

# Standard-Stock Precision Ball Screw Finished Shaft Ends Model BNK

## Ball Screw

### B Product Specifications

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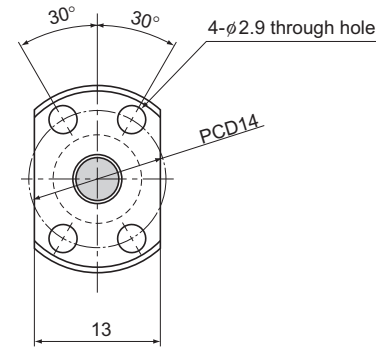
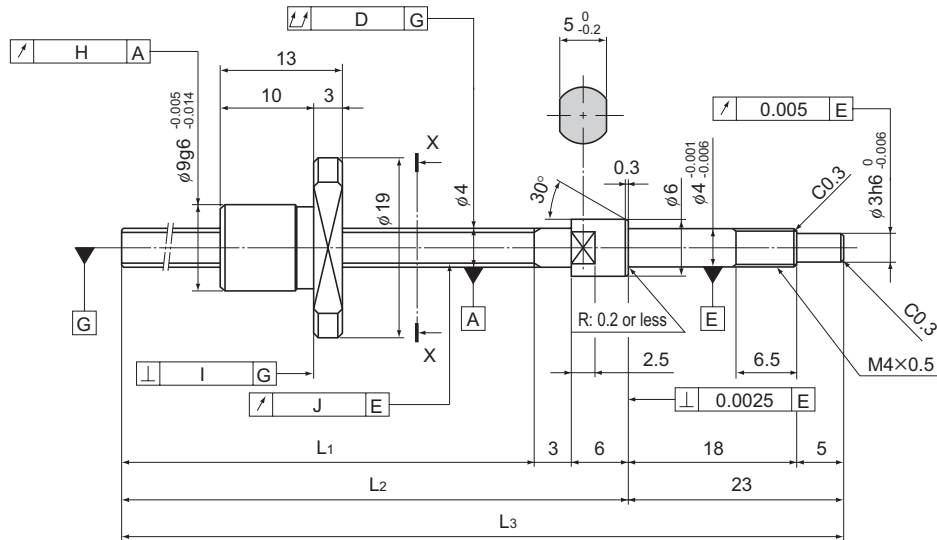
### A Technical Descriptions of the Products (Separate)

#### Technical Descriptions

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\* Please see the separate "A Technical Descriptions of the Products".

# BNK0401-3 Shaft diameter: 4; lead: 1



X-X arrow view

Ball Screw Specifications			
Lead (mm)	1		
BCD(mm)	4.15		
Thread minor diameter (mm)	3.4		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating $C_a$ (kN)	0.29	0.29	0.29
Basic static load rating $C_{0a}$ (kN)	0.42	0.42	0.42
Preload torque (N-m)	to $9.8 \times 10^{-3}$	—	—
Spacer ball	None	None	None
Rigidity value (N/μm)	35		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass kg	Shaft mass kg/m				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															±0.008	0.008
BNK 0401-3G0+77LC3Y	20	45	54	77	0.015	0.009	0.008	0.008	±0.008	0.008	0.01	0.07				
BNK 0401-3G0+77LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.01	0.07				
BNK 0401-3G2+77LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.01	0.07				
BNK 0401-3G0+97LC3Y	40	65	74	97	0.02	0.009	0.008	0.008	±0.008	0.008	0.01	0.07				
BNK 0401-3G0+97LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.01	0.07				
BNK 0401-3G2+97LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.01	0.07				
BNK 0401-3G0+127LC3Y	70	95	104	127	0.025	0.009	0.008	0.008	±0.008	0.008	0.01	0.07				
BNK 0401-3G0+127LC5Y					0.035	0.012	0.01	0.01	±0.018	0.018	0.01	0.07				
BNK 0401-3G2+127LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.01	0.07				

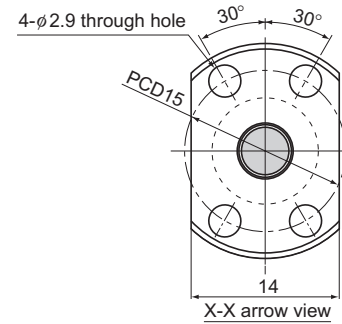
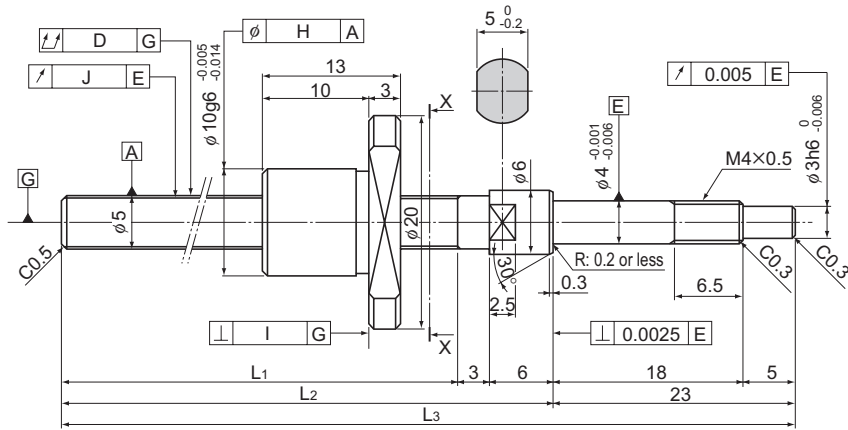
Note) A stainless steel type is also available for model BNK0401. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK0401-3G0+77LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK0501-3 Shaft diameter: 5; lead: 1



Ball Screw Specifications			
Lead (mm)	1		
BCD(mm)	5.15		
Thread minor diameter (mm)	4.4		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	0.32	0.32	0.32
Basic static load rating Ca0(kN)	0.55	0.55	0.55
Preload torque (N-m)	to 9.8×10 <sup>3</sup>	—	—
Spacer ball	None	None	None
Rigidity value(N/μm)	47		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass kg	Shaft mass kg/m				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															±0.008	0.008
BNK 0501-3G0+77LC3Y	20	45	54	77	0.015	0.009	0.008	0.008	±0.008	0.008	0.012	0.11				
BNK 0501-3G0+77LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.012	0.11				
BNK 0501-3G2+77LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.012	0.11				
BNK 0501-3G0+97LC3Y	40	65	74	97	0.02	0.009	0.008	0.008	±0.008	0.008	0.012	0.11				
BNK 0501-3G0+97LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.012	0.11				
BNK 0501-3G2+97LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.012	0.11				
BNK 0501-3G0+127LC3Y	70	95	104	127	0.025	0.009	0.008	0.008	±0.008	0.008	0.012	0.11				
BNK 0501-3G0+127LC5Y					0.035	0.012	0.01	0.01	±0.018	0.018	0.012	0.11				
BNK 0501-3G2+127LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.012	0.11				

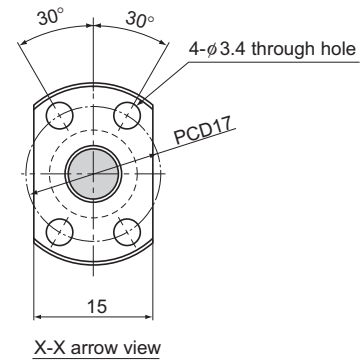
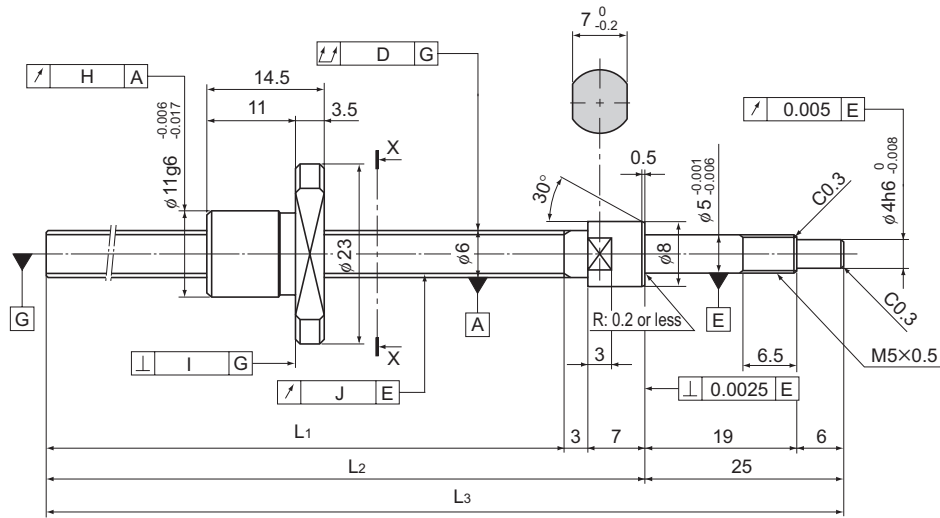
Note) A stainless steel type is also available for model BNK0501. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK0501-3G0+77LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK0601-3 Shaft diameter: 6; lead: 1



Ball Screw Specifications			
Lead (mm)	1		
BCD(mm)	6.2		
Thread minor diameter (mm)	5.3		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	0.54	0.54	0.54
Basic static load rating Ca0 (kN)	0.94	0.94	0.94
Preload torque (N-m)	to 1.3×10 <sup>2</sup>	—	—
Spacer ball	None	None	None
Rigidity value(N/μm)	60		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass kg	Shaft mass kg/m				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															±0.008	0.008
BNK 0601-3G0+100LC3Y	40	65	75	100	0.015	0.009	0.008	0.008	±0.008	0.008	0.017	0.14				
BNK 0601-3G0+100LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.017	0.14				
BNK 0601-3G2+100LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.017	0.14				
BNK 0601-3G0+130LC3Y	70	95	105	130	0.02	0.009	0.008	0.008	±0.008	0.008	0.017	0.14				
BNK 0601-3G0+130LC5Y					0.035	0.012	0.01	0.01	±0.018	0.018	0.017	0.14				
BNK 0601-3G2+130LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.017	0.14				
BNK 0601-3G0+160LC3Y	100	125	135	160	0.025	0.009	0.008	0.008	±0.01	0.008	0.017	0.14				
BNK 0601-3G0+160LC5Y					0.035	0.012	0.01	0.01	±0.02	0.018	0.017	0.14				
BNK 0601-3G2+160LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.017	0.14				

Note) A stainless steel type is also available for model BNK0501. When placing an order, add symbol "M" to the end of the model number.

