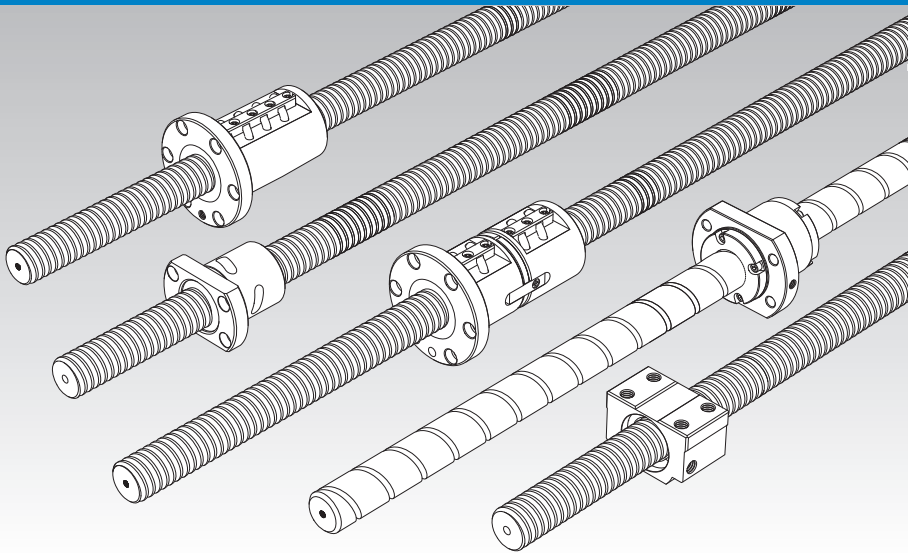


Precision Ball Screw

Models BIF-V, DIK, BNFN-V/BNFN, DKN, BLW, BNF-V/BNF, DK, MDK, WHF, BLK/WGF and BNT



Point of Selection	A15-8
Options	A15-336
Model No.	A15-353
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Accessories for Lubrication	A24-1
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DN Value	A15-33
Support Unit	A15-300
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Dimensions of Each Model with an Option Attached	A15-344

For THK Precision Ball Screws, a wide array of precision-ground screw shafts and ball screw nuts are available as standard to meet diversified applications.

Structure and Features

[Combinations of Various shaft Diameters and Leads]

You can select the combination of a shaft diameter and a lead that meet the intended use from the various nut types and the screw shaft leads. Those nut types include the return-pipe nuts, which represent the most extensive variations among the series, the compact simple nuts and the large-lead end-cap nuts.

[Screw Shaft Standard Products (Unfinished Shaft Ends/Finished Shaft Ends) Available]

The unfinished shaft end types, which are mass manufactured by cutting the standardized screw shafts to the standard lengths; and those with finished shaft ends, for which the screw shaft ends are machined to match the corresponding support units, are available as the standard.

[Accuracy Standards Compliant with JIS (ISO)]

The precision of the ball screw is controlled in accordance with JIS standards (JIS B1192-1997) and ISO 3408.

	Precision Ball Screw					Rolled Ball Screw		
	C0	C1	C2	C3	C5	C7	C8	C10
Accuracy grades	C0	C1	C2	C3	C5	C7	C8	C10

Type	Series symbol	Grade	Remarks
For positioning	C	0, 1, 3, 5	JIS series
	Cp	1, 3, 5	ISO compliant
For transport	Ct	1, 3, 5, 7, 10	

[Options that Meet the Environment are Available]

Options are available consisting of a lubricator (QZ), which enables the maintenance interval to be significantly extended, and a wiper ring (W), which improves the ability to remove foreign materials in adverse environments.

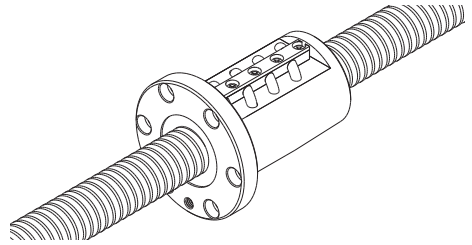
Types and Features

[Preload Type]

Model BIF-V

Specification Table⇒ **A15-184**

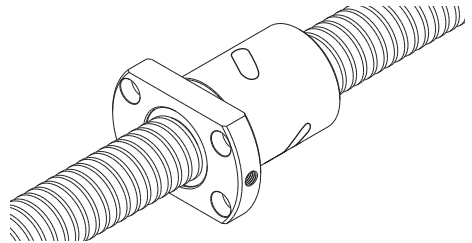
The right and the left screws are provided with a phase in the middle of the ball screw nut, and an axial clearance is set at a below-zero value (under a preload). This compact model is capable of a smooth motion.



