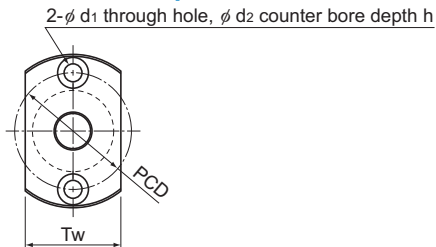


# MBF (Unfinished Shaft Ends) No Preload

DN value	70,000
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Model No.	Ball screw specifications							Nut			
	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Outer diameter D	Flange diameter D <sub>f</sub>	Overall length L <sub>1</sub>	Nut H
						Ca kN	C <sub>0a</sub> kN				
MBF 0401-3.7	4	1	4.15	3.3	1×3.7	0.59	0.93	11	24	18	4
MBF 0601-3.7	6	1	6.15	5.3	1×3.7	0.74	1.5	13	30	21	5
MBF 0802-3.7	8	2	8.3	6.6	1×3.7	2.5	4.2	20	40	28	6
MBF 1002-3.7	10	2	10.3	8.6	1×3.7	2.8	5.3	23	43	28	6
MBF 1202-3.7	12	2	12.3	10.6	1×3.7	3	6.5	25	47	30	8
MBF 1402-3.7	14	2	14.3	12.6	1×3.7	3.3	7.5	26	48	30	8
MBF 1404-3.7	14	4	14.3	11.8	1×3.7	5.7	11.1	30	54	38	8

### Model number coding

**MBF0802-3.7 RR GT +218L C5 A**

Model No.

Seal symbol<sup>1</sup>

Overall screw shaft length (in mm)

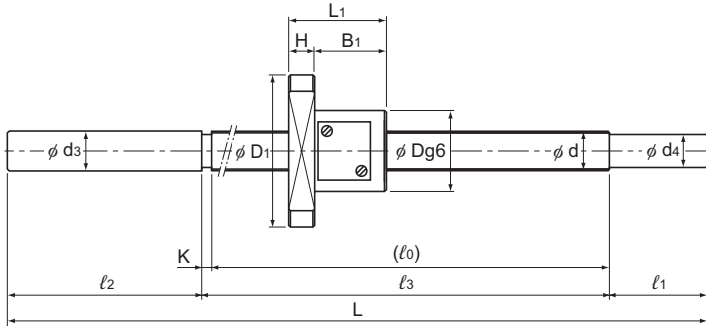
Unfinished shaft ends code

Symbol for clearance in the axial direction<sup>2</sup>

Accuracy symbol<sup>3</sup>

<sup>1</sup> See **A15-356**. <sup>2</sup> See **A15-19**. <sup>3</sup> See **A15-12**.

## Positioning Ball Screw



Unit: mm

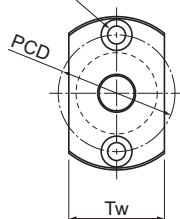
dimensions							Screw shaft dimensions							Nut mass kg	Shaft mass kg/m	Permissible rotational speed min <sup>-1</sup>		
B <sub>1</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	Unfinished shaft end symbol	Overall length L	l <sub>0</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>3</sub>	d <sub>4</sub>				K	
14	17	3.4	6.5	2.5	13	A	90	48	10	30	50	4.3	3.2	2	0.02	0.07	3,500	
							110	68										70
							130	88										90
16	21.5	3.4	6.5	3	17	A	131	58	20	50	61	6.3	5.2	3	0.04	0.14	3,500	
							161	88										91
							201	128										131
22	30	4.5	8	4	24	A	168	85	25	55	88	8.3	6.2	3	0.1	0.19	3,500	
							193	110										113
							218	135										138
22	33	4.5	8	4	27	A	183	95	25	60	98	10.3	8.2	3	0.11	0.36	3,500	
							223	135										138
							273	185										188
22	36	5.5	9.5	5.5	29	A	210	117	30	60	120	12.3	10.2	3	0.15	0.58	3,500	
							235	142										145
							285	192										195
22	37	5.5	9.5	5.5	32	A	205	102	40	60	105	14.3	12.2	3	0.16	0.85	3,500	
							245	142										145
							295	192										195
							345	242										245
30	42	5.5	9.5	5.5	34	A	233	129	40	60	133	14.3	11.2	4	0.25	1.2	3,500	
							293	189										193
							353	249										253
							413	309										313

Note: The standard specification for the Model MBF is with no seal. Please contact THK if you are interested in attaching a seal.

# MBF No Preload

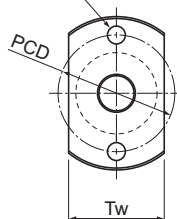
DN value	70,000
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2- $\phi$  d1 through hole,  
 $\phi$  d2 counter bore depth h



