Standard precision ball screws

Features

- GP, GG, GE series: Various screw shaft diameters, leads, and accuracy grades available for your selection
- An optimal size can be selected from a variety of screw shaft diameters, leads, and accuracy grades eliminating unnecessary compromise in product selection.

• FG, FE series: High rotational speed

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

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

- Utilizes a deflector recirculation system which realizes minimal nut dimensions.
- With leads from 1 mm, the DP series is suitable for machines and equipment that requires fine pitch forwarding and precise positioning.
- HG series: Optimal for high-speed conveyance achieved by larger leads
- · Larger leads enable a higher feed rate at a low rotational speed.
- With the adoption of multi-start thread, we have achieved a more compact nut with an improved load rating.

□ Summary of the specifications

Screw shaft diameter	ø6 to ø32 mm
Lead	1 to 60 mm
Accuracy grade	C3 grade: GP, DP C5 grade: FG, GG, HG
	C7 grade: FE, GE
Axial clearance	Refer to each product specification table.
Shaft end type	One shaft end finished (C3 grade: GP, DP)
onait end type	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	0	0	0	0	See the notes below.

• The GP and DP series have one shaft end finished.

• The surface treatment is anticorrosive black coating (coating thickness: 1 to 2 μ m).

· Contact KURODA regarding the inclusion of grease types other than the standard grease.

• Please refer to the LUBSEAL series and size reference chart or the option specifications on each product's page to determine whether or not LUBSEAL is supported.