Model DIK

Specification Table⇒ **A15-190**

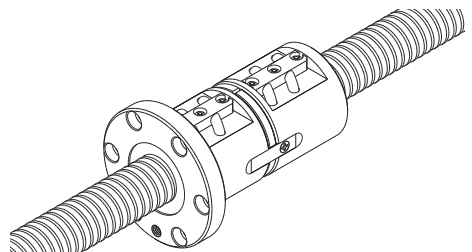
The right and the left screws are provided with a phase in the middle of the ball screw nut, and an axial clearance is set at a below-zero value (under a preload). This compact model is capable of a smooth motion.



Models BNFN-V/BNFN

Specification Table⇒ **A15-196**

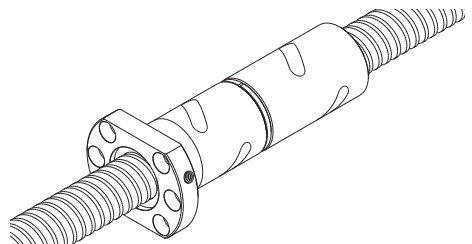
The most common type with a preload provided via a spacer between the two combined ball screw nuts to eliminate the backlash. It can be mounted using the bolt holes drilled on the flange.



Model DKN

Specification Table⇒ **A15-202**

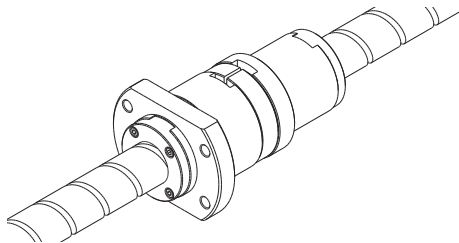
A preload is provided via a spacer between the two combined ball screw nuts to achieve a below-zero axial clearance (under a preload).



Model BLW

Since a preload is provided through a spacer between two large lead nuts, high-speed feed without backlash is ensured.

Specification Table⇒ **A15-203**

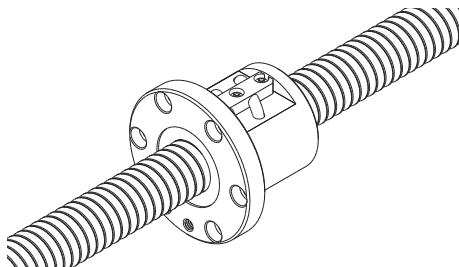


[No Preload Type]

Models BNF-V/BNF

The simplest type with a single ball screw nut. It is designed to be mounted using the bolt holes drilled on the flange.

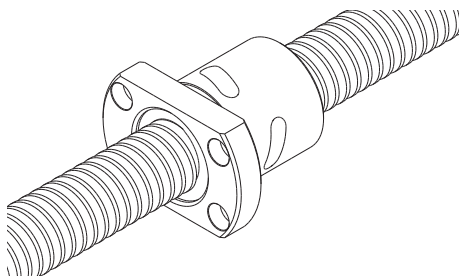
Specification Table⇒ **A15-204**



Model DK

The most compact type, with a ball screw nut diameter 70 to 80% of that of the return-pipe nut.

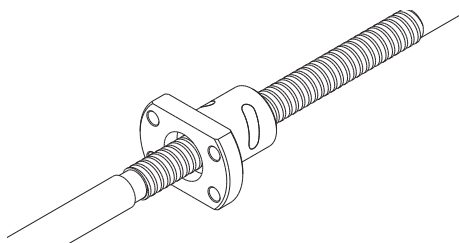
Specification Table⇒ **A15-214**



Model MDK

A miniature type with a screw shaft diameter of $\phi 4$ to $\phi 14$ mm and a lead of 1 to 5mm.

