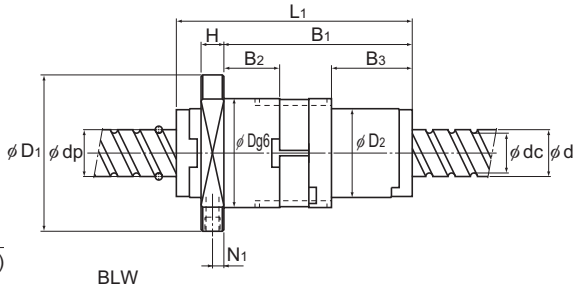
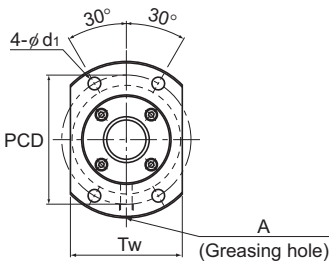
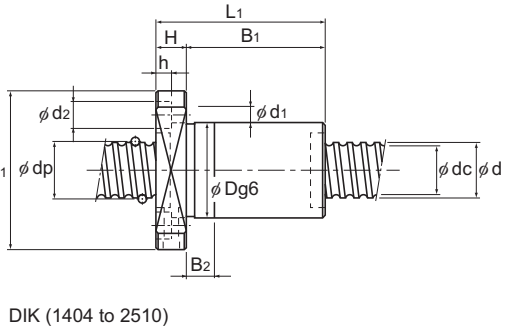
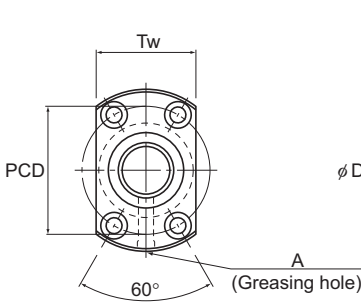


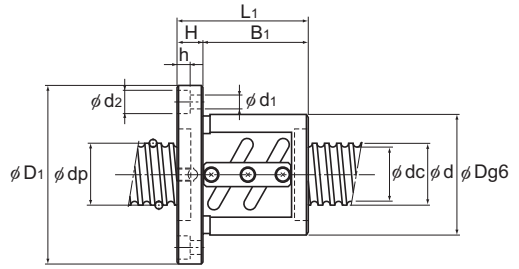
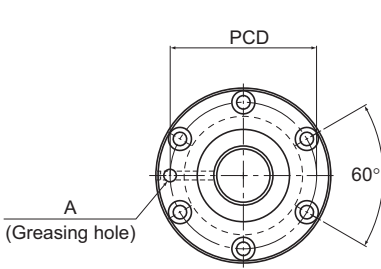
# Preload Type of Precision Ball Screw

Screw shaft outer diameter	14 to 18
Lead	4 to 16

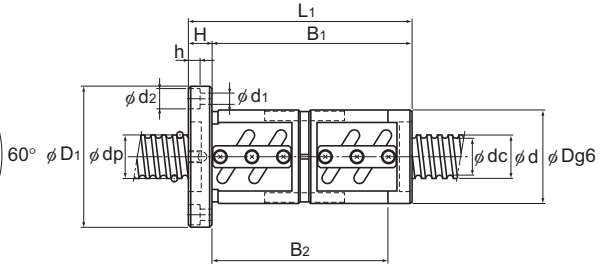
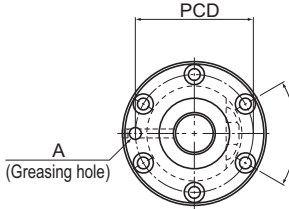


Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows x turns	Basic load rating		Rigidity K	Rigidity			
						Ca kN	C <sub>0a</sub> kN		Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>	
14	4	DIK 1404-4	14.5	11.8	2×1	3	5.1	190	26	45	—	
		DIK 1404-6	14.5	11.8	3×1	4.2	7.7	280	26	45	—	
15	10	BLW 1510-5.6	15.75	12.5	2×2.8	14.3	27.8	680	43	64	34	
16	4	BNFN 1604-3	16.5	13.8	2×1.5	5.1	10.5	350	36	59	—	
		BIF 1605-5	16.75	13.2	1×2.5	7.4	13.9	330	40	60	—	
	DIK 1605-6	16.75	13.2	3×1	7.4	13	310	30	49	—		
	BNFN 1605-2.5	16.75	13.2	1×2.5	7.4	13.9	330	40	60	—		
	BNFN 1605-3	16.75	13.2	2×1.5	8.7	16.8	390	40	60	—		
	BNFN 1605-5	16.75	13.2	2×2.5	13.5	27.8	640	40	60	—		
	BIF 1606-5	16.8	13.2	1×2.5	7.5	14	330	40	60	—		
16	10	BNFN 1610-1.5	16.8	13.2	1×1.5	4.8	8.5	210	40	63	—	
	16	BLW 1616-3.6	16.65	13.7	2×1.8	7.1	14.3	440	41	60	32	
	18	10	BIF 1810-3	18.8	15.5	1×1.5	5.1	9.6	230	42	65	—
			BNFN 1810-2.5	18.8	15.5	1×2.5	7.8	15.9	360	42	65	—
BNFN 1810-3			18.8	15.5	2×1.5	9.2	19.1	430	42	65	—	

Note) The model numbers in dimmed type indicate semi-standard types.  
If desiring them, contact THK.  
Model BLW cannot be attached with seal.



BIF



BNFN

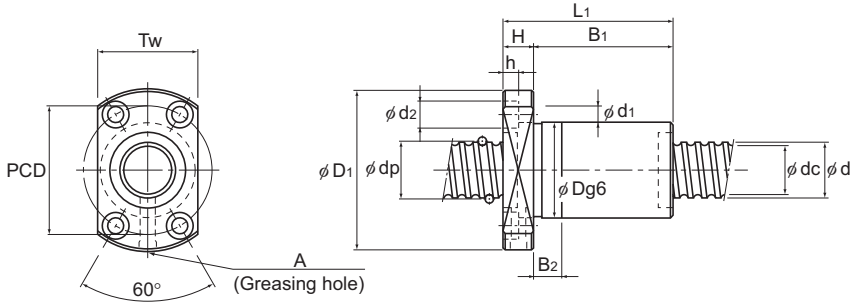
Unit: mm

Nut dimensions													Screw shaft inertial moment/mm <sup>4</sup>	Nut mass	Shaft mass
Overall length	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	Greasing hole				
L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	A	kg·cm <sup>2</sup> /mm <sup>4</sup>	kg	kg/m	
48	10	38	10	—	35	4.5	8	4.5	29	—	M6	2.96×10 <sup>-4</sup>	0.2	1.0	
60	10	50	10	—	35	4.5	8	4.5	29	—	M6	2.96×10 <sup>-4</sup>	0.23	1.0	
89	10	69	18.7	28.6	52	5.5	—	—	46	5	M6	3.9×10 <sup>-4</sup>	0.81	1.07	
85	11	74	—	—	47	5.5	9.5	5.5	—	—	M6	5.05×10 <sup>-4</sup>	0.67	1.35	
56	10	46	—	—	50	4.5	8	4.5	—	—	M6	5.05×10 <sup>-4</sup>	0.56	1.25	
60	10	50	10	—	39	4.5	8	4.5	31	—	M6	5.05×10 <sup>-4</sup>	0.3	1.25	
76	10	66	55	—	50	4.5	8	4.5	—	—	M6	5.05×10 <sup>-4</sup>	0.66	1.25	
96	10	86	75	—	50	4.5	8	4.5	—	—	M6	5.05×10 <sup>-4</sup>	0.81	1.25	
106	10	96	85	—	50	4.5	8	4.5	—	—	M6	5.05×10 <sup>-4</sup>	0.88	1.25	
62	10	52	—	—	50	4.5	8	4.5	—	—	M6	5.05×10 <sup>-4</sup>	0.56	1.25	
72	11	61	—	—	51	5.5	9.5	5.5	—	—	M6	5.05×10 <sup>-4</sup>	0.67	1.41	
84.5	10	65.5	18.1	27.1	49	4.5	—	—	44	6	M6	5.05×10 <sup>-4</sup>	0.67	1.42	
75	12	63	—	—	53	5.5	9.5	5.5	—	—	M6	8.09×10 <sup>-4</sup>	0.75	1.81	
119	12	107	94	—	53	5.5	9.5	5.5	—	—	M6	8.09×10 <sup>-4</sup>	1.09	1.81	
135	12	123	110	—	53	5.5	9.5	5.5	—	—	M6	8.09×10 <sup>-4</sup>	1.21	1.81	

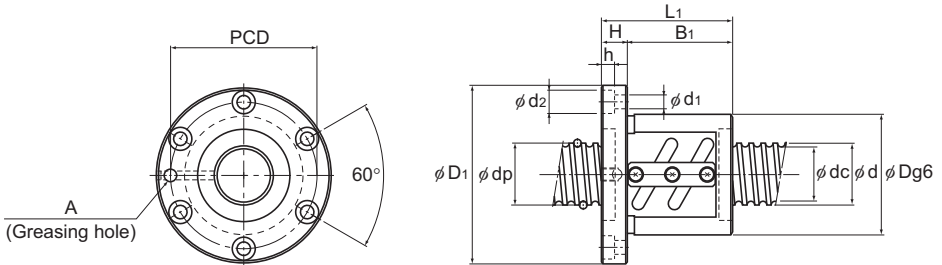
For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

Screw shaft outer diameter	20
Lead	4 to 5



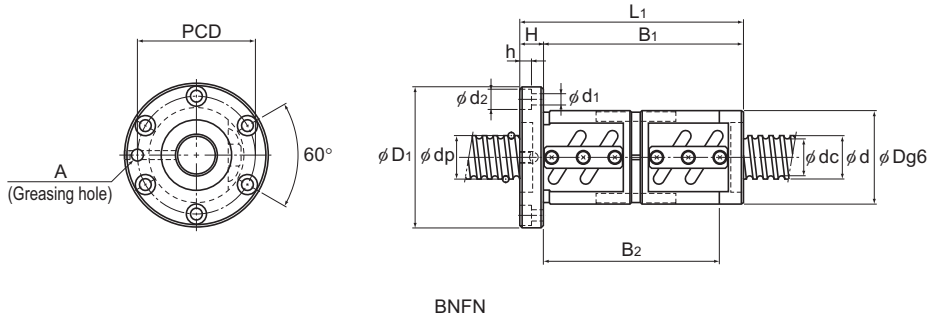
DIK (1404 to 2510)



BIF

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating		Rigidity K
						Ca kN	C <sub>0a</sub> kN	
20	4	BIF 2004-5	20.5	17.8	1 × 2.5	4.8	10.9	360
		DIK 2004-6	20.5	17.8	3 × 1	5.2	11.6	380
		DIK 2004-8	20.5	17.8	4 × 1	6.6	15.5	510
		BNFN 2004-2.5	20.5	17.8	1 × 2.5	4.8	10.9	360
		BNFN 2004-5	20.5	17.8	2 × 2.5	8.6	21.8	700
	5	BIF 2005-5	20.75	17.2	1 × 2.5	8.3	17.4	390
		DIK 2005-6	20.75	17.2	3 × 1	8.5	17.3	310
		BNFN 2005-2.5	20.75	17.2	1 × 2.5	8.3	17.4	390
		BNFN 2005-3	20.75	17.2	2 × 1.5	9.7	21	470
		BNFN 2005-3.5	20.75	17.2	1 × 3.5	11.1	24.5	550
		BNFN 2005-5	20.75	17.2	2 × 2.5	15.1	35	760

Note) The model numbers in dimmed type indicate semi-standard types.  
If desiring them, contact THK.