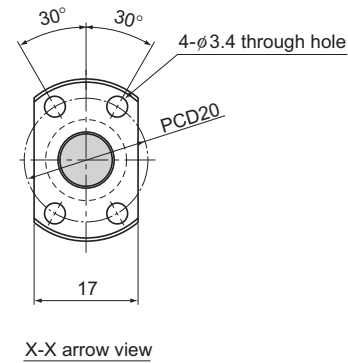
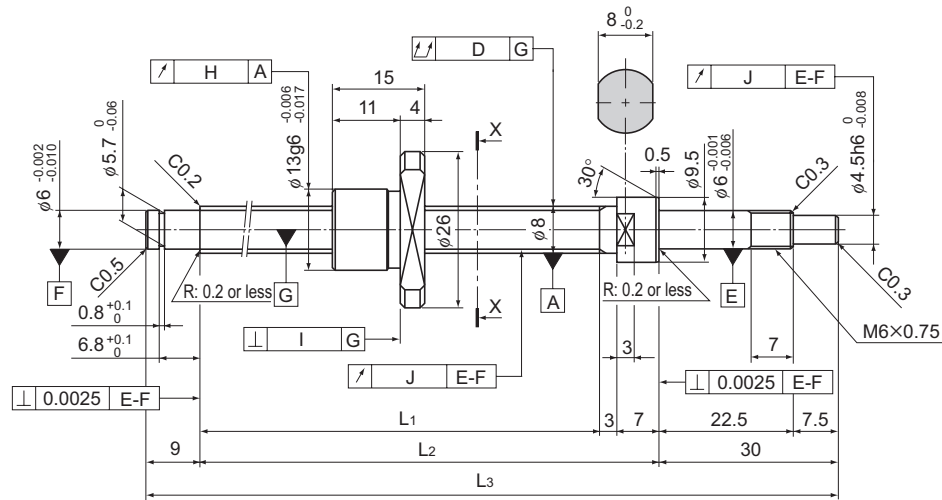
(Example) BNK0601-3G0+100LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

Ball Screw

# BNK0801-3 Shaft diameter: 8; lead: 1



Ball Screw Specifications			
Lead (mm)	1		
BCD(mm)	8.2		
Thread minor diameter (mm)	7.3		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	0.64	0.64	0.64
Basic static load rating Ca0 (kN)	1.4	1.4	1.4
Preload torque (N-m)	to 1.8 × 10 <sup>2</sup>	—	—
Spacer ball	None	None	None
Rigidity value (N/μm)	80		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 0801-3G0+115LC3Y	40	66	76	115	0.025	0.009	0.008	0.008	±0.008	0.008	0.024	0.29
BNK 0801-3G0+115LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.024	0.29
BNK 0801-3G2+115LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.024	0.29
BNK 0801-3G0+145LC3Y	70	96	106	145	0.03	0.009	0.008	0.008	±0.008	0.008	0.024	0.29
BNK 0801-3G0+145LC5Y					0.035	0.012	0.01	0.01	±0.018	0.018	0.024	0.29
BNK 0801-3G2+145LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.024	0.29
BNK 0801-3G0+175LC3Y	100	126	136	175	0.03	0.009	0.008	0.008	±0.01	0.008	0.024	0.29
BNK 0801-3G0+175LC5Y					0.035	0.012	0.01	0.01	±0.02	0.018	0.024	0.29
BNK 0801-3G2+175LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.024	0.29
BNK 0801-3G0+225LC3Y	150	176	186	225	0.035	0.009	0.008	0.008	±0.01	0.008	0.024	0.29
BNK 0801-3G0+225LC5Y					0.05	0.012	0.01	0.01	±0.02	0.018	0.024	0.29
BNK 0801-3G2+225LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.024	0.29

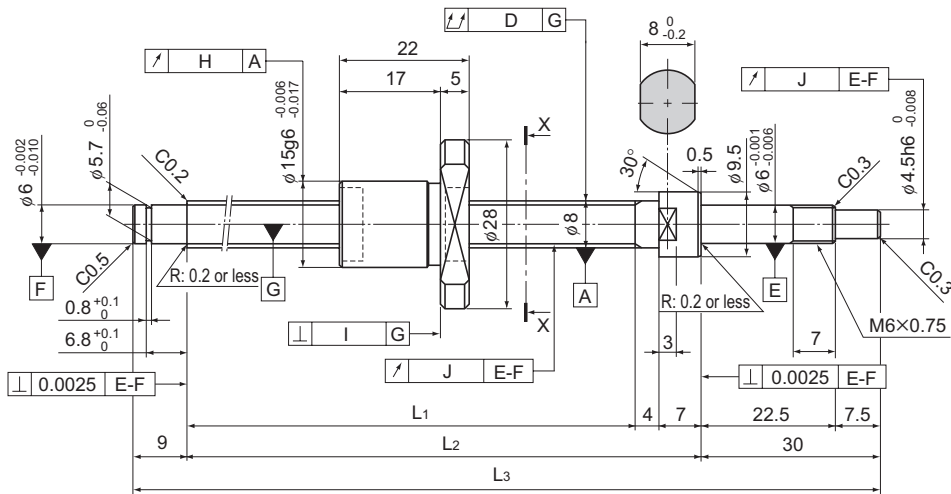
Note) A stainless steel type is also available for model BNK0601. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK0801-3G0+115LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK0802-3 Shaft diameter: 8; lead: 2



Ball Screw Specifications			
Lead (mm)	2		
BCD(mm)	8.3		
Thread minor diameter (mm)	7		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating C <sub>a</sub> (kN)	1.4	1.4	1.4
Basic static load rating C <sub>0a</sub> (kN)	2.3	2.3	2.3
Preload torque (N·m)	to 2 × 10 <sup>-2</sup>	—	—
Spacer ball	None	None	None
Rigidity value (N/μm)	100		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 0802-3RRG0+125LC3Y	40	75	86	125	0.025	0.009	0.008	0.008	±0.008	0.008	0.034	0.27
BNK 0802-3RRG0+125LC5Y					0.025	0.012	0.01	0.01	±0.018	0.018	0.034	0.27
BNK 0802-3RRG2+125LC7Y					0.035	0.02	0.014	0.014	Travel distance: ±0.05/300		0.034	0.27
BNK 0802-3RRG0+155LC3Y	70	105	116	155	0.03	0.009	0.008	0.008	±0.01	0.008	0.034	0.27
BNK 0802-3RRG0+155LC5Y					0.035	0.012	0.01	0.01	±0.02	0.018	0.034	0.27
BNK 0802-3RRG2+155LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.034	0.27
BNK 0802-3RRG0+185LC3Y	100	135	146	185	0.03	0.009	0.008	0.008	±0.01	0.008	0.034	0.27
BNK 0802-3RRG0+185LC5Y					0.035	0.012	0.01	0.01	±0.02	0.018	0.034	0.27
BNK 0802-3RRG2+185LC7Y					0.05	0.02	0.014	0.014	Travel distance: ±0.05/300		0.034	0.27
BNK 0802-3RRG0+235LC3Y	150	185	196	235	0.035	0.009	0.008	0.008	±0.01	0.008	0.034	0.27
BNK 0802-3RRG0+235LC5Y					0.05	0.012	0.01	0.01	±0.02	0.018	0.034	0.27
BNK 0802-3RRG2+235LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.034	0.27

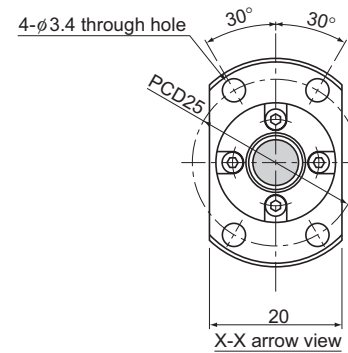
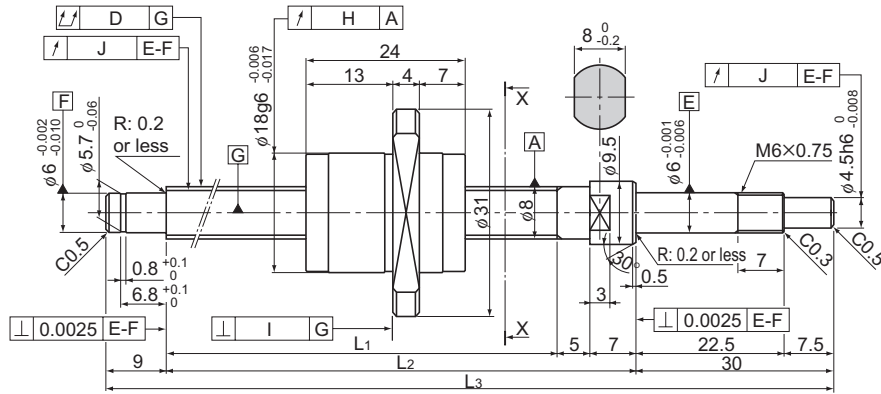
Note) A stainless steel type is also available for model BNK0801. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK0802-3RRG0+125LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK0810-3 Shaft diameter: 8; lead: 10