□ Model numbers of each series

Series	Shaft diameter	Lead				Flange type	Ball recir- culation system	Wiper material	Thread direction		Overall screw shaft length	Shaft end type	Thread length			Axial clearance	
FG	15	10	Р	S	-	Н	Р	Ν	R	-	0900	Х	0840	-	C5	F	
	6 to 14	1 to 4	J			Н	D	Ν			To be	B, X	To he		C3	F, S	
FG	10 to 25	5 to 25	Б			ы	Б	N			shown		shown		C5	F	
FE	10 10 25	5 10 25	Г		-		F	IN			wiina	A, A	with a 4-digit number in metric		C7	Μ	
GG	8 to 32	2 to 25	See	S			See			-	number in metric units			C5	F		
GE	0 10 32	2 10 25	specifi-				cations.								C7	Μ	
GP	0 to 20	2 to 5	cations.			cations.	A	cations.				D, N /	units		C3	F, S	
HG	0 10 20	12 to 60	Q				Q				(mm)	A, X	(mm)		C5	F, H	
	FG DP FG FE GG GE GP	Series diameter FG 15 DP 6 to 14 FG 10 to 25 GG 8 to 32 GP 8 to 20	Series diameter Lead FG 15 10 DP 6 to 14 1 to 4 FG 10 to 25 5 to 25 GG 8 to 32 2 to 25 GP 8 to 20 2 to 5	Series diameter Lead of circuits FG 15 10 P DP 6 to 14 1 to 4 J FG 10 to 25 5 to 25 P GG 8 to 32 2 to 25 See specifi- cations. GP 8 to 20 2 to 5 Atom	Genesities claude cf circuits tion FG 15 10 P S DP 6 to 14 1 to 4 J FG 10 to 25 5 to 25 P FG 10 to 25 5 to 25 P GG 8 to 32 2 to 25 See specifications. GP 8 to 20 2 to 5 12 to 60	Series diameter Lead of circuits tion FG 15 10 P S DP 6 to 14 1 to 4 J FG 10 to 25 5 to 25 P GG 8 to 32 2 to 25 See specifi- cations. S HG 8 to 20 2 to 5 cations. S	Series Statt diameter Lead Number Combina- of circuits Parage tion FG 15 10 P S - H DP 6 to 14 1 to 4 J - H FG 10 to 25 5 to 25 P - H GG 8 to 32 2 to 25 See specifi- 12 to 60 S - See specifications. -	Series Stratt diameter Lead Number Contoina- of circuits Plange tion culation type culation system FG 15 10 P – H P DP 6 to 14 1 to 4 J – H D FG 10 to 25 5 to 25 P – H D GG 8 to 32 2 to 25 See specifi- GE S – See specifi- cations. See specifi- A – HG 8 to 20 2 to 5 cations. A Q –	Series diameter Lead of circuits tion type Culation system material FG 15 10 P S - H P N DP 6 to 14 1 to 4 J - H D N FG 10 to 25 5 to 25 P - H D N GG 8 to 32 2 to 25 See specifi- GP S See specifi- cations. See specifi- A See specifi- cations. See specifi- A See specifi- cations. See specifi- A See specifi- cations.	Series Stratt diameter Lead Number Contonna- of circuits Flange tion culation type culation system Interact material Interact direction FG 15 10 P S - H P N R DP 6 to 14 1 to 4 J - H P N R FG 10 to 25 5 to 25 P - H P N R GG 8 to 32 2 to 25 See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations.	Series Stratt diameter Lead Number Combina- of circuits Plange tion culation wyper system Intead material Intead direction FG 15 10 P S - H P N R - FG 10 to 25 5 to 25 P - H D N FE 10 to 25 5 to 25 P - H P N GG 8 to 32 2 to 25 See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations. See specifi- cations. R	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	SeriesShaft diameterLeadNumber Combina- of circuitsFlangeBall redit cuitorWipper cuitorThread materialScrew directionShaft and shaftFG1510PSHPNRDP6 to 141 to 4J-HDNB,XFE10 to 255 to 25P-HPNRB,XGG8 to 322 to 25See specifi- cations.See specifi- cations.See specifi- ASee cations.See specifi- ACations.RMaft and shaft and trypeB,XHPNNA,XNNNNNNNNNNNN-N-N-N-N-N-N-N-N-NN-N-N-NNNNNNNNNNNNNNNNNNNNN <td>SeriesShaft diameterLeadNumber Combina- of circuitsFlangeFlange claimeterCombina- claimeterFlange claimeterFlange claimeterFlange claimeterFlange claimeterThread materialstress directorstress shaft they bestress tengthStress te</td> <td>SeriesShaft diameterLeadNumber Combina- of circuitsFlange tionCall Held materialWiper materialThread direction materialShaft end threadShaft end lengthShaft end lengthFG1510PS-HPNRDP6 to 141 to 4J-HDNFE10 to 255 to 25P-HPNFE10 to 255 to 25P-HPNGG8 to 322 to 25See specifi- 2 to 5See specifi- cations.See specifi- A cations.See specifi- AR-GP HG8 to 202 to 5cations.Cations.R-HG8 to 202 to 5cations.Q</td> <td>SeriesShaft diameterLeadNumber Combina- of circuitsFlangeBall felch- systemWiper materialThread direction materialSerew shaft andShaft and thread<</td> <td>SeriesShaft diameterLeadNumber of circuitsCombina- tionFlangeBall tell upper systemThread directionShaft endThread lengthA gradeA gradeA gradeA gradeC5FCFG1510PS-HPNR0900X0840-C5FDP6 to 141 to 4JHDNHDNB,XTo be shown with aA,XShown with aC5FGG GE8 to 322 to 25See specifi- (2 to 5)See specifi- cations.See specifi- cations.See specifi- ASee specifi- ASee specifi- actions.R-Saft end thread thread thread thread tensor-C5FC7MDNRC5FC7MNRC5FC7MNRC5FC7MNRC5FC7MNRC7MGB8 to 202 to 5cations.QC3F,SGB8 to 202 to 5Cations.QC5FC7MC3F,SC5F, H<</td>	SeriesShaft diameterLeadNumber Combina- of circuitsFlangeFlange claimeterCombina- claimeterFlange claimeterFlange claimeterFlange claimeterFlange claimeterThread materialstress directorstress shaft they bestress tengthStress te	SeriesShaft diameterLeadNumber Combina- of circuitsFlange tionCall Held materialWiper materialThread direction materialShaft end threadShaft end lengthShaft end lengthFG1510PS-HPNRDP6 to 141 to 4J-HDNFE10 to 255 to 25P-HPNFE10 to 255 to 25P-HPNGG8 to 322 to 25See specifi- 2 to 5See specifi- cations.See specifi- A cations.See specifi- AR-GP HG8 to 202 to 5cations.Cations.R-HG8 to 202 to 5cations.Q	SeriesShaft diameterLeadNumber Combina- of circuitsFlangeBall felch- systemWiper materialThread direction materialSerew shaft andShaft and thread<	SeriesShaft diameterLeadNumber of circuitsCombina- tionFlangeBall tell upper systemThread directionShaft endThread lengthA gradeA gradeA gradeA gradeC5FCFG1510PS-HPNR0900X0840-C5FDP6 to 141 to 4JHDNHDNB,XTo be shown with aA,XShown with aC5FGG GE8 to 322 to 25See specifi- (2 to 5)See specifi- cations.See specifi- cations.See specifi- ASee specifi- ASee specifi- actions.R-Saft end thread thread thread thread tensor-C5FC7MDNRC5FC7MNRC5FC7MNRC5FC7MNRC5FC7MNRC7MGB8 to 202 to 5cations.QC3F,SGB8 to 202 to 5Cations.QC5FC7MC3F,SC5F, H<

