.

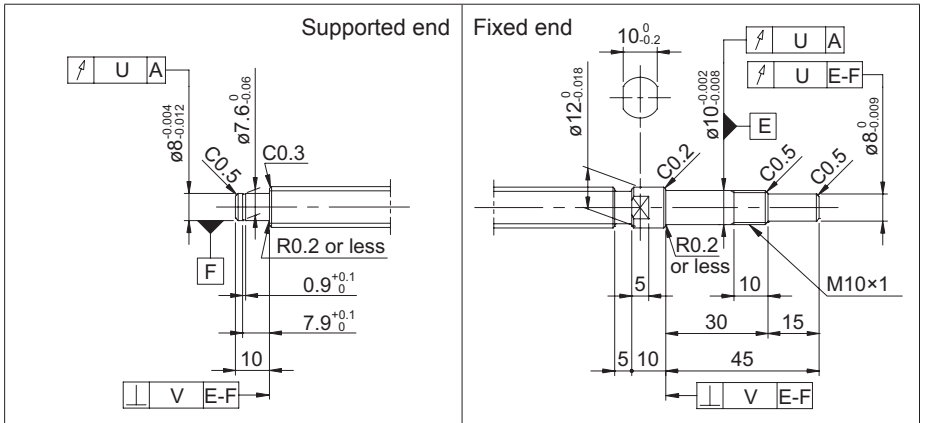
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

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

GG1205DS-BALR-0455A → GG1205DS-BALR-0455X0385-C5F

↳Thread length

↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-8S (Square type)	BUK-10, BUK-10F (Square type)
BUM-8S (Round type)	BUM-10, BUM-10F (Round type)

● Optional specifications

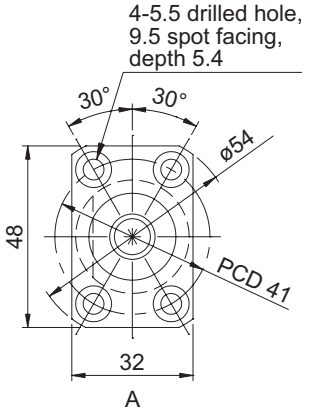
- Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

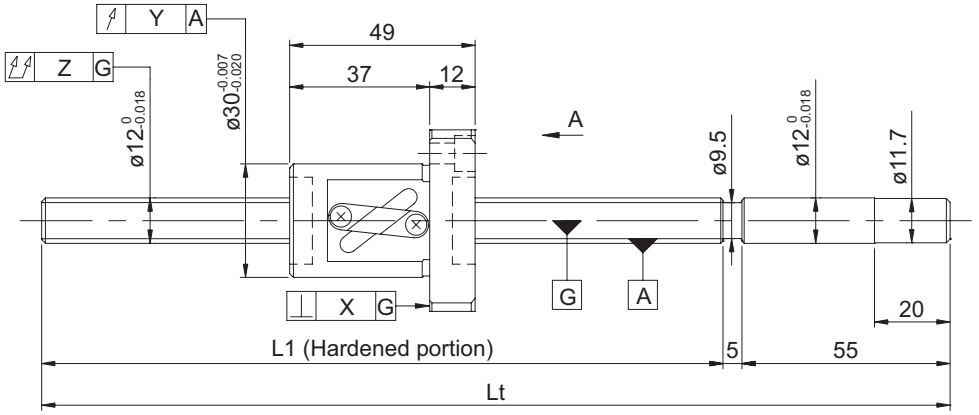
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.055	0.011	0.005	1.5 to 7.0	Up to 1.0	0.44
		0.080					0.54
0.014	0.020	0.080	----	----	----	----	0.44
		0.120					0.54

- **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.**

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	12 - 10		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	9.5		
Series	GG		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 5.5	Up to 2.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1210AS-BALR-0455A	395	455	346	0.025	0.020	0.018
GG1210AS-BALR-0605A	545	605	496	0.030	0.023	
GE1210AS-BALR-0455A	395	455	346	0.05/300	----	----
GE1210AS-BALR-0605A	545	605	496			

• 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

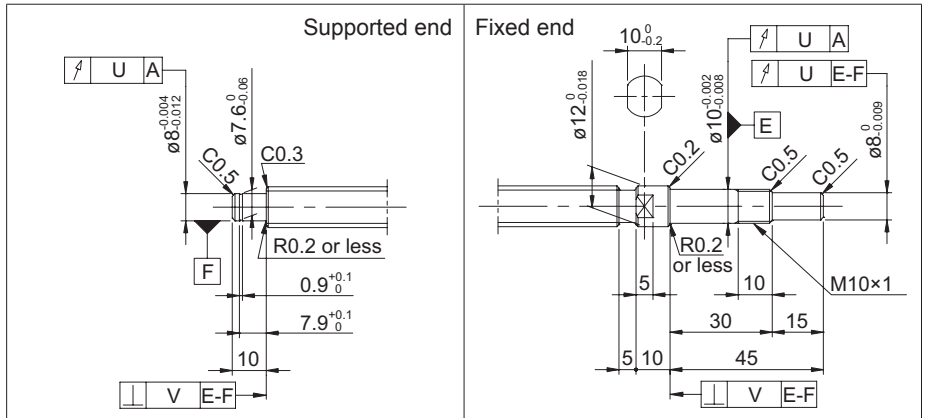
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG1210AS-BALR-0605A → GG1210AS-BALR-0605X0535-C5F

0605: Thread length
0535: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-8S (Square type)	BUK-10, BUK-10F (Square type)
BUM-8S (Round type)	BUM-10, BUM-10F (Round type)

• Optional specifications

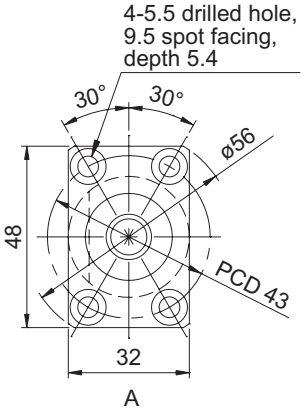
• Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

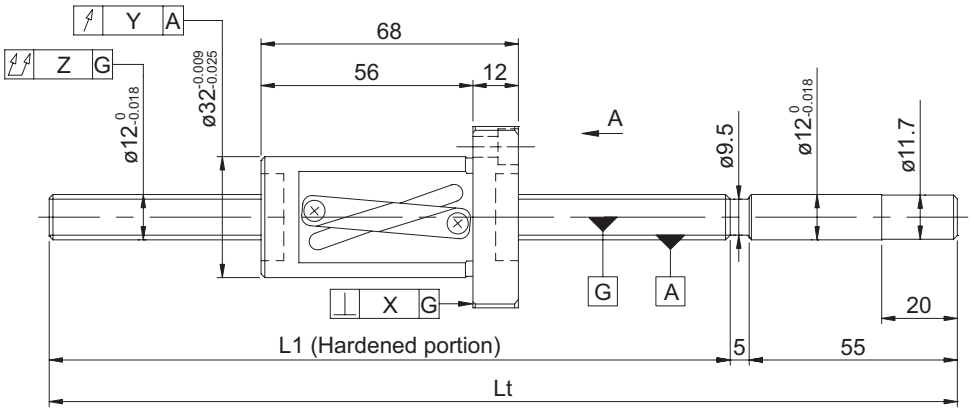
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.080	0.011	0.005	1.0 to 5.5	Up to 2.0	0.63
		0.090					0.75
0.014	0.020	0.120	----	----	----	----	0.63
		0.150					0.75

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	12 - 20		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	9.5		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1220AS-BALR-0405A	345	405	277	0.025	0.020	0.018
GG1220AS-BALR-0605A	545	605	477	0.030	0.023	
GE1220AS-BALR-0405A	345	405	277	0.05/300	----	----
GE1220AS-BALR-0605A	545	605	477			

• 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

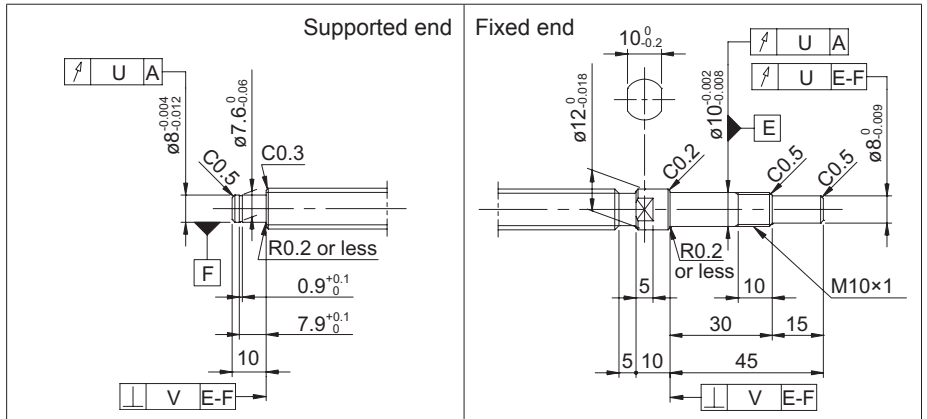
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG1220AS-BALR-0605A → GG1220AS-BALR-0605X0535-C5F

0605: Thread length
0535: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-8S (Square type)	BUK-10, BUK-10F (Square type)
BUM-8S (Round type)	BUM-10, BUM-10F (Round type)

• Optional specifications

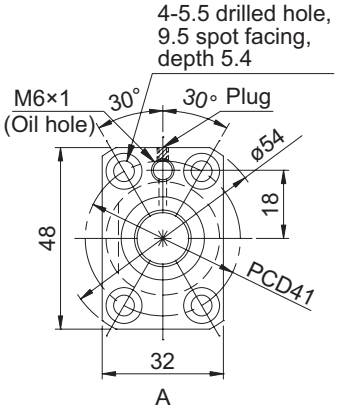
• Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

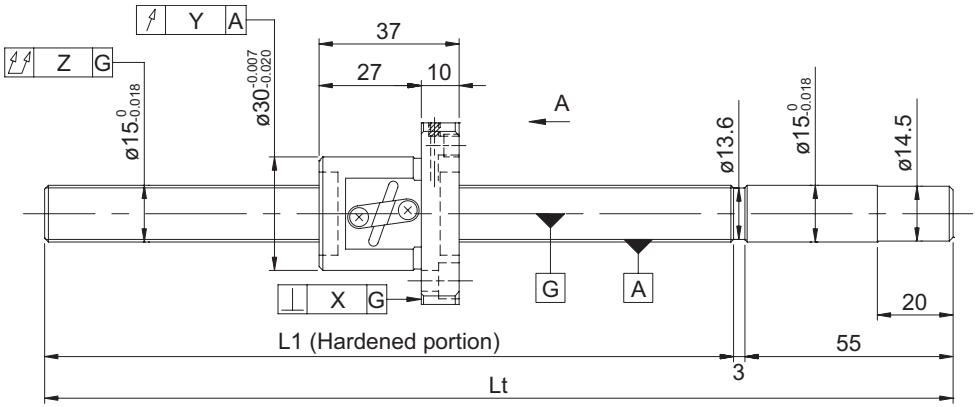
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.080	0.011	0.005	1.0 to 7.5	Up to 2.5	0.73
		0.090					0.90
0.018	0.030	0.120	----	----	----	----	0.73
		0.150					0.90

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 2		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	1.5875		
Root diameter (mm)	13.6		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1502DS-BAPR-0300A	242	300	205	0.023	0.018	0.018
GG1502DS-BAPR-0600A	542	600	505	0.030	0.023	
GE1502DS-BAPR-0300A	242	300	205	0.05/300	----	----
GE1502DS-BAPR-0600A	542	600	505			

