

Customized Ground Ball Screws

GR/GD/FR

Standard ground ball screws "GR Series (tube method)", "GD Series (deflector method)" and "FR Series (end deflector method)" are standardized, and lineups of various nut types are also available.

COMBINATION OF ACCURACY AND AXIAL CLEARANCE

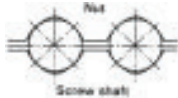
- Single nut, Preloaded: C0S-C5S
- Single nut, Axial clearance 0.005mm or less: C1F-C5F
- Single nut, Axial clearance 0.030mm or less: C4M, C5M, C7M
- Single nut, Axial clearance 0.20mm or less: C7L, C10L
- Double nut, Preloaded: C0S-C5S
- Integral nut, Preloaded: C0S-C5S



● Single Nut Preloaded



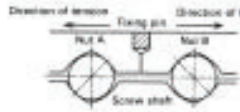
Oversized Ball



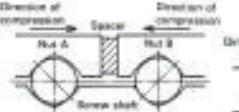
● Double Nut Preloaded



Tension



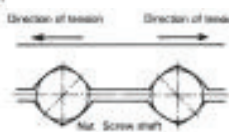
Compression



● Integral Nut Preloaded



Offset Preload



● Others

Contact KURODA for any customized Ball screw as below.
Stainless steel ball screw.
Right and left handed ball screw.
Surface treatment.
Special grease,
and so on

● Accuracy Grade And Manufacturable Length of Screw Shaft

Accuracy grade	Length of Screw shaft								
	C0	C1	C2	C3	C4	C5	C7	C10	
Screw shaft Dia.(mm)	φ5	90	120	120	140	140	140	—	—
	φ6	160	180	180	210	210	210	—	—
	φ8	240	280	280	340	340	340	340	—
	φ10	340	400	400	480	480	500	500	—
	φ12	420	500	500	600	600	700	700	—
	φ15	500	600	600	700	800	1500	1500	1500
	φ16	500	600	600	700	800	1500	1500	1500
	φ20	800	900	1100	1400	1400	1600	1800	1800
	φ25	1100	1300	1600	1800	1800	2000	2300	2300
	φ28	1200	1500	1800	2000	2000	2200	2600	2600
	φ32	1600	1800	2200	2500	2500	2800	3200	3600
	φ36	1800	2000	2500	2800	2800	3100	3600	4000
	φ40	2000	2200	2800	3200	3200	3600	4600	4600
	φ45	2000	2300	3000	3600	3600	4100	5000	5200
	φ50	2000	2800	3600	4000	4000	4500	5700	5700
	φ55	2000	3000	4000	5000	5000	5700	5700	5700
	φ63	2000	3000	4500	5200	5200	5700	5700	5700
φ70	—	3000	4500	5500	5500	5700	5700	5700	
φ80	—	3000	4500	5500	5500	5700	5700	5700	
φ100	—	3000	4500	5500	5500	5700	5700	5700	
φ125	—	3000	4500	5500	5500	5700	5700	5700	

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

● Screw Shaft Dia. & Lead Combination

Screw shaft Dia. (mm)	Lead (mm)																			
	1	1.5	2	2.5	3	4	5	6	8	10	12	15	16	20	24	25	32	40	50	
5	○																			
6	* △		*				*	*												
8	* △	○	○ △	○	○ △	○ △	○ △	*	○	○										
10	* △	○	○ △	○	○ △	○ △	○ △	*	*	○			*							
12	○	○	○ △	○ △	○ △	○ △	○ △	○ △	*	*		*		○						
14			*		*	○ △	*	*	*	*		*								
15			○		○	○ △	○ △	○ △	○ △	○ △		*		○						
16			*		*	○ △	○ △	○ △	○ △	○ △		*		○	*					
20			*	○	*	○ △	○ △	○ △	○ △	○ △	○ △	*		○	○					
25			*	*	*	○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
28					*	○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
32					*	○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
36						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
40						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
45						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
50						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
55						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
63						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
70						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
80						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
100						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	
125						○ △	○ △	○ △	○ △	○ △	○ △	*	*	○	○	*			○	

○:GR series(Single nut) ●:GR series(Integral nut) ○:GR series(Double nut)
△:GD series(Single nut) ▼:GD series(Integral nut) ◇:FR series(Single nut) * :Made to order
①:Tube method, Single nut ②:Tube method, Double nut ③:Tube method, Integral nut
④:Deflector method, Single nut ⑤:Deflector method, Integral nut ⑥:End deflector method, Single nut