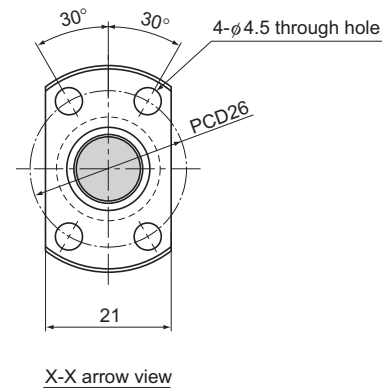
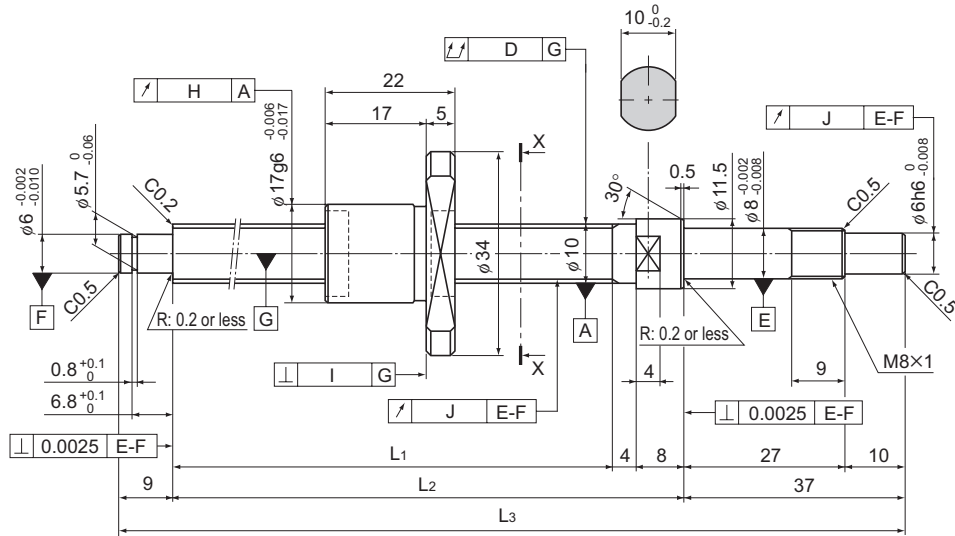
Ball Screw Specifications		
Lead (mm)	10	
BCD(mm)	8.4	
Thread minor diameter (mm)	6.7	
Threading direction, No. of threaded grooves	Rightward, 2	
No. of circuits	1.5 turns × 2 rows	
Clearance symbol	GT	G2
Axial clearance (mm)	0.005 or less	0.02 or less
Basic dynamic load rating $C_a$ (kN)	2.16	2.16
Basic static load rating $C_{0a}$ (kN)	3.82	3.82
Preload torque (N-m)	—	—
Spacer ball	None	None
Rigidity value (N/μm)	100	
Circulation method	End cap	

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 0810-3GT+205LC5Y	100	154	166	205	0.05	0.012	0.01	0.01	±0.02	0.018	0.049	0.30
BNK 0810-3G2+205LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.049	0.30
BNK 0810-3GT+255LC5Y	150	204	216	255	0.05	0.012	0.01	0.01	±0.023	0.018	0.049	0.30
BNK 0810-3G2+255LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.049	0.30
BNK 0810-3GT+305LC5Y	200	254	266	305	0.05	0.012	0.01	0.01	±0.023	0.018	0.049	0.30
BNK 0810-3G2+305LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.049	0.30
BNK 0810-3GT+355LC5Y	250	304	316	355	0.06	0.012	0.01	0.01	±0.023	0.018	0.049	0.30
BNK 0810-3G2+355LC7Y					0.075	0.02	0.014	0.014	Travel distance: ±0.05/300		0.049	0.30
BNK 0810-3GT+405LC5Y	300	354	366	405	0.07	0.012	0.01	0.01	±0.025	0.018	0.049	0.30
BNK 0810-3G2+405LC7Y					0.09	0.02	0.014	0.014	Travel distance: ±0.05/300		0.049	0.30

Ball Screw

# BNK1002-3 Shaft diameter: 10; lead: 2



Ball Screw Specifications			
Lead (mm)	2		
BCD(mm)	10.3		
Thread minor diameter (mm)	9		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	1.5	1.5	1.5
Basic static load rating Ca0 (kN)	2.9	2.9	2.9
Preload torque (N-m)	to 2.5 × 10 <sup>2</sup>	—	—
Spacer ball	None	None	None
Rigidity value (N/μm)	100		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass kg	Shaft mass kg/m				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															±0.008	0.008
BNK 1002-3RRG0+143LC3Y	50	85	97	143	0.02	0.009	0.008	0.007	±0.008	0.008	0.045	0.47				
BNK 1002-3RRG0+143LC5Y					0.035	0.012	0.01	0.011	±0.018	0.018	0.045	0.47				
BNK 1002-3RRG2+143LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300		0.045	0.47				
BNK 1002-3RRG0+193LC3Y	100	135	147	193	0.03	0.009	0.008	0.007	±0.01	0.008	0.045	0.47				
BNK 1002-3RRG0+193LC5Y					0.035	0.012	0.01	0.011	±0.02	0.018	0.045	0.47				
BNK 1002-3RRG2+193LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300		0.045	0.47				
BNK 1002-3RRG0+243LC3Y	150	185	197	243	0.03	0.009	0.008	0.007	±0.01	0.008	0.045	0.47				
BNK 1002-3RRG0+243LC5Y					0.04	0.012	0.01	0.011	±0.02	0.018	0.045	0.47				
BNK 1002-3RRG2+243LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.045	0.47				
BNK 1002-3RRG0+293LC3Y	200	235	247	293	0.03	0.009	0.008	0.007	±0.012	0.008	0.045	0.47				
BNK 1002-3RRG0+293LC5Y					0.04	0.012	0.01	0.011	±0.023	0.018	0.045	0.47				
BNK 1002-3RRG2+293LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.045	0.47				

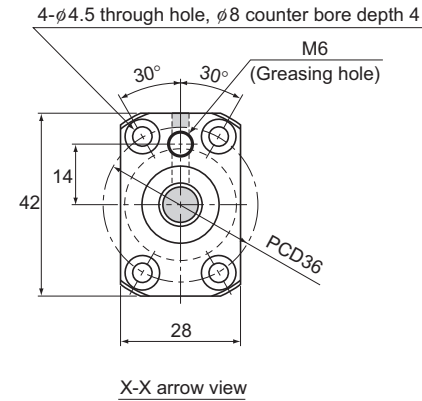
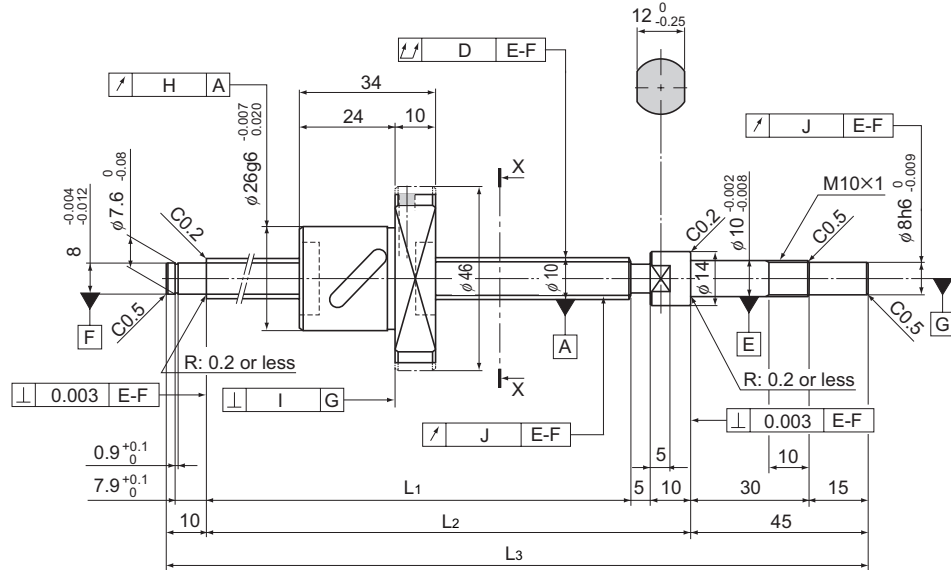
Note) A stainless steel type is also available for model BNK1002. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK1002-3RRG0+143LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK1004-2.5 Shaft diameter: 10; lead: 4



Ball Screw Specifications			
Lead (mm)	4		
BCD(mm)	10.5		
Thread minor diameter (mm)	7.8		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	2.5 turns × 1 row		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	2.1	3.4	3.4
Basic static load rating Ca(kN)	2.7	5.4	5.4
Preload torque (N-m)	9.8 × 10 <sup>-3</sup> to 4.9 × 10 <sup>-2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	50	100	
Circulation method	Return pipe		

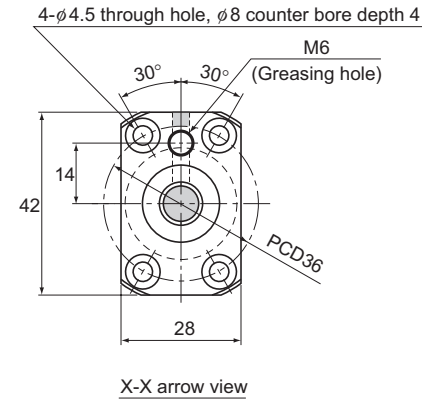
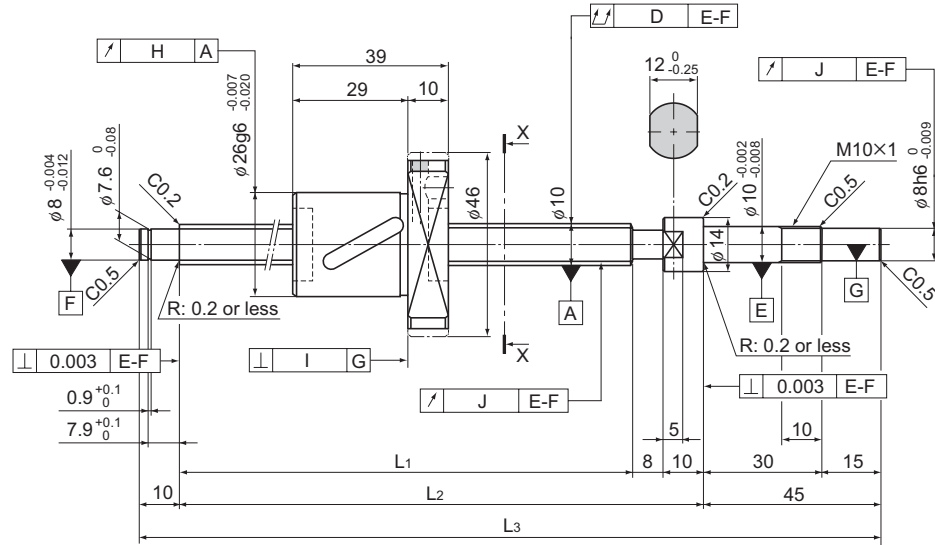
Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass kg	Shaft mass kg/m				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															±0.01	0.008
BNK 1004-2.5RRG0+180LC3Y	50	110	125	180	0.02	0.009	0.008	0.008	±0.01	0.008	0.15	0.32				
BNK 1004-2.5RRG0+180LC5Y					0.035	0.012	0.01	0.011	±0.02	0.018	0.15	0.32				
BNK 1004-2.5RRG2+180LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	0.32				
BNK 1004-2.5RRG0+230LC3Y	100	160	175	230	0.03	0.009	0.008	0.008	±0.01	0.008	0.15	0.32				
BNK 1004-2.5RRG0+230LC5Y					0.04	0.012	0.01	0.011	±0.02	0.018	0.15	0.32				
BNK 1004-2.5RRG2+230LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	0.32				
BNK 1004-2.5RRG0+280LC3Y	150	210	225	280	0.03	0.009	0.008	0.008	±0.012	0.008	0.15	0.32				
BNK 1004-2.5RRG0+280LC5Y					0.04	0.012	0.01	0.011	±0.023	0.018	0.15	0.32				
BNK 1004-2.5RRG2+280LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	0.32				
BNK 1004-2.5RRG0+330LC3Y	200	260	275	330	0.04	0.009	0.008	0.008	±0.012	0.008	0.15	0.32				
BNK 1004-2.5RRG0+330LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.15	0.32				
BNK 1004-2.5RRG2+330LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	0.32				
BNK 1004-2.5RRG0+380LC3Y	250	310	325	380	0.04	0.009	0.008	0.008	±0.012	0.008	0.15	0.32				
BNK 1004-2.5RRG0+380LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.15	0.32				
BNK 1004-2.5RRG2+380LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	0.32				

Note) For accuracy grades C3 and C5, clearance GT is also available as standard.