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

Screw shaft diameter and lead combinations

			Lead (mm)													
		1	2	3	4	5	10	12	15	16	20	25	30	32	40	60
	6	0														
	8	0	• 0		•											
	10		• 0		٠		• •									
Screw	12		• 0	0	٠	•	• •				• •					
shaft	14				0											
diam- eter	15		•		•	• •	• •		•		• • •					
(mm)	16									•						
()	20				•	•	• •				• • •					
	25					• •	• •				•	• •				
	32					•	•									

•: GP, GG, GE series

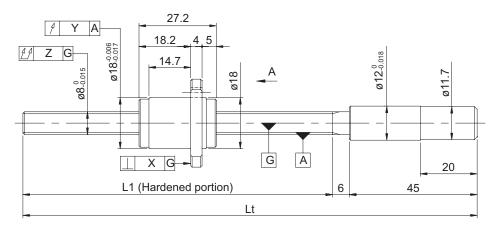
 $\circ: \text{DP}$ series (small lead)

□: HG series (large lead)

♦: FG, FE series (high rotational speed)

- Ball colon opeenioatione			
Shaft diameter (mm) - Lead (mm)	8 - 12		
Number of circuits /	1.67 turns 2 circuits		
Thread direction	(2 threads) / Right-hand		
Ball diameter (mm)	1.5875		
Root diameter (mm)	6.6		
Series	HG		
Basic dynamic load rating C (N)	2490		
Basic static load rating C0 (N)	3460		
Accuracy grade /	C5 / H		
Axial clearance symbol	C57 H		
Axial clearance (mm)	0.010 or less		
Preload torque (N·cm)			
Spacer ball	None		
Recirculation system	End cap method		
Wiper	None		
Lubricant	Multemp PS2		





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε₀	ec	e ₃₀₀	
HG0812QS-HEZR-0340A	289	340	261	0.023	0.018	0.018	

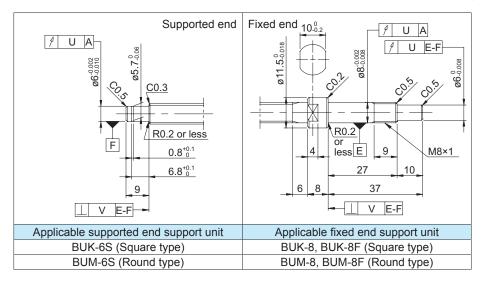
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

