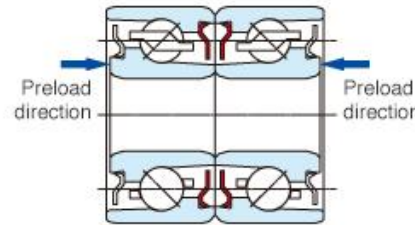
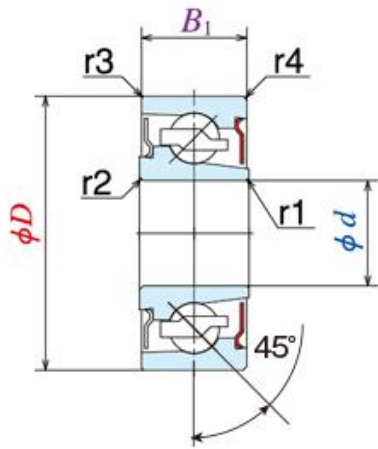


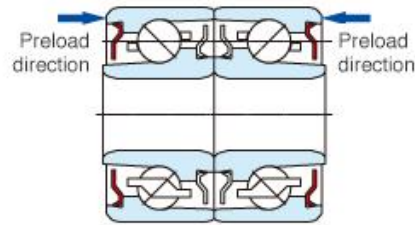
# Miniature thrust Angular Contact Ball Bearings, MTA Series, Main Dimension NSK Micro Japan

DB – Back to Back Arrangement

DF – Face to Face Arrangement

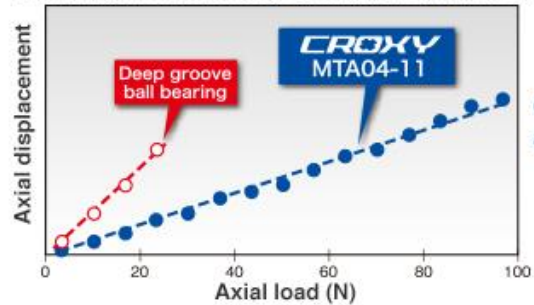


**DB type**  
Inner ring preload  
(Bronze color matched)



**DF type**  
Outer ring preload  
(Silver color matched)

Axial displacement comparison (inner diameter  $\phi 4$ )



Compared with conventional deep groove ball bearing, axial stiffness about 3 times. (Compared to our company's products)

**Data for Single bearing**

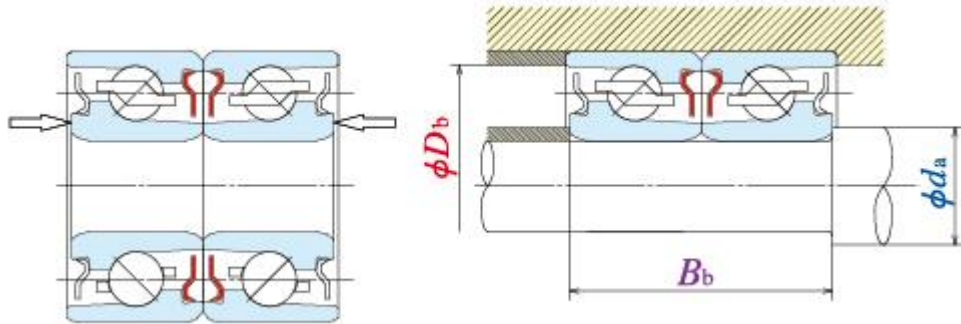
Bearing numbers	Single bearing						
	d mm	D mm	B1 Outer diameter width mm	Chamfering (minimum) mm			
				r1	r2	r3	r4
MTA02-06	2	6	3	0.1	0.1	0.04	0.1
MTA03-08	3	8	4	0.1	0.1	0.03	0.1
MTA04-11	4	11	4.5	0.2	0.2	0.1	0.2
MTA05-13	5	13	5	0.2	0.2	0.1	0.2
MTA06-15	6	15	5.5	0.2	0.2	0.2	0.2
MTA08-19	8	19	6.5	0.2	0.2	0.3	0.3
Bearing numbers	Single bearing						