• 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

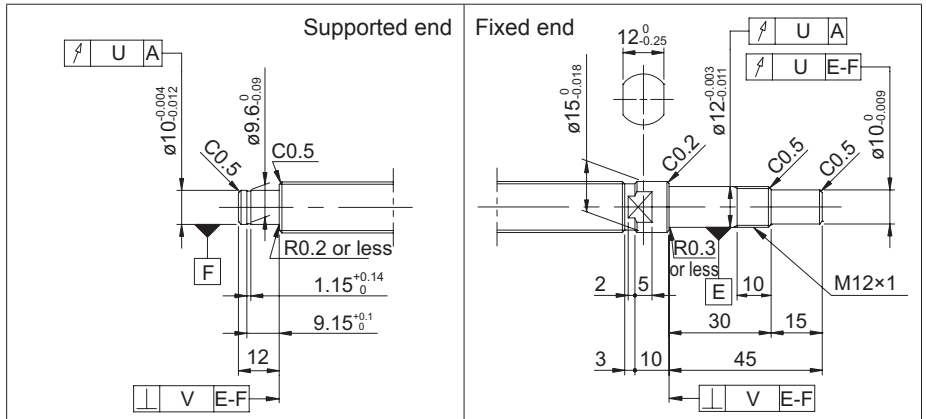
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

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

0600: Thread length
0530: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

• Optional specifications

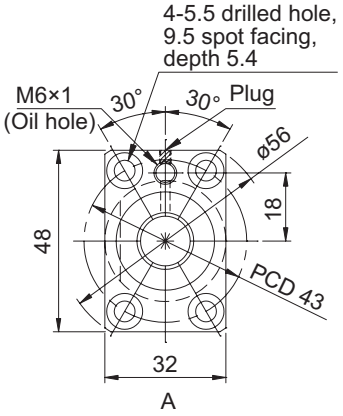
• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

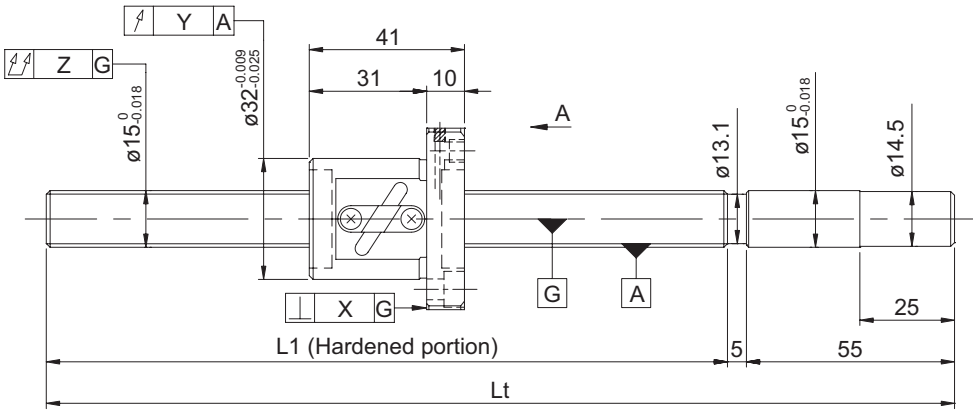
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.045	0.012	0.005	0.2 to 4.7	Up to 2.0	0.58
		0.075					0.94
0.014	0.020	0.070	----	----	----	----	0.58
		0.110					0.94

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 4		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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 / M
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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1504DS-BALR-0600A	540	600	499	0.030	0.023	0.018
GG1504DS-BALR-1100A	1040	1100	999	0.046	0.030	
GE1504DS-BALR-0600A	540	600	499	0.05/300	----	----
GE1504DS-BALR-1100A	1040	1100	999			

- **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

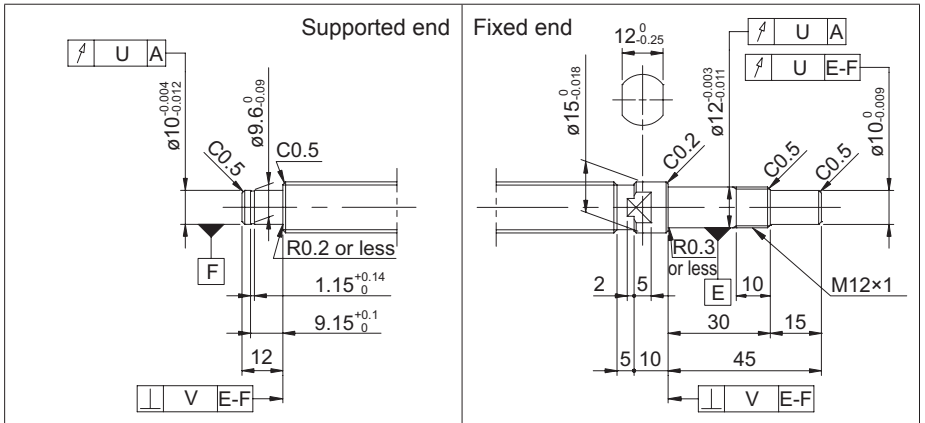
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG1504DS-BAPR-1100A → GG1504DS-BAPR-1100X1028-C5F

1100: Thread length
1028: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

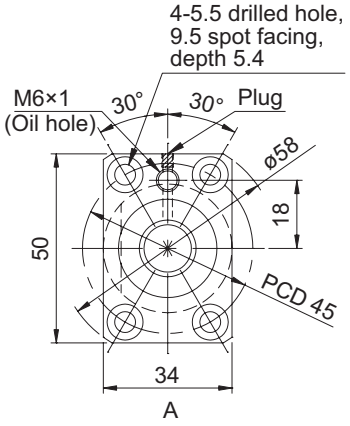
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.010	0.012	0.075	0.012	0.005	1.0 to 6.0	Up to 2.0	0.96
		0.150			1.0 to 8.0		1.56
0.018	0.030	0.110	----	----	----	----	0.96
		0.210					1.56

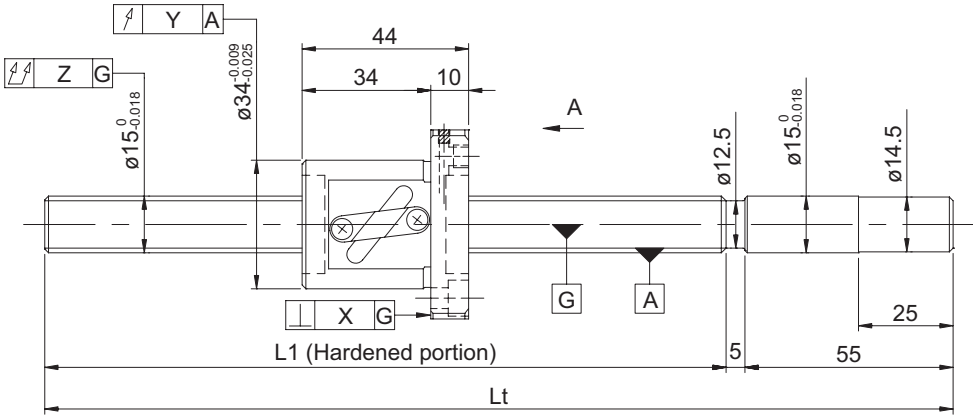
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

Screw shaft diameter ø15

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 5		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	12.5		
Series	GG		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)	1.5 to 11.0	Up to 2.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1505DS-BALR-0600A	540	600	496	0.030	0.023	0.018
GG1505DS-BALR-1100A	1040	1100	996	0.046	0.030	
GE1505DS-BALR-0600A	540	600	496	0.05/300	----	----
GE1505DS-BALR-1100A	1040	1100	996			

- **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

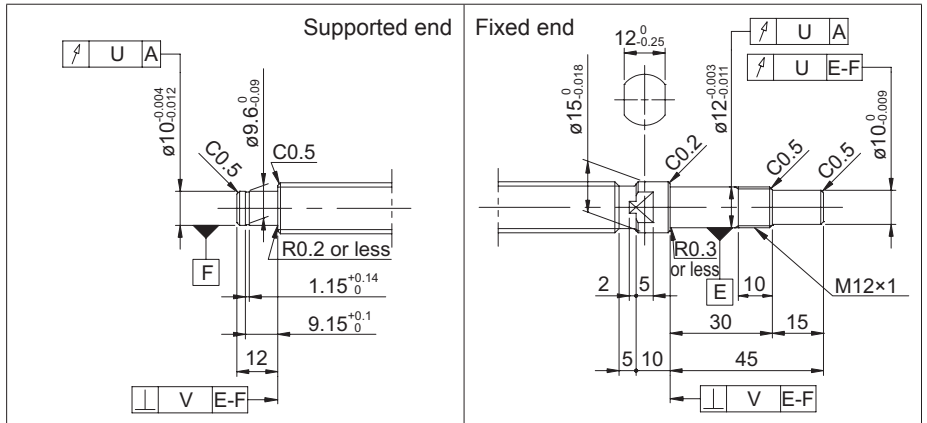
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG1505DS-BALR-1100A → GG1505DS-BALR-1100X1028-C5F

1100: Thread length
1028: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

- Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG1505DS-BASR-1100X1028-C5F

S: Wiper material S: LUBSEAL

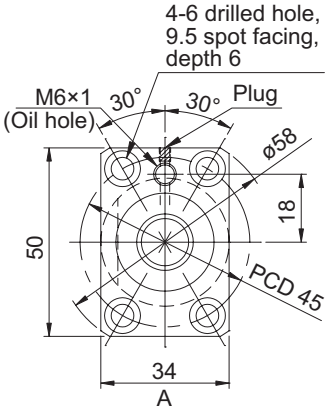
- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

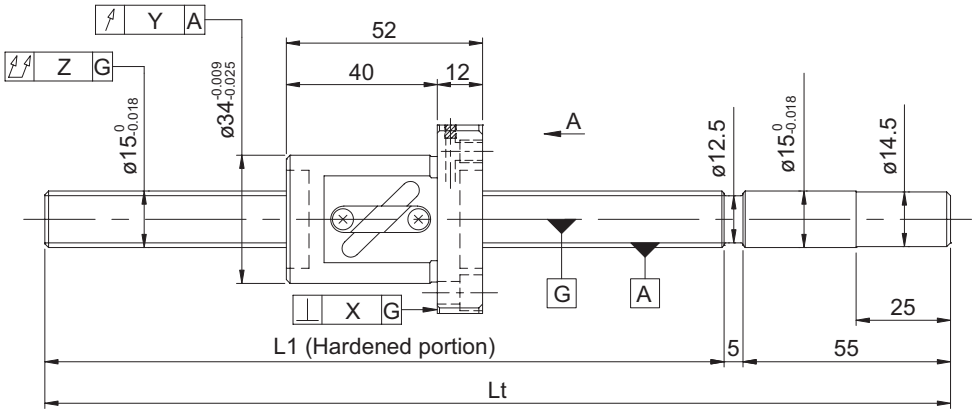
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.5 to 9.0	Up to 2.0	0.96
		0.150			1.5 to 11.0		1.52
0.018	0.030	0.110	----	----	----	----	0.96
		0.210					1.52

- **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 / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	12.5		
Series	GG		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	Alvania Grease S2		





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

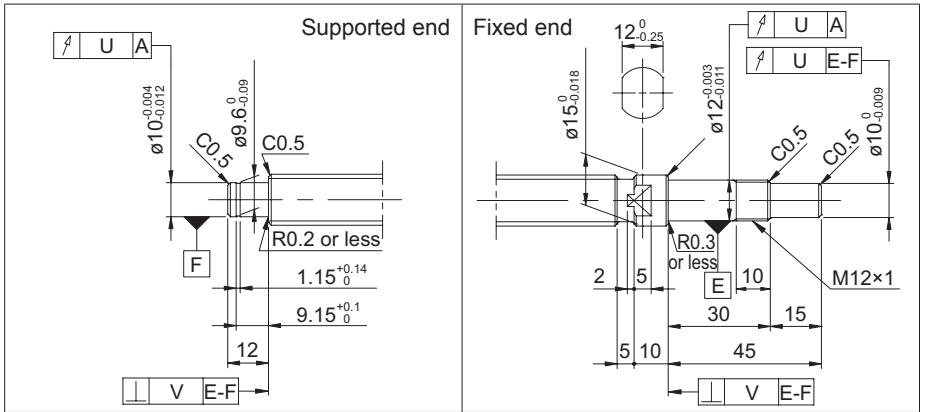
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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.