Nut type I

2- $\phi$  d1 through hole



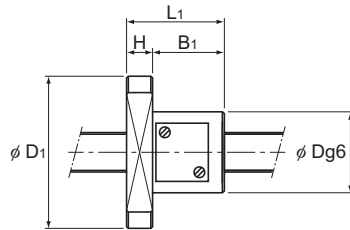
Nut type II

Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows $\times$ turns	Basic load rating		Rigidity K N/ $\mu$ m
						Ca	C <sub>a</sub>	
						kN	kN	
MBF0401-3.7	4	1	4.15	3.3	1 $\times$ 3.7	0.59	0.93	54
MBF0601-3.7	6	1	6.15	5.3	1 $\times$ 3.7	0.74	1.5	75
MBF0602-2.7	6	2	6.2	5.1	1 $\times$ 2.7	0.75	1.2	58
MBF0602.5-2.7	6	2.5	6.2	5.1	1 $\times$ 2.7	0.75	1.2	59
MBF0801.5-3.7	8	1.5	8.2	7.1	1 $\times$ 3.7	1.1	2.2	99
MBF0802-3.7	8	2	8.3	6.6	1 $\times$ 3.7	2.5	4.2	111
MBF0802.5-3.7	8	2.5	8.3	6.6	1 $\times$ 3.7	2.4	4.1	111
MBF0803-2.7	8	3	8.3	6.2	1 $\times$ 2.7	2.6	4.2	85
MBF0804-2.7	8	4	8.3	6.2	1 $\times$ 2.7	2.6	4.2	84
MBF1001-3.7	10	1	10.15	9.3	1 $\times$ 3.7	0.84	2	113
MBF1001.5-3.7	10	1.5	10.2	9.1	1 $\times$ 3.7	1.25	2.8	120
MBF1002-3.7	10	2	10.3	8.6	1 $\times$ 3.7	2.8	5.3	134
MBF1002.5-3.7	10	2.5	10.3	8.6	1 $\times$ 3.7	2.7	5.3	133
MBF1003-3.7	10	3	10.3	8.2	1 $\times$ 3.7	3.9	7.2	140
MBF1005-2.7	10	5	10.3	8.2	1 $\times$ 2.7	3	5.2	103
MBF1202-3.7	12	2	12.3	10.6	1 $\times$ 3.7	3	6.5	156
MBF1202.5-3.7	12	2.5	12.3	10.6	1 $\times$ 3.7	3	6.4	156
MBF1203-3.7	12	3	12.3	10.2	1 $\times$ 3.7	4.3	8.7	162
MBF1204-3.7	12	4	12.3	9.8	1 $\times$ 3.7	5.4	10.2	165
MBF1402-3.7	14	2	14.3	12.6	1 $\times$ 3.7	3.3	7.5	176
MBF1404-3.7	14	4	14.3	11.8	1 $\times$ 3.7	5.7	11.1	187

Notes: The standard specification for the Model MBF is with no seal. Please contact THK if you are interested in attaching a seal.

The Model MBF can support an axial clearance of 0 or less. Please contact THK if you would like to use it in this manner.

## Positioning Ball Screw



Unit: mm

	Nut dimensions											Screw shaft inertial moment/mm kg·m <sup>2</sup> /mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min <sup>-1</sup>
	Outer diameter D	Flange diameter D <sub>1</sub>	Overall length L <sub>1</sub>	H	B <sub>1</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Nut type	Tw				
	11	24	18	4	14	17	3.4	6.5	2.5	I	13	1.97 × 10 <sup>-10</sup>	0.02	0.07	3,500
	13	30	21	5	16	21.5	3.4	6.5	3	I	17	9.99 × 10 <sup>-10</sup>	0.04	0.14	3,500
	15	29	17	4	13	23	3.4	—	—	II	17	9.99 × 10 <sup>-10</sup>	0.03	0.21	3,500
	15	29	18	4	14	23	3.4	—	—	II	17	9.99 × 10 <sup>-10</sup>	0.03	0.21	3,500
	16	30	19	4	15	24	3.4	—	—	II	18	3.16 × 10 <sup>-9</sup>	0.03	0.36	3,500
	20	40	28	6	22	30	4.5	8	4	I	24	3.16 × 10 <sup>-9</sup>	0.1	0.19	3,500
	20	38	26	5	21	30	4.5	—	—	II	22	3.16 × 10 <sup>-9</sup>	0.07	0.34	3,500
	20	38	25	5	20	30	4.5	—	—	II	22	3.16 × 10 <sup>-9</sup>	0.06	0.32	3,500
	21	39	28	5	23	31	4.5	—	—	II	23	3.16 × 10 <sup>-9</sup>	0.08	0.34	3,500
	19	37	18	5	13	29	4.5	—	—	II	21	7.71 × 10 <sup>-9</sup>	0.04	0.57	3,500
	19	37	20	5	15	29	4.5	—	—	II	21	7.71 × 10 <sup>-9</sup>	0.04	0.57	3,500
	23	43	28	6	22	33	4.5	8	4	I	27	7.71 × 10 <sup>-9</sup>	0.11	0.36	3,500
	24	44	27	6	21	35	5.5	—	—	II	26	7.71 × 10 <sup>-9</sup>	0.09	0.55	3,500
	24	44	30	6	24	35	5.5	—	—	II	26	7.71 × 10 <sup>-9</sup>	0.1	0.52	3,500
	24	44	34	6	28	35	5.5	—	—	II	26	7.71 × 10 <sup>-9</sup>	0.12	0.56	3,500
	25	47	30	8	22	36	5.5	9.5	5.5	I	29	1.60 × 10 <sup>-8</sup>	0.15	0.58	3,500
	26	46	27	6	21	37	5.5	—	—	II	28	1.60 × 10 <sup>-8</sup>	0.11	0.8	3,500
	28	48	30	6	24	39	5.5	—	—	II	30	1.60 × 10 <sup>-8</sup>	0.14	0.77	3,500
	28	48	33	6	27	39	5.5	—	—	II	30	1.60 × 10 <sup>-8</sup>	0.15	0.76	3,500
	26	48	30	8	22	37	5.5	9.5	5.5	I	32	2.96 × 10 <sup>-8</sup>	0.16	0.85	3,500
	30	54	38	8	30	42	5.5	9.5	5.5	I	34	2.96 × 10 <sup>-8</sup>	0.25	1.2	3,500

Ball Screw