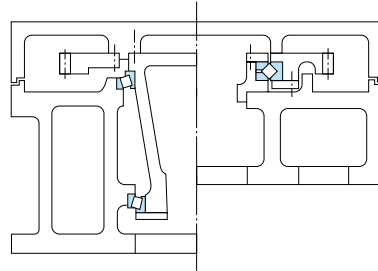


## Bearings for Turntable Applications

### Cross Tapered Roller Bearings

This bearing type is designed with two inner rings and one outer ring. The rolling elements (Tapered rollers) are arranged with their surfaces contact the ring raceways in an alternating pattern.



Example of mounting of Tapered Roller Bearings and Cross Tapered Roller Bearing

### ● Feature design

- (1) This type can sustain radial, overturning moment and bi-directional axial loads.
- (2) Change in size due to thermal growth does not affect this type of bearing. Preload is stable over the entire temperature operating range.
- (3) Light weight, compact, easy to assemble.

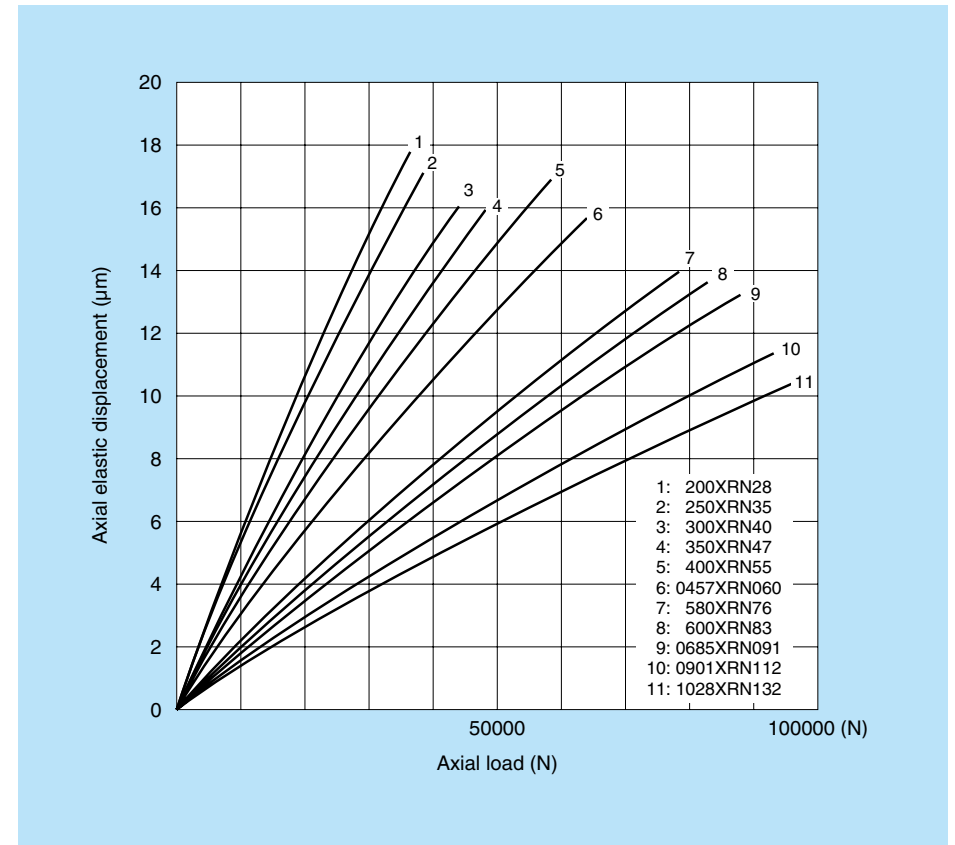
### ● Applications

- (1) Worktable of machining centers or vertical grinding machines
- (2) Work-spindle of lathes or grinding machines
- (3) The indexing mechanisms of large milling machines or drilling machines
- (4) Turntable mechanism of parabolic antenna