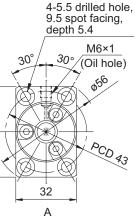
HG0812QS-HEZR-0340A → HG0812QS-HEZR-<u>0340</u>X0280-C5H →Thread length →Overall screw shaft length

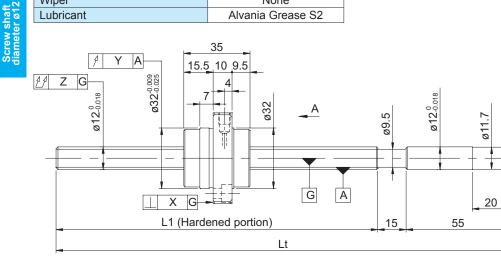


Optional specifications

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.010	0.012	0.075	0.010	0.005		0.20

• Buil Solew Specifications			
Shaft diameter (mm) - Lead (mm)	12 - 30]	
Number of circuits /	0.67 turns 3 circuits	1	
Thread direction	(3 threads) / Right-hand		
Ball diameter (mm)	3.175	1	
Root diameter (mm)	9.5]	
Series	HG	,	\ لم
Basic dynamic load rating C (N)	4800	1	
Basic static load rating C0 (N)	6650	1	A
Accuracy grade /	C5 / H	48	
Axial clearance symbol			
Axial clearance (mm)	0.010 or less		
Preload torque (N·cm)			$ \setminus 0$
Spacer ball	None]	1
Recirculation system	End cap method]	
Wiper	None]	
Lubricant	Alvania Grease S2	1	





Model No.	Screw sh	aft length Maximum strok		Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε _c	ec	e ₃₀₀
HG1230QS-BEZR-0500A	430	500	395	0.027	0.020	0.018
HG1230QS-BEZR-0800A	730	800	695	0.035	0.025	0.016

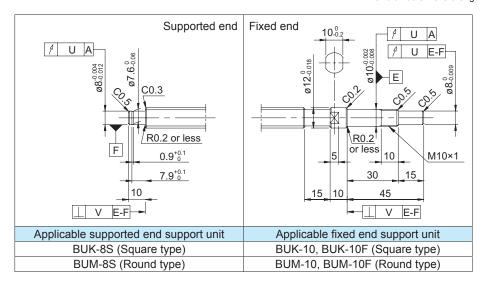
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

HG1230QS-BEZR-0800A → HG1230QS-BEZR-<u>0800X0720</u>-C5H



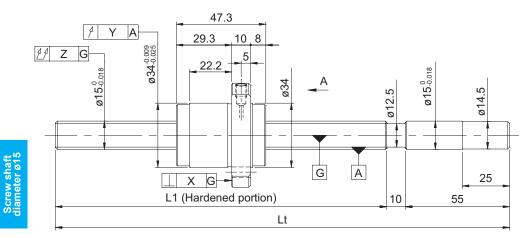
Optional specifications

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

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.010	0.012	0.080	0.011	0.005		0.62
0.010	0.012	0.090 0.011 0.005			0.85	

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• Dan Screw Specifications		
Shaft diameter (mm) - Lead (mm)	15 - 20	30° 30° 4-5.5
Number of circuits /	1.67 turns 2 circuits	14° drilled hole
Thread direction	(2 threads) / Right-hand	M6×1
Ball diameter (mm)	3.175	(Oil hole)
Root diameter (mm)	12.5	
Series	HG	
Basic dynamic load rating C (N)	8740	
Basic static load rating C0 (N)	17550	PCD
Accuracy grade /	C5 / F	PCD 45
Axial clearance symbol	C57 F	
Axial clearance (mm)	0.005 or less	
Preload torque (N·cm)	Up to 6.0	34
Spacer ball	None	A
Recirculation system	End cap method	
Wiper	None	
Lubricant	Alvania Grease S2	



Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	ec	e ₃₀₀
HG1520QS-HEZR-0600A	535	600	487	0.030	0.023	0.018
HG1520QS-HEZR-1100A	1035	1100	987	0.046	0.030	0.010

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

Preload torque is a value before applying grease.