Unit: mm

Ball Screw

# BNK1010-1.5 Shaft diameter: 10; lead: 10



Ball Screw Specifications			
Lead (mm)	10		
BCD(mm)	10.5		
Thread minor diameter (mm)	7.8		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1.5 turns $\times$ 1 row		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating $C_a$ (kN)	1.3	2.1	2.1
Basic static load rating $C_0$ (kN)	1.6	3.1	3.1
Preload torque (N-m)	$9.8 \times 10^{-3}$ to $4.9 \times 10^{-2}$	—	—
Spacer ball	1 : 1	None	None
Rigidity value (N/ $\mu$ m)	70	140	
Circulation method	Return pipe		

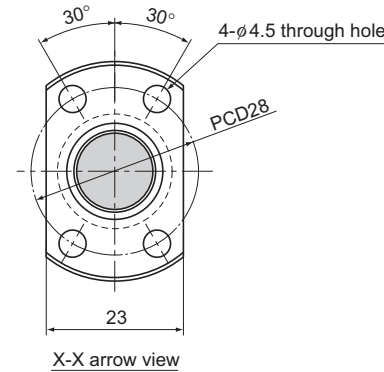
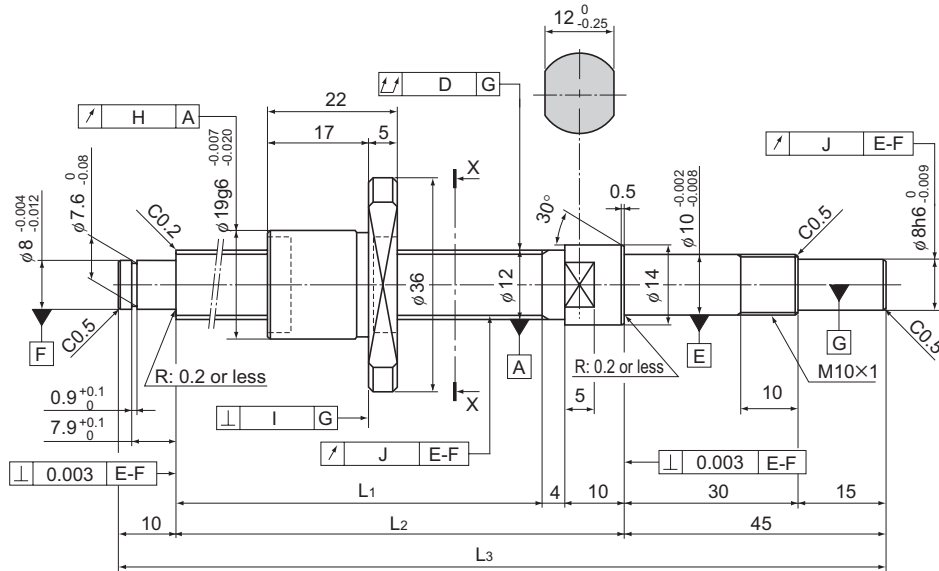
Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1010-1.5RRG0+240LC5Y	100	167	185	240	0.04	0.012	0.01	0.011	$\pm 0.02$	0.018	0.17	0.5
BNK 1010-1.5RRG2+240LC7Y					0.055	0.02	0.014	0.014	Travel distance: $\pm 0.05/300$	0.17	0.5	
BNK 1010-1.5RRG0+290LC5Y	150	217	235	290	0.04	0.012	0.01	0.011	$\pm 0.023$	0.018	0.17	0.5
BNK 1010-1.5RRG2+290LC7Y					0.055	0.02	0.014	0.014	Travel distance: $\pm 0.05/300$	0.17	0.5	
BNK 1010-1.5RRG0+340LC5Y	200	267	285	340	0.05	0.012	0.01	0.011	$\pm 0.023$	0.018	0.17	0.5
BNK 1010-1.5RRG2+340LC7Y					0.065	0.02	0.014	0.014	Travel distance: $\pm 0.05/300$	0.17	0.5	
BNK 1010-1.5RRG0+390LC5Y	250	317	335	390	0.05	0.012	0.01	0.011	$\pm 0.025$	0.02	0.17	0.5
BNK 1010-1.5RRG2+390LC7Y					0.065	0.02	0.014	0.014	Travel distance: $\pm 0.05/300$	0.17	0.5	
BNK 1010-1.5RRG0+440LC5Y	300	367	385	440	0.065	0.012	0.01	0.011	$\pm 0.025$	0.02	0.17	0.5
BNK 1010-1.5RRG2+440LC7Y					0.08	0.02	0.014	0.014	Travel distance: $\pm 0.05/300$	0.17	0.5	

Note) For accuracy grade C5, clearance GT is also standardized.

Unit: mm

Ball Screw

# BNK1202-3 Shaft diameter: 12; lead: 2



Ball Screw Specifications			
Lead (mm)	2		
BCD(mm)	12.3		
Thread minor diameter (mm)	11		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	1.7	1.7	1.7
Basic static load rating Ca(kN)	3.6	3.6	3.6
Preload torque (N-m)	9.8 × 10 <sup>-3</sup> to 3.4 × 10 <sup>-2</sup>	—	—
Spacer ball	None	None	None
Rigidity value(N/μm)	120		
Circulation method	Deflector		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1202-3RRG0+154LC3Y	50	85	99	154	0.02	0.01	0.008	0.007	±0.008	0.008	0.05	0.71
BNK 1202-3RRG0+154LC5Y					0.035	0.012	0.01	0.011	±0.018	0.018	0.05	0.71
BNK 1202-3RRG2+154LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300		0.05	0.71
BNK 1202-3RRG0+204LC3Y	100	135	149	204	0.03	0.01	0.008	0.007	±0.01	0.008	0.05	0.71
BNK 1202-3RRG0+204LC5Y					0.04	0.012	0.01	0.011	±0.02	0.018	0.05	0.71
BNK 1202-3RRG2+204LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.05	0.71
BNK 1202-3RRG0+254LC3Y	150	185	199	254	0.03	0.01	0.008	0.007	±0.01	0.008	0.05	0.71
BNK 1202-3RRG0+254LC5Y					0.04	0.012	0.01	0.011	±0.02	0.018	0.05	0.71
BNK 1202-3RRG2+254LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.05	0.71
BNK 1202-3RRG0+304LC3Y	200	235	249	304	0.04	0.01	0.008	0.007	±0.012	0.008	0.05	0.71
BNK 1202-3RRG0+304LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.05	0.71
BNK 1202-3RRG2+304LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.05	0.71
BNK 1202-3RRG0+354LC3Y	250	285	299	354	0.04	0.01	0.008	0.007	±0.012	0.008	0.05	0.71
BNK 1202-3RRG0+354LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.05	0.71
BNK 1202-3RRG2+354LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300		0.05	0.71

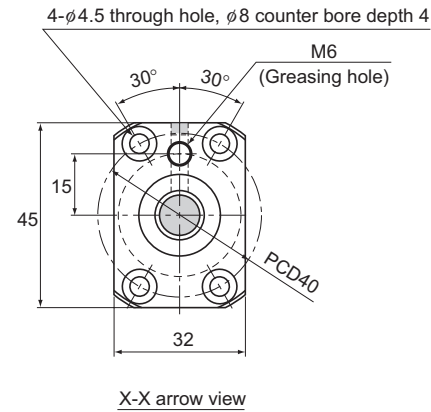
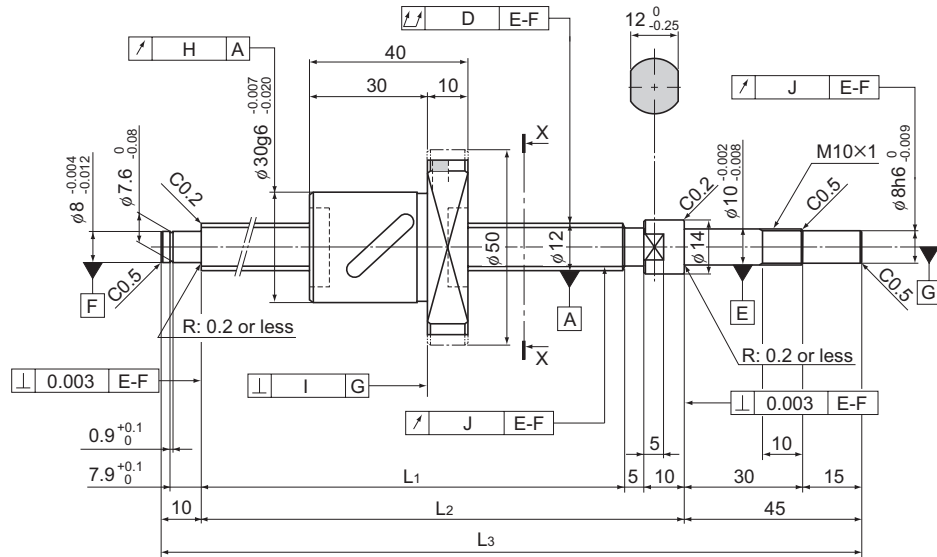
Note) A stainless steel type is also available for model BNK1202. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK1202-3RRG0+154LC3Y M

Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK1205-2.5 Shaft diameter: 12; lead: 5