Specification Table⇒ **A15-222**

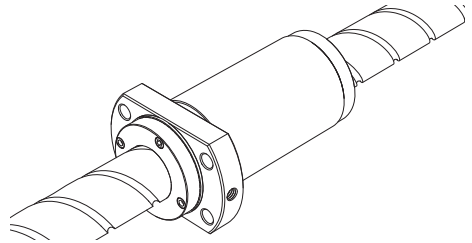


Model WHF

This Ball Screw for high-speed feed achieves a DN value of 120,000 by using a new circulation structure.

Since the nut outer diameter and the mounting holes of this model are dimensionally interchangeable with the previous model WGF, model WGF can be replaced with this model. (WHF1530, WHF2040 and WHF2550)

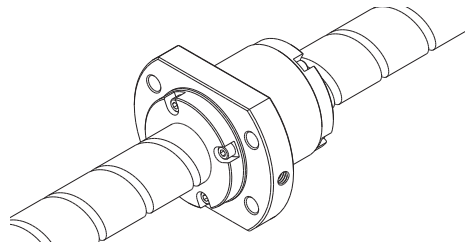
Specification Table⇒ **A15-223**



Models BLK/WGF

With model BLK, the shaft diameter is equal to the lead dimension. Model WGF has a lead dimension 1.5 to 3 times longer than the shaft diameter.

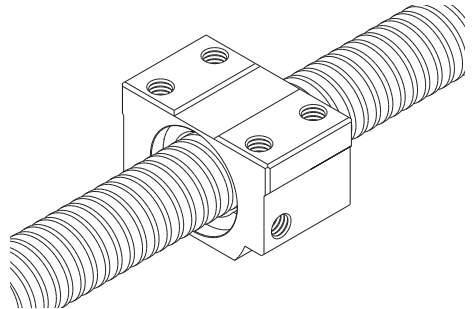
Specification Table⇒ **A15-224**



Square Ball Screw Nut Model BNT

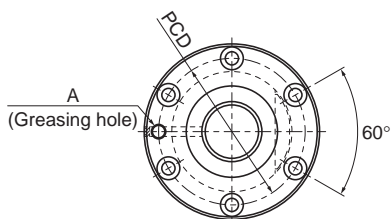
Since mounting screw holes are machined on the square ball screw nut, this model can compactly be mounted on the machine without a housing.

Specification Table⇒ **A15-228**

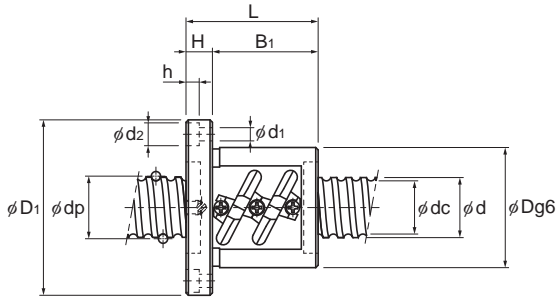


BIF-V Small With Preload

DN value	100000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
BIF 1604V-5	16	4	16.5	13.8	1×2.5	4.3	8.7	298
BIF 1605V-5	16	5	16.75	13.2	1×2.5	7.4	13.9	330
BIF 2004V-5	20	4	20.5	17.8	1×2.5	4.8	10.9	360
BIF 2004V-10	20	4	20.5	17.8	2×2.5	8.6	21.8	692
BIF 2005V-5	20	5	20.75	17.2	1×2.5	8.3	17.5	390
BIF 2005V-10	20	5	20.75	17.2	2×2.5	15.1	35	762
BIF 2010V-5	20	10	20.75	17.2	1×2.5	8.3	17.6	766
BIF 2504V-5	25	4	25.5	22.8	1×2.5	5.2	13.7	426
BIF 2504V-10	25	4	25.5	22.8	2×2.5	9.5	27.4	824
BIF 2505V-5	25	5	25.75	22.2	1×2.5	9.2	21.9	470
BIF 2505V-10	25	5	25.75	22.2	2×2.5	16.7	43.9	910
BIF 2506V-5	25	6	26	21.4	1×2.5	12.4	27.4	482
BIF 2506V-10	25	6	26	21.4	2×2.5	22.6	54.8	934
BIF 2805V-5	28	5	28.75	25.2	1×2.5	9.7	24.6	520
BIF 2805V-10	28	5	28.75	25.2	2×2.5	17.5	49.2	1000
BIF 2806V-5	28	6	28.75	25.2	1×2.5	9.6	24.6	520
BIF 2806V-10	28	6	28.75	25.2	2×2.5	17.5	49.2	1000
BIF 3205V-5	32	5	32.75	29.2	1×2.5	10.2	28.1	570
BIF 3205V-10	32	5	32.75	29.2	2×2.5	18.5	56.3	1110
BIF 3206V-5	32	6	33	28.4	1×2.5	13.9	35.2	600
BIF 3206V-10	32	6	33	28.4	2×2.5	25.2	70.3	1150