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

GG1510AS-BALR-1100A → GG1510AS-BALR-1100X1028-C5F

↳Thread length
↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG1510AS-BASR-1100X1028-C5F

↳Wiper material S: LUBSEAL

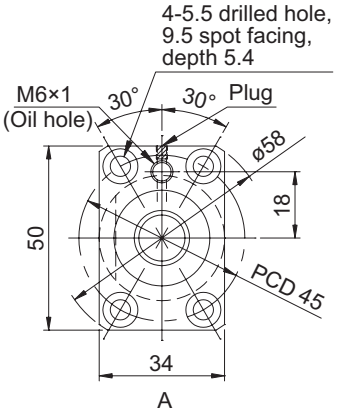
• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

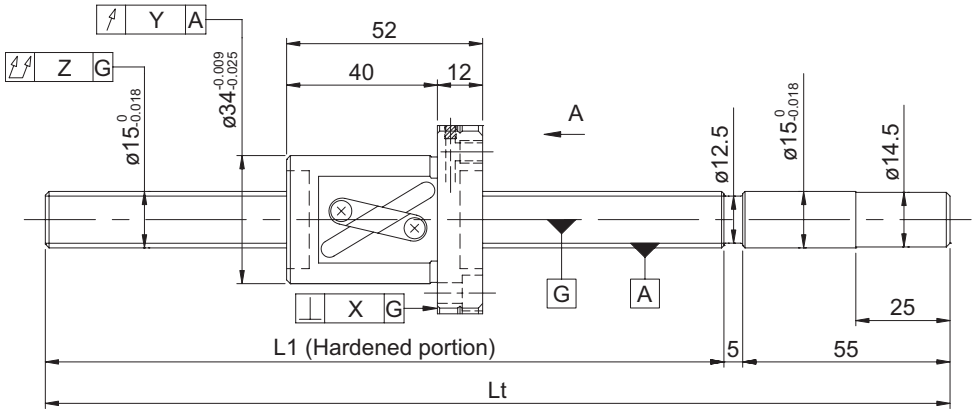
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.0 to 7.0	Up to 3.0	1.09
		0.120					1.47
		0.150			1.0 to 8.0		1.72
0.018	0.030	0.110	----	----	----	----	1.09
		0.170					1.47
		0.210					1.72

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 10		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	12.5		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1510DS-BALR-0600A	540	600	488	0.030	0.023	0.018
GG1510DS-BALR-0900A	840	900	788	0.040	0.027	
GG1510DS-BALR-1100A	1040	1100	988	0.046	0.030	
GE1510DS-BALR-0600A	540	600	488	0.05/300	----	----
GE1510DS-BALR-0900A	840	900	788			
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.

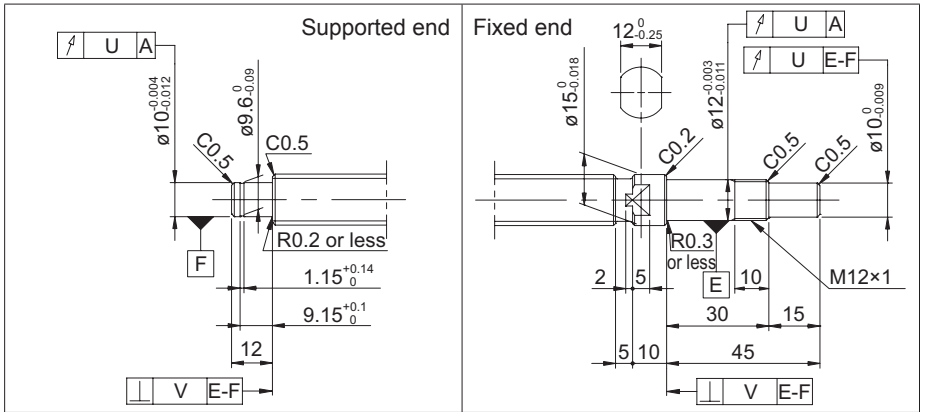
● Shaft end finish type

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
- 1100: Overall screw shaft length
- 1028: Thread length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG1510DS-BASR-1100X1028-C5F
- S: LUBSEAL (Wiper material)

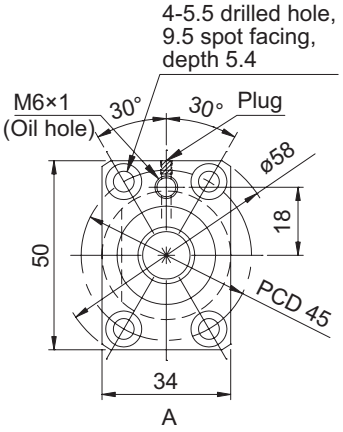
• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

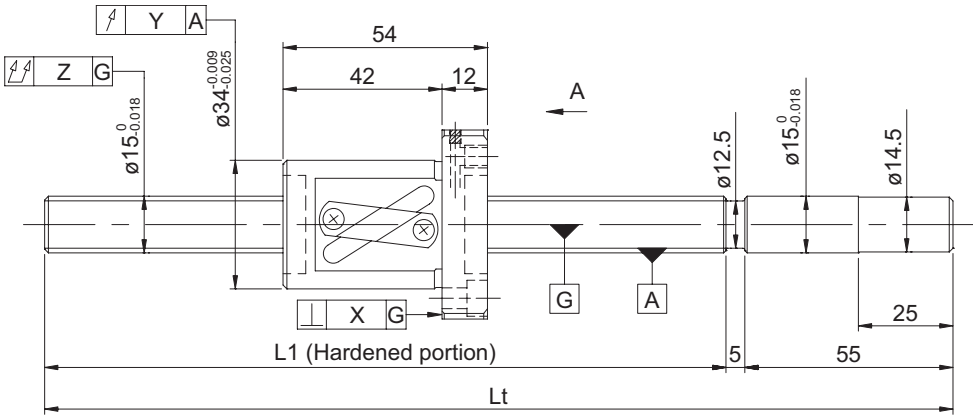
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.0 to 7.0	Up to 3.0	1.09
		0.120					1.47
		0.150			1.0 to 8.0		1.72
0.018	0.030	0.110	----	----	----	----	1.09
		0.170					1.47
		0.210					1.72

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 15		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	12.5		
Series	GG		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	Alvania Grease S2		





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

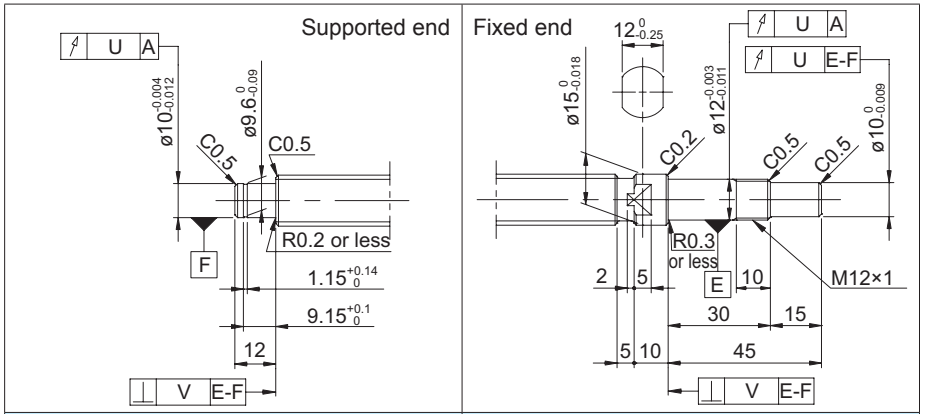
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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.

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

GG1515AS-BALR-1100A → GG1515AS-BALR-1100X1028-C5F

1100: Thread length
1028: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

- Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG1515AS-BASR-1100X1028-C5F

S: Wiper material S: LUBSEAL

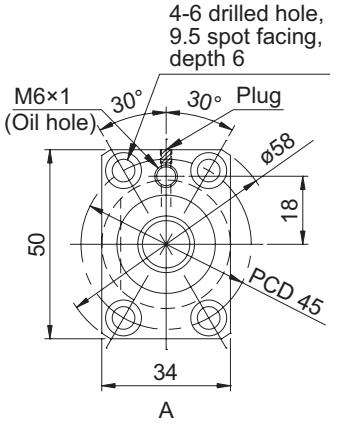
- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

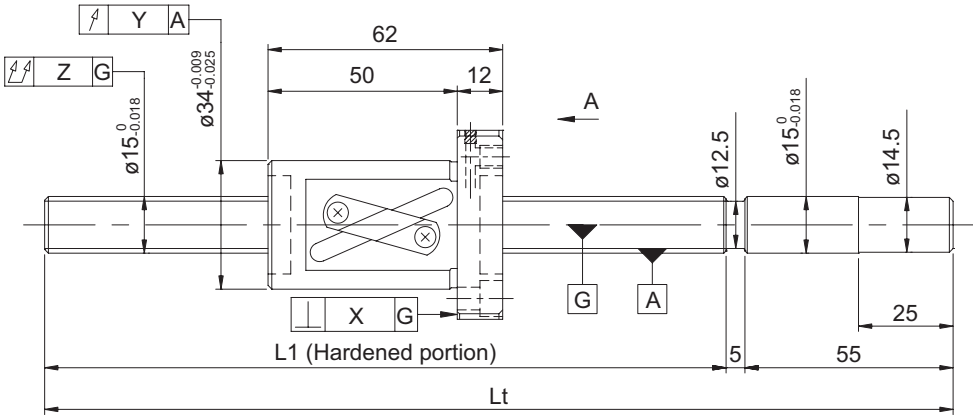
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.0 to 9.0	Up to 3.0	1.13
		0.120					1.52
		0.150			1.0 to 10.0		1.78
0.018	0.030	0.110	----	----	----	----	1.13
		0.170					1.52
		0.210					1.78

- **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.**

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	15 - 20		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	12.5		
Series	GG		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	Alvania Grease S2		





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

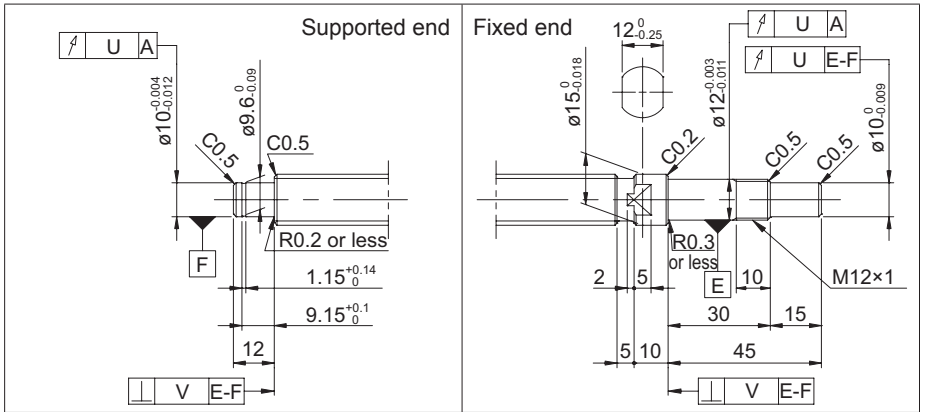
• Shaft end finish type

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 → GG1520AS-BALR-1100X1028-C5F
- 1100: Thread length
- 1028: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

• Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG1520AS-BASR-1100X1028-C5F
- S: Wiper material LUBSEAL