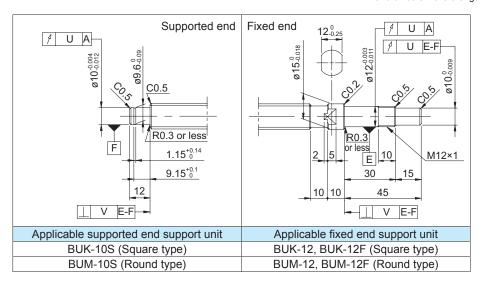
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

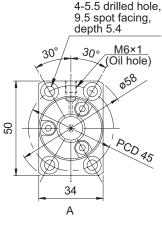
HG1520QS-HEZR-1100A → HG1520QS-HEZR-<u>1100X1023</u>-C5F → Thread length → Overall screw shaft length

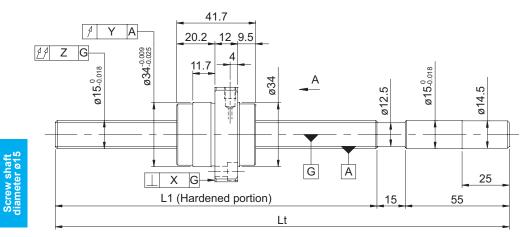


Optional specifications

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015 0.075		0.012 0.0	0.005	Lin to 6.0	1.07
0.011 0.015	0.015	0.150	0.012	0.005	Up to 6.0	1.70

· Bail Solew Speelheadons						
Shaft diameter (mm) - Lead (mm)	15 - 40					
Number of circuits /	0.67 turns 3 circuits	1				
Thread direction	(3 threads) / Right-hand					
Ball diameter (mm)	3.175]				
Root diameter (mm)	12.5]				
Series	HG					
Basic dynamic load rating C (N)	5600	1				
Basic static load rating C0 (N)	8600]				
Accuracy grade /	C5 / H					
Axial clearance symbol	C57 H					
Axial clearance (mm)	0.010 or less					
Preload torque (N·cm)						
Spacer ball	None					
Recirculation system	End cap method					
Wiper	None]				
Lubricant	Alvania Grease S2					





Model No.	Screw shaft length		Model No. Screw shaft length Maximum stroke		Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε _c	ec	e ₃₀₀	
HG1540QS-BEZR-0600A	530	600	488	0.030	0.023	0.018	
HG1540QS-BEZR-1100A	1030	1100	988	0.046	0.030	0.018	

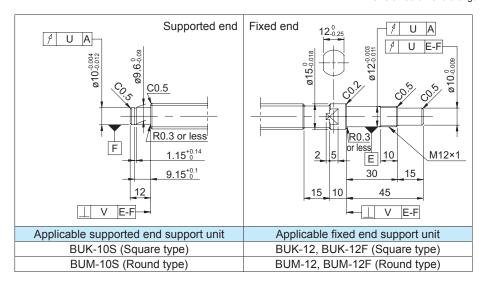
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

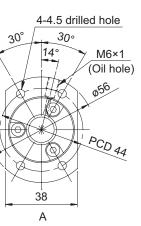
HG1540QS-BEZR-1100A → HG1540QS-BEZR-<u>1100</u>X<u>1018</u>-C5H

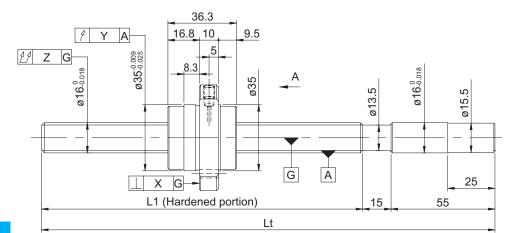


Optional specifications

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015	0.075	0.012	0.005		1.06
0.011 0.015	0.015	0.150 0.012		0.005		1.70