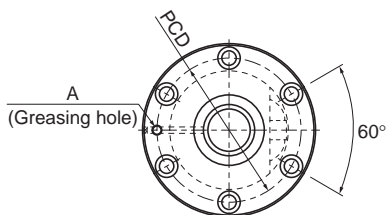
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ² kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length					Greasing hole			
	D	D ₁	L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	A			
	36	59	53	11	42	47	5.5 × 9.5 × 5.5	M6	5.05 × 10 ⁻⁴	0.42	1.42
	40	60	56	10	46	50	4.5 × 8 × 4.5	M6	5.05 × 10 ⁻⁴	0.56	1.37
	40	63	49	11	38	51	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.43	2.22
	40	63	73	11	62	51	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.55	2.22
	44	67	56	11	45	55	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.57	2.19
	44	67	86	11	75	55	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.79	2.19
	46	74	90	15	75	59	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	1.06	2.46
	46	69	48	11	37	57	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.55	3.6
	46	69	72	11	61	57	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.66	3.6
	50	73	55	11	44	61	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.75	3.52
	50	73	85	11	74	61	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.96	3.52
	53	76	62	11	51	64	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.9	3.43
	53	76	98	11	87	64	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	1.22	3.43
	55	85	59	12	47	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	0.98	4.35
	55	85	89	12	77	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.34	4.35
	55	85	68	12	56	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.09	4.52
	55	85	104	12	92	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.52	4.52
	58	85	56	12	44	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	0.94	5.89
	58	85	86	12	74	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.31	5.89
	62	89	63	12	51	75	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.21	5.88
	62	89	99	12	87	75	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.75	5.88

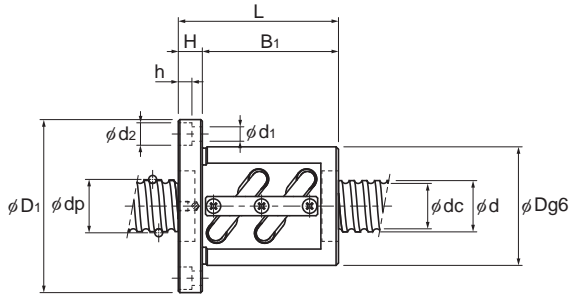
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

BIF-V Medium With Preload

DN value	130000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
BIF 2508V-5	25	8	26.25	20.5	1×2.5	15.8	32.9	500
BIF 2508V-7	25	8	26.25	20.5	1×3.5	21.1	46	688
BIF 2508V-10	25	8	26.25	20.5	2×2.5	28.7	65.7	968
BIF 2510V-5	25	10	26.25	21.5	1×2.5	15.8	32.9	500
BIF 2810V-3	28	10	29.75	22.4	1×1.5	15.6	29.4	350
BIF 3210V-5	32	10	33.75	26.4	1×2.5	26	56.2	640
BIF 3210V-7	32	10	33.75	26.4	1×3.5	34.8	78.6	874
BIF 3210V-10	32	10	33.75	26.4	2×2.5	47.3	112.3	1128
BIF 3212V-5	32	12	34	26.1	1×2.5	30.2	63.2	644
BIF 3212V-7	32	12	34	26.1	1×3.5	40.4	88.5	888
BIF 3216V-5	32	16	33.75	26.4	1×2.5	25.9	56.5	636
BIF 3610V-5	36	10	37.75	30.5	1×2.5	27.6	63.3	696
BIF 3610V-7	36	10	37.75	30.5	1×3.5	36.9	88.6	700
BIF 3610V-10	36	10	37.75	30.5	2×2.5	50.1	126.5	1350
BIF 3612V-5	36	12	38	30.1	1×2.5	32.2	71.2	708
BIF 3612V-7	36	12	38	30.1	1×3.5	43	99.6	976
BIF 3612V-10	36	12	38	30.1	2×2.5	58.4	142.3	1372
BIF 3616V-5	36	16	38	30.1	1×2.5	32.1	71.5	710
BIF 3620V-3	36	20	37.75	30.5	1×1.5	17.7	38.4	430
BIF 4010V-5	40	10	41.75	34.4	1×2.5	29	70.4	750
BIF 4010V-7	40	10	41.75	34.4	1×3.5	38.8	98.5	1044
BIF 4010V-10	40	10	41.75	34.4	2×2.5	52.7	140.7	1470
BIF 4012V-5	40	12	42	34.1	1×2.5	33.9	79.2	770
BIF 4012V-7	40	12	42	34.1	1×3.5	45.3	110.8	1062
BIF 4012V-10	40	12	42	34.1	2×2.5	61.6	158.3	1490
BIF 4016V-5	40	16	42	34.1	1×2.5	33.9	79.4	772
BIF 4020V-5	40	20	41.75	34.4	1×2.5	28.9	71	760