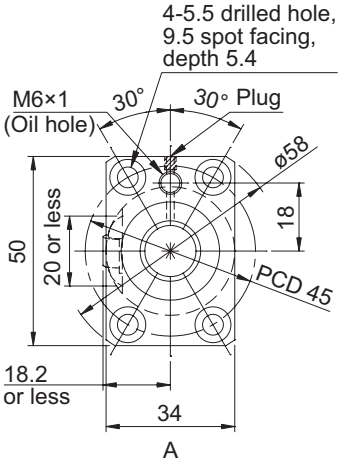
• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

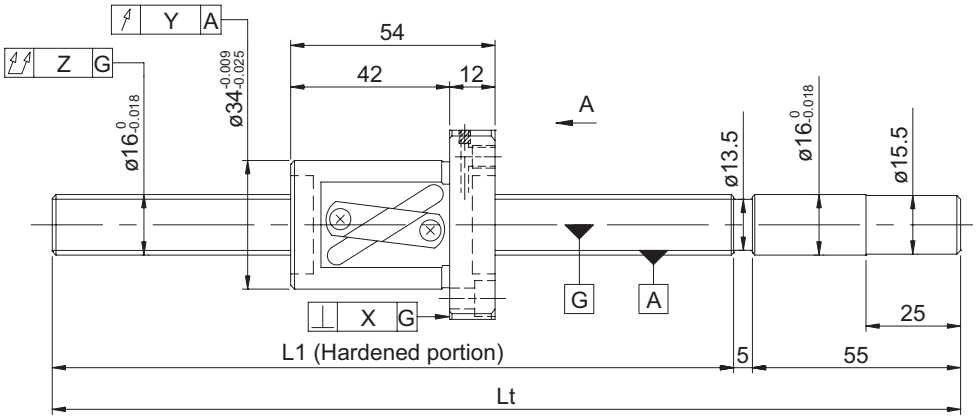
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.0 to 10.0	Up to 3.0	1.18
		0.120					1.58
		0.150			1.0 to 11.0		1.85
0.018	0.030	0.110	----	----	----	----	1.18
		0.170					1.58
		0.210					1.85

• 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.

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	16 - 16		
Number of circuits / Thread direction	1.5 turns 1 circuit / 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	Alvania Grease S2		





● Shaft end finish type

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

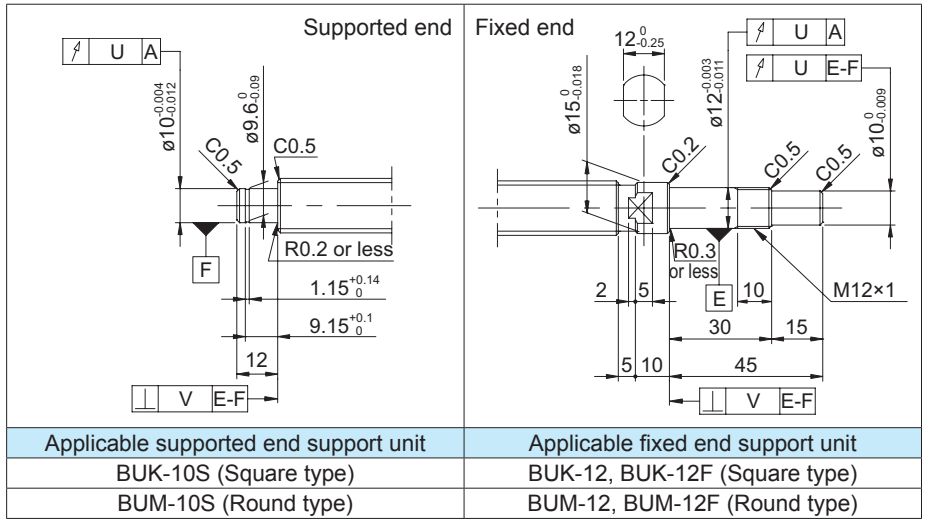
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

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

GG1616AS-BTLR-0900A → GG1616AS-BTLR-0900X0828-C5F

↳Thread length

↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-10S (Square type)	BUK-12, BUK-12F (Square type)
BUM-10S (Round type)	BUM-12, BUM-12F (Round type)

● Optional specifications

• Anticorrosive black coating (coating thickness: 1 to 2 µm) is available.

Screw shaft diameter ø16

Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG1616AS-BTLR-0600A	540	600	486	0.030	0.023	0.018
GG1616AS-BTLR-0900A	840	900	786	0.040	0.027	
GE1616AS-BTLR-0600A	540	600	486	0.05/300	----	----
GE1616AS-BTLR-0900A	840	900	786			

• Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.

• Preload torque is a value before applying grease.

Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.0 to 10.0	Up to 3.0	1.21
		0.120					1.67
0.018	0.030	0.110	----	----	----	----	1.21
		0.170					1.67

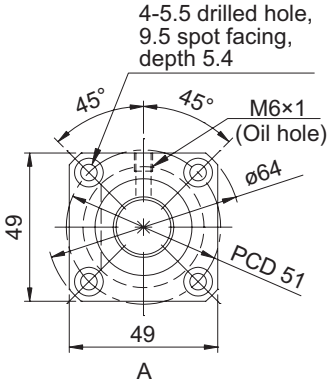
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

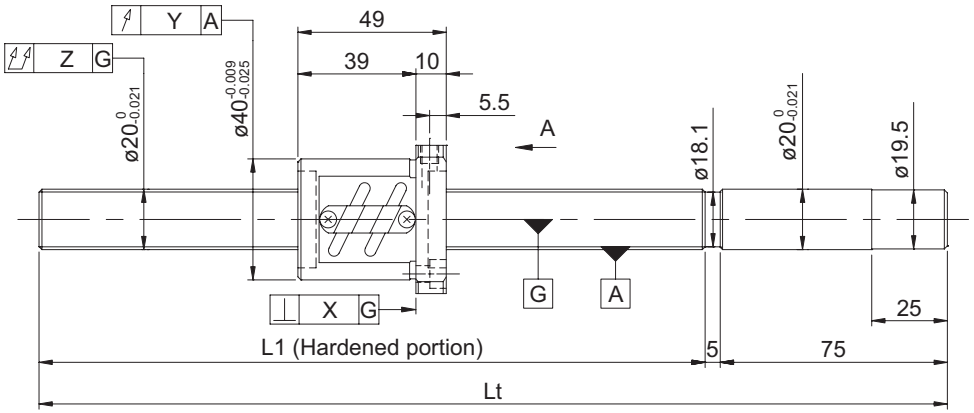
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft diameter ø16

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	20 - 4		
Number of circuits / Thread direction	2.5 turns 2 circuits / Right-hand		
Ball diameter (mm)	2.3812		
Root diameter (mm)	18.1		
Series	GG		GE
Basic dynamic load rating C (N)	8600		
Basic static load rating C0 (N)	23400		
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)	1.5 to 20.0	Up to 3.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2004ES-AALR-0605A	525	605	476	0.030	0.023	0.018
GE2004ES-AALR-0605A				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

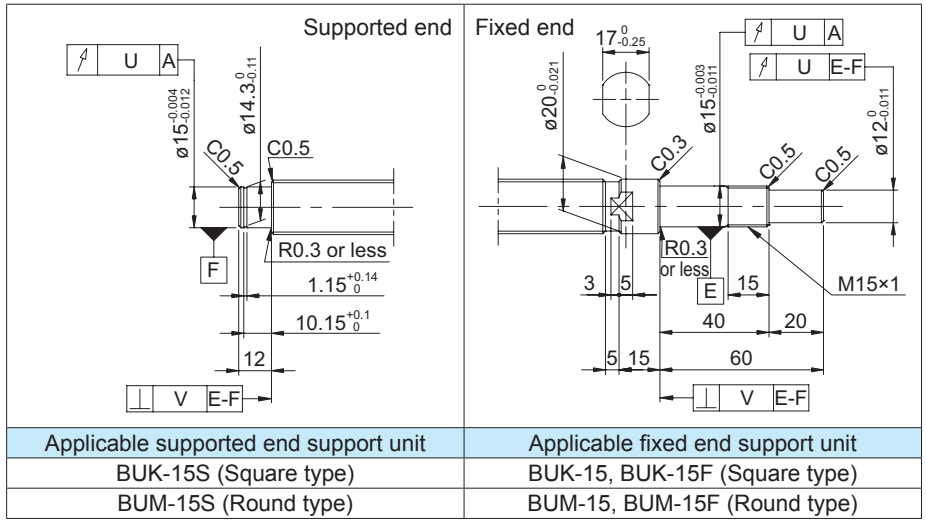
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG2004ES-AALR-0605A → GG2004ES-AALR-0605X0513-C5F

0605: Thread length
0513: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-15S (Square type)	BUK-15, BUK-15F (Square type)
BUM-15S (Round type)	BUM-15, BUM-15F (Round type)

● Optional specifications

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

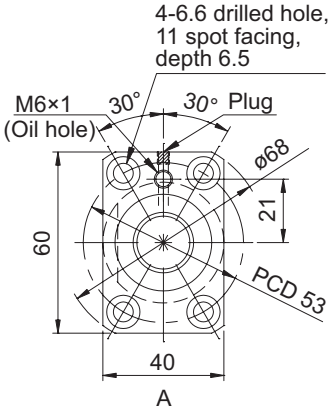
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	1.5 to 20.0	Up to 3.0	1.78
0.018	0.030	0.110	----	----	----	----	

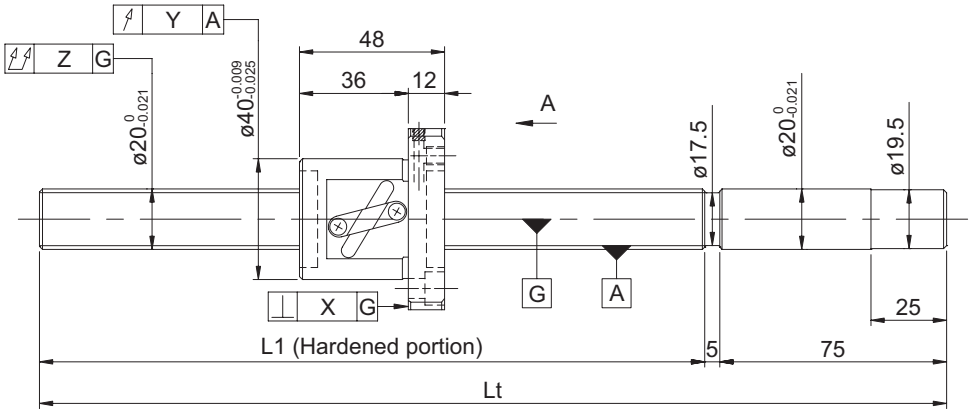
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

Screw shaft diameter ø20

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	20 - 5		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	17.5		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2005DS-BALR-0605A	525	605	477	0.030	0.023	0.018
GG2005DS-BALR-1005A	925	1005	877	0.040	0.027	
GE2005DS-BALR-0605A	525	605	477	0.05/300	----	----
GE2005DS-BALR-1005A	925	1005	877			

- **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.