Shaft diameter (mm) - Lead (mm)	16 - 32]
Number of circuits /	0.67 turns 3 circuits]
Thread direction	(3 threads) / Right-hand	×
Ball diameter (mm)	3.175	
Root diameter (mm)	13.5]
Series	HG	
Basic dynamic load rating C (N)	6100]
Basic static load rating C0 (N)	9100] _
Accuracy grade /	C5 / F]
Axial clearance symbol	C37F	۲ ا
Axial clearance (mm)	0.005 or less	
Preload torque (N·cm)	Up to 6.0]
Spacer ball	None]
Recirculation system	End cap method]
Wiper	None]
Lubricant	Alvania Grease S2	1





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Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε _c	ec	e ₃₀₀
HG1632QS-HEZR-0600A	530	600	493	0.030	0.023	0.018
HG1632QS-HEZR-1100A	1030	1100	993	0.046	0.030	0.016

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

Preload torque is a value before applying grease.

• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.

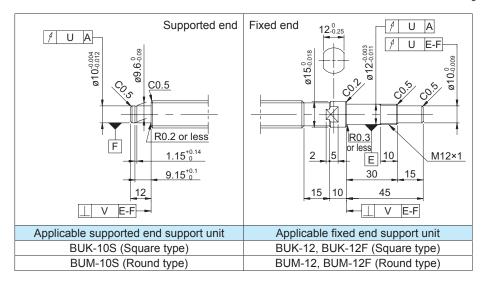
Before and during use, apply lubricant where appropriate.

Shaft end finish type

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

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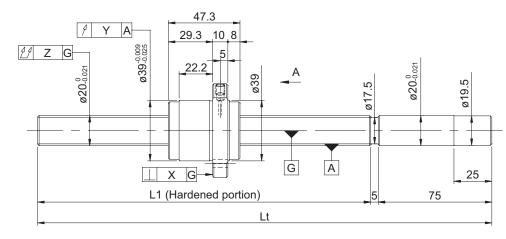
HG1632QS-HEZR-1100A → HG1632QS-HEZR-<u>1100X1023</u>-C5F →Thread length →Overall screw shaft length



Optional specifications

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015	0.075	0.012	0.005	Lin to 6.0	1.14
0.011 0.01	0.015	0.150	0.012	0.005	Up to 6.0	1.86

Shaft diameter (mm) - Lead (mm)	20 - 20	30° 30°
Number of circuits /	1.67 turns 2 circuits	14° 4-5.5
Thread direction	(2 threads) / Right-hand	M6×1 drilled hole
Ball diameter (mm)	3.175	(Oil hole)
Root diameter (mm)	17.5	
Series	HG	
Basic dynamic load rating C (N)	10690	
Basic static load rating C0 (N)	23330	PCD 50
Accuracy grade /	C5 / F	
Axial clearance symbol	C37F	
Axial clearance (mm)	0.005 or less	39
Preload torque (N·cm)	Up to 7.0	A
Spacer ball	None	
Recirculation system	End cap method	
Wiper	None	
Lubricant	Alvania Grease S2]



Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	ec	e ₃₀₀
HG2020QS-HEZR-1000A	920	1000	872	0.040	0.027	0.018
HG2020QS-HEZR-1500A	1420	1500	1372	0.054	0.035	0.010

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

Preload torque is a value before applying grease.

• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.