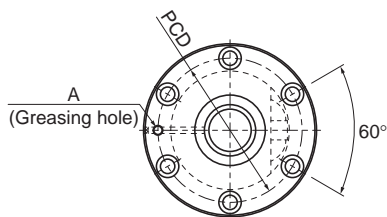
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole			
	D	D ₁	L ₁				A				
58	85	82	15	67	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.52	3.51	
58	85	98	15	83	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.5	3.51	
58	85	130	15	115	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.93	3.51	
58	85	100	18	82	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.31	3.5	
65	106	88	18	70	85	11 × 17.5 × 11	M6	4.74 × 10 ⁻³	2.33	4.15	
74	108	100	15	85	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	2.92	5.53	
74	108	120	15	105	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	3.1	5.53	
74	108	160	15	145	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	4.27	5.53	
76	121	117	18	99	98	11 × 17.5 × 11	M6	8.08 × 10 ⁻³	3.7	5.7	
76	121	146	18	128	98	11 × 17.5 × 11	M6	8.08 × 10 ⁻³	3.7	5.7	
74	108	139	18	121	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	3.81	5.82	
75	120	111	18	93	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.45	7.1	
75	120	123	18	105	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.82	7.1	
75	120	171	18	153	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.84	7.1	
78	123	123	18	105	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.69	7.99	
78	123	140	18	122	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.34	7.99	
78	123	195	18	177	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	5.67	7.99	
78	123	140	18	122	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.31	7.99	
75	114	122	18	104	93	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.4	7.54	
82	124	103	18	85	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.61	8.87	
82	124	123	18	105	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.97	8.87	
82	124	163	18	145	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	5.33	8.87	
84	126	119	18	101	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	4.36	8.83	
84	126	143	18	125	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	4.92	8.83	
84	126	191	18	173	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	6.47	8.83	
84	126	144	18	126	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	4.9	9.09	
82	126	162	18	144	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	5.17	9.37	

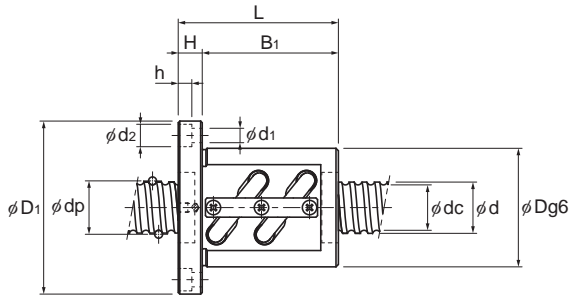
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