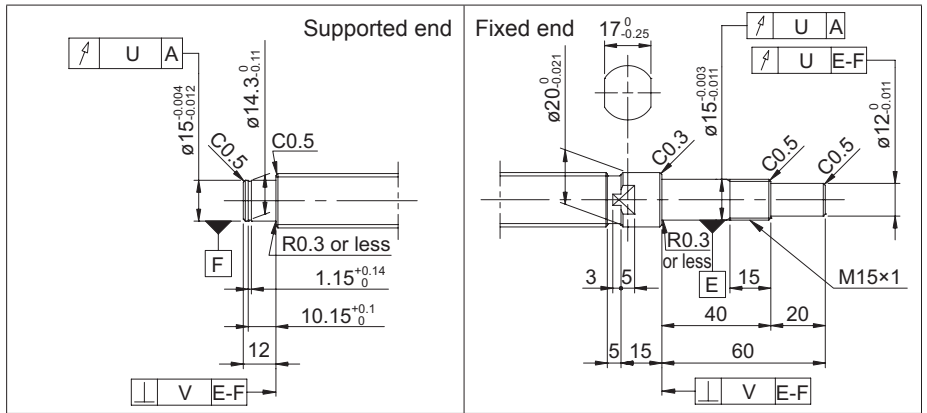
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

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

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

↳Thread length

↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-15S (Square type)	BUK-15, BUK-15F (Square type)
BUM-15S (Round type)	BUM-15, BUM-15F (Round type)

● Optional specifications

- Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2005DS-BASR-1005X0913-C5F

↳Wiper material S: LUBSEAL

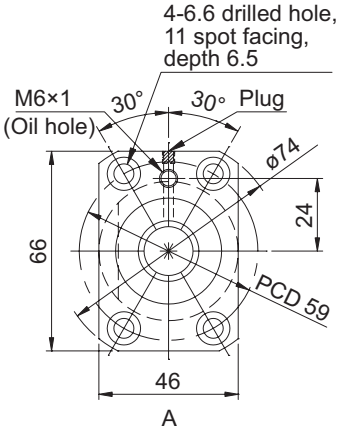
- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

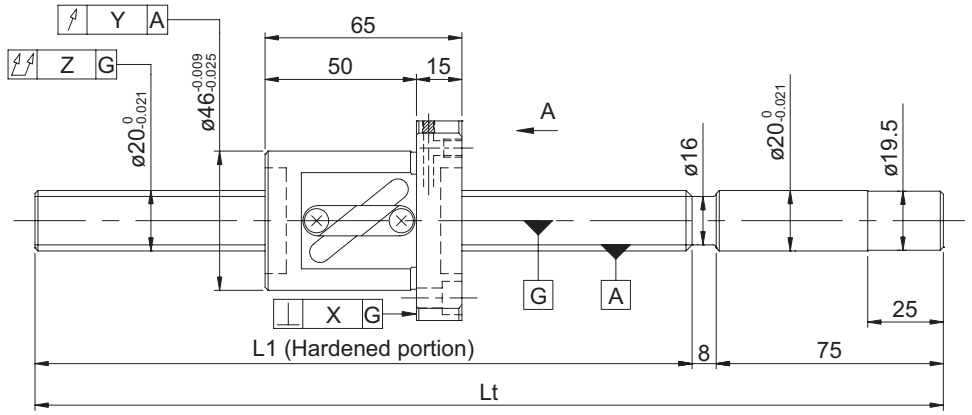
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	2.0 to 14.0	Up to 3.0	1.71
		0.150					2.56
0.018	0.030	0.110	----	----	----	----	1.71
		0.210					2.56

- **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.**

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	20 - 10		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	4.7625		
Root diameter (mm)	16.0		
Series	GG		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	Alvania Grease S2		





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

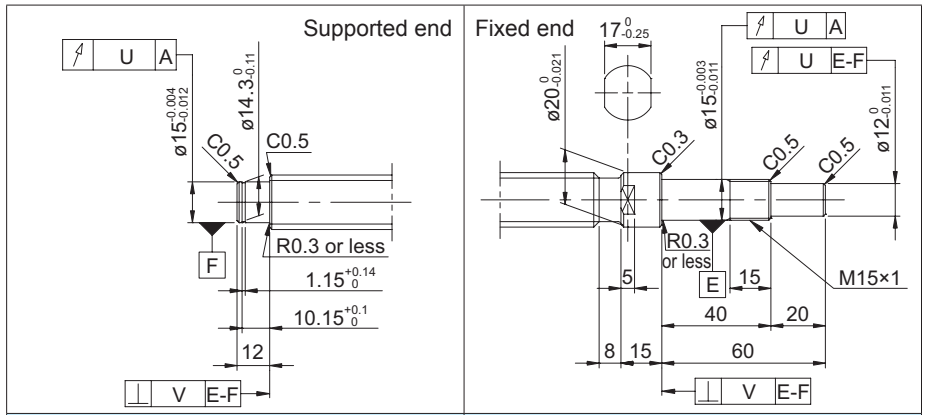
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

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

GG2010DS-BALR-1505A → GG2010DS-BALR-1505X1410-C5F

↳Thread length

↳Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-15S (Square type)	BUK-15, BUK-15F (Square type)
BUM-15S (Round type)	BUM-15, BUM-15F (Round type)

● Optional specifications

- Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2010DS-BASR-1505X1410-C5F

↳Wiper material S: LUBSEAL

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

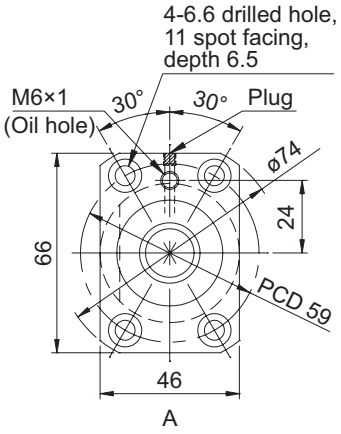
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.075	0.012	0.005	8.0 to 29.0	Up to 4.0	2.01
		0.150			7.0 to 29.0		2.84
		0.190					3.87
0.018	0.030	0.110	----	----	----	----	2.01
		0.210					2.84
		0.270					3.87

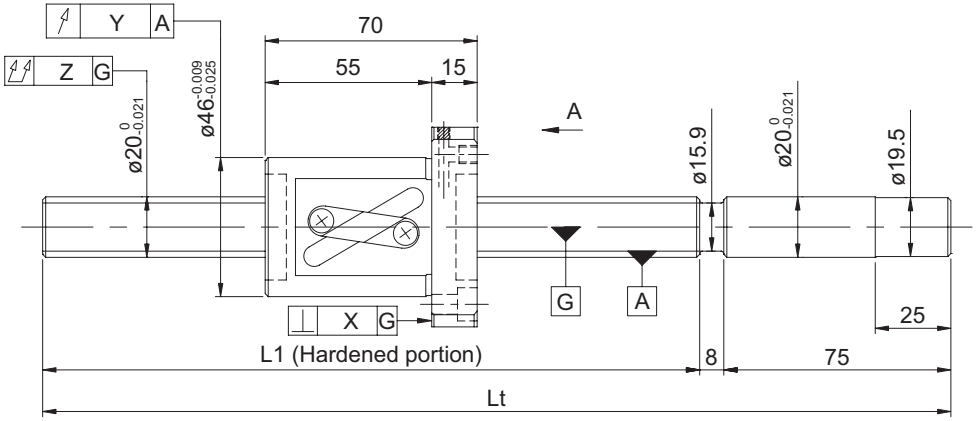
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

Screw shaft diameter ø20

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	20 - 20		
Number of circuits / Thread direction	1.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	4.7625		
Root diameter (mm)	15.9		
Series	GG		GE
Basic dynamic load rating C (N)	9200		
Basic static load rating C0 (N)	16200		
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)	5.0 to 22.0	Up to 4.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2020AS-BALR-1005A	922	1005	852	0.040	0.027	0.018
GG2020AS-BALR-1505A	1422	1505	1352	0.054	0.035	
GE2020AS-BALR-1005A	922	1005	852	0.05/300	----	----
GE2020AS-BALR-1505A	1422	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.

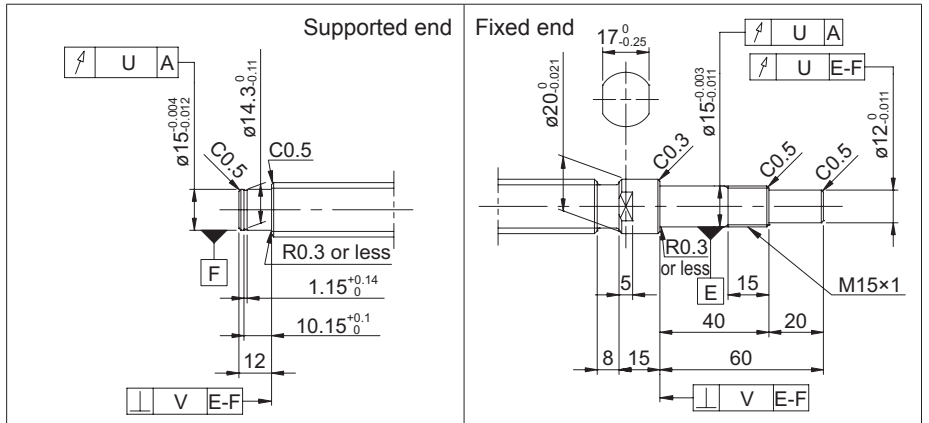
• Shaft end finish type

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

GG2020AS-BALR-1505A → GG2020AS-BALR-1505X1410-C5F
- 1505: Overall screw shaft length
- X1410: Thread length



Applicable supported end support unit	Applicable fixed end support unit
BUK-15S (Square type)	BUK-15, BUK-15F (Square type)
BUM-15S (Round type)	BUM-15, BUM-15F (Round type)

• Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2020AS-BASR-1505X1410-C5F
- S: Wiper material S: LUBSEAL

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.150	0.012	0.005	6.0 to 20.0	Up to 4.0	3.08
		0.190			5.0 to 22.0		4.22
0.018	0.030	0.210	----	----	----	----	3.08
		0.270					4.22

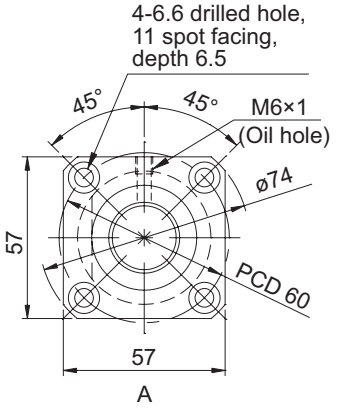
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

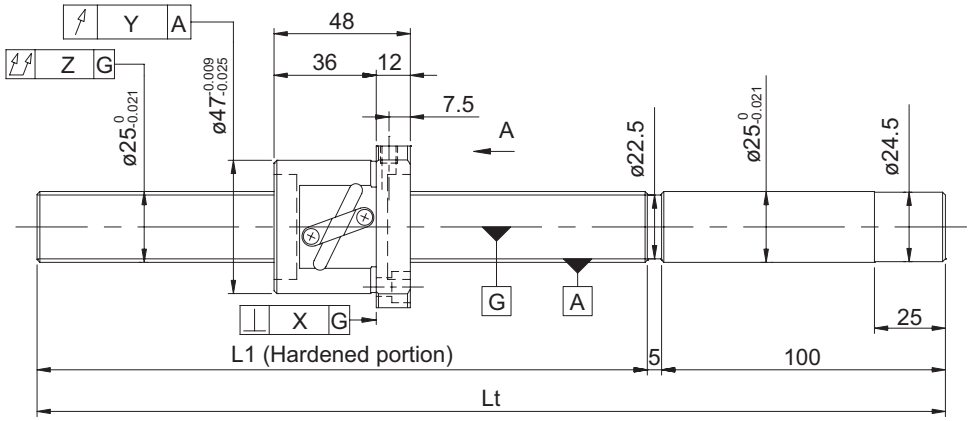
Screw shaft diameter ø20

GG (Ground C5) / GE (Ground C7) / GK (Whirled C5)

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	25 - 5		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
Ball diameter (mm)	3.175		
Root diameter (mm)	22.5		
Series	GG		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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2505DS-AALR-0600A	495	600	447	0.027	0.020	0.018
GG2505DS-AALR-1000A	895	1000	847	0.040	0.027	
GG2505DS-AALR-1505A	1400	1505	1352	0.054	0.035	
GE2505DS-AALR-0600A	495	600	447	0.05/300	----	----
GE2505DS-AALR-1000A	895	1000	847			
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.**