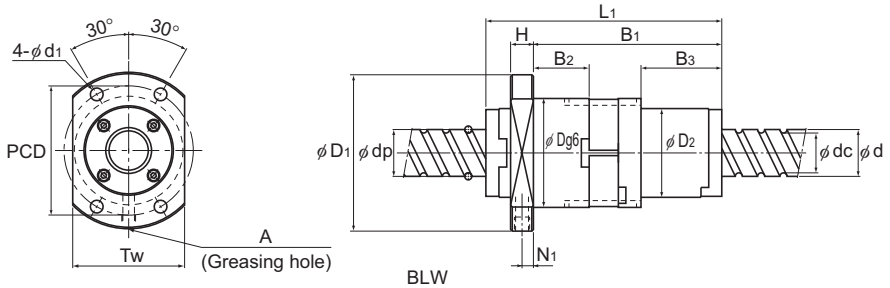
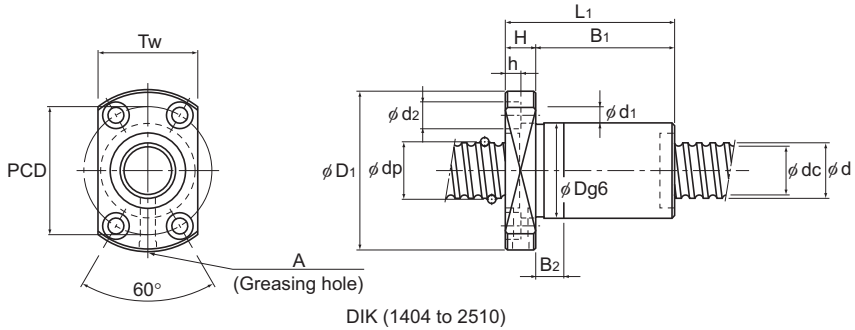
Unit: mm

	Nut dimensions											Screw shaft inertia moment/mm <sup>3</sup>	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	Greasing hole				
40	63	53	11	42	—	51	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.49	2.18		
32	56	62	11	51	15	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 <sup>-3</sup>	0.34	2.18		
32	56	70	11	59	15	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 <sup>-3</sup>	0.37	2.18		
40	63	69	11	58	—	51	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.58	2.18		
40	63	93	11	82	—	51	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.74	2.18		
44	67	56	11	45	—	55	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.57	2.06		
34	58	61	11	50	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 <sup>-3</sup>	0.38	2.06		
44	67	76	11	65	53	55	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.77	2.06		
44	67	97	11	86	74	55	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.93	2.06		
44	67	85	11	74	62	55	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.86	2.06		
44	67	106	11	95	83	55	5.5 × 9.5 × 5.5	—	M6	1.23 × 10 <sup>-3</sup>	0.98	2.06		

For model number coding, see [A15-248](#).

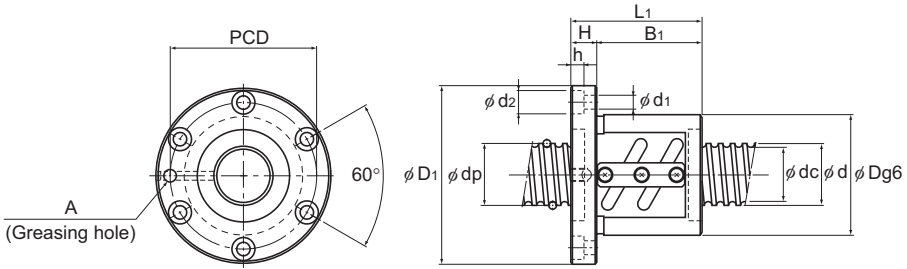
# Preload Type of Precision Ball Screw

Screw shaft outer diameter	20
Lead	6 to 20

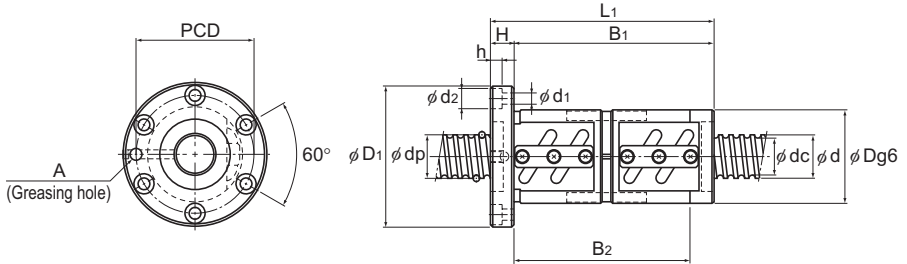


Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm	Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>
						Ca kN	C <sub>0a</sub> kN				
20	6	BIF 2006-3	20.75	17.2	1×1.5	5.4	10.5	250	48	71	—
		BIF 2006-5	20.75	17.2	1×2.5	8.3	17.5	390	48	71	—
		DIK 2006-6	21	16.4	3×1	11.4	21.5	410	35	58	—
		BNFN 2006-2.5	20.75	17.2	1×2.5	8.3	17.5	390	48	71	—
		BNFN 2006-3	20.75	17.2	2×1.5	9.7	21	470	48	71	—
		BNFN 2006-3.5	20.75	17.2	1×3.5	11.1	24.5	550	48	71	—
	BNFN 2006-5	20.75	17.2	2×2.5	15.1	35	760	48	71	—	
	8	DIK 2008-4	21	16.4	2×1	8.1	14.4	280	35	58	—
		BNFN 2008-2.5	21	16.4	1×2.5	15.1	35	760	46	74	—
	10	BNFN 2010A-1.5	21	16.4	1×1.5	7.2	13.2	250	46	74	—
12	BNFN 2012-1.5	21	16.4	1×1.5	7.1	12.5	250	48	71	—	
20	BLW 2020-3.6	20.75	17.5	2×1.8	11.1	24.7	570	48	69	39	

Note) The model numbers in dimmed type indicate semi-standard types.  
If desiring them, contact THK.  
Model BLW cannot be attached with seal.



BIF



BNFN

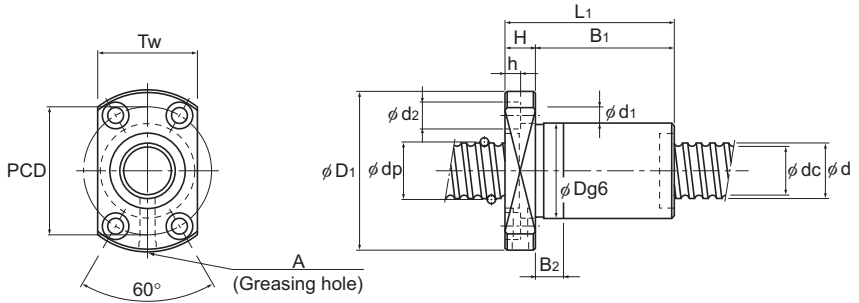
Unit: mm

Nut dimensions													Screw shaft inertial moment/mm <sup>3</sup>	Nut mass	Shaft mass
Overall length	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>i</sub>	Greasing hole	kg·cm <sup>2</sup> /mm			
56	11	45	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	0.74	2.13
62	11	51	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	0.8	2.13
76	11	65	15	—	46	5.5	9.5	5.5	36	—	—	M6	1.23 × 10 <sup>-3</sup>	0.48	1.93
86	11	75	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.05	2.13
110	11	99	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.3	2.13
98	11	87	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.17	2.13
122	11	111	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.42	2.13
69	11	58	15	—	46	5.5	9.5	5.5	36	—	—	M6	1.23 × 10 <sup>-3</sup>	0.45	2.06
100	15	85	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.08	2.06
98	15	83	67	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.06	2.14
100	18	82	—	—	59	5.5	9.5	5.5	—	—	—	M6	1.23 × 10 <sup>-3</sup>	1.3	2.19
105	10	84	25	36	57	5.5	—	—	50	5	—	M6	1.23 × 10 <sup>-3</sup>	0.54	2.25

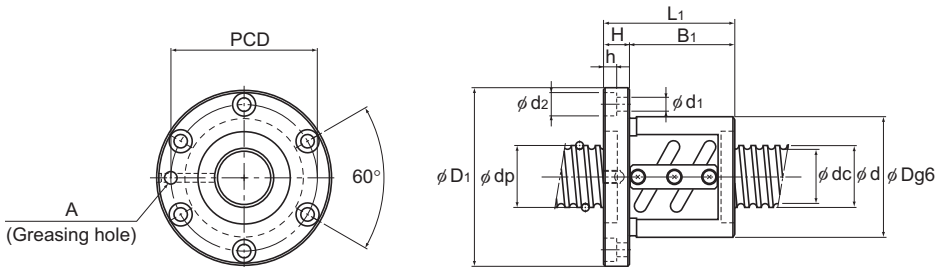
For model number coding, see **A15-248**.

# Preload Type of Precision Ball Screw

Screw shaft outer diameter	25
Lead	4 to 6



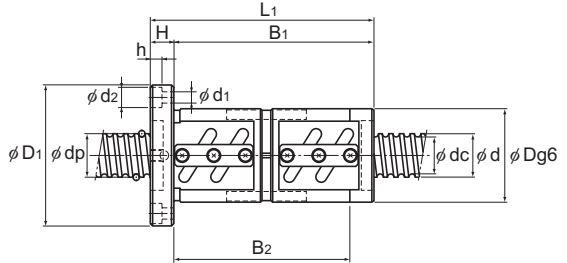
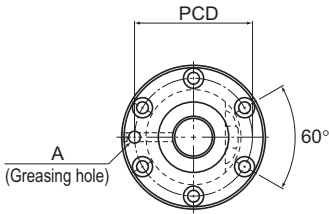
DIK (1404 to 2510)



BIF

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity
						Ca kN	C <sub>0a</sub> kN	K N/μm
25	4	DIK 2504-6	25.5	22.8	3×1	5.7	15	470
		DIK 2504-8	25.5	22.8	4×1	7.4	19.9	620
		○BNFN 2504-2.5	25.5	22.8	1×2.5	5.2	13.7	420
		○BNFN 2504-5	25.5	22.8	2×2.5	9.5	27.3	820
	5	DIK 2505-6	25.75	22.2	3×1	9.7	22.6	490
		○BIF 2505-3	25.75	22.2	1×1.5	6	13.1	280
		○BIF 2505-5	25.75	22.2	1×2.5	9.2	22	470
		○BNFN 2505-2.5	25.75	22.2	1×2.5	9.2	22	470
		○BNFN 2505-3	25.75	22.2	2×1.5	10.8	26.4	560
		○BNFN 2505-3.5	25.75	22.2	1×3.5	12.3	30.7	650
		○BNFN 2505-5	25.75	22.2	2×2.5	16.7	44	910
		6	DIK 2506-4	26	21.4	2×1	9.1	18
	DIK 2506-6		26	21.4	3×1	12.8	27	490

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.  
Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.  
For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.