	Basic load rating (N)							
	Axial				Radial			
	Dynamic load rating Ca		Static load rating Coa		Dynamic load rating Cr		Static load rating Cor	
	SUJ2	Stainless	SUJ2	Stainless	SUJ2	Stainless	SUJ2	Stainless
MTA02-06	555	470	450	360	288	245	92	75
MTA03-08	960	820	840	670	480	410	172	138
MTA04-11	1470	1250	1410	1130	745	635	282	227
MTA05-13	2090	1777	2170	1740	1080	915	440	355
MTA06-15	2760	2350	2950	2360	1390	1180	580	465
MTA08-19	4000	3400	4350	3480	2030	1730	870	700

Bearing Numbers	Bearing single			
	Axial load Capacity N	Limiting rotating speed min-1	CAD data download	
			DFS	DBS
MTA02-06	87	26,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA03-08	164	22,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA04-11	464	17,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA05-13	549	16,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA06-15	854	14,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA08-19	1520	13,000	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>

\* Axial load capacity : Load on which run-up load or Brinell pressure mark occurs

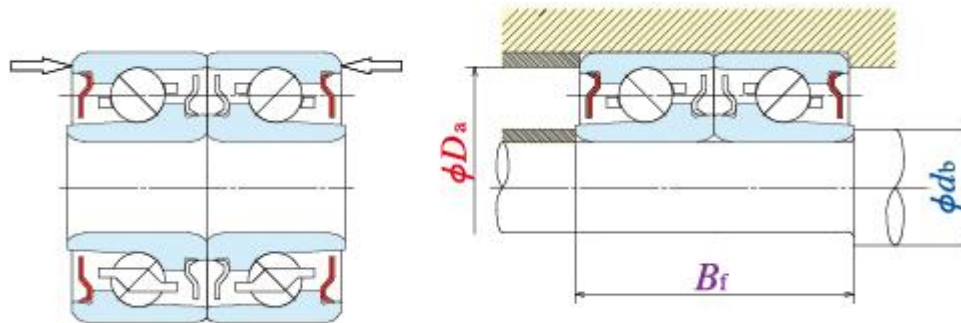
### DB combination



### DB type

Inner ring preload  
(Bronze color matched)

### DF combination



### DF type

Outer ring preload  
(Silver ring color matched)

### Single bearing

Bearing combination	

Bearing number	DB combination (mm)			DF combination (mm)		
	Mounting section		Within combination inner ring Bb	Mounting section		Within combination inner ring Bf
	Axis $\phi_{da}$ minimum	Housing $\phi_{Db}$ maximum		Axis $\phi_{db}$ minimum	Housing $\phi_{Da}$ maximum	
MTA02-06	3.0	5.3	5.8	2.8	5.0	6.2
MTA03-08	4.4	7.2	7.72	3.9	6.7	8.28
MTA04-11	6.2	9.5	8.6	5.1	8.9	9.4
MTA05-13	7.2	11.3	9.6	6.1	10.8	10.4
MTA06-15	8.6	13.2	10.5	7.2	12.5	11.5
MTA08-19	11.4	16.8	12.36	9.4	15.8	13.64
<b>Bearing combination</b>						

Bearing numbers	Axial stiffness (N/μm)	Set mass (Reference) (g)	Recommended Preload (N)	Tightening torque (N · cm)		CAD data download	
				DB combination	DF combination	DB	DF
MTA02-06	21	0.8	7	7	20	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA03-08	28	1.7	12	7	50	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA04-11	39	3.7	20	10	50	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA05-13	52	5.5	34	25	50	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA06-15	60	7.7	45	30	80	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>
MTA08-19	76	14	70	60	80	<a href="#">↓ DXF</a>	<a href="#">↓ DXF</a>

**Axial load and axial displacement of bearing**