● Shaft end finish type

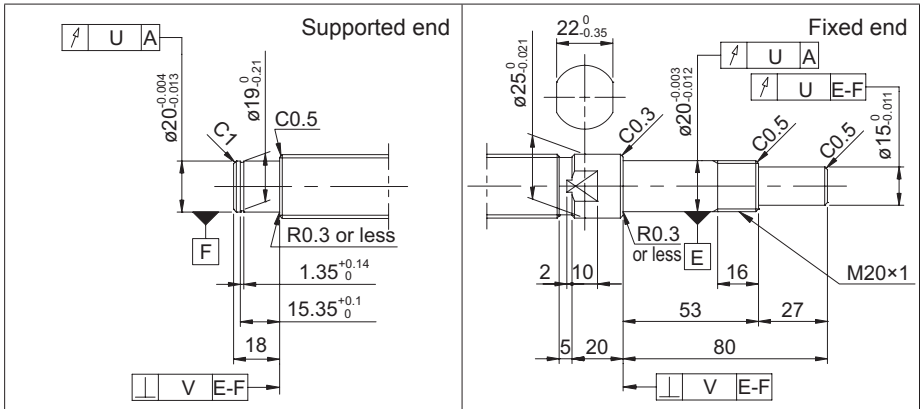
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

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

GG2505DS-AALR-1505A → GG2505DS-AALR-1505X1382-C5F

1505: Overall screw shaft length
1382: Thread length



Applicable supported end support unit	Applicable fixed end support unit
BUK-20S (Square type)	BUK-20, BUK-20F (Square type)
BUM-20S (Round type)	BUM-20, BUM-20F (Round type)

● Optional specifications

- Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2505DS-AASR-1505X1382-C5F

S: Wiper material LUBSEAL

- Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

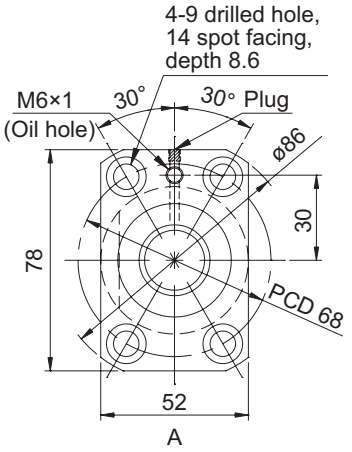
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.011	0.015	0.060	0.013	0.005	2.0 to 18.0	Up to 6.0	2.64
		0.085					4.01
		0.130					5.74
0.018	0.030	0.090	----	----	----	----	2.64
		0.130					4.01
		0.190					5.74

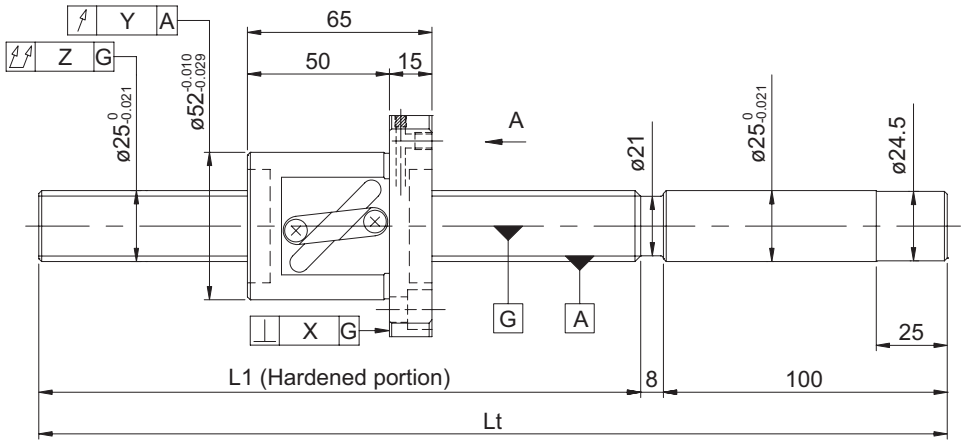
- **At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.**
- **For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.**

GG (Ground C5) / GE (Ground C7) / GK (Whirled C5)

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	25 - 10		
Number of circuits / Thread direction	2.5 turns 1 circuit / Right-hand		
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	0.005 or less	0.030 or less
Preload torque (N·cm)	10.0 to 38.0	Up to 6.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length		Maximum stroke (L1 - nut length)	Lead accuracy		
	L1	Lt		±E_c	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	
GE2510DS-BALR-1020A	912	1020	847	0.05/300	----	----
GE2510DS-BALR-1520A	1412	1520	1347			

• 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

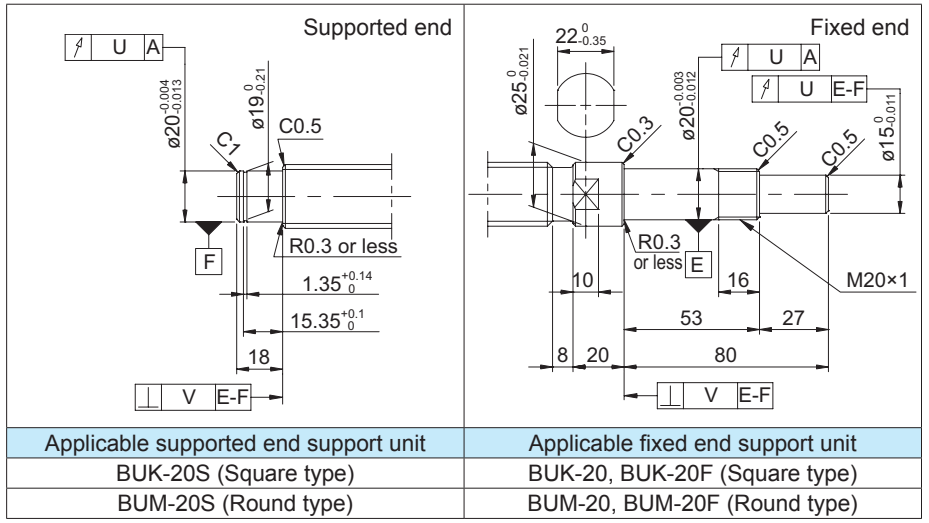
• Shaft end finish type

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
- 1520: Thread length
- 1394: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-20S (Square type)	BUK-20, BUK-20F (Square type)
BUM-20S (Round type)	BUM-20, BUM-20F (Round type)

• Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2510DS-BASR-1520X1394-C5F
- S: Wiper material S: LUBSEAL

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

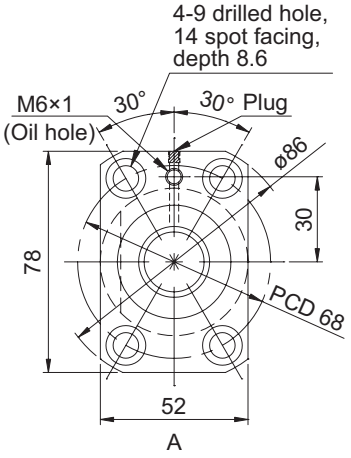
Accuracy of each part					Preload torque (N·cm)		Mass (kg)
X	Y	Z	U	V	Without clearance	With clearance	
0.013	0.019	0.100	0.013	0.005	10.0 to 38.0	Up to 4.0	4.40
		0.130				Up to 6.0	6.08
0.018	0.030	0.150	----	----	----	----	4.40
		0.190					6.08

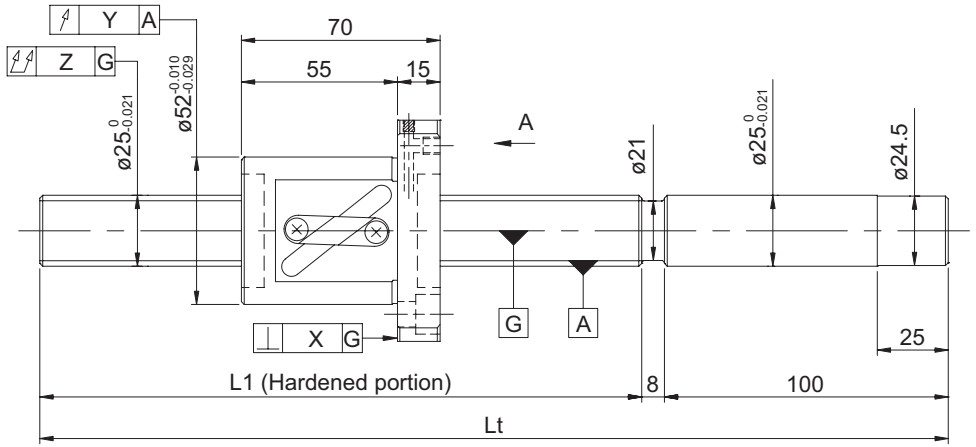
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

GG (Ground C5) / GE (Ground C7) / GK (Whirled C5)

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	25 - 20		
Number of circuits / Thread direction	1.5 turns 1 circuit / 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)	6.0 to 28.0	Up to 6.0	----
Spacer ball	None		
Recirculation system	Tube method		
Wiper	Lip seal		
Lubricant	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2520AS-BALR-1020A	912	1020	842	0.040	0.027	0.018
GG2520AS-BALR-1520A	1412	1520	1342	0.054	0.035	
GE2520AS-BALR-1020A	912	1020	842	0.05/300	----	----
GE2520AS-BALR-1520A	1412	1520	1342			

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

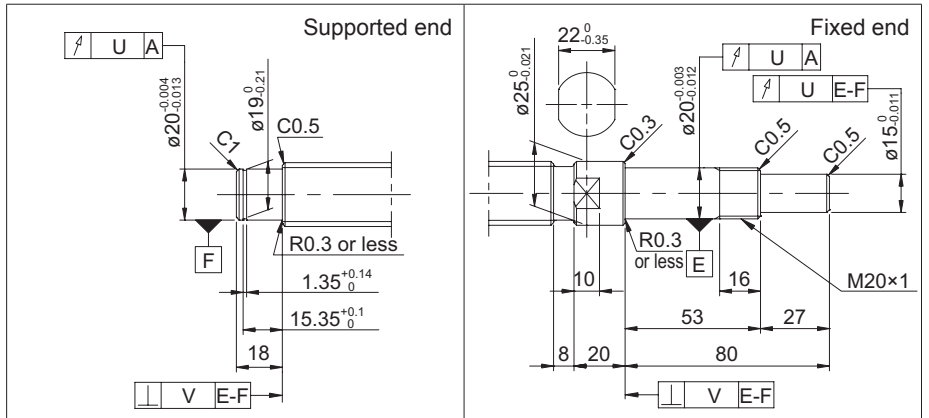
• Shaft end finish type

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

GG2520AS-BALR-1520A → GG2520AS-BALR-1520X1394-C5F
- 1520: Overall screw shaft length
- 1394: Thread length



Applicable supported end support unit	Applicable fixed end support unit
BUK-20S (Square type)	BUK-20, BUK-20F (Square type)
BUM-20S (Round type)	BUM-20, BUM-20F (Round type)

• Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2520AS-BASR-1520X1394-C5F
- S: Wiper material S: LUBSEAL

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

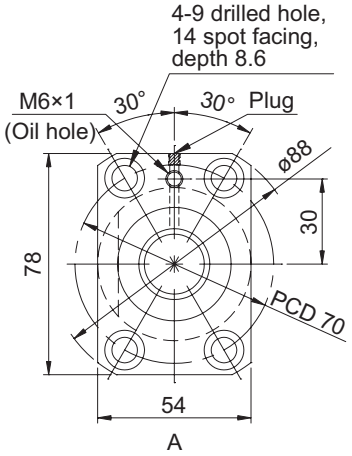
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.013	0.019	0.100	0.013	0.005	6.0 to 28.0	Up to 4.0	4.71
		0.130				Up to 6.0	6.53
0.018	0.030	0.150	----	----	----	----	4.71
		0.190					6.53