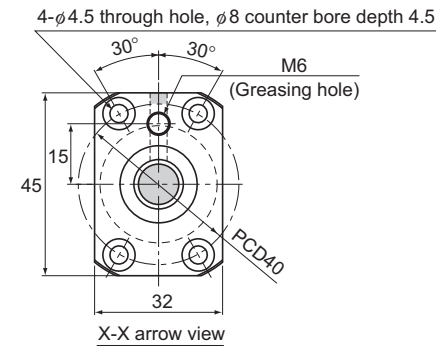
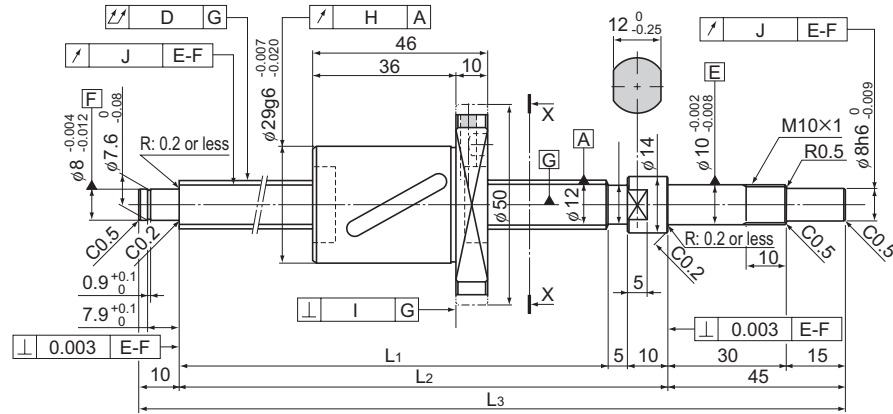


Ball Screw Specifications			
Lead (mm)	5		
BCD(mm)	12.3		
Thread minor diameter (mm)	9.6		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	2.5 turns × 1 row		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	2.3	3.7	3.7
Basic static load rating Ca(kN)	3.2	6.4	6.4
Preload torque (N-m)	9.8 × 10 <sup>-3</sup> to 4.9 × 10 <sup>-2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	60	120	
Circulation method	Return pipe		

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy		Nut mass	Shaft mass				
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					D	H			I	J	Representative travel distance error	Fluctuation
															kg	kg/m
BNK 1205-2.5RRG0+180LC3Y	50	110	125	180	0.02	0.009	0.008	0.008	±0.01	0.008	0.22	0.61				
BNK 1205-2.5RRG0+180LC5Y					0.035	0.012	0.01	0.011	±0.02	0.018	0.22	0.61				
BNK 1205-2.5RRG2+180LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300	0.22	0.61					
BNK 1205-2.5RRG0+230LC3Y	100	160	175	230	0.03	0.009	0.008	0.008	±0.01	0.008	0.22	0.61				
BNK 1205-2.5RRG0+230LC5Y					0.04	0.012	0.01	0.011	±0.02	0.018	0.22	0.61				
BNK 1205-2.5RRG2+230LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300	0.22	0.61					
BNK 1205-2.5RRG0+280LC3Y	150	210	225	280	0.03	0.009	0.008	0.008	±0.012	0.008	0.22	0.61				
BNK 1205-2.5RRG0+280LC5Y					0.04	0.012	0.01	0.011	±0.023	0.018	0.22	0.61				
BNK 1205-2.5RRG2+280LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300	0.22	0.61					
BNK 1205-2.5RRG0+330LC3Y	200	260	275	330	0.04	0.009	0.008	0.008	±0.012	0.008	0.22	0.61				
BNK 1205-2.5RRG0+330LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.22	0.61				
BNK 1205-2.5RRG2+330LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300	0.22	0.61					
BNK 1205-2.5RRG0+380LC3Y	250	310	325	380	0.04	0.009	0.008	0.008	±0.012	0.008	0.22	0.61				
BNK 1205-2.5RRG0+380LC5Y					0.05	0.012	0.01	0.011	±0.023	0.018	0.22	0.61				
BNK 1205-2.5RRG2+380LC7Y					0.065	0.02	0.014	0.014	Travel distance: ±0.05/300	0.22	0.61					

Note) For accuracy grades C3 and C5, clearance GT is also available as standard.

# BNK1208-2.6 Shaft diameter: 12; lead: 8

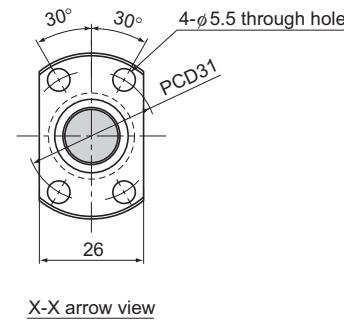
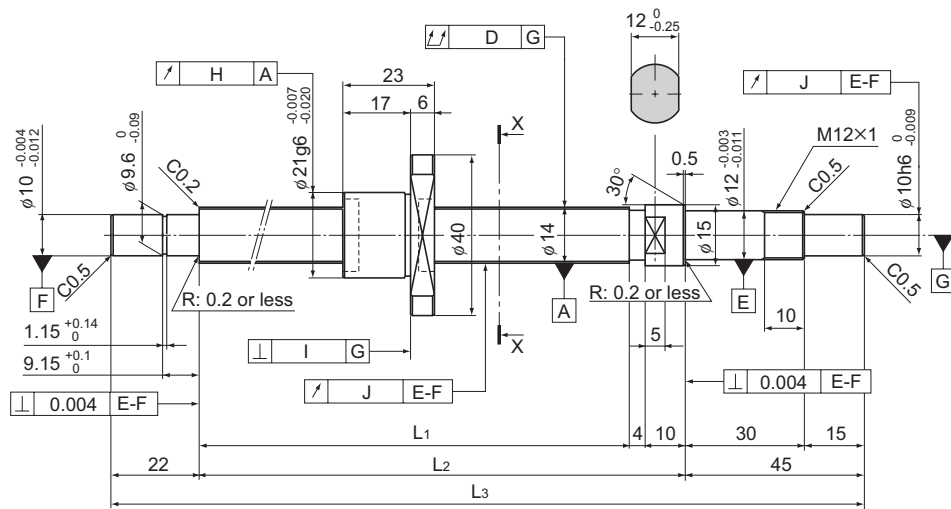


Ball Screw Specifications	
Lead (mm)	8
BCD(mm)	12.65
Thread minor diameter (mm)	9.7
Threading direction, No. of threaded grooves	Rightward, 1
No. of circuits	2.6 turns × 1 row
Clearance symbol	G2
Axial clearance (mm)	0.02 or less
Basic dynamic load rating $C_a$ (kN)	4.7
Basic static load rating $C_{0a}$ (kN)	7.5
Preload torque (N-m)	—
Spacer ball	None
Rigidity value(N/μm)	127
Circulation method	Return pipe

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis	Runout of the nut circumference	Flange perpendicularity	Runout of the thread groove surface	Lead angle accuracy	Nut mass	Shaft mass
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>							
BNK 1208-2.6RRG2+180LC7Y	50	110	125	180	0.04	0.02	0.014	0.014	Travel distance: ±0.05/300	0.269	0.64
BNK 1208-2.6RRG2+230LC7Y	100	160	175	230	0.055	0.02	0.014	0.014	Travel distance: ±0.05/300	0.269	0.64
BNK 1208-2.6RRG2+280LC7Y	150	210	225	280	0.055	0.02	0.014	0.014	Travel distance: ±0.05/300	0.269	0.64
BNK 1208-2.6RRG2+330LC7Y	200	260	275	330	0.065	0.02	0.014	0.014	Travel distance: ±0.05/300	0.269	0.64
BNK 1208-2.6RRG2+380LC7Y	250	310	325	380	0.065	0.02	0.014	0.014	Travel distance: ±0.05/300	0.269	0.64

# BNK1402-3 Shaft diameter: 14; lead: 2



Ball Screw Specifications			
Lead (mm)	2		
BCD(mm)	14.3		
Thread minor diameter (mm)	13		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	1.8	1.8	1.8
Basic static load rating Ca(kN)	4.3	4.3	4.3
Preload torque (N-m)	4.9 × 10 <sup>-3</sup> to 4.9 × 10 <sup>-2</sup>	—	—
Spacer ball	None	None	None
Rigidity value(N/μm)	140		
Circulation method	Deflector		

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1402-3RRG0+166LC3Y	50	85	99	166	0.02	0.01	0.008	0.009	±0.008	0.008	0.15	1.0
BNK 1402-3RRG0+166LC5Y					0.025	0.012	0.01	0.012	±0.018	0.018	0.15	1.0
BNK 1402-3RRG2+166LC7Y					0.04	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	1.0
BNK 1402-3RRG0+216LC3Y	100	135	149	216	0.025	0.01	0.008	0.009	±0.01	0.008	0.15	1.0
BNK 1402-3RRG0+216LC5Y					0.03	0.012	0.01	0.012	±0.02	0.018	0.15	1.0
BNK 1402-3RRG2+216LC7Y					0.045	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	1.0
BNK 1402-3RRG0+266LC3Y	150	185	199	266	0.025	0.01	0.008	0.009	±0.01	0.008	0.15	1.0
BNK 1402-3RRG0+266LC5Y					0.03	0.012	0.01	0.012	±0.02	0.018	0.15	1.0
BNK 1402-3RRG2+266LC7Y					0.045	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	1.0
BNK 1402-3RRG0+316LC3Y	200	235	249	316	0.03	0.01	0.008	0.009	±0.012	0.008	0.15	1.0
BNK 1402-3RRG0+316LC5Y					0.04	0.012	0.01	0.012	±0.023	0.018	0.15	1.0
BNK 1402-3RRG2+316LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	1.0
BNK 1402-3RRG0+416LC3Y	300	335	349	416	0.04	0.01	0.008	0.009	±0.013	0.01	0.15	1.0
BNK 1402-3RRG0+416LC5Y					0.05	0.012	0.01	0.012	±0.025	0.02	0.15	1.0
BNK 1402-3RRG2+416LC7Y					0.06	0.02	0.014	0.014	Travel distance: ±0.05/300		0.15	1.0

Note) A stainless steel type is also available for model BNK1402. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK1402-3RRG0+166LC3Y M

