

# CUSTOMIZED GROUND BALL SCREWS

## GR, GD series

Screw shaft diameter  $\varnothing 5$ - $\varnothing 125$ , Accuracy grade C0-C10

Customized ground ball screws of single nut type, integral nut type and double nut type using tube method (GR series) and deflector method (GD series) with a range of small diameter ( $\varnothing 5$ ) to large diameter ( $\varnothing 125$ ) are available.

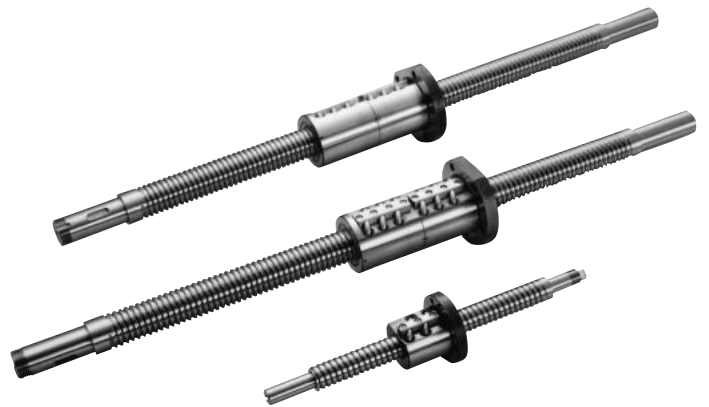
Moreover, those of JIS C0 to C10 grade accuracy can be manufactured.

### Availability of Customised Ball Screw range

The range of screw shafts that can be manufactured to meet each accuracy grade of customized ground ball screws is shown below:

When the slenderness ratio (shaft length per shaft diameter) is large, it is sometimes difficult to manufacture a ball screw with the desired accuracy.

The following table shows the maximum length of screw shafts of each accuracy grade that can be manufactured in the standard process. When ball screws exceeding the manufacturable range are required, contact KURODA.



(Unit:mm)

Accuracy grade		Manufacturable range of screw shaft length							
		C0	C1	C2	C3	C4	C5	C7	C10
Screw shaft diameter	$\varnothing 5$	90	120	120	140	140	140	-	-
	$\varnothing 6$	160	180	180	210	210	210	-	-
	$\varnothing 8$	240	280	280	340	340	340	340	-
	$\varnothing 10$	340	400	400	480	480	500	500	-
	$\varnothing 12$	420	500	500	600	600	700	700	-
	$\varnothing 15$	500	600	600	700	800	1300	1300	1300
	$\varnothing 16$	500	600	600	700	800	1300	1300	1300
	$\varnothing 20$	800	900	1100	1400	1400	1600	1800	1800
	$\varnothing 25$	1100	1300	1600	1800	1800	2000	2300	2300
	$\varnothing 28$	1200	1500	1800	2000	2000	2200	2600	2600
	$\varnothing 32$	1600	1800	2200	2500	2500	2800	3200	3600
	$\varnothing 36$	1800	2000	2500	2800	2800	3100	3600	4000
	$\varnothing 40$	2000	2200	2800	3200	3200	3600	4600	4600
	$\varnothing 45$	2000	2300	3000	3600	3600	4100	5000	5200
	$\varnothing 50$	2000	2800	3600	4000	4000	4500	5700	5700
	$\varnothing 55$	2000	3000	4000	5000	5000	5700	5700	5700
	$\varnothing 63$	2000	3000	4500	5200	5200	5700	5700	5700
	$\varnothing 70$	-	3000	4500	5500	5500	5700	5700	5700
	$\varnothing 80$	-	3000	4500	5500	5500	5700	5700	5700
$\varnothing 100$	-	3000	4500	5500	5500	5700	5700	5700	
$\varnothing 125$	-	3000	4500	5500	5500	5700	5700	5700	

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

# COMBINATION OF LEAD AND DIAMETER OF SCREW SHAFT

		Lead (mm)																		
		1	1.5	2	2.5	3	4	5	6	8	10	12	15	16	20	24	25	32	40	50
Screw shaft diameter (mm)	Ø5	O																		
	Ø6	O Δ																		
	Ø8	O Δ	O	O§ Δ	O§	O§	O§		O	O										
	Ø10	O	O	O§ Δ	O§	O§	O§	O§			O									
	Ø12			O§ Δ	O§	O§ Δ	O§	O§	O§		O				O					
	Ø15			O§	O§	O§	O§	O§	O§	O	O		O	O	O		O			
	Ø16						O§	O§ Δ◇	O§					O						
	Ø20				O§		O•§	O•§ Δ◇	O§	O§	O§ Δ				O		O	O		
	Ø25						O•§	O•§ Δ◇	O§	O•§	O§ Δ				O		O		O	
	Ø28							O•§			O•§				O					
	Ø32						O§	O•§ Δ◇	O•§	O•§	O•§ Δ◇	O§			O			O		
	Ø36							O•§	O•§	O§	O•§	O§			O	O				
	Ø40							O§	O•§	O•§	O•§ Δ◇	O•§		O	O			O	O	
	Ø45							O§	O§	O§	O•§	O•§			O					
	Ø50							O§	O§	O§	O•§ Δ◇	O•§		O	O				O	O
	Ø55									O§	O•§	O§		O	O					
	Ø63								O§	O§	O•§	O•§		O	O					
Ø70										O§	O§		O	O						
Ø80										O§	O§		O	O						
Ø100											O§		O	O						
Ø125													O	O						

O:GR series (Tube method, single nut) P.334-357  
 •:GR series (Tube method, integral nut) P.358-362  
 §:GR series (Tube method, double nut) P.363-382  
 Δ:GD series (Deflector method, single nut) P.383,384  
 ◇:GD series (Deflector method, integral nut) P.385

CUSTOMIZED  
GROUND BALL