BNFN

Unit: mm

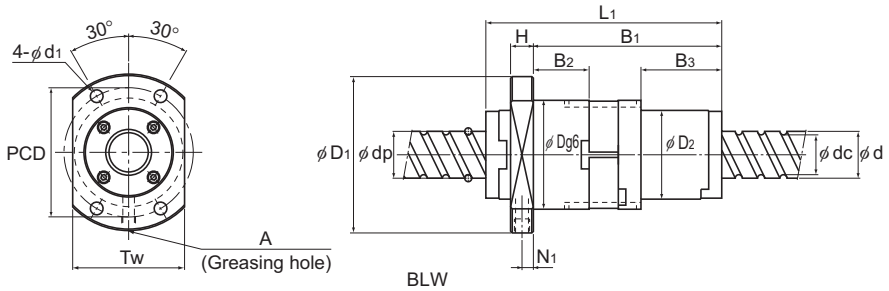
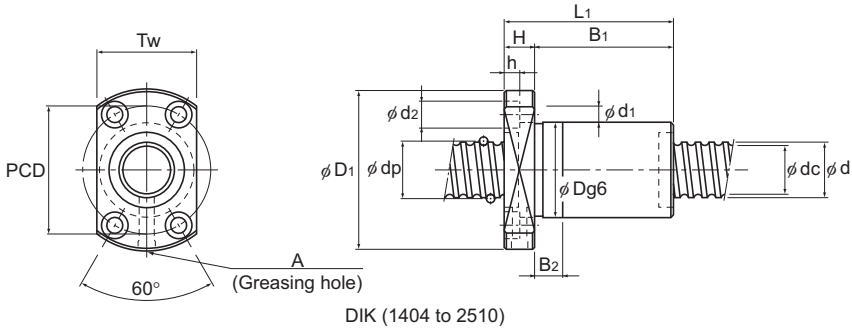
	Nut dimensions										Screw shaft inertial moment/mm <sup>3</sup>	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	Greasing hole			
	D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	A	kg·cm <sup>2</sup> /mm	kg	kg/m
	38	63	63	11	52	15	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 <sup>-3</sup>	0.43	3.5
	38	63	71	11	60	15	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 <sup>-3</sup>	0.47	3.5
	46	69	68	11	57	—	57	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	0.69	3.5
	46	69	92	11	81	—	57	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	0.88	3.5
	40	63	61	11	50	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 <sup>-3</sup>	0.47	3.35
	50	73	52	11	41	—	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	0.7	3.35
	50	73	55	11	44	—	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	0.75	3.35
	50	73	75	11	64	52	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	0.92	3.35
	50	73	102	11	91	79	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	1.19	3.35
	50	73	85	11	74	62	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	1.02	3.35
	50	73	105	11	94	82	61	5.5 × 9.5 × 5.5	—	M6	3.01 × 10 <sup>-3</sup>	1.22	3.35
	40	63	60	11	49	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 <sup>-3</sup>	0.46	3.19
	40	63	72	11	61	15	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 <sup>-3</sup>	0.54	3.19

For model number coding, see **15-248**.



# Preload Type of Precision Ball Screw

Screw shaft outer diameter	25
Lead	6 to 25

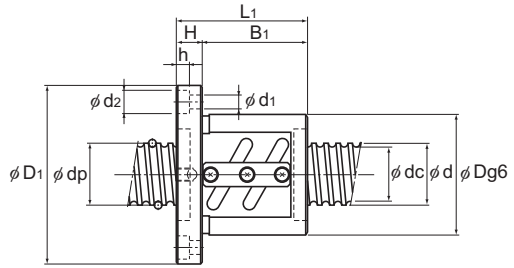
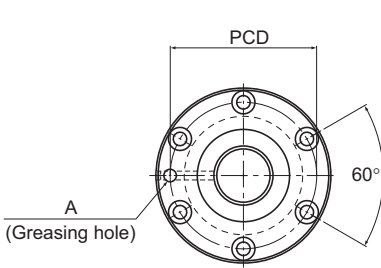


Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm			
						Ca kN	C <sub>0a</sub> kN		Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>
25	6	○BNFN 2506-2.5	26	21.4	1×2.5	12.5	27.3	490	53	76	—
		○BNFN 2506-3	26	21.4	2×1.5	14.6	32.8	580	53	76	—
		○BNFN 2506-3.5	26	21.4	1×3.5	15.1	35.9	670	53	76	—
		○BNFN 2506-5	26	21.4	2×2.5	22.5	54.8	940	53	76	—
	8	DIK 2508-4	26	21.4	2×1	9.2	18.8	340	40	63	—
		DIK 2508-6	26	21.4	3×1	13.1	28.1	500	40	63	—
		○BIF 2508-5	26.25	20.5	1×2.5	15.8	32.8	500	58	85	—
		○BNFN 2508-2.5	26.25	20.5	1×2.5	15.8	32.8	500	58	85	—
		○BNFN 2508-3	26.25	20.5	2×1.5	18.5	39.4	600	58	85	—
		○BNFN 2508-3.5	26.25	20.5	1×3.5	21.2	46	690	58	85	—
	10	○BNFN 2508-5	26.25	20.5	2×2.5	28.7	65.8	970	58	85	—
		DIK 2510-4	26	21.6	2×1	9	18	330	40	63	—
		○BIF 2510A-5	26.3	21.4	1×2.5	15.8	33	500	58	85	—
		○BNFN 2510A-2.5	26.3	21.4	1×2.5	15.8	33	500	58	85	—
	12	○BNFN 2512-2.5	26	21.9	1×2.5	12.3	27.6	490	53	76	—
		○BNFN 2516-1.5	26	21.4	1×1.5	7.9	16.7	300	53	76	—
25	BLW 2525-3.6	26	21.9	2×1.8	16.6	38.7	700	57	82	47	

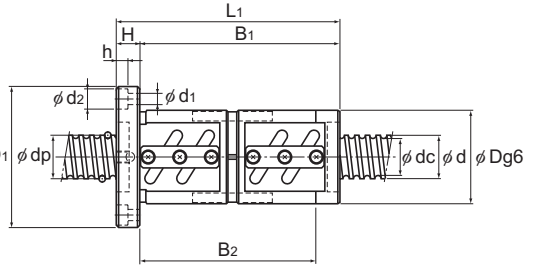
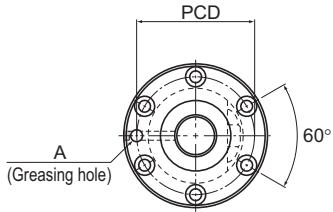
Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.

Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.

For dimensions of the ball screw nut with either accessory being attached, see **A15-356**. Model BLW cannot be attached with seal.



BIF



BNFN

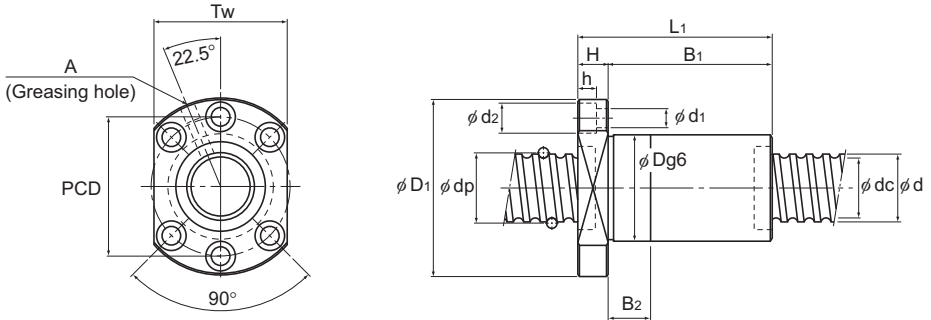
Unit: mm

Nut dimensions													Screw shaft inertial moment/mm <sup>3</sup>	Nut mass kg	Shaft mass kg/m
Overall length	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	Greasing hole				
L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	A	kg·cm <sup>2</sup> /mm	kg	kg/m	
86	11	75	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.19	3.19	
110	11	99	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.47	3.19	
98	11	87	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.33	3.19	
122	11	111	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.61	3.19	
71	12	59	15	—	51	5.5	9.5	5.5	41	—	M6	3.01×10 <sup>-3</sup>	0.54	3.35	
94	12	82	25	—	51	5.5	9.5	5.5	41	—	M6	3.01×10 <sup>-3</sup>	0.68	3.35	
82	15	67	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	1.52	3.13	
106	15	91	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	1.89	3.13	
135	15	120	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	2.32	3.13	
122	15	107	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	2.12	3.13	
154	15	139	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	2.6	3.13	
85	15	70	20	—	51	5.5	9.5	5.5	41	—	M6	3.01×10 <sup>-3</sup>	0.65	3.45	
100	18	82	—	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	1.86	3.27	
120	18	102	83	—	71	6.6	11	6.5	—	—	M6	3.01×10 <sup>-3</sup>	2.16	3.27	
108	11	97	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.44	3.52	
108	11	97	—	—	64	5.5	9.5	5.5	—	—	M6	3.01×10 <sup>-3</sup>	1.44	3.6	
124.5	12	101.5	33	44	68	6.6	—	—	60	5	M6	3.01×10 <sup>-3</sup>	0.94	3.52	