BIF-V Medium With Preload

DN value	130000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BIF 4510V-5	45	10	46.75	39.5	1×2.5	30.6	79.3	830
BIF 4510V-10	45	10	46.75	39.5	2×2.5	55.6	158.5	1610
BIF 4512V-5	45	12	47	39.2	1×2.5	35.9	89.2	846
BIF 4512V-10	45	12	47	39.2	2×2.5	65.2	178.3	1638
BIF 4516V-5	45	16	47	39.2	1×2.5	35.8	89.4	846
BIF 4520V-5	45	20	47	39.2	1×2.5	35.8	89.7	848
BIF 5010V-5	50	10	51.75	44.4	1×2.5	32.1	88.1	900
BIF 5010V-7	50	10	51.75	44.4	1×3.5	42.9	123.4	1244
BIF 5010V-10	50	10	51.75	44.4	2×2.5	58.2	176.3	1750
BIF 5012V-5	50	12	52.25	43.3	1×2.5	43.4	110.1	934
BIF 5012V-7	50	12	52.25	43.3	1×3.5	58	154.1	1286
BIF 5012V-10	50	12	52.25	43.3	2×2.5	78.8	220.2	1808
BIF 5016V-5	50	16	52.7	42.9	1×2.5	72.6	183.1	1220
BIF 5016V-10	50	16	52.7	42.9	2×2.5	131.8	366.2	2364
BIF 5020V-5	50	20	52.7	42.9	1×2.5	72.5	183.6	1222



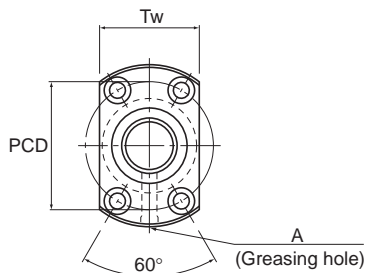
Unit: mm

	Nut dimensions							Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m	
	Outer diameter	Flange diameter	Overall length	H	B ₁	PCD	Greasing hole				
	D	D ₁	L ₁	H	B ₁	PCD	d ₁ × d ₂ × h				A
	88	132	111	18	93	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	4.29	12.48
	88	132	171	18	153	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	5.97	12.48
	90	130	119	18	101	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	4.6	11.32
	90	130	191	18	173	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	6.67	11.32
	90	130	140	18	122	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	5.3	11.61
	90	130	162	18	144	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	5.96	11.1
	93	135	103	18	85	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.28	14.16
	93	135	123	18	105	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.94	14.16
	93	135	163	18	145	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	6.26	14.16
	100	146	123	22	101	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	6.12	13.82
	100	146	147	22	125	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	7.06	13.82
	100	146	195	22	173	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	8.91	13.82
	105	152	164	25	139	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	8.82	13.71
	105	152	260	25	235	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	12.3	13.71
	105	152	201	28	173	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	10.63	14.05

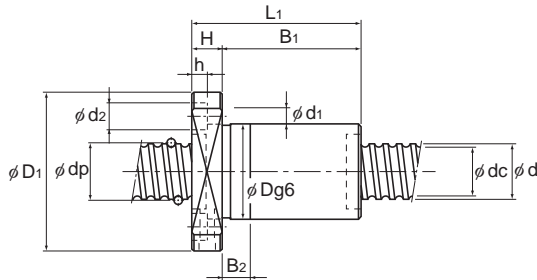
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

DIK With Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
DIK 1404-4	14	4	14.5	11.8	2×1	3	5.1	190
DIK 1404-6	14	4	14.5	11.8	3×1	4.2	7.7	280
DIK 1605-6	16	5	16.75	13.2	3×1	7.4	13	310
DIK 2004-6	20	4	20.5	17.8	3×1	5.2	11.6	380
DIK 2004-8	20	4	20.5	17.8	4×1	6.6	15.5	510
DIK 2005-6	20	5	20.75	17.2	3×1	8.5	17.3	310
DIK 2006-6	20	6	21	16.4	3×1	11.4	21.5	410
DIK 2008-4	20	8	21	16.4	2×1	8.1	14.4	280
DIK 2504-6	25	4	25.5	22.8	3×1	5.7	15	470
DIK 2504-8	25	4	25.5	22.8	4×1	7.4	19.9	620
DIK 2505-6	25	5	25.75	22.2	3×1	9.7	22.6	490
DIK 2506-4	25	6	26	21.4	2×1	9.1	18	330
DIK 2506-6	25	6	26	21.4	3×1	12.8	27	490
DIK 2508-4	25	8	26	21.4	2×1	9.2	18.8	340
DIK 2508-6	25	8	26	21.4	3×1	13.1	28.1	500
DIK 2510-4	25	10	26	21.6	2×1	9	18	330



