

# Miniature Thrust Angular Contact Ball Bearing for High Axial Load Application

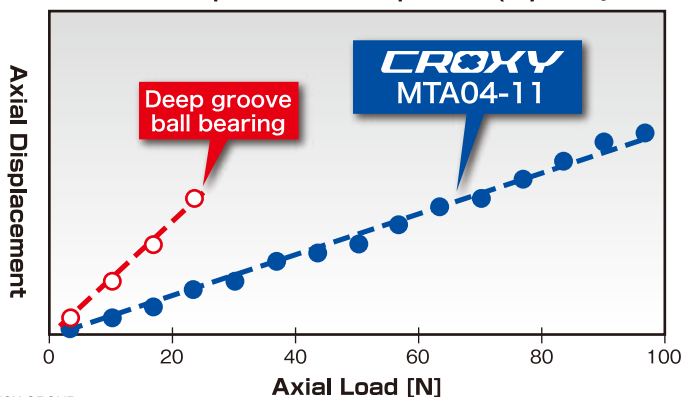


### Applications

- Ball screw support
- Actuator support
- Support for Robot-arm part
- Support Unit
- Tip mounter
- Reduction gear, etc.

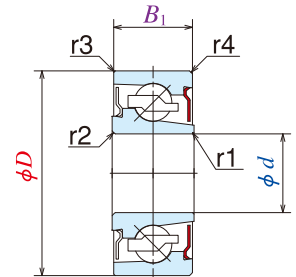
Three times higher axial rigidity over standard deep groove ball bearing (ISC data)

Axial Displacement Comparison (Idφ4mm)



### Characteristics

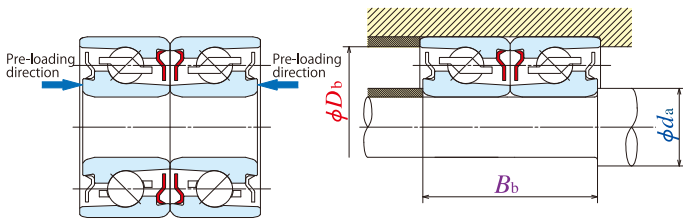
- First in the market, Angular contact bearing for JIS 69 series.
- Downsizing the ball screw support unit.
- Applicable to belt-type
- Three times higher axial rigidity over standard deep groove ball bearing (ISC data)
- Maintenance free by high quality grease packing double shielded design
- Easy mounting by paired delivery with pre-adjusted/loaded matching  
(Recommended tightening torque is attached to the product)
- Available with anti-fretting grease (EA7) and clean grease (LG2)



Part Number	Boundary Dimensions (mm)							Basic Load Rating (N)								Permissible Axial Load (N)	Limiting Speed (min-1)
	d	D	B1	r1	r2	r3	r4	Axial				Radial					
								Dynamic load rating Ca	Static load rating C0a	Dynamic load rating Cr	Static load rating C0r	Dynamic load rating Ca	Static load rating C0a	Dynamic load rating Cr	Static load rating C0r		
MTA02-06	2	6	3	0.1	0.1	0.04	0.1	555	470	450	360	288	245	92	75	87	26,000
MTA03-08	3	8	4	0.1	0.1	0.03	0.1	960	820	840	670	480	410	172	138	164	22,000
MTA04-11	4	11	4.5	0.2	0.2	0.1	0.2	1470	1250	1410	1130	745	635	282	227	464	17,000
MTA05-13	5	13	5	0.2	0.2	0.1	0.2	2090	1777	2170	1740	1080	915	440	355	549	16,000
MTA06-15	6	15	5.5	0.2	0.2	0.2	0.2	2760	2350	2950	2360	1390	1180	580	465	854	14,000
MTA08-19	8	19	6.5	0.2	0.2	0.3	0.3	4000	3400	4350	3480	2030	1730	870	700	1520	13,000

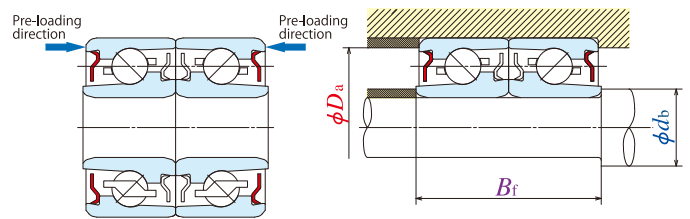
※Permissible Axial Load: Run-on load or maximum load where brinellings occurs

#### DB Matching



Inner ring pre-loaded  
(Bronze color sides matching)

#### DF Matching



Outer Ring pre-loaded  
(Silver color side matching)

	Matching									Tightening Torque (N·cm)	
	DB matching (mm)			DF matching (mm)			Axial Rigidity (N/μm)	Mass (pair) (g) (Ref)	Recommended pre-load (N)	DB matching	DF matching
	Mounting part	Matched IR width Bb	Matched IR width Bf	Mounting part	Matched IR width Bb	Matched IR width Bf					
	Shaft phi damin			Housing phi Dbmax				Shaft phi dbmin	Housing phi Damax		
MTA02-06	3.0	5.3	5.80	2.8	5.0	6.20	21	0.8	7	7	20
MTA03-08	4.4	7.2	7.72	3.9	6.7	8.28	28	1.7	12	7	50
MTA04-11	6.2	9.5	8.60	5.1	8.9	9.40	39	3.7	20	10	50
MTA05-13	7.2	11.3	9.60	6.1	10.8	10.40	52	5.5	34	25	50
MTA06-15	8.6	13.2	10.50	7.2	12.5	11.50	60	7.7	45	30	80
MTA08-19	11.4	16.8	12.36	9.4	15.8	13.64	76	14.0	70	60	80

## NSK Micro Precision Co., Ltd.

<http://www.nskmicro.co.jp/english> (Please visit our English site for details)

**Head office/Sales Division Headquarters**  
6F, Hirose Building, 3-17, Kanda-Nishikicho, Chiyoda-ku, Tokyo 101-0054 Japan  
Tel:+81-3-5283-7420 Fax:+81-3-5259-0882

**Osaka Sales Office**  
301 Wakita-Tenmabashi Building, 2-13, Tenmabashi-Kyomachi,  
Chuo-ku, Osaka-shi, Osaka 540-0032 Japan  
Tel:+81-6-6942-0858 Fax:+81-6-6942-9113

**Matsumoto Sales Office**  
2953 Moto-ojima, Matsukawa-machi, Shimonina-gun, Nagano 399-3303 Japan  
Tel:+81-265-48-6022 Fax:+81-265-48-6023

※Contents may be revised without prior notice