For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

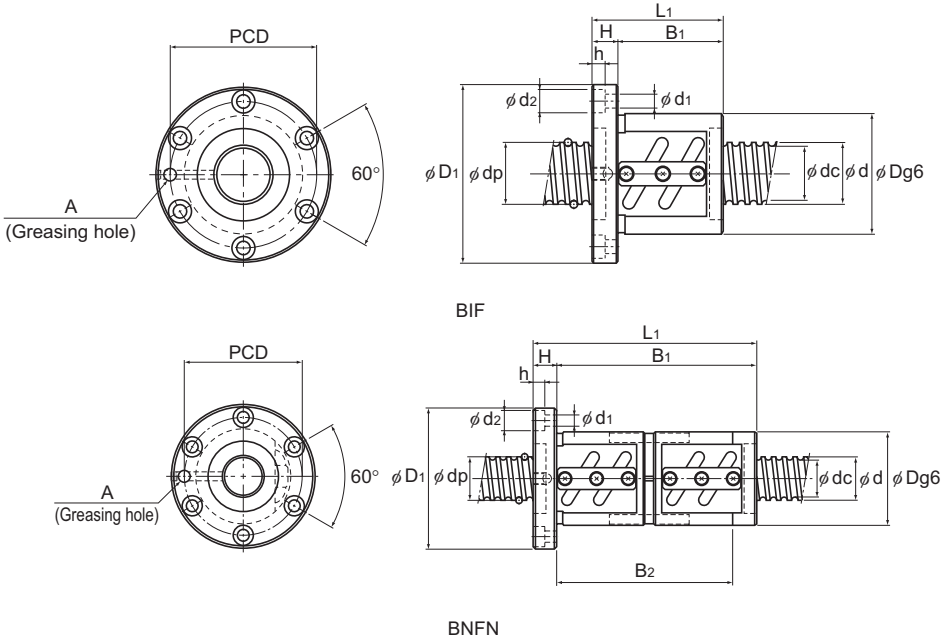
Screw shaft outer diameter	28
Lead	5 to 10



DIK (2805 to 6312)

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K
						Ca kN	Coa kN	
28	5	BIF 2805-5	28.75	25.2	1×2.5	9.7	24.6	520
		BIF 2805-10	28.75	25.2	2×2.5	17.4	49.4	1000
		DIK 2805-6	28.75	25.2	3×1	10.5	26.4	560
		DIK 2805-8	28.75	25.2	4×1	13.4	35.2	730
		BNFN 2805-2.5	28.75	25.2	1×2.5	9.7	24.6	520
		BNFN 2805-3	28.75	25.2	2×1.5	11.3	29.5	620
		BNFN 2805-3.5	28.75	25.2	1×3.5	12.9	34.4	720
		BNFN 2805-5	28.75	25.2	2×2.5	17.5	49.4	1000
	BNFN 2805-7.5	28.75	25.2	3×2.5	24.8	73.8	1470	
	6	BIF 2806-5	28.75	25.2	1×2.5	9.6	24.6	520
		BIF 2806-10	28.75	25.2	2×2.5	17.5	49.4	1000
		DIK 2806-6	29	24.4	3×1	14	32	530
		BNFN 2806-2.5	28.75	25.2	1×2.5	9.6	24.6	520
		BNFN 2806-3.5	28.75	25.2	1×3.5	12.9	34.5	710
		BNFN 2806-5	28.75	25.2	2×2.5	17.5	49.4	1000
		BNFN 2806-7.5	28.75	25.2	3×2.5	24.8	73.8	1470
		8	BNFN 2808-2.5	29.25	23.6	1×2.5	16.8	36.8
	BNFN 2808-3		29.25	23.6	2×1.5	19.6	44.2	660
	BNFN 2808-5		29.25	23.6	2×2.5	30.4	73.7	1060
	10	BIF 2810-3	29.75	22.4	1×1.5	15.7	29.4	350
DIK 2810-4		29.25	23.6	2×1	12.3	25	380	
		BNFN 2810-2.5	29.75	22.4	1×2.5	24	48.2	560

Note) The model numbers in dimmed type indicate semi-standard types.  
If desiring them, contact THK.



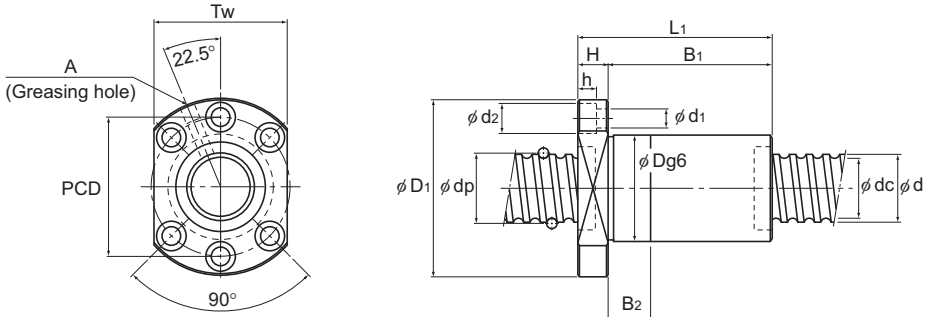
Unit: mm

Nut dimensions											Screw shaft inertial moment/mm <sup>3</sup>	Nut mass	Shaft mass
Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	Greasing hole	A			
D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	A	A	kg·cm <sup>2</sup> /mm	kg	kg/m
55	85	59	12	47	—	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	0.98	4.27
55	85	89	12	77	—	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.34	4.27
43	71	69	12	57	15	57	6.6 × 11 × 6.5	55	M6		4.74 × 10 <sup>-3</sup>	0.61	4.27
43	71	79	12	67	20	57	6.6 × 11 × 6.5	55	M6		4.74 × 10 <sup>-3</sup>	0.68	4.27
55	85	74	12	62	49	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.16	4.27
55	85	94	12	82	69	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.4	4.27
55	85	84	12	72	59	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.28	4.27
55	85	104	12	92	79	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.52	4.27
55	85	134	12	122	109	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.88	4.27
55	85	68	12	56	—	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.09	4.36
55	85	104	12	92	—	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.52	4.36
43	71	73	12	61	15	57	6.6 × 11 × 6.5	55	M6		4.74 × 10 <sup>-3</sup>	0.64	4.36
55	85	86	12	74	61	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.3	4.36
55	85	98	12	86	73	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.45	4.36
55	85	122	12	110	97	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	1.73	4.36
55	85	158	12	146	133	69	6.6 × 11 × 6.5	—	M6		4.74 × 10 <sup>-3</sup>	2.16	4.36
60	104	116	18	98	—	82	11 × 17.5 × 11	—	M6		4.74 × 10 <sup>-3</sup>	2.47	4.02
60	104	144	18	126	—	82	11 × 17.5 × 11	—	M6		4.74 × 10 <sup>-3</sup>	2.9	4.02
60	104	164	18	146	—	82	11 × 17.5 × 11	—	M6		4.74 × 10 <sup>-3</sup>	3.2	4.02
65	106	88	18	70	—	85	11 × 17.5 × 11	—	M6		4.74 × 10 <sup>-3</sup>	2.33	3.66
45	71	84	15	69	20	57	6.6 × 11 × 6.5	55	M6		4.74 × 10 <sup>-3</sup>	0.82	4.18
65	106	146	18	128	—	85	11 × 17.5 × 11	—	M6		4.74 × 10 <sup>-3</sup>	3.41	3.66

For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

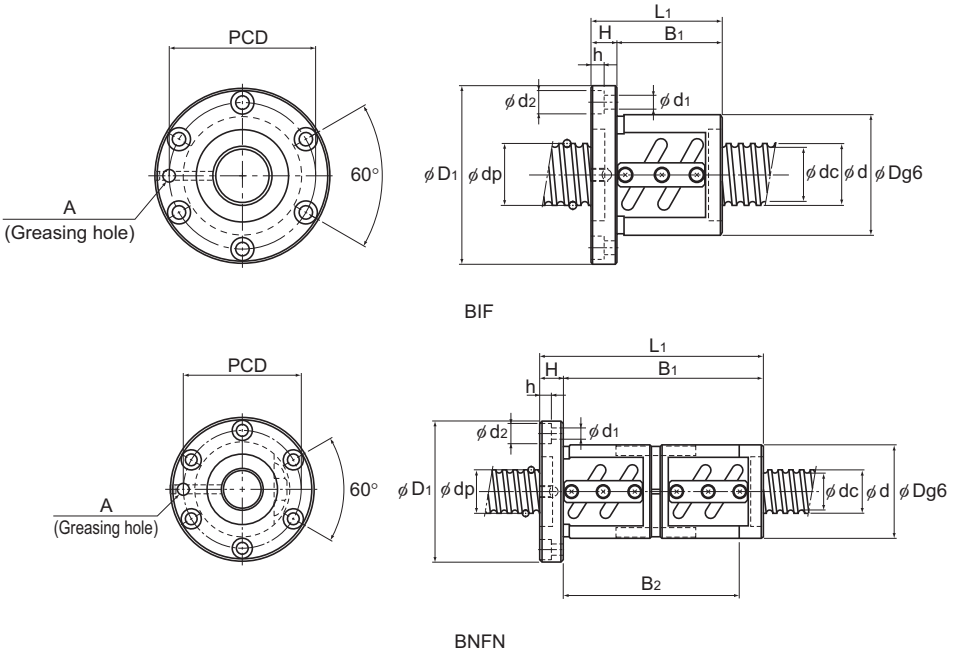
Screw shaft outer diameter	32
Lead	4 to 6



DIK (2805 to 6312)

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating		Rigidity K	
						Ca kN	C <sub>0a</sub> kN		
32	4	BIF 3204-10	32.5	30.1	2×2.5	10.5	35.4	1010	
		DIK 3204-6	32.5	30.1	3×1	6.4	19.6	580	
		DIK 3204-8	32.5	30.1	4×1	8.2	26.1	760	
		DIK 3204-10	32.5	30.1	5×1	10	32.7	940	
	5	DIK 3205-6	32.75	29.2	3×1	11.1	30.2	620	
		DIK 3205-8	32.75	29.2	4×1	14.2	40.3	810	
		○ BIF 3205-5	32.75	29.2	1×2.5	10.2	28.1	570	
		○ BIF 3205-10	32.75	29.2	2×2.5	18.5	56.4	1110	
		○ BNFN 3205-2.5	32.75	29.2	1×2.5	10.2	28.1	570	
		○ BNFN 3205-3	32.75	29.2	2×1.5	12	33.8	690	
		○ BNFN 3205-4.5	32.75	29.2	3×1.5	17	50.7	1000	
		○ BNFN 3205-5	32.75	29.2	2×2.5	18.5	56.4	1110	
		○ BNFN 3205-7.5	32.75	29.2	3×2.5	26.3	84.5	1640	
		6	DIK 3206-6	33	28.4	3×1	14.9	37.1	630
			DIK 3206-8	33	28.4	4×1	19.1	49.5	820
			○ BIF 3206-5	33	28.4	1×2.5	13.9	35.2	600
	○ BIF 3206-7		33	28.4	1×3.5	18.5	49.2	810	
	○ BIF 3206-10		33	28.4	2×2.5	25.2	70.4	1150	
	○ BNFN 3206-2.5		33	28.4	1×2.5	13.9	35.2	600	
	○ BNFN 3206-3		33	28.4	2×1.5	16.3	42.2	710	
○ BNFN 3206-5	33		28.4	2×1.5	25.2	70.4	1150		

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.  
Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.  
For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.