### ● Tolerances

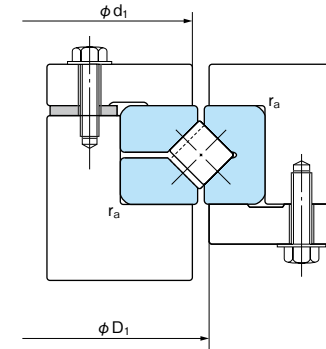
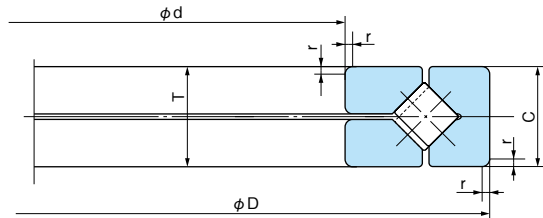
Bearing No.	Single plane mean bore diameter deviation $\Delta d_{mp}$		Single plane mean outside diameter deviation $\Delta D_{mp}$		Variation of assembled height T		Outer ring runout Max ( $\mu m$ )	
	High	Low	High	Low	High	Low	Radial runout	Sidface runout
200XRN28	0	-15	0	-18	+350	-250	7	7
250XRN35	0	-10	0	-13	+350	-250	9	9
300XRN40	0	-13	0	-15	+350	-250	7	7
350XRN47	0	-13	0	-15	+350	-250	9	9
400XRN55	0	-13	0	-18	+350	-250	9	9
0457XRN060	+25	0	+25	0	+380	-380	9	9
580XRN76	+25	0	+38	0	+406	-406	10	10
600XRN83	+38	0	+38	0	+406	-406	12	12
0685XRN091	+38	0	+38	0	+508	-508	12	12
0901XRN112	+51	0	+51	0	+508	-508	14	14
1028XRN132	+76	0	+76	0	+760	-760	16	16

### ● Axial Load and Axial Displacement



# Cross Tapered Roller Bearings

Bore Diameter: 200~1028.7mm



1N=0.102kgf

Bearing No.	Boundary dimensions (mm)				Basic dynamic load rating Ca (N)	Basic static load rating Coa (N)	Limiting speed (min <sup>-1</sup> )		Abutment and fillet dimensions (mm)			Bearing No.
	d	D	T (C)	r			Grease lubrication	Oil lubrication	d <sub>1</sub> (min)	D <sub>1</sub> (max)	r <sub>a</sub> (max)	
*200XRN28 (1)	200	280	30	1.5	144000	520000	480	950	235	249	1	*200XRN28 (1)
*250XRN35 (1)	250	350	40	3	170000	680000	400	800	302	312	1.5	*250XRN35 (1)
*300XRN40 (1)	300	400	38	3	268000	985000	330	650	345	369	2.5	*300XRN40 (1)
*350XRN47 (1)	350	470	50	3	284000	1230000	280	560	410	424	1.5	*350XRN47 (1)
*400XRN55 (1)	400	550	60	3.5	365000	1900000	250	500	475	492	1.5	*400XRN55 (1)
0457XRN060	457.2	609.6	63.5	3.3	370000	1670000	220	440	535	554	2	0457XRN060
580XRN76	580	760	80	6.4	830000	3800000	170	340	667	691	4	580XRN76
600XRN83	600	830	80	3.3	1030000	4600000	160	320	708	738	2	600XRN83
0685XRN091	685.8	914.4	79.375	3.3	1090000	5000000	140	280	807	834	2	0685XRN091
0901XRN112	901.7	1117.6	82.55	3.3	1090000	5650000	110	220	1013	1037	2	0901XRN112
1028XRN132	1028.7	1327.15	114.3	3.3	1830000	9300000	90	180	1184	1221	2	1028XRN132

Note: (1) Inner and outer diameters for bearings marked with \* have minus (-) deviation.  
 Remark: This table is for bearings used in longitudinal rotating applications (such as tables).