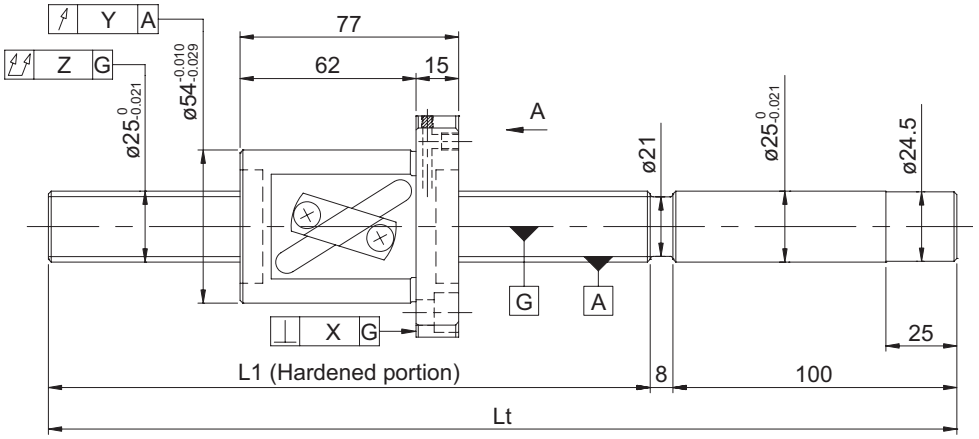
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
• For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

GG (Ground C5) / GE (Ground C7) / GK (Whirled C5)

Ball Screw Specifications

Shaft diameter (mm) - Lead (mm)	25 - 25		
Number of circuits / Thread direction	1.5 turns 1 circuit / 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	Alvania Grease S2		





Model No. (Unfinished shaft ends)	Screw shaft length L1	Screw shaft length Lt	Maximum stroke (L1 - nut length)	Lead accuracy ±E_c	Lead accuracy e_c	Lead accuracy e_{300}
GG2525AS-BALR-1020A	912	1020	835	0.040	0.027	0.018
GG2525AS-BALR-1520A	1412	1520	1335	0.054	0.035	
GE2525AS-BALR-1020A	912	1020	835	0.05/300	----	----
GE2525AS-BALR-1520A	1412	1520	1335			

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

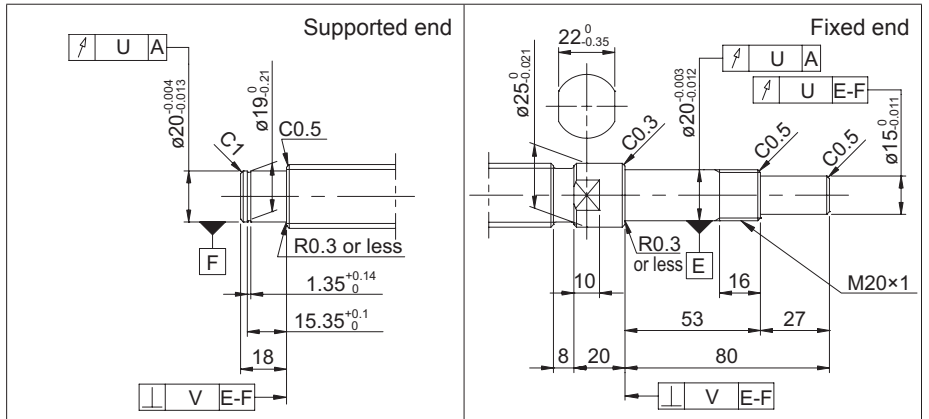
• Shaft end finish type

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

GG2525AS-BALR-1520A → GG2525AS-BALR-1520X1394-C5F
- 1520: Thread length
- 1394: Overall screw shaft length



Applicable supported end support unit	Applicable fixed end support unit
BUK-20S (Square type)	BUK-20, BUK-20F (Square type)
BUM-20S (Round type)	BUM-20, BUM-20F (Round type)

• Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

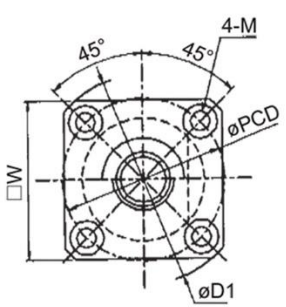
Model example: GG2525AS-BASR-1520X1394-C5F
- S: LUBSEAL

• Anticorrosive black coating (coating thickness: 1 to 2 μm) is available.

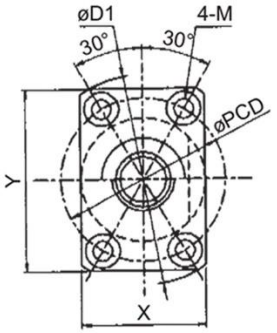
Accuracy of each part X	Y	Z	U	V	Preload torque (N·cm) Without clearance	With clearance	Mass (kg)
0.013	0.019	0.100	0.013	0.005	7.0 to 31.0	Up to 4.0	4.93
		0.130				Up to 6.0	6.77
0.018	0.030	0.150	----	----	----	----	4.93
		0.190					6.77

• 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.

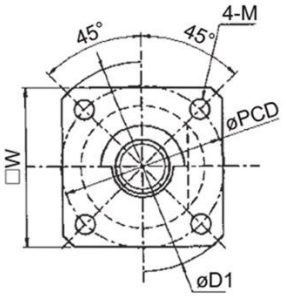
Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



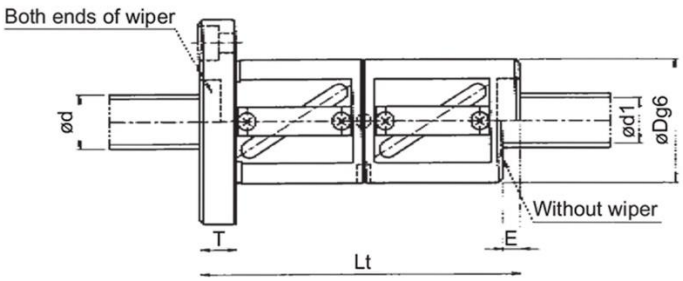
Flange type A



Flange type B



Flange type E



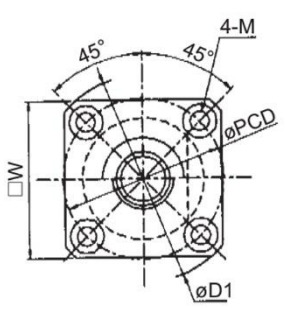
(Unit: mm)

Model No.	Screw shaft diameter d	Lead L	Ball diameter D_b	Root diameter d_1	Number of circuits Turn x Circuit	Basic dynamic load rating C (N)	Basic static load rating C_o (N)	*Rigidity K_{ww} (N/μm)	Nut dimensions																Mass	
									Outer diameter D	Overall length L_t	Wiper material	Without wiper E	Flange thickness T	Flange outer diameter D_1	Flange type	Flange dimensions W	X	Y	A	B	G	Q	Mounting hole PCD	M Drill	M Spot facing	M Depth	Nut (kg)	Screw shaft (kg/100mm)
GR0802DD-AAFR	8	2	1.5875	6.6	2.5×1	1950	2600	100	20	54	F	3	5	36	A	28	—	—	—	—	—	—	27	3.4	6.5	3.3	0.12	0.04
GR082FDD-AAFR	8	2.5	2.0000	6.3	2.5×1	2350	3300	100	22	54	F	2	5	38	A	29	—	—	—	—	—	—	29	3.4	6.5	3.3	0.14	0.04
GR0803DD-AAFR	8	3	2.0000	6.3	2.5×1	2350	3300	100	22	54	F	3	5	38	A	29	—	—	—	—	—	—	29	3.4	6.5	3.3	0.14	0.04
GR0804DD-AAFR	8	4	2.0000	6.3	2.5×1	2350	3300	100	22	54	F	3	5	38	A	29	—	—	—	—	—	—	29	3.4	6.5	3.3	0.14	0.04
GR1002DD-EAFR	10	2	1.5875	8.6	2.5×1	2250	3300	120	23	54	F	3	5	40	E	31	—	—	—	—	—	—	31	4.5	—	—	0.15	0.06
GR102FDD-AAFR	10	2.5	2.0000	8.3	2.5×1	2700	4200	120	24	60	F	5	8	43	A	33	—	—	—	—	—	—	32	4.5	8	4.4	0.19	0.06
GR1003DD-AAPR	10	3	2.0000	8.3	2.5×1	2700	4200	120	24	60	P	6	8	43	A	33	—	—	—	—	—	—	32	4.5	8	4.4	0.19	0.06
GR1004DD-AAPR	10	4	2.3812	8.1	2.5×1	3350	5900	120	26	65	P	3	8	45	A	35	—	—	—	—	—	—	34	4.5	8	4.4	0.24	0.06
GR1004DD-BAPR	10	4	2.3812	8.1	2.5×1	3350	5900	120	26	65	P	3	8	46	B	—	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	P	5	8	45	A	35	—	—	—	—	—	—	34	4.5	8	4.4	0.26	0.06
GR1005DD-BAPR	10	5	2.3812	8.1	2.5×1	3350	5900	120	26	70	P	5	8	46	B	—	28	42	—	—	—	—	36	4.5	8	4.4	0.26	0.06
GR1202DD-AAPR	12	2	1.5875	10.6	2.5×1	2450	4100	140	25	59	P	5	8	44	A	34	—	—	—	—	—	—	33	4.5	8	4.4	0.20	0.09
GR122FDD-AAPR	12	2.5	2.0000	10.3	2.5×1	2950	5100	140	26	59	P	4	8	45	A	35	—	—	—	—	—	—	34	4.5	8	4.4	0.21	0.09
GR1203DD-AAPR	12	3	2.0000	10.3	2.5×1	2950	5100	140	26	59	P	5	8	45	A	35	—	—	—	—	—	—	34	4.5	8	4.4	0.21	0.09
GR1204DD-AALR	12	4	2.3812	10.1	2.5×1	3600	6750	140	30	69	L	5	10	54	A	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	L	3	10	54	A	41	—	—	—	—	—	—	41	5.5	9.5	5.4	0.39	0.09
GR1205DD-BALR	12	5	3.1750	9.5	2.5×1	5950	9800	150	30	79	L	3	10	50	B	—	32	45	—	—	—	—	40	4.5	8	4.4	0.37	0.09
GR1206DD-AAPR	12	6	3.1750	9.5	2.5×1	5950	9800	150	30	81	P	3	10	54	A	41	—	—	—	—	—	—	41	5.5	9.5	5.4	0.39	0.09
GR1206DD-BAPR	12	6	3.1750	9.5	2.5×1	5950	9800	150	30	81	P	3	10	54	B	—	32	48	—	—	—	—	41	5.5	9.5	5.4	0.38	0.09

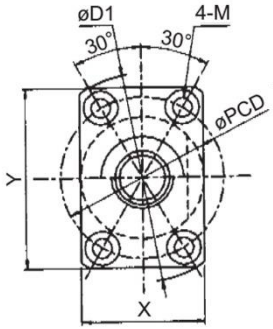
Note: • The rigidity indicated with the *mark in the above list represents the value applied to the axial load about 3 times or less of the preload, which is equivalent to 1/15 of basic dynamic load rating (C). It is the operational value based on the result of rigidity testing including the rigidity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

• Wiper material F: Felt wiper, P: Plastic wiper, L: Lip seal

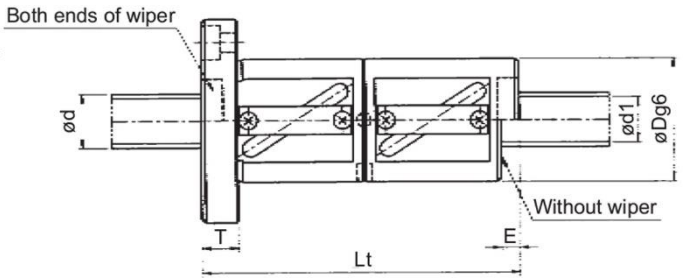
Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