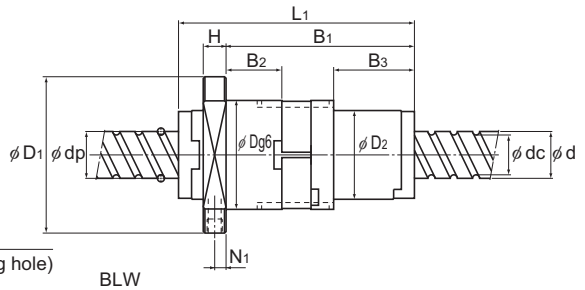
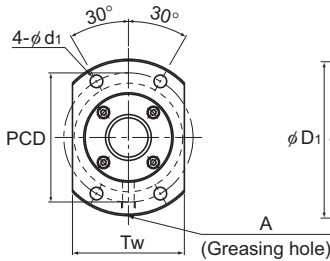
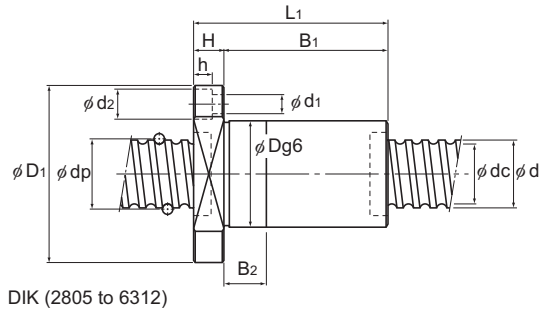
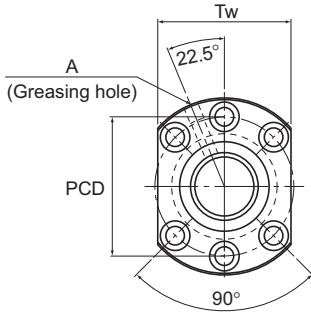
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm <sup>3</sup>	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length							Greasing hole			
	D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	A			
54	81	76	11	65	—	67	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	0.97	5.86	
45	76	64	11	53	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.57	5.86	
45	76	72	11	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.62	5.86	
45	76	80	11	69	20	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.66	5.86	
46	76	62	12	50	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.60	5.67	
46	76	73	12	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.67	5.67	
58	85	56	12	44	—	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	0.94	5.67	
58	85	86	12	74	—	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.31	5.67	
58	85	76	12	64	51	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.19	5.67	
58	85	103	12	91	78	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.52	5.67	
58	85	123	12	111	98	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.77	5.67	
58	85	106	12	94	81	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.56	5.67	
58	85	136	12	124	111	71	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.93	5.67	
48	76	73	12	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.74	6.31	
48	76	87	12	75	20	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 <sup>-3</sup>	0.85	6.31	
62	89	63	12	51	—	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.21	6.31	
62	89	75	12	63	—	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.39	6.31	
62	89	99	12	87	—	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.75	6.31	
62	89	87	12	75	62	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.57	6.31	
62	89	111	12	99	86	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	1.93	6.31	
62	89	123	12	111	98	75	6.6 × 11 × 6.5	—	M6	8.08 × 10 <sup>-3</sup>	2.11	6.31	

For model number coding, see **A15-248**.

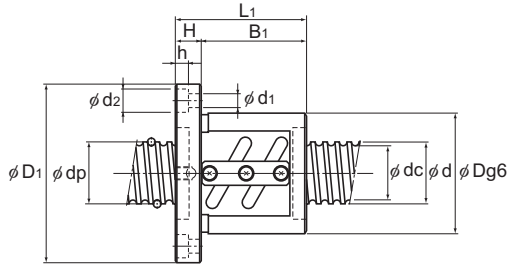
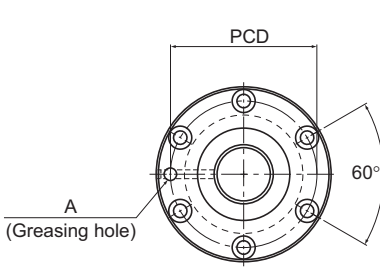
# Preload Type of Precision Ball Screw

Screw shaft outer diameter	32
Lead	8 to 32

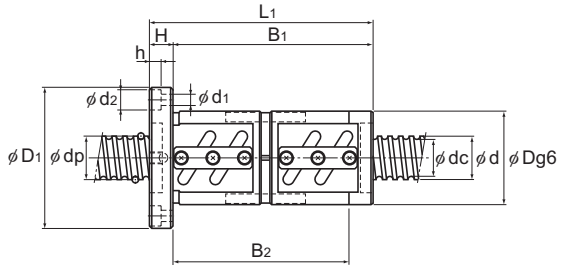
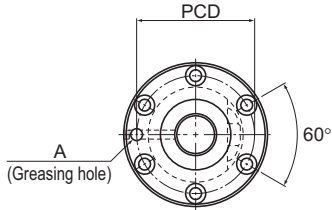


Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K			
						Ca kN	C <sub>0a</sub> kN		Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>
32	8	○ BIF 3208A-5	33.25	27.5	1×2.5	17.8	42.2	610	66	100	—
		○ BIF 3208A-7	33.25	27.5	1×3.5	23.8	59.1	840	66	100	—
		○ BNFN 3208A-2.5	33.25	27.5	1×2.5	17.8	42.2	610	66	100	—
		○ BNFN 3208A-3	33.25	27.5	2×1.5	20.9	50.7	730	66	100	—
		○ BNFN 3208A-4.5	33.25	27.5	3×1.5	29.5	76	1070	66	100	—
		○ BNFN 3208A-5	33.25	27.5	2×2.5	32.3	84.4	1180	66	100	—
	10	○ DIK 3210-6	33.75	26.4	3×1	25.7	52.2	600	54	87	—
		○ BIF 3210A-5	33.75	26.4	1×2.5	26.1	56.2	640	74	108	—
		○ BNFN 3210A-2.5	33.75	26.4	1×2.5	26.1	56.2	640	74	108	—
		○ BNFN 3210A-3	33.75	26.4	2×1.5	30.5	67.4	750	74	108	—
		○ BNFN 3210A-3.5	33.75	26.4	1×3.5	34.8	78.6	870	74	108	—
		○ BNFN 3210A-5	33.75	26.4	2×2.5	47.2	112.7	1230	74	108	—
	12	○ DIK 3212-4	33.75	26.4	2×1	18.8	37	430	54	87	—
		○ BNFN 3212-3.5	34	26.1	1×3.5	40.4	88.5	890	76	121	—
32	32	BLW 3232-3.6	33.25	28.3	2×1.8	23.7	59.5	880	68	99	58

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.  
 Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.  
 For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.  
 Model BLW cannot be attached with seal.



BIF



BNFN

Unit: mm

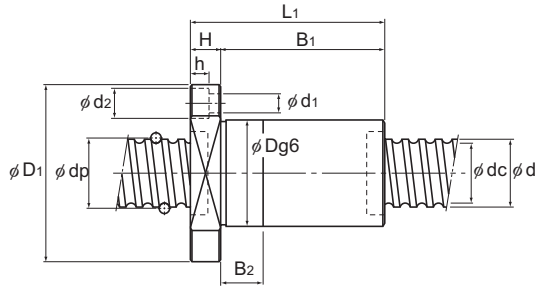
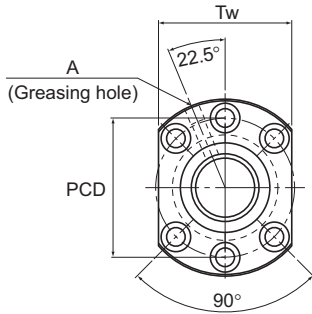
Nut dimensions													Screw shaft inertial moment/mm <sup>3</sup>	Nut mass	Shaft mass
Overall length	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	Greasing hole			
	82	15	67	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	1.93	5.39
	98	15	83	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	2.21	5.39
	106	15	91	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	2.36	5.39
	135	15	120	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	2.88	5.39
	167	15	152	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	3.45	5.39
	154	15	139	—	—	82	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	3.21	5.39
	110	15	95	25	—	69	9	14	8.5	66	—	M6	8.08 × 10 <sup>-3</sup>	1.57	4.98
	100	15	85	—	—	90	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	2.92	4.98
	130	15	115	99	—	90	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	3.64	4.98
	167	15	152	136	—	90	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	4.53	4.98
	150	15	135	119	—	90	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	4.12	4.98
	190	15	175	159	—	90	9	14	8.5	—	—	M6	8.08 × 10 <sup>-3</sup>	5.08	4.98
	98	15	83	25	—	69	9	14	8.5	66	—	M6	8.08 × 10 <sup>-3</sup>	1.43	5.2
	170	18	152	—	—	98	11	17.5	11	—	—	M6	8.08 × 10 <sup>-3</sup>	5.26	4.9
	155	15	127	42.4	55.4	81	9	—	—	70	6	M6	8.08 × 10 <sup>-3</sup>	3.19	5.83

For model number coding, see **15-248**.

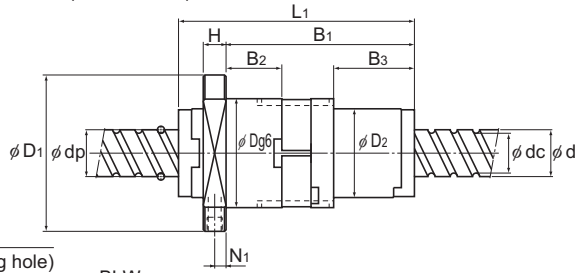
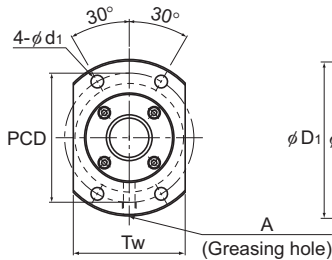


# Preload Type of Precision Ball Screw

Screw shaft outer diameter	36
Lead	6 to 36



DIK (2805 to 6312)