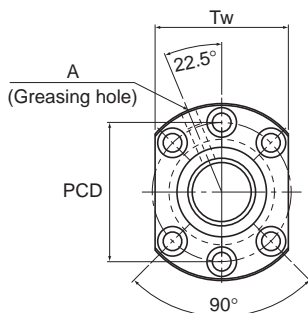
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ³	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole A			
26	45	48	10	38	10	35	4.5 × 8 × 4.5	29	M6	2.96 × 10 ⁻⁴	0.2	1	
26	45	60	10	50	10	35	4.5 × 8 × 4.5	29	M6	2.96 × 10 ⁻⁴	0.23	1	
30	49	60	10	50	10	39	4.5 × 8 × 4.5	31	M6	5.05 × 10 ⁻⁴	0.3	1.25	
32	56	62	11	51	15	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 ⁻³	0.34	2.18	
32	56	70	11	59	15	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 ⁻³	0.37	2.18	
34	58	61	11	50	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.38	2.06	
35	58	76	11	65	15	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.48	1.93	
35	58	69	11	58	15	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.45	2.06	
38	63	63	11	52	15	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 ⁻³	0.43	3.5	
38	63	71	11	60	15	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 ⁻³	0.47	3.5	
40	63	61	11	50	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.47	3.35	
40	63	60	11	49	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.46	3.19	
40	63	72	11	61	15	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.54	3.19	
40	63	71	12	59	15	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.54	3.35	
40	63	94	12	82	25	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.68	3.35	
40	63	85	15	70	20	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.65	3.45	

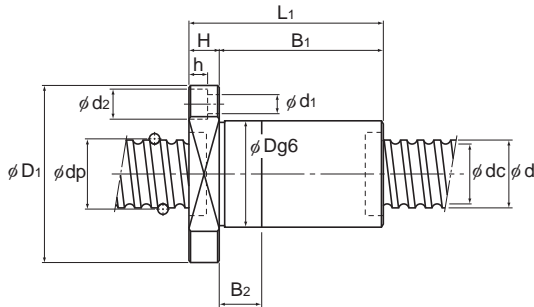
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

DIK With Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
DIK 2805-6	28	5	28.75	25.2	3 × 1	10.5	26.4	560
DIK 2805-8	28	5	28.75	25.2	4 × 1	13.4	35.2	730
DIK 2806-6	28	6	29	24.4	3 × 1	14	32	530
DIK 2810-4	28	10	29.25	23.6	2 × 1	12.3	25	380
DIK 3204-6	32	4	32.5	30.1	3 × 1	6.4	19.6	580
DIK 3204-8	32	4	32.5	30.1	4 × 1	8.2	26.1	760
DIK 3204-10	32	4	32.5	30.1	5 × 1	10	32.7	940
DIK 3205-6	32	5	32.75	29.2	3 × 1	11.1	30.2	620
DIK 3205-8	32	5	32.75	29.2	4 × 1	14.2	40.3	810
DIK 3206-6	32	6	33	28.4	3 × 1	14.9	37.1	630
DIK 3206-8	32	6	33	28.4	4 × 1	19.1	49.5	820
DIK 3210-6	32	10	33.75	26.4	3 × 1	25.7	52.2	600
DIK 3212-4	32	12	33.75	26.4	2 × 1	18.8	37	430
DIK 3610-6	36	10	37.75	30.5	3 × 1	28.8	63.8	710
DIK 3610-8	36	10	37.75	30.5	4 × 1	36.8	85	940
DIK 3610-10	36	10	37.75	30.5	5 × 1	44.6	106.3	1160