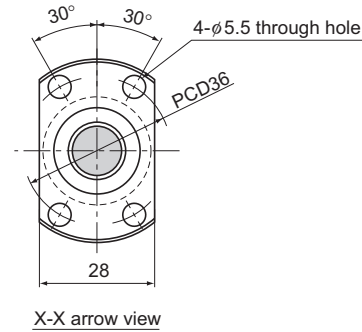
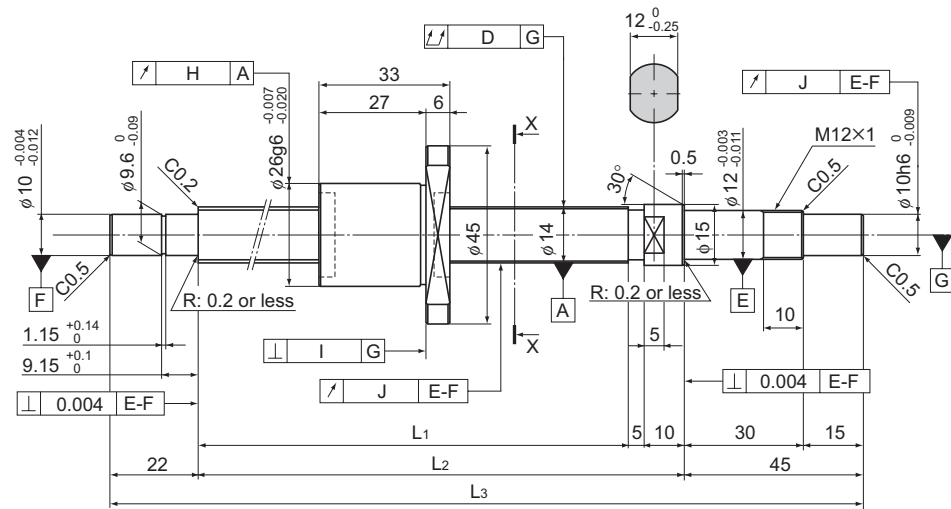
Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

Unit: mm

Ball Screw

# BNK1404-3 Shaft diameter: 14; lead: 4



Ball Screw Specifications			
Lead (mm)	4		
BCD(mm)	14.65		
Thread minor diameter (mm)	12.2		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	1 turn × 3 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	4.2	4.2	4.2
Basic static load rating Ca(kN)	7.6	7.6	7.6
Preload torque (N·m)	9.8 × 10 <sup>-3</sup> to 6.9 × 10 <sup>-2</sup>	—	—
Spacer ball	None	None	None
Rigidity value(N/μm)	190		
Circulation method	Deflector		

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1404-3RRG0+230LC3Y	100	148	163	230	0.025	0.01	0.008	0.009	±0.01	0.008	0.13	0.8
BNK 1404-3RRG0+230LC5Y					0.03	0.012	0.01	0.012	±0.02	0.018	0.13	0.8
BNK 1404-3RRG2+230LC7Y					0.045	0.02	0.014	0.014	Travel distance: ±0.05/300		0.13	0.8
BNK 1404-3RRG0+280LC3Y	150	198	213	280	0.025	0.01	0.008	0.009	±0.01	0.008	0.13	0.8
BNK 1404-3RRG0+280LC5Y					0.03	0.012	0.01	0.012	±0.02	0.018	0.13	0.8
BNK 1404-3RRG2+280LC7Y					0.045	0.02	0.014	0.014	Travel distance: ±0.05/300		0.13	0.8
BNK 1404-3RRG0+330LC3Y	200	248	263	330	0.03	0.01	0.008	0.009	±0.012	0.008	0.13	0.8
BNK 1404-3RRG0+330LC5Y					0.04	0.012	0.01	0.012	±0.023	0.018	0.13	0.8
BNK 1404-3RRG2+330LC7Y					0.055	0.02	0.014	0.014	Travel distance: ±0.05/300		0.13	0.8
BNK 1404-3RRG0+430LC3Y	300	348	363	430	0.04	0.01	0.008	0.009	±0.013	0.01	0.13	0.8
BNK 1404-3RRG0+430LC5Y					0.05	0.012	0.01	0.012	±0.025	0.02	0.13	0.8
BNK 1404-3RRG2+430LC7Y					0.06	0.02	0.014	0.014	Travel distance: ±0.05/300		0.13	0.8
BNK 1404-3RRG0+530LC3Y	400	448	463	530	0.045	0.01	0.008	0.009	±0.015	0.01	0.13	0.8
BNK 1404-3RRG0+530LC5Y					0.055	0.012	0.01	0.012	±0.027	0.02	0.13	0.8
BNK 1404-3RRG2+530LC7Y					0.075	0.02	0.014	0.014	Travel distance: ±0.05/300		0.13	0.8

Note) A stainless steel type is also available for model BNK1404. When placing an order, add symbol "M" to the end of the model number.

(Example) BNK1404-3RRG0+230LC3Y M

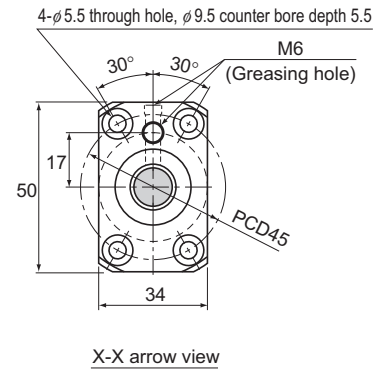
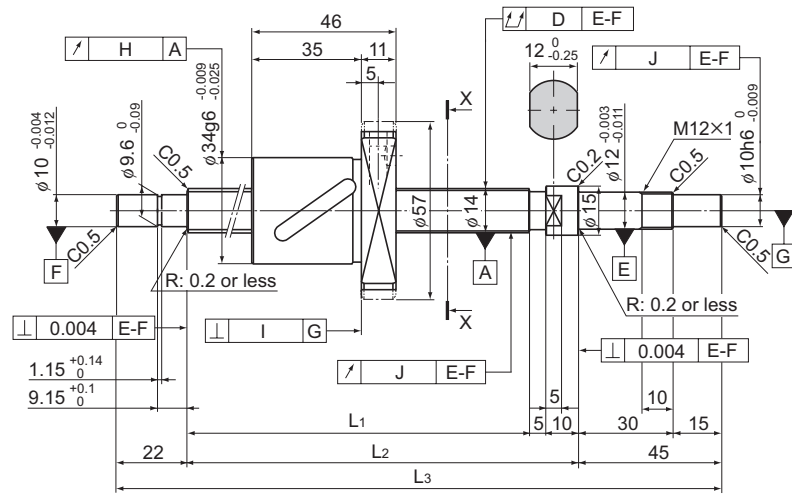
Symbol for stainless steel type

For accuracy grades C3 and C5, clearance GT is also available as standard.

Unit: mm

Ball Screw

# BNK1408-2.5 Shaft diameter: 14; lead: 8



Ball Screw Specifications			
Lead (mm)	8		
BCD(mm)	14.75		
Thread minor diameter (mm)	11.2		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	2.5 turns × 1 row		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	4.3	6.9	6.9
Basic static load rating Ca0 (kN)	5.8	11.5	11.5
Preload torque (N·m)	2×10 <sup>2</sup> to 7.8×10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	80	150	
Circulation method	Return pipe		

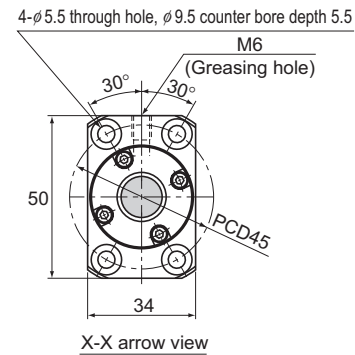
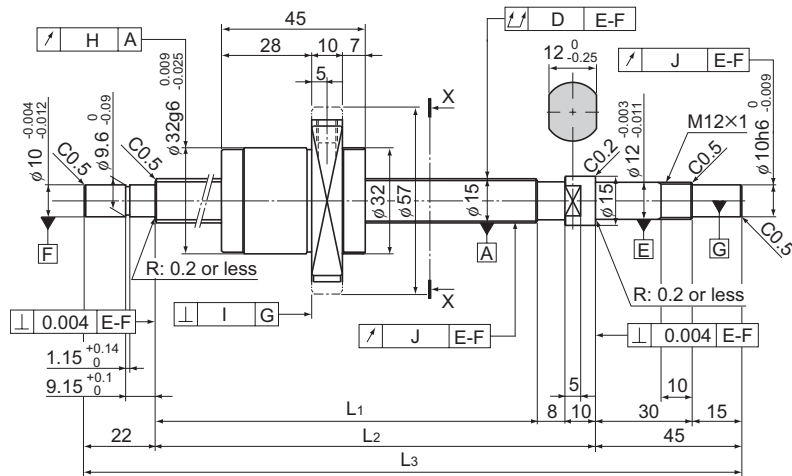
Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1408-2.5RRG0+321LC5Y	150	239	254	321	0.035	0.015	0.011	0.012	±0.023	0.018	0.29	0.84
BNK 1408-2.5RRG2+321LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+371LC5Y	200	289	304	371	0.035	0.015	0.011	0.012	±0.023	0.018	0.29	0.84
BNK 1408-2.5RRG2+371LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+421LC5Y	250	339	354	421	0.04	0.015	0.011	0.012	±0.025	0.02	0.29	0.84
BNK 1408-2.5RRG2+421LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+471LC5Y	300	389	404	471	0.04	0.015	0.011	0.012	±0.025	0.02	0.29	0.84
BNK 1408-2.5RRG2+471LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+521LC5Y	350	439	454	521	0.05	0.015	0.011	0.012	±0.027	0.02	0.29	0.84
BNK 1408-2.5RRG2+521LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+571LC5Y	400	489	504	571	0.05	0.015	0.011	0.012	±0.027	0.02	0.29	0.84
BNK 1408-2.5RRG2+571LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+621LC5Y	450	539	554	621	0.05	0.015	0.011	0.012	±0.03	0.023	0.29	0.84
BNK 1408-2.5RRG2+621LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+671LC5Y	500	589	604	671	0.065	0.015	0.011	0.012	±0.03	0.023	0.29	0.84
BNK 1408-2.5RRG2+671LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+721LC5Y	550	639	654	721	0.065	0.015	0.011	0.012	±0.035	0.025	0.29	0.84
BNK 1408-2.5RRG2+721LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+771LC5Y	600	689	704	771	0.065	0.015	0.011	0.012	±0.035	0.025	0.29	0.84
BNK 1408-2.5RRG2+771LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	
BNK 1408-2.5RRG0+871LC5Y	700	789	804	871	0.085	0.015	0.011	0.012	±0.035	0.025	0.29	0.84
BNK 1408-2.5RRG2+871LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.29	0.84	

Note) For accuracy grade C5, clearance GT is also standardized. Plug the unused oil hole before using the product.



