

Driving Shafts

Both Ends Stepped

Features: Rotary Shafts suitable for driving motion. Accuracies and shapes needed for rotary driving applications are selectable.



RoHS10

Type	D, P Tolerance	Concentricity	Perpendicularity	Material	Hardness	Surface Treatment
KZCE	h7	0.05	0.05	S45C	-	Black Oxide
KZCN						-
KZCC				S45C	-	Black Oxide
KZCP						Electroless Nickel Plating
KZCF	h6	0.01	0.01	S45C	Induction Hardened Surface Hardness 50HRC-	-

D	Tolerance		D	Circularity M	
	h7	h6		KZCE	Others
10	0	-0.009	10	0.004	0.003
12	0	0	12		
15	-0.018	-0.011	15	0.005	
20			20		
25	0	0	25	0.006	
30	-0.021	-0.013	30		
35			35		0.005
40		0	40		
50		-0.016	50		

*LA+LB≤L/2
 *ℓ=L-(LA+LB)
 *The shaft may have centering holes on ends.
 *There is an undercut 1.5mm or less in width and 0.3mm or less in depth on the stepped part.
 *Step P of KZCE has no grinding undercut. Step R=0.2 or Less
 *Ds: Tap dimension of Bearing Inner Race Reference: P991

Part Number Type	D	0.5mm Increment Selection		0.5mm Increment		*Ds	
		L	P	LA	LB		
KZCE (D10~30)	10	50.0~300.0	6	4.0~40.0	4.0~40.0	8	
	12		8			10	
	15		10			11.5	
	KZCN	20	100.0~400.0	12	5.0~75.0	5.0~50.0	13
		25		15			14
30		17		19			
35		20		21			
KZCC	40	100.0~500.0	25	10.0~100.0	10.0~60.0	24	
	45		27			27	
			29			29	
			31			31	
			33			33	
KZCP	*35	200.0~500.0	30	15.0~150.0	15.0~70.0	37	
	*40		35			39	
			40			48	
			45			49	
KZCF							

Ordering Example: **KZCF50 - 450 - P45 - LA80 - LB50**

• About KZCF (Induction Hardened)
 When alterations on the right-hand page are specified, the shafts are induction hardened (except the threaded sections) after machining.
 As a result, these may occur:
 ①: Due to thermal conduction to the thread, the threads may be hardened by 2 ~ 3mm.
 ②: Induction Hardened may shrink the keyway width (around -0.01 ~ -0.02). If the key becomes hard to fit, adjust it by gauging.

* marked sizes are not available for KZCE.

Type	KZCE					KZCN					KZCC				
	Min. L	L100.5	L200.5	L300.5	L400.5	Min. L	L100.5	L200.5	L300.5	L400.5	Min. L	L100.5	L200.5	L300.5	L400.5
D	~100.0	~200.0	~300.0	~400.0	~500.0	~100.0	~200.0	~300.0	~400.0	~500.0	~100.0	~200.0	~300.0	~400.0	~500.0
10				-	-										
12				-	-										
15				-	-										
20				-	-										
25				-	-										
30				-	-										
35	-	-	-	-	-										
40	-	-	-	-	-										
50	-	-	-	-	-										

Type	KZCP					KZCF				
	Min. L	L100.5	L200.5	L300.5	L400.5	Min. L	L100.5	L200.5	L300.5	L400.5
D	~100.0	~200.0	~300.0	~400.0	~500.0	~100.0	~200.0	~300.0	~400.0	~500.0
10				-	-					
12				-	-					
15				-	-					
20				-	-					
25				-	-					
30				-	-					
35				-	-					
40	-	-	-	-	-					
50	-	-	-	-	-					