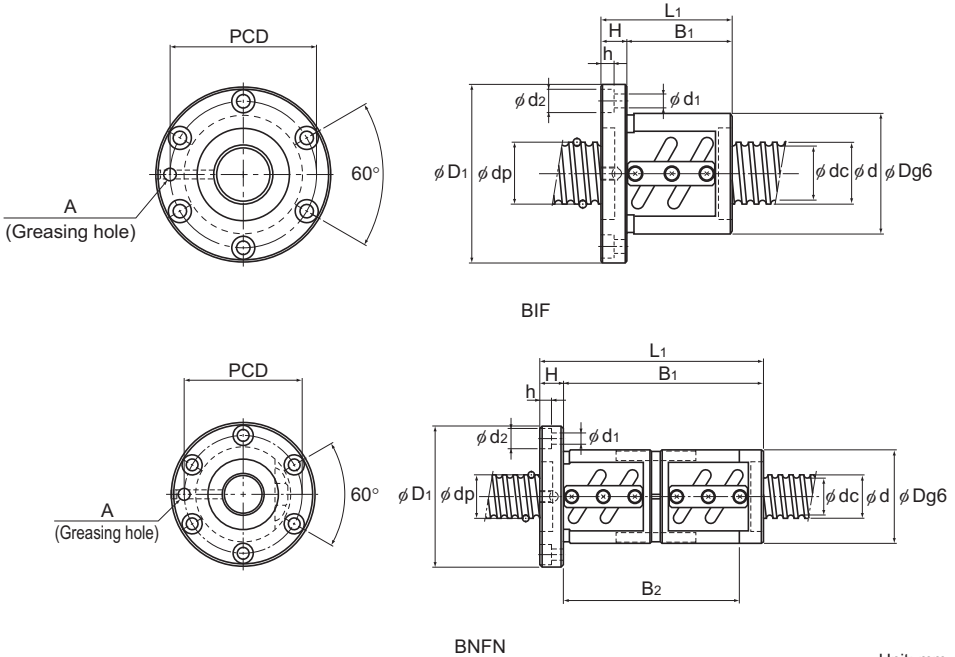
BLW

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm	Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>
						Ca kN	C <sub>0a</sub> kN				
36	6	○BNFN 3606-2.5	36.75	33.2	1×2.5	10.7	31.8	630	65	100	—
		○BNFN 3606-3	36.75	33.2	2×1.5	12.5	38	740	65	100	—
		○BNFN 3606-5	36.75	33.2	2×2.5	19.4	63.4	1220	65	100	—
		○BNFN 3606-7.5	36.75	33.2	3×2.5	27.5	95.2	1790	65	100	—
	8	○BNFN 3608-2.5	37.25	31.6	1×2.5	18.8	47.5	670	70	114	—
		○BNFN 3608-5	37.25	31.6	2×2.5	34.1	95.1	1290	70	114	—
		○BNFN 3608-7.5	37.25	31.6	3×2.5	48.3	142.1	1910	70	114	—
	10	DIK 3610-6	37.75	30.5	3×1	28.8	63.8	710	58	98	—
		DIK 3610-8	37.75	30.5	4×1	36.8	85	940	58	98	—
		DIK 3610-10	37.75	30.5	5×1	44.6	106.3	1160	58	98	—
		○BIF 3610-5	37.75	30.5	1×2.5	27.6	63.3	700	75	120	—
		○BIF 3610-10	37.75	30.5	2×2.5	50.1	126.4	1350	75	120	—
		○BNFN 3610-2.5	37.75	30.5	1×2.5	27.6	63.3	700	75	120	—
	12	○BNFN 3610-5	37.75	30.5	2×2.5	50.1	126.4	1350	75	120	—
		○BNFN 3610-7.5	37.75	30.5	3×2.5	71.1	190.1	1990	75	120	—
		○BNFN 3612-2.5	38	30.1	1×2.5	32.1	71.4	720	78	123	—
		○BNFN 3612-5	38	30.1	2×2.5	58.4	142.1	1370	78	123	—
	16	○BNFN 3616-2.5	38	30.1	1×2.5	32.1	71.4	720	78	123	—
		○BNFN 3616-5	38	30.1	2×2.5	58.3	143.1	1380	78	123	—
	20	○BNFN 3620-1.5	37.75	30.5	1×1.5	17.6	38.3	430	70	103	—
36	BLW 3636-3.6	37.4	31.7	2×1.8	30.8	78	980	79	116	66	

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.

Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.

For dimensions of the ball screw nut with either accessory being attached, see **A15-356**. Model BLW cannot be attached with seal.



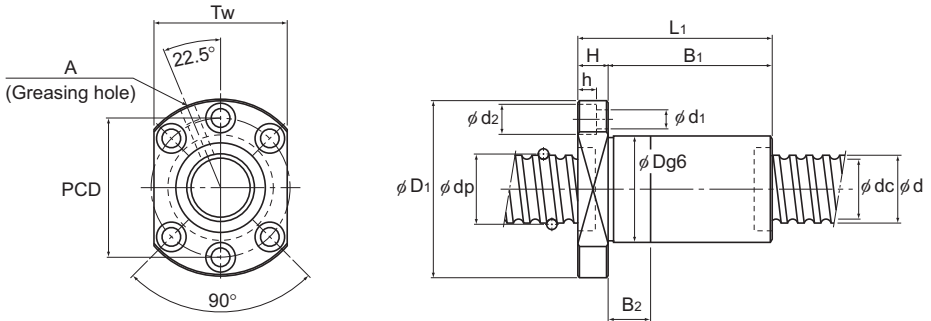
Unit: mm

Nut dimensions												Screw shaft inertial moment/mm <sup>4</sup>	Nut mass	Shaft mass
Overall length	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	Greasing hole			
89	15	74	58	—	82	9	14	8.5	—	—	M6	1.29×10 <sup>-2</sup>	1.85	7.39
110	15	95	79	—	82	9	14	8.5	—	—	M6	1.29×10 <sup>-2</sup>	2.18	7.39
125	15	110	94	—	82	9	14	8.5	—	—	M6	1.29×10 <sup>-2</sup>	2.41	7.39
161	15	146	130	—	82	9	14	8.5	—	—	M6	1.29×10 <sup>-2</sup>	2.96	7.39
116	18	98	—	—	92	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	3.03	6.96
164	18	146	—	—	92	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	3.95	6.96
212	18	194	—	—	92	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	4.87	6.96
122	18	104	30	—	77	11	17.5	11	75	—	M6	1.29×10 <sup>-2</sup>	2.03	6.51
143	18	125	35	—	77	11	17.5	11	75	—	M6	1.29×10 <sup>-2</sup>	2.3	6.51
164	18	146	45	—	77	11	17.5	11	75	—	M6	1.29×10 <sup>-2</sup>	2.57	6.51
111	18	93	—	—	98	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	3.45	6.51
171	18	153	—	—	98	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	4.84	6.51
141	18	123	104	—	98	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	4.15	6.51
201	18	183	164	—	98	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	5.54	6.51
261	18	243	224	—	98	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	6.93	6.51
147	18	129	—	—	100	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	4.69	6.41
219	18	201	—	—	100	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	6.54	6.41
172	18	154	—	—	100	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	5.33	6.8
268	18	250	—	—	100	11	17.5	11	—	—	M6	1.29×10 <sup>-2</sup>	7.8	6.8
135	15	120	—	—	85	9	14	8.5	—	—	M6	1.29×10 <sup>-2</sup>	3.06	7.24
181	17	147.9	49.4	65.4	95	11	—	—	82	7	M6	1.29×10 <sup>-2</sup>	5.99	7.34

For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

Screw shaft outer diameter	40
Lead	5 to 10



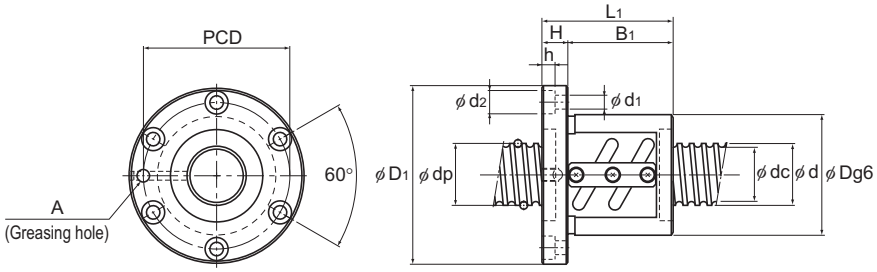
DIK (2805 to 6312)

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm
						Ca kN	C <sub>0a</sub> kN	
40	5	BNFN 4005-3	40.75	37.2	2×1.5	13	42.3	810
		BNFN 4005-4.5	40.75	37.2	3×1.5	18.5	63.5	1200
		BNFN 4005-5	40.75	37.2	2×2.5	20.3	70.6	1320
		BNFN 4005-6	40.75	37.2	4×1.5	23.7	84.7	1580
	6	BNFN 4006-2.5	41	36.4	1×2.5	15.3	44.1	710
		BNFN 4006-5	41	36.4	2×2.5	27.7	88.1	1360
		BNFN 4006-7.5	41	36.4	3×2.5	39.2	132.3	2010
	8	BNFN 4008-2.5	41.25	35.5	1×2.5	19.6	52.8	730
		BNFN 4008-3	41.25	35.5	2×1.5	22.9	63.4	860
		BNFN 4008-5	41.25	35.5	2×2.5	35.7	105.8	1410
	10	BIF 4010-5	41.75	34.4	1×2.5	29	70.4	750
		BIF 4010-10	41.75	34.4	2×2.5	52.7	141.1	1470
		DIK 4010-6	41.75	34.7	3×1	29.8	69.3	750
		DIK 4010-8	41.75	34.7	4×1	38.1	92.4	1000
BNFN 4010-2.5		41.75	34.4	1×2.5	29	70.4	750	
BNFN 4010-3		41.75	34.4	2×1.5	33.8	84.5	900	
BNFN 4010-3.5		41.75	34.4	1×3.5	38.8	99	1050	
BNFN 4010-5	41.75	34.4	2×2.5	52.7	141.1	1470		

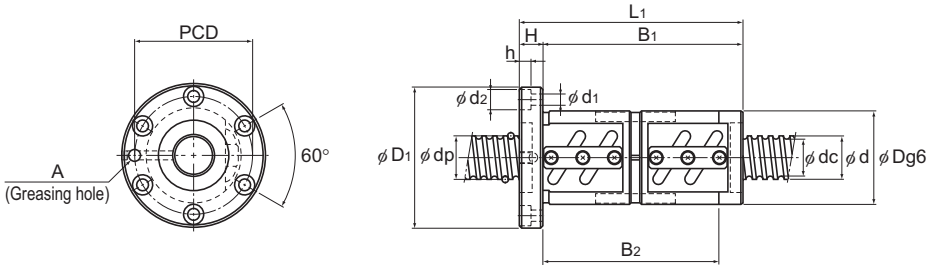
Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.

These models can be attached with QZ Lubricator or the wiper ring.

For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.