Flange type A



Flange type B

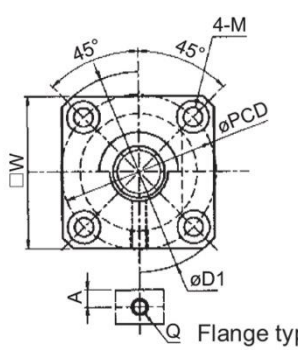


(Unit: mm)

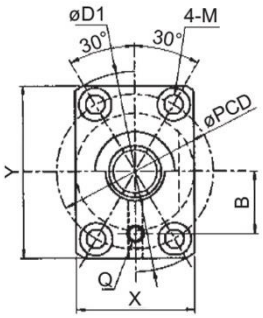
Model No.	Screw shaft diameter d	Lead L	Ball diameter D_b	Root diameter d_1	Number of circuits Turn x Circuit	Basic dynamic load rating C (N)	Basic static load rating C_0 (N)	*Rigidity K_{NM} (N/μm)	Nut dimensions															Mass	
									Outer diameter D	Overall length L_t	Wiper material	Without wiper E	Flange thickness T	Flange outer diameter D_1	Flange type	Flange dimensions W	X	Y	A	B	G	Q	Mounting hole PCD	M Drill	M Spot facing	M Depth	Nut (kg)	Screw shaft (kg/100mm)
GR1502DD-AAPR	15	2	1.5875	13.6	2.5×1	2700	5500	180	30	61	P	5	10	54	A	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	P	5	10	54	B	—	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	P	4	10	54	A	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	P	4	10	54	B	—	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	P	5	10	54	A	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	P	5	10	54	B	—	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	A	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	B	—	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	A	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	B	—	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	P	3	10	58	A	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	P	3	10	58	B	—	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	P	3	10	58	A	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	P	3	10	58	B	—	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	A	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	B	—	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	P	3	10	59	A	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	P	3	10	59	B	—	36	53	—	—	—	—	47	5.5	9.5	5.4	0.51	0.16

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

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



Flange type A



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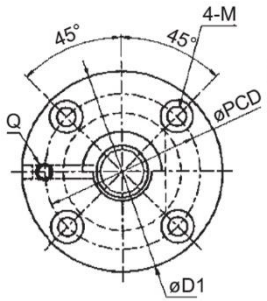
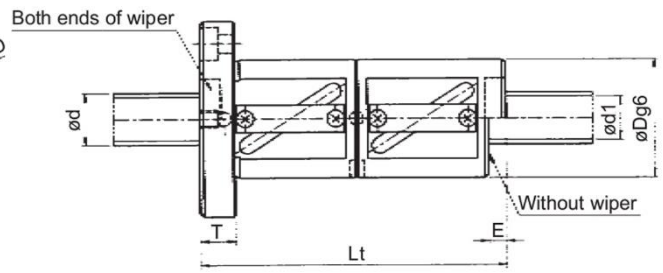


Flange type C



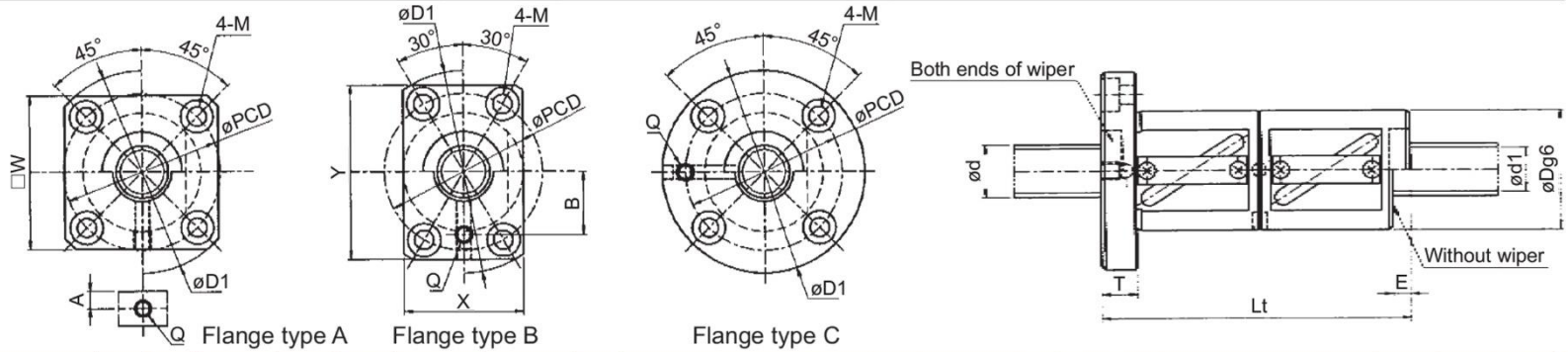
(Unit: mm)

Model No.	Screw shaft diameter d	Lead L	Ball diameter D_b	Root diameter d_1	Number of circuits Turn x Circuit	Basic dynamic load rating C (N)	Basic static load rating C_0 (N)	*Rigidity K_{ww} (N/μm)	Nut dimensions																Mass	
									Outer diameter D	Overall length L_t	Wiper material	Without wiper E	Flange thickness T	Flange outer diameter D_1	Flange type	Flange dimensions W	X	Y	A	B	G	Q	Mounting hole PCD	M Drill	M Spot facing	M Depth	Nut (kg)	Screw shaft (kg/100mm)
GR202FDD-AAPR	20	2.5	2.0000	18.3	2.5×1	3800	8800	230	38	61	P	4	10	62	A	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	P	4	10	62	C	—	—	—	—	—	—	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	A	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	C	—	—	—	—	—	—	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	A	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	C	—	—	—	—	—	—	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	A	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	C	—	—	—	—	—	—	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	B	—	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	C	—	—	—	—	—	—	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	A	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	C	—	—	—	—	—	—	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	P	5	12	72	A	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	P	5	12	72	C	—	—	—	—	—	—	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	P	5	12	72	A	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	P	5	12	72	C	—	—	—	—	—	—	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	P	5	15	74	A	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	P	5	15	74	C	—	—	—	—	—	—	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	A	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	B	—	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	A	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	B	—	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). 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

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



(Unit: mm)

Model No.	Screw shaft diameter d	Lead L	Ball diameter D_b	Root diameter d_r	Number of circuits Turn x Circuit	Basic dynamic load rating C (N)	Basic static load rating C_0 (N)	*Rigidity K_{ww} (N/μm)	Nut dimensions															Mass	
									Outer diameter D	Overall length L_t	Wiper material	Without wiper E	Flange thickness T	Flange outer diameter D_1	Flange type	Flange dimensions W	X	Y	A	B	G	Q	Mounting hole PCD	M Drill	Spot facing	Depth	Nut (kg)	Screw shaft (kg/100mm)
GR2504DD-AAPR	25	4	2.3812	23.1	2.5×1	5200	14400	280	46	75	P	3	12	74	A	56	—	—	7.5	—	—	M6	59	6.6	11	6.5	0.75	0.38
GR2504DD-CAPR	25	4	2.3812	23.1	2.5×1	5200	14400	280	46	75	P	3	12	74	C	—	—	—	—	—	—	M6	59	6.6	11	6.5	0.86	0.38
GR2504ED-AAPR	25	4	2.3812	23.1	2.5×2	9400	28800	520	46	99	P	3	12	74	A	56	—	—	7	—	—	M6	59	6.6	11	6.5	0.94	0.38
GR2504ED-CAPR	25	4	2.3812	23.1	2.5×2	9400	28800	520	46	99	P	3	12	74	C	—	—	—	—	—	—	M6	59	6.6	11	6.5	1.05	0.38
GR2505BD-AALR	25	5	3.1750	22.5	1.5×2	11000	26600	350	47	93	L	5	12	74	A	57	—	—	7	—	—	M6	60	6.6	11	6.5	0.92	0.38
GR2505BD-CALR	25	5	3.1750	22.5	1.5×2	11000	26600	350	47	93	L	5	12	74	C	—	—	—	—	—	—	M6	60	6.6	11	6.5	1.02	0.38
GR2505DD-AALR	25	5	3.1750	22.5	2.5×1	9400	22200	300	47	83	L	5	12	74	A	57	—	—	7.5	—	—	M6	60	6.6	11	6.5	0.84	0.38
GR2505DD-CALR	25	5	3.1750	22.5	2.5×1	9400	22200	300	47	83	L	5	12	74	C	—	—	—	—	—	—	M6	60	6.6	11	6.5	0.93	0.38
GR2505ED-AALR	25	5	3.1750	22.5	2.5×2	17000	44400	560	47	103	L	5	12	74	A	57	—	—	7.5	—	—	M6	60	6.6	11	6.5	1.00	0.38
GR2505ED-CALR	25	5	3.1750	22.5	2.5×2	17000	44400	560	47	103	L	5	12	74	C	—	—	—	—	—	—	M6	60	6.6	11	6.5	1.10	0.38
GR2506BD-AALR	25	6	3.9688	21.6	1.5×2	14700	32400	360	50	109	L	5	12	78	A	59	—	—	7.5	—	—	M6	63	6.6	11	6.5	1.21	0.38
GR2506BD-CALR	25	6	3.9688	21.6	1.5×2	14700	32400	360	50	109	L	5	12	78	C	—	—	—	—	—	—	M6	63	6.6	11	6.5	1.34	0.38
GR2506DD-AALR	25	6	3.9688	21.6	2.5×1	12500	27000	300	50	85	L	5	12	78	A	59	—	—	7.5	—	—	M6	63	6.6	11	6.5	0.98	0.38
GR2506DD-CALR	25	6	3.9688	21.6	2.5×1	12500	27000	300	50	85	L	5	12	78	C	—	—	—	—	—	—	M6	63	6.6	11	6.5	1.10	0.38
GR2506ED-AALR	25	6	3.9688	21.6	2.5×2	22700	54000	560	50	121	L	5	12	78	A	59	—	—	7.5	—	—	M6	63	6.6	11	6.5	1.33	0.38
GR2506ED-CALR	25	6	3.9688	21.6	2.5×2	22700	54000	560	50	121	L	5	12	78	C	—	—	—	—	—	—	M6	63	6.6	11	6.5	1.45	0.38
GR2508DD-AAPR	25	8	4.7625	21	2.5×1	16100	33400	310	52	111	P	5	15	86	A	66	—	—	10	—	—	M6	68	9	14	8.6	1.45	0.38
GR2508DD-CAPR	25	8	4.7625	21	2.5×1	16100	33400	310	52	111	P	5	15	86	C	—	—	—	—	—	—	M6	68	9	14	8.6	1.62	0.38
GR2508GD-AAPR	25	8	4.7625	21	3.5×1	21400	46800	420	52	113	P	6	15	86	A	66	—	—	10	—	—	M6	68	9	14	8.6	1.47	0.38
GR2508GD-CAPR	25	8	4.7625	21	3.5×1	21400	46800	420	52	113	P	6	15	86	C	—	—	—	—	—	—	M6	68	9	14	8.6	1.64	0.38
GR2510DD-AALR	25	10	4.7625	21	2.5×1	16100	33400	310	52	115	L	6	15	86	A	66	—	—	10	—	—	M6	68	9	14	8.6	1.50	0.38
GR2510DD-BALR	25	10	4.7625	21	2.5×1	16100	33400	310	52	115	L	6	15	86	B	—	52	78	—	30	—	M6	68	9	14	8.6	1.46	0.38
GR2510GD-AALR	25	10	4.7625	21	3.5×1	21400	46800	420	52	135	L	6	15	86	A	66	—	—	10	—	—	M6	68	9	14	8.6	1.71	0.38
GR2510GD-BALR	25	10	4.7625	21	3.5×1	21400	46800	420	52	135	L	6	15	86	B	—	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