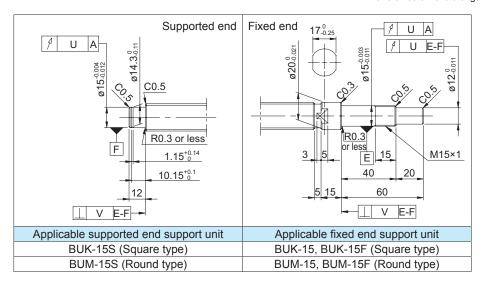
Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

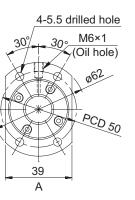
HG2020QS-HEZR-1500A → HG2020QS-HEZR-<u>1500</u>X1408-C5F

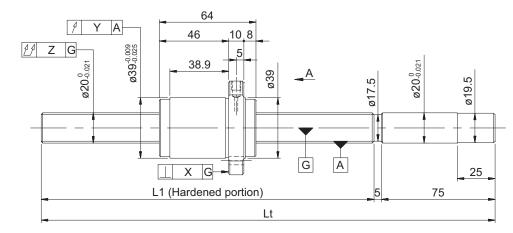


Optional specifications

	Accur	Preload torque	Mass			
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015	0.120	0.012	0.005	Lin to 7.0	2.71
0.011 0.015	0.190	0.012	0.005	Up to 7.0	3.86	

Shaft diameter (mm) - Lead (mm)	20 - 30
Number of circuits /	1.67 turns 2 circuits
Thread direction	(2 threads) / Right-hand
Ball diameter (mm)	3.175
Root diameter (mm)	17.5
Series	HG
Basic dynamic load rating C (N)	10690
Basic static load rating C0 (N)	23330
Accuracy grade /	C5 / F
Axial clearance symbol	6371
Axial clearance (mm)	0.005 or less
Preload torque (N·cm)	Up to 9.0
Spacer ball	None
Recirculation system	End cap method
Wiper	None
Lubricant	Alvania Grease S2





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	ec	e ₃₀₀
HG2030QS-HEZR-1000A	920	1000	856	0.040	0.027	0.018
HG2030QS-HEZR-1500A	1420	1500	1356	0.054	0.035	0.010

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

Preload torque is a value before applying grease.

• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.

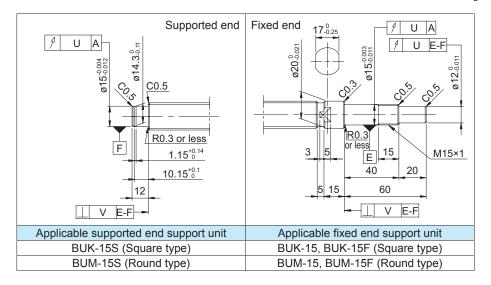
Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

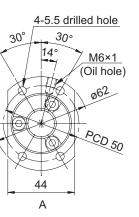
HG2030QS-HEZR-1500A → HG2030QS-HEZR-<u>1500</u>X<u>1408</u>-C5F →Thread length →Overall screw shaft length

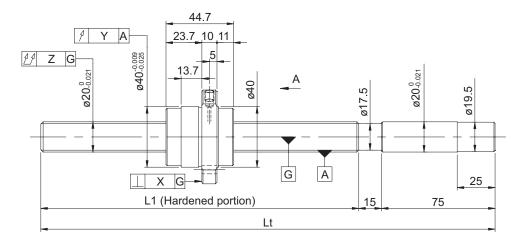


Optional specifications

Accuracy of each part					Preload torque	Mass
Х	Y	Z	U	V	(N·cm)	(kg)
0.011 (0.015 0.120	0.012	0.005	Lin to 0.0	2.87	
0.011	0.015	0.190	0.012	0.005	Up to 9.0	4.06

Shaft diameter (mm) - Lead (mm)	20 - 40
Number of circuits /	0.67 turns 3 circuits
Thread direction	(3 threads) / Right-hand
Ball diameter (mm)	3.175
Root diameter (mm)	17.5
Series	HG
Basic dynamic load rating C (N)	6800
Basic static load rating C0 (N)	12100
Accuracy grade /	C5 / F
Axial clearance symbol	6371
Axial clearance (mm)	0.005 or less
Preload torque (N·cm)	Up to 7.0
Spacer ball	None
Recirculation system	End cap method
Wiper	None
Lubricant	Alvania Grease S2





Model No. Screw shaft le		aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε _c	ec	e ₃₀₀
HG2040QS-HEZR-1000A	910	1000	865	0.040	0.027	0.018
HG2040QS-HEZR-1500A	1410	1500	1365	0.054	0.035	0.010

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

Preload torque is a value before applying grease.

• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.

Before and during use, apply lubricant where appropriate.

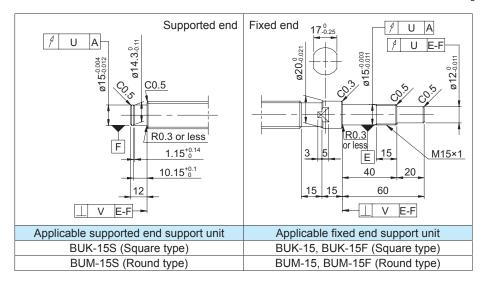
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• Shaft end finish type

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

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

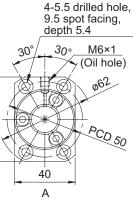
HG2040QS-HEZR-1500A → HG2040QS-HEZR-<u>1500</u>X<u>1398</u>-C5F →Thread length →Overall screw shaft length

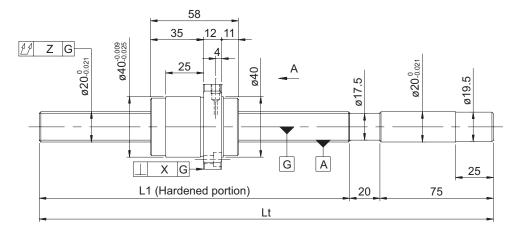


• Optional specifications

Accuracy of each part					Preload torque	Mass
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015	0.120	0.012	0.005	Lip to 7.0	2.73
0.011	0.015	0.190	0.012	0.005	Up to 7.0	3.90

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Shaft diameter (mm) - Lead (mm)	20 - 60	
Number of circuits /	0.67 turns 3 circuits]
Thread direction	(3 threads) / Right-hand	
Ball diameter (mm)	3.175	
Root diameter (mm)	17.5	
Series	HG	
Basic dynamic load rating C (N)	6800	
Basic static load rating C0 (N)	12100	20
Accuracy grade /	C5 / H	2
Axial clearance symbol	C57 H) '
Axial clearance (mm)	0.010 or less	
Preload torque (N·cm)]
Spacer ball	None]
Recirculation system	End cap method]
Wiper	None]
Lubricant	Alvania Grease S2	





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	ec	e ₃₀₀
HG2060QS-BEZR-1000A	905	1000	847	0.040	0.027	0.018
HG2060QS-BEZR-1500A	1405	1500	1347	0.054	0.035	0.010

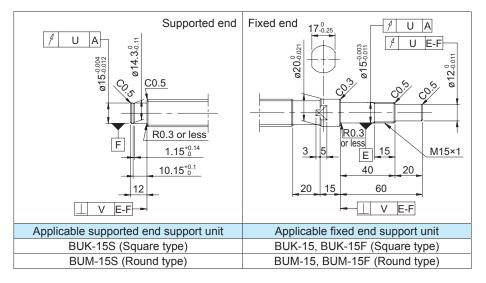
• At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

• Shaft end finish type

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

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

HG2060QS-BEZR-1500A → HG2060QS-BEZR-<u>1500</u>X<u>1393</u>-C5H →Thread length →Overall screw shaft length



Optional specifications

Accuracy of each part					Preload torque	Mass
Х	Y	Z	U	V	(N·cm)	(kg)
0.011	0.015	0.120	0.012	0.005		2.87
0.011	0.015	0.190	0.012	0.005		4.06