BIF



BNFN

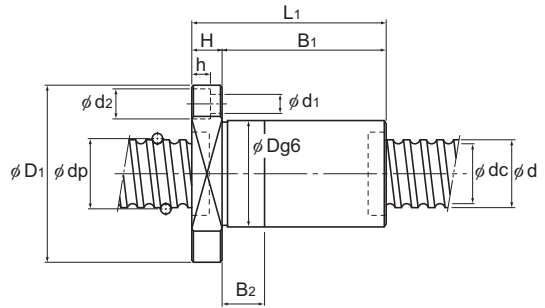
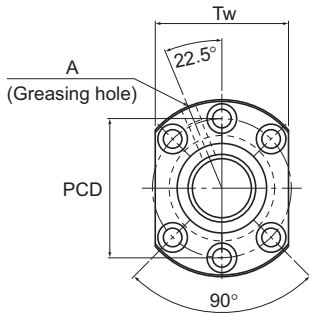
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	Greasing hole			
	D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	A	kg·cm <sup>2</sup> /mm	kg	kg/m
	67	101	106	15	91	—	83	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.07	9.06
	67	101	126	15	111	—	83	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.37	9.06
	67	101	109	15	94	—	83	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.11	9.06
	67	101	156	15	141	—	83	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.82	9.06
	70	104	90	15	75	—	86	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.05	8.82
	70	104	126	15	111	—	86	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.67	8.82
	70	104	162	15	147	—	86	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	3.29	8.82
	74	108	106	15	91	—	90	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	2.69	8.72
	74	108	135	15	120	—	90	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	3.28	8.72
	74	108	154	15	139	—	90	9 × 14 × 8.5	—	M6	1.97 × 10 <sup>-2</sup>	3.67	8.72
	82	124	103	18	85	—	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	3.69	8.22
	82	124	163	18	145	—	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	5.33	8.22
	62	104	113	18	95	25	82	11 × 17.5 × 11	79	PT 1/8	1.97 × 10 <sup>-2</sup>	2.09	8.22
	62	104	137	18	119	35	82	11 × 17.5 × 11	79	PT 1/8	1.97 × 10 <sup>-2</sup>	2.42	8.22
	82	124	133	18	115	96	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	4.51	8.22
	82	124	170	18	152	133	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	5.52	8.22
	82	124	153	18	135	116	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	5.06	8.22
	82	124	193	18	175	156	102	11 × 17.5 × 11	—	M6	1.97 × 10 <sup>-2</sup>	6.16	8.22

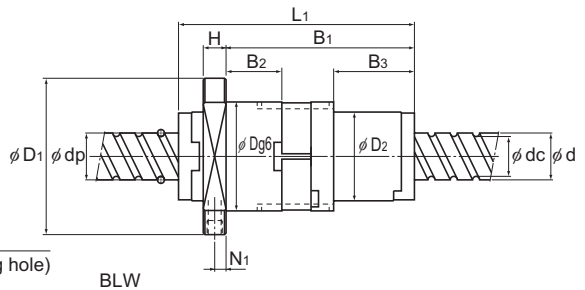
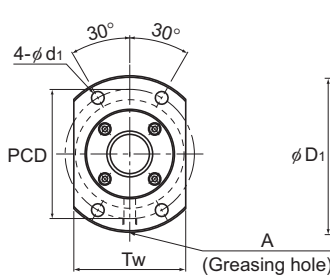
For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

Screw shaft outer diameter	40
Lead	12 to 40



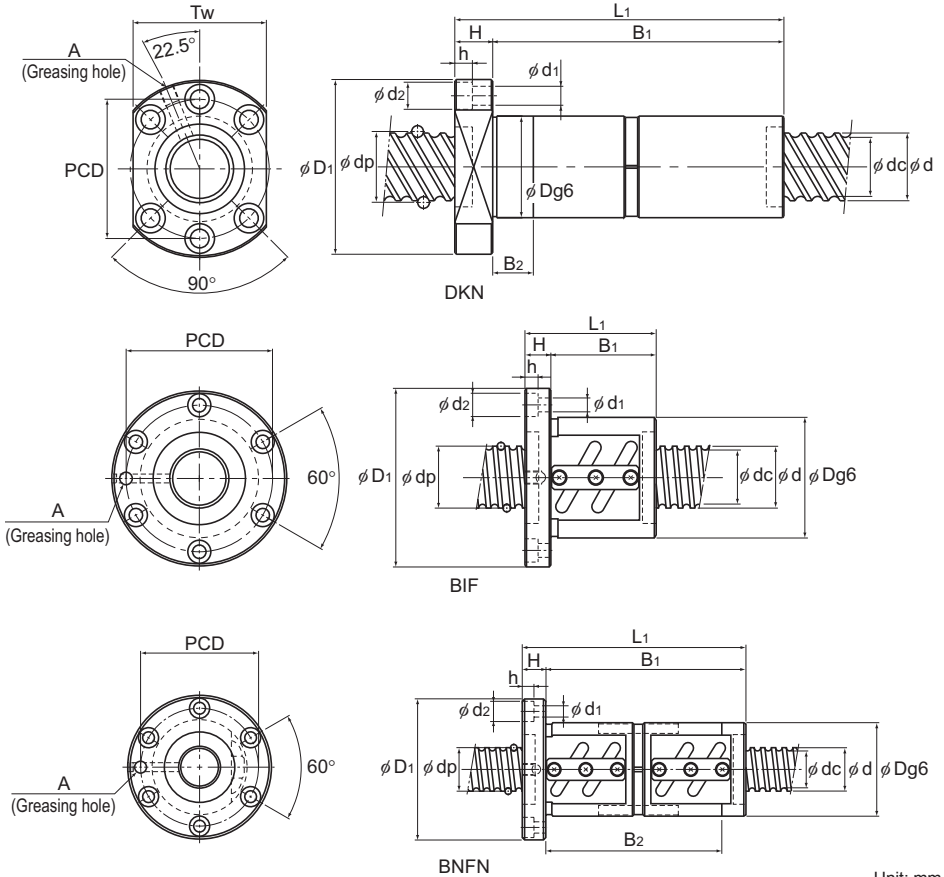
DIK (2805 to 6312)



BLW

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating			Rigidity		
						Ca kN	Ca kN	K N/μm	Outer diameter D	Flange diameter D1	D2
40	12	BIF 4012-5	42	34.1	1×2.5	33.9	79.2	770	84	126	—
		BIF 4012-10	42	34.1	2×2.5	61.6	158.8	1490	84	126	—
		DIK 4012-6	41.75	34.4	3×1	30.6	72.3	790	62	104	—
		DIK 4012-8	41.75	34.4	4×1	39.2	96.4	1030	62	104	—
		BNFN 4012-2.5	42	34.1	1×2.5	33.9	79.2	770	84	126	—
		BNFN 4012-3.5	42	34.1	1×3.5	45.4	110.7	1070	84	126	—
	BNFN 4012-5	42	34.1	2×2.5	61.6	158.8	1490	84	126	—	
	16	DIK 4016-4	41.75	34.4	2×1	21.5	68.4	540	62	104	—
		BNFN 4016-5	42	34.1	2×2.5	61.4	158.8	1500	84	126	—
	20	DKN 4020-3	41.75	34.7	3×1	29.4	69.3	750	62	104	—
40	BLW 4040-3.6	41.75	35.2	2×1.8	38.7	99.2	1090	84	121	73	

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.  
 These models can be attached with QZ Lubricator or the wiper ring.  
 For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.  
 Model BLW cannot be attached with seal.



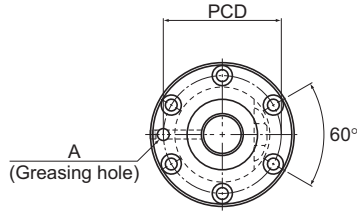
Unit: mm

Nut dimensions													Screw shaft inertial moment/mm	Nut mass	Shaft mass
Overall length	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	Greasing hole				
L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	PCD	d <sub>1</sub>	d <sub>2</sub>	h	Tw	N <sub>1</sub>	A	kg·cm <sup>2</sup> /mm	kg	kg/m	
119	18	101	—	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	4.36	8.12	
191	18	173	—	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	6.47	8.12	
138	18	120	35	—	82	11	17.5	11	79	—	PT 1/8	$1.97 \times 10^{-2}$	2.44	8.5	
163	18	145	45	—	82	11	17.5	11	79	—	PT 1/8	$1.97 \times 10^{-2}$	2.78	8.5	
155	18	137	118	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	5.42	8.12	
179	18	161	142	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	6.12	8.12	
227	18	209	190	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	7.52	8.12	
120	18	102	30	—	82	11	17.5	11	79	—	PT 1/8	$1.97 \times 10^{-2}$	2.19	8.83	
280	22	258	—	—	104	11	17.5	11	—	—	M6	$1.97 \times 10^{-2}$	9.27	8.55	
223	18	205	25	—	82	11	17.5	11	79	—	PT 1/8	$1.97 \times 10^{-2}$	3.61	9.03	
191	17	158	54.5	70.5	100	11	—	—	87	7	M6	$1.97 \times 10^{-2}$	6.16	9.01	

For model number coding, see **A15-248**.

# Preload Type of Precision Ball Screw

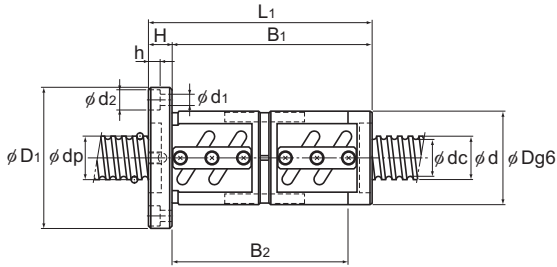
Screw shaft outer diameter	45
Lead	6 to 20



BNFN

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating		Rigidity K N/μm
						Ca kN	C <sub>0a</sub> kN	
45	6	BNFN 4506A-2.5	46	41.4	1×2.5	16	49.6	770
		BNFN 4506A-5	46	41.4	2×2.5	29	99	1500
		BNFN 4506A-7.5	46	41.4	3×2.5	41.2	150	2210
	8	BNFN 4508-2.5	46.25	40.6	1×2.5	20.7	59.5	790
		BNFN 4508-5	46.25	40.6	2×2.5	37.4	118.6	1540
		BNFN 4508-7.5	46.25	40.6	3×2.5	53.1	178.4	2270
	10	BNFN 4510-2.5	46.75	39.5	1×2.5	30.7	79.3	830
		BNFN 4510-3	46.75	39.5	2×1.5	35.9	95.2	990
		BNFN 4510-5	46.75	39.5	2×2.5	55.6	158.8	1610
		BNFN 4510-7.5	46.75	39.5	3×2.5	78.8	238.1	2370
	12	BNFN 4512-5	47	39.2	2×2.5	65.2	178.4	1640
	20	BNFN 4520-1.5	47.7	37.9	1×1.5	44.2	99	690

Note) The model numbers in dimmed type indicate semi-standard types.  
If desiring them, contact THK.