# BNK1520-3 Shaft diameter: 15; lead: 20



Ball Screw Specifications			
Lead (mm)	20		
BCD(mm)	15.75		
Thread minor diameter (mm)	12.5		
Threading direction, No. of threaded grooves	Rightward, 2		
No. of circuits	1.5 turns × 2 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	5.1	8	8
Basic static load rating Ca0(kN)	7.9	15.8	15.8
Preload torque (N·m)	2×10 <sup>2</sup> to 8.8×10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	110	200	
Circulation method	End cap		

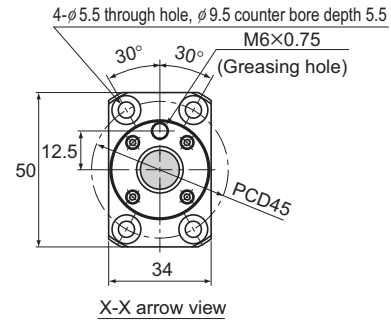
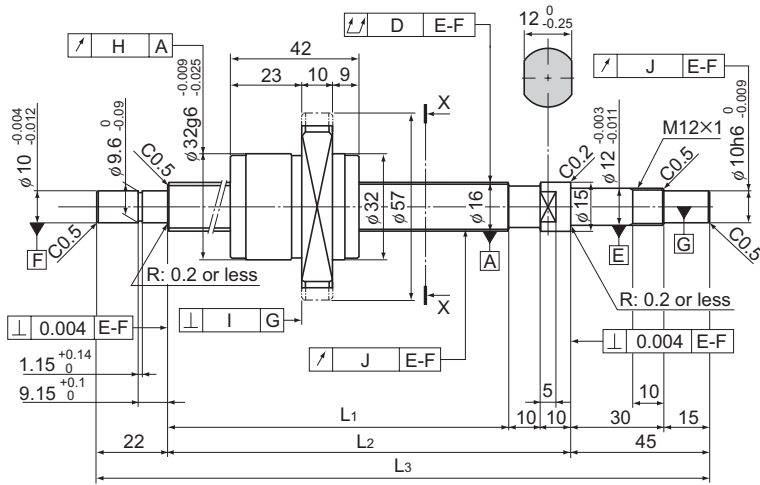
Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1520-3G0+321LC5Y	150	236	254	321	0.035	0.015	0.011	0.012	±0.023	0.018	0.32	1.05
BNK 1520-3G2+321LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+371LC5Y	200	286	304	371	0.035	0.015	0.011	0.012	±0.023	0.018	0.32	1.05
BNK 1520-3G2+371LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+421LC5Y	250	336	354	421	0.04	0.015	0.011	0.012	±0.025	0.02	0.32	1.05
BNK 1520-3G2+421LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+471LC5Y	300	386	404	471	0.04	0.015	0.011	0.012	±0.025	0.02	0.32	1.05
BNK 1520-3G2+471LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+521LC5Y	350	436	454	521	0.05	0.015	0.011	0.012	±0.027	0.02	0.32	1.05
BNK 1520-3G2+521LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+571LC5Y	400	486	504	571	0.05	0.015	0.011	0.012	±0.027	0.02	0.32	1.05
BNK 1520-3G2+571LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+621LC5Y	450	536	554	621	0.05	0.015	0.011	0.012	±0.03	0.023	0.32	1.05
BNK 1520-3G2+621LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+671LC5Y	500	586	604	671	0.065	0.015	0.011	0.012	±0.03	0.023	0.32	1.05
BNK 1520-3G2+671LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+721LC5Y	550	636	654	721	0.065	0.015	0.011	0.012	±0.035	0.025	0.32	1.05
BNK 1520-3G2+721LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+771LC5Y	600	686	704	771	0.065	0.015	0.011	0.012	±0.035	0.025	0.32	1.05
BNK 1520-3G2+771LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+871LC5Y	700	786	804	871	0.085	0.015	0.011	0.012	±0.035	0.025	0.32	1.05
BNK 1520-3G2+871LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	
BNK 1520-3G0+971LC5Y	800	886	904	971	0.085	0.015	0.011	0.012	±0.04	0.027	0.32	1.05
BNK 1520-3G2+971LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.32	1.05	

Note) For accuracy grade C5, clearance GT is also standardized.

Ball Screw

# BNK1616-3.6 Shaft diameter: 16; lead: 16



Ball Screw Specifications			
Lead (mm)	16		
BCD(mm)	16.65		
Thread minor diameter (mm)	13.7		
Threading direction, No. of threaded grooves	Rightward, 2		
No. of circuits	1.8 turns × 2 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	4.4	7.1	7.1
Basic static load rating Ca0 (kN)	7.2	14.3	14.3
Preload torque (N·m)	2 × 10 <sup>2</sup> to 9.8 × 10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value (N/μm)	120	230	
Circulation method	End cap		

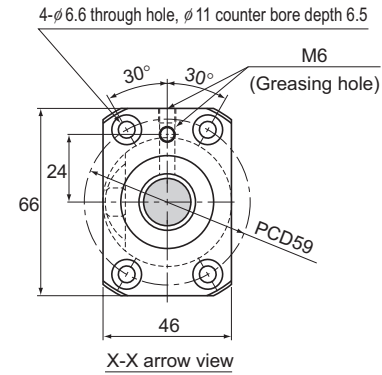
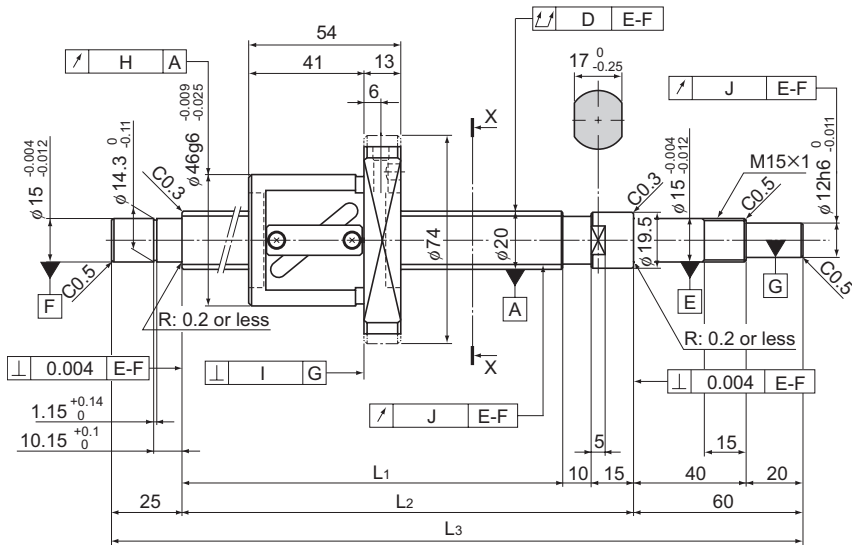
Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 1616-3.6G0+321LC5Y	150	234	254	321	0.035	0.015	0.011	0.012	±0.023	0.018	0.2	1.25
BNK 1616-3.6G2+321LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+371LC5Y	200	284	304	371	0.035	0.015	0.011	0.012	±0.023	0.018	0.2	1.25
BNK 1616-3.6G2+371LC7Y					0.055	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+421LC5Y	250	334	354	421	0.04	0.015	0.011	0.012	±0.025	0.02	0.2	1.25
BNK 1616-3.6G2+421LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+471LC5Y	300	384	404	471	0.04	0.015	0.011	0.012	±0.025	0.02	0.2	1.25
BNK 1616-3.6G2+471LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+521LC5Y	350	434	454	521	0.05	0.015	0.011	0.012	±0.027	0.02	0.2	1.25
BNK 1616-3.6G2+521LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+571LC5Y	400	484	504	571	0.05	0.015	0.011	0.012	±0.027	0.02	0.2	1.25
BNK 1616-3.6G2+571LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+621LC5Y	450	534	554	621	0.05	0.015	0.011	0.012	±0.03	0.023	0.2	1.25
BNK 1616-3.6G2+621LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+671LC5Y	500	584	604	671	0.065	0.015	0.011	0.012	±0.03	0.023	0.2	1.25
BNK 1616-3.6G2+671LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+721LC5Y	550	634	654	721	0.065	0.015	0.011	0.012	±0.035	0.025	0.2	1.25
BNK 1616-3.6G2+721LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+771LC5Y	600	684	704	771	0.065	0.015	0.011	0.012	±0.035	0.025	0.2	1.25
BNK 1616-3.6G2+771LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+871LC5Y	700	784	804	871	0.085	0.015	0.011	0.012	±0.035	0.025	0.2	1.25
BNK 1616-3.6G2+871LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	
BNK 1616-3.6G0+971LC5Y	800	884	904	971	0.085	0.015	0.011	0.012	±0.04	0.027	0.2	1.25
BNK 1616-3.6G2+971LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.2	1.25	

Note) For accuracy grade C5, clearance GT is also standardized.