BNFN

Unit: mm

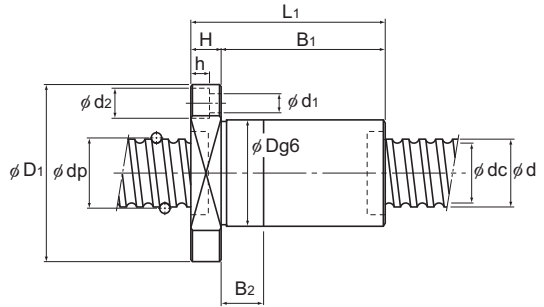
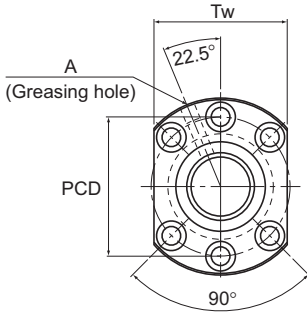
	Nut dimensions									Screw shaft inertial moment/mm kg·cm <sup>2</sup> /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D <sub>1</sub>	Overall length L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Greasing hole A			
80	114	89	15	74	—	96	9 × 14 × 8.5	PT 1/8	3.16 × 10 <sup>-2</sup>	2.59	11.31	
80	114	125	15	110	—	96	9 × 14 × 8.5	PT 1/8	3.16 × 10 <sup>-2</sup>	3.42	11.31	
80	114	161	15	146	—	96	9 × 14 × 8.5	PT 1/8	3.16 × 10 <sup>-2</sup>	4.25	11.31	
85	127	116	18	98	—	105	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	4.09	11.21	
85	127	164	18	146	—	105	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	5.41	11.21	
85	127	212	18	194	—	105	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	6.74	11.21	
88	132	141	18	123	104	110	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	5.26	10.65	
88	132	164	18	146	127	110	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	5.96	10.65	
88	132	201	18	183	164	110	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	7.09	10.65	
88	132	261	18	243	224	110	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	8.92	10.65	
90	130	227	18	209	—	110	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	8.24	10.54	
98	142	175	20	155	—	120	11 × 17.5 × 11	PT 1/8	3.16 × 10 <sup>-2</sup>	8.31	10.37	

For model number coding, see **15-248**.



# Preload Type of Precision Ball Screw

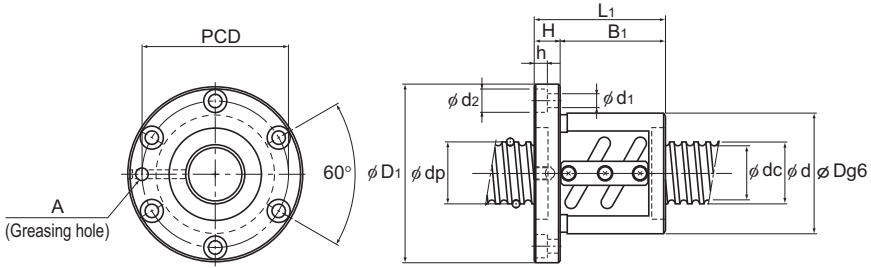
Screw shaft outer diameter	50
Lead	5 to 10



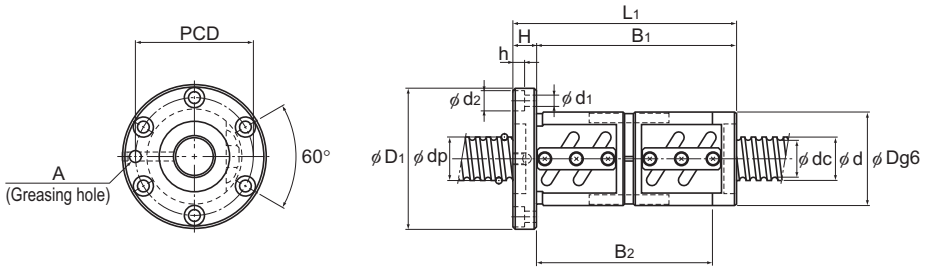
DIK (2805 to 6312)

Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm
						Ca kN	C <sub>a</sub> a kN	
50	5	○BNFN 5005-3	50.75	47.2	2×1.5	14.2	53	970
		○BNFN 5005-4.5	50.75	47.2	3×1.5	20.2	79.5	1420
	8	○BNFN 5008-2.5	51.25	45.5	1×2.5	21.6	66.2	860
		○BNFN 5008-5	51.25	45.5	2×2.5	39.1	132.3	1680
		○BNFN 5008-7.5	51.25	45.5	3×2.5	55.4	198.9	2470
	10	DIK 5010-6	51.75	44.4	3×1	33.9	90.7	940
		DIK 5010-8	51.75	44.4	4×1	43.4	120.5	1230
		DIK 5010-10	51.75	44.4	5×1	52.5	150.9	1530
		○BIF 5010-5	51.75	44.4	1×2.5	32	88.2	900
		○BIF 5010-10	51.75	44.4	2×2.5	58.2	176.4	1750
		○BNFN 5010-2.5	51.75	44.4	1×2.5	32	88.2	900
		○BNFN 5010-3	51.75	44.4	2×1.5	37.5	105.8	1080
		○BNFN 5010-3.5	51.75	44.4	1×3.5	42.8	123.5	1240
		○BNFN 5010-5	51.75	44.4	2×2.5	58.2	176.4	1750
		○BNFN 5010-7.5	51.75	44.4	3×2.5	82.5	264.6	2580

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.  
Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.  
For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.



BIF



BNFN

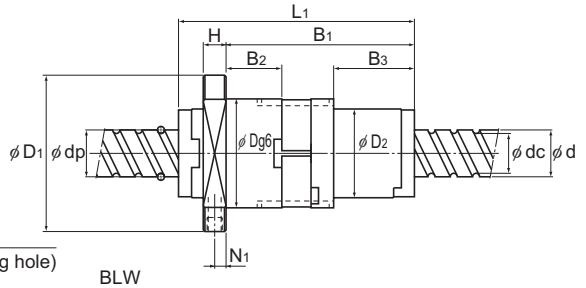
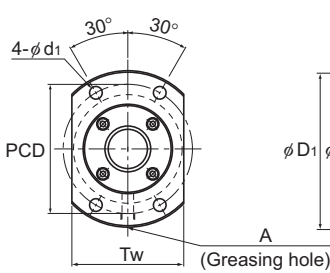
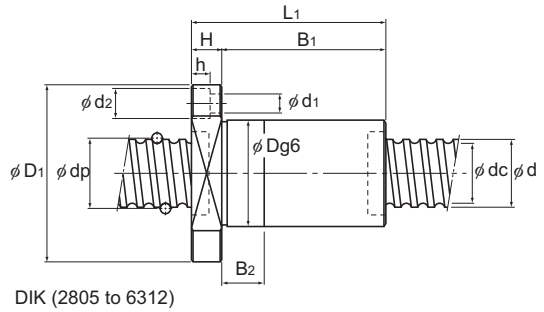
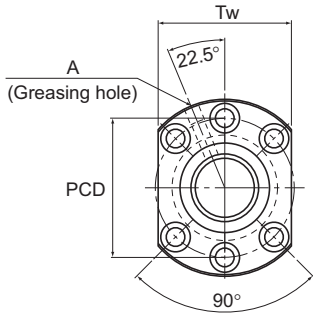
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm <sup>2</sup>	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	Greasing hole			
	D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	PCD	d <sub>1</sub> × d <sub>2</sub> × h	Tw	A	kg·cm <sup>2</sup> /mm	kg	kg/m
	80	114	108	15	93	—	96	9 × 14 × 8.5	—	PT 1/8	4.82 × 10 <sup>-2</sup>	2.71	14.42
	80	114	128	15	113	—	96	9 × 14 × 8.5	—	PT 1/8	4.82 × 10 <sup>-2</sup>	3.12	14.42
	87	129	109	18	91	—	107	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	3.8	14.0
	87	129	157	18	139	—	107	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	5.08	14.0
	87	129	205	18	187	—	107	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	6.35	14.0
	72	123	114	18	96	30	101	11 × 17.5 × 11	92	PT 1/8	4.82 × 10 <sup>-2</sup>	2.65	13.38
	72	123	137	18	119	35	101	11 × 17.5 × 11	92	PT 1/8	4.82 × 10 <sup>-2</sup>	3.03	13.38
	72	123	160	18	142	45	101	11 × 17.5 × 11	92	PT 1/8	4.82 × 10 <sup>-2</sup>	3.41	13.38
	93	135	103	18	85	—	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	4.31	13.38
	93	135	163	18	145	—	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	6.26	13.38
	93	135	133	18	115	96	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	5.28	13.38
	93	135	170	18	152	133	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	6.49	13.38
	93	135	153	18	135	116	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	5.94	13.38
	93	135	193	18	175	156	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	7.24	13.38
	93	135	253	18	235	216	113	11 × 17.5 × 11	—	PT 1/8	4.82 × 10 <sup>-2</sup>	9.19	13.38

For model number coding, see **15-248**.

# Preload Type of Precision Ball Screw

Screw shaft outer diameter	50
Lead	12 to 50



Screw shaft outer diameter d	Lead Ph	Model No.	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows x turns	Basic load rating		Rigidity K			
						Ca	Ca		Outer diameter D	Flange diameter D <sub>1</sub>	D <sub>2</sub>
						kN	kN	N/μm	D	D <sub>1</sub>	D <sub>2</sub>
50	12	DIK 5012-6	52.25	43.3	3×1	45.8	113	970	75	129	—
		DIK 5012-8	52.25	43.3	4×1	58.6	150.6	1270	75	129	—
		○BNFN 5012-2.5	52.25	43.3	1×2.5	43.4	109.8	930	100	146	—
		○BNFN 5012-3.5	52.25	43.3	1×3.5	58	153.9	1280	100	146	—
	16	○BNFN 5012-5	52.25	43.3	2×2.5	78.8	220.5	1810	100	146	—
		DIK 5016-4	52.25	43.3	2×1	32.3	75.5	660	75	129	—
		DIK 5016-6	52.25	43.3	3×1	45.7	113.3	970	75	129	—
		○BNFN 5016-2.5	52.7	42.9	1×2.5	72.6	183.3	1230	105	152	—
	20	○BNFN 5016-5	52.7	42.9	2×2.5	132.3	366.5	2360	105	152	—
		DKN 5020-3	52.25	43.6	3×1	44.2	108.8	930	75	129	—
		○BNFN 5020-2.5	52.7	42.9	1×2.5	72.5	183.3	1230	105	152	—
		BLW 5050-3.6	52.2	44.1	2×1.8	57.8	155	1340	106	149	90

Note) The model numbers in dimmed type indicate semi-standard types. If desiring them, contact THK.

Those models marked with ○ can be attached with QZ Lubricator or the wiper ring.

For dimensions of the ball screw nut with either accessory being attached, see **A15-356**.

Model BLW cannot be attached with seal.