Ball Screw

# BNK2010-2.5 Shaft diameter: 20; lead: 10



Ball Screw Specifications			
Lead (mm)	10		
BCD(mm)	21		
Thread minor diameter (mm)	16.4		
Threading direction, No. of threaded grooves	Rightward, 1		
No. of circuits	2.5 turns × 1 row		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	7	11.1	11.1
Basic static load rating Ca0(kN)	11	22	22
Preload torque (N-m)	2×10 <sup>2</sup> to 9.8×10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	110	210	
Circulation method	Return pipe		

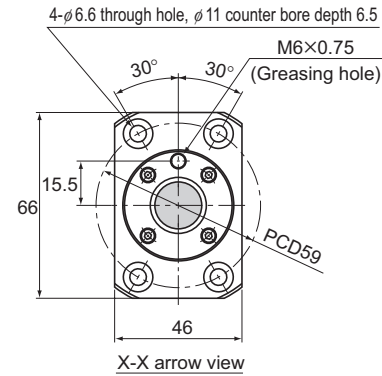
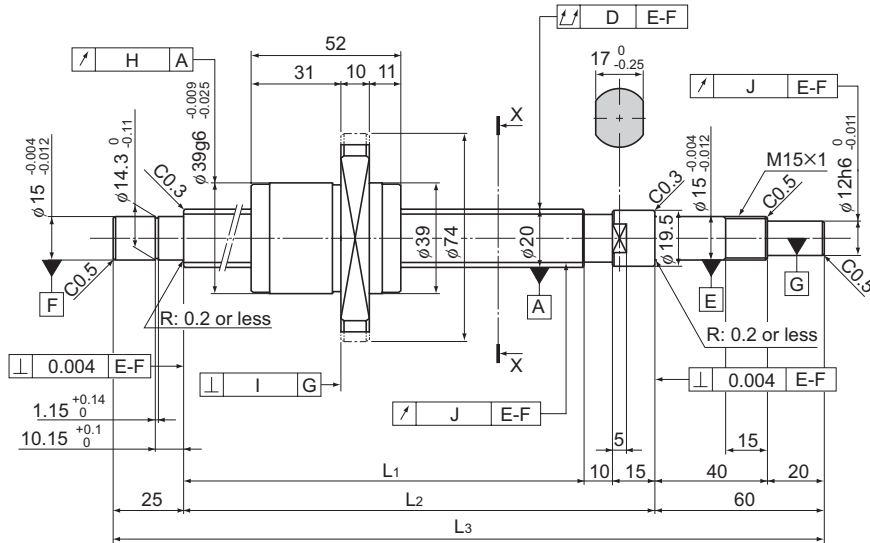
Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 2010-2.5RRG0+499LC5Y	300	389	414	499	0.04	0.015	0.011	0.012	±0.025	0.02	0.58	1.81
BNK 2010-2.5RRG2+499LC7Y					0.06	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+599LC5Y	400	489	514	599	0.05	0.015	0.011	0.012	±0.027	0.02	0.58	1.81
BNK 2010-2.5RRG2+599LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+699LC5Y	500	589	614	699	0.065	0.015	0.011	0.012	±0.03	0.023	0.58	1.81
BNK 2010-2.5RRG2+699LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+799LC5Y	600	689	714	799	0.065	0.015	0.011	0.012	±0.035	0.025	0.58	1.81
BNK 2010-2.5RRG2+799LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+899LC5Y	700	789	814	899	0.085	0.015	0.011	0.012	±0.035	0.025	0.58	1.81
BNK 2010-2.5RRG2+899LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+999LC5Y	800	889	914	999	0.085	0.015	0.011	0.012	±0.04	0.027	0.58	1.81
BNK 2010-2.5RRG2+999LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+1099LC5Y	900	989	1014	1099	0.11	0.015	0.011	0.012	±0.04	0.027	0.58	1.81
BNK 2010-2.5RRG2+1099LC7Y					0.15	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+1199LC5Y	1000	1089	1114	1199	0.11	0.015	0.011	0.012	±0.046	0.03	0.58	1.81
BNK 2010-2.5RRG2+1199LC7Y					0.15	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	
BNK 2010-2.5RRG0+1299LC5Y	1100	1189	1214	1299	0.15	0.015	0.011	0.012	±0.046	0.03	0.58	1.81
BNK 2010-2.5RRG2+1299LC7Y					0.19	0.03	0.018	0.014	Travel distance: ±0.05/300	0.58	1.81	

Note) For accuracy grade C5, clearance GT is also standardized.  
Plug the unused oil hole before using the product.

Ball Screw

# BNK2020-3.6 Shaft diameter: 20; lead: 20



Ball Screw Specifications			
Lead (mm)	20		
BCD(mm)	20.75		
Thread minor diameter (mm)	17.5		
Threading direction, No. of threaded grooves	Rightward, 2		
No. of circuits	1.8 turns × 2 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	7	11.1	11.1
Basic static load rating Ca(kN)	12.3	24.7	24.7
Preload torque (N-m)	2×10 <sup>2</sup> to 9.8×10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	160	290	
Circulation method	End cap		

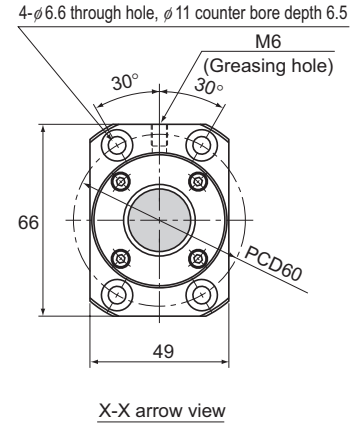
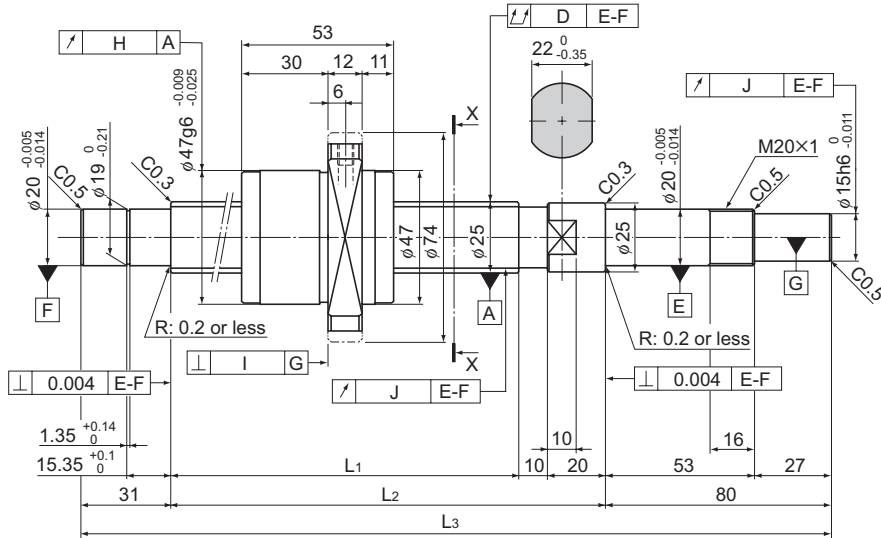
Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 2020-3.6G0+520LC5Y	300	410	435	520	0.05	0.015	0.011	0.012	±0.027	0.02	0.39	2.04
BNK 2020-3.6G2+520LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+620LC5Y	400	510	535	620	0.05	0.015	0.011	0.012	±0.03	0.023	0.39	2.04
BNK 2020-3.6G2+620LC7Y					0.075	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+720LC5Y	500	610	635	720	0.065	0.015	0.011	0.012	±0.03	0.023	0.39	2.04
BNK 2020-3.6G2+720LC7Y					0.09	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+820LC5Y	600	710	735	820	0.085	0.015	0.011	0.012	±0.035	0.025	0.39	2.04
BNK 2020-3.6G2+820LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+920LC5Y	700	810	835	920	0.085	0.015	0.011	0.012	±0.04	0.027	0.39	2.04
BNK 2020-3.6G2+920LC7Y					0.12	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+1020LC5Y	800	910	935	1020	0.11	0.015	0.011	0.012	±0.04	0.027	0.39	2.04
BNK 2020-3.6G2+1020LC7Y					0.15	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+1120LC5Y	900	1010	1035	1120	0.11	0.015	0.011	0.012	±0.046	0.03	0.39	2.04
BNK 2020-3.6G2+1120LC7Y					0.15	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+1220LC5Y	1000	1110	1135	1220	0.11	0.015	0.011	0.012	±0.046	0.03	0.39	2.04
BNK 2020-3.6G2+1220LC7Y					0.15	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04
BNK 2020-3.6G0+1320LC5Y	1100	1210	1235	1320	0.15	0.015	0.011	0.012	±0.046	0.03	0.39	2.04
BNK 2020-3.6G2+1320LC7Y					0.19	0.03	0.018	0.014	Travel distance: ±0.05/300		0.39	2.04

Note) For accuracy grade C5, clearance GT is also standardized.

Ball Screw

# BNK2520-3.6 Shaft diameter: 25; lead: 20



Ball Screw Specifications			
Lead (mm)	20		
BCD(mm)	26		
Thread minor diameter (mm)	21.9		
Threading direction, No. of threaded grooves	Rightward, 2		
No. of circuits	1.8 turns × 2 rows		
Clearance symbol	G0	GT	G2
Axial clearance (mm)	0	0.005 or less	0.02 or less
Basic dynamic load rating Ca (kN)	10.5	16.7	16.7
Basic static load rating Ca(kN)	19	38	38
Preload torque (N-m)	4.9 × 10 <sup>2</sup> to 2.2 × 10 <sup>2</sup>	—	—
Spacer ball	1 : 1	None	None
Rigidity value(N/μm)	190	360	
Circulation method	End cap		

Unit: mm

Model No.	Stroke	Screw shaft length			Runout of the screw shaft axis D	Runout of the nut circumference H	Flange perpendicularity I	Runout of the thread groove surface J	Lead angle accuracy		Nut mass kg	Shaft mass kg/m
		L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>					Representative travel distance error	Fluctuation		
BNK 2520-3.6G0+751LC5Y	500	610	640	751	0.055	0.015	0.011	0.013	±0.03	0.023	0.53	3.03
BNK 2520-3.6G2+751LC7Y					0.07	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+851LC5Y	600	710	740	851	0.065	0.015	0.011	0.013	±0.035	0.025	0.53	3.03
BNK 2520-3.6G2+851LC7Y					0.085	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+1051LC5Y	800	910	940	1051	0.085	0.015	0.011	0.013	±0.04	0.027	0.53	3.03
BNK 2520-3.6G2+1051LC7Y					0.1	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+1251LC5Y	1000	1110	1140	1251	0.11	0.015	0.011	0.013	±0.046	0.03	0.53	3.03
BNK 2520-3.6G2+1251LC7Y					0.13	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+1451LC5Y	1200	1310	1340	1451	0.11	0.015	0.011	0.013	±0.054	0.035	0.53	3.03
BNK 2520-3.6G2+1451LC7Y					0.13	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+1651LC5Y	1400	1510	1540	1651	0.14	0.015	0.011	0.013	±0.054	0.035	0.53	3.03
BNK 2520-3.6G2+1651LC7Y					0.17	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	
BNK 2520-3.6G0+1851LC5Y	1600	1710	1740	1851	0.14	0.015	0.011	0.013	±0.065	0.04	0.53	3.03
BNK 2520-3.6G2+1851LC7Y					0.17	0.03	0.018	0.02	Travel distance: ±0.05/300	0.53	3.03	

Note) For accuracy grade C5, clearance GT is also standardized.

Ball Screw