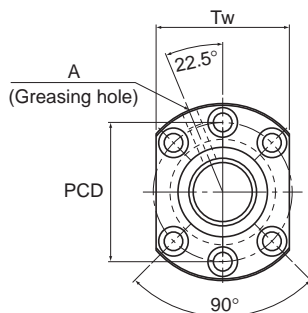
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole A			
	43	71	69	12	57	15	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.61	4.27
	43	71	79	12	67	20	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.68	4.27
	43	71	73	12	61	15	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.64	4.36
	45	71	84	15	69	20	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.82	4.18
	45	76	64	11	53	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.57	5.86
	45	76	72	11	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.62	5.86
	45	76	80	11	69	20	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.66	5.86
	46	76	62	12	50	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.6	5.67
	46	76	73	12	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.67	5.67
	48	76	73	12	61	15	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.74	6.31
	48	76	87	12	75	20	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.85	6.31
	54	87	110	15	95	25	69	9 × 14 × 8.5	66	M6	8.08 × 10 ⁻³	1.57	4.98
	54	87	98	15	83	25	69	9 × 14 × 8.5	66	M6	8.08 × 10 ⁻³	1.43	5.2
	58	98	122	18	104	30	77	11 × 17.5 × 11	75	M6	1.29 × 10 ⁻²	2.03	6.51
	58	98	143	18	125	35	77	11 × 17.5 × 11	75	M6	1.29 × 10 ⁻²	2.3	6.51
	58	98	164	18	146	45	77	11 × 17.5 × 11	75	M6	1.29 × 10 ⁻²	2.57	6.51

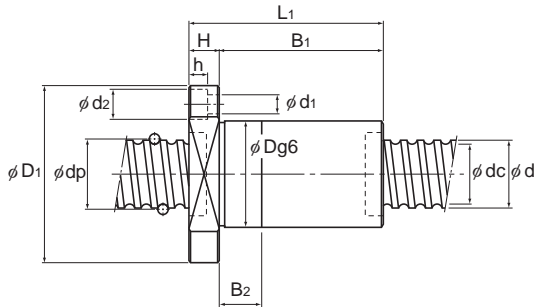
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **15-344** for further details.
For model number coding, see **15-230**.

DIK With Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
DIK 4010-6	40	10	41.75	34.7	3 × 1	29.8	69.3	750
DIK 4010-8	40	10	41.75	34.7	4 × 1	38.1	92.4	1000
DIK 4012-6	40	12	41.75	34.4	3 × 1	30.6	72.3	790
DIK 4012-8	40	12	41.75	34.4	4 × 1	39.2	96.4	1030
DIK 4016-4	40	16	41.75	34.4	2 × 1	21.5	68.4	540
DIK 5010-6	50	10	51.75	44.4	3 × 1	33.9	90.7	940
DIK 5010-8	50	10	51.75	44.4	4 × 1	43.4	120.5	1230
DIK 5010-10	50	10	51.75	44.4	5 × 1	52.5	150.9	1530
DIK 5012-6	50	12	52.25	43.3	3 × 1	45.8	113	970
DIK 5012-8	50	12	52.25	43.3	4 × 1	58.6	150.6	1270
DIK 5016-4	50	16	52.25	43.3	2 × 1	32.3	75.5	660
DIK 5016-6	50	16	52.25	43.3	3 × 1	45.7	113.3	970



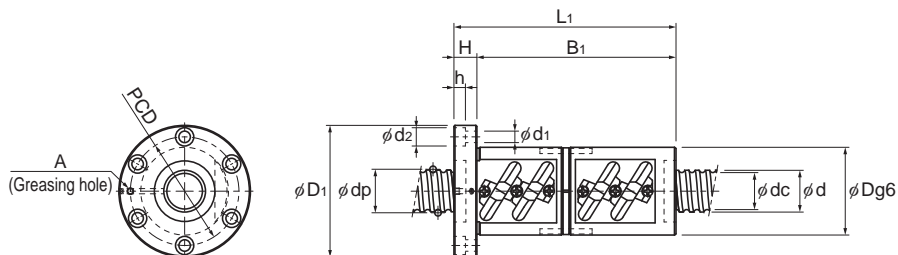
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ²	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole A			
	62	104	113	18	95	25	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.09	8.22
	62	104	137	18	119	35	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.42	8.22
	62	104	138	18	120	35	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.44	8.5
	62	104	163	18	145	45	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.78	8.5
	62	104	120	18	102	30	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.19	8.83
	72	123	114	18	96	30	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	2.65	13.38
	72	123	137	18	119	35	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.03	13.38
	72	123	160	18	142	45	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.41	13.38
	75	129	145	22	123	35	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.83	12.74
	75	129	170	22	148	45	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.31	12.74
	75	129	129	22	107	30	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.52	13.41
	75	129	175	22	153	45	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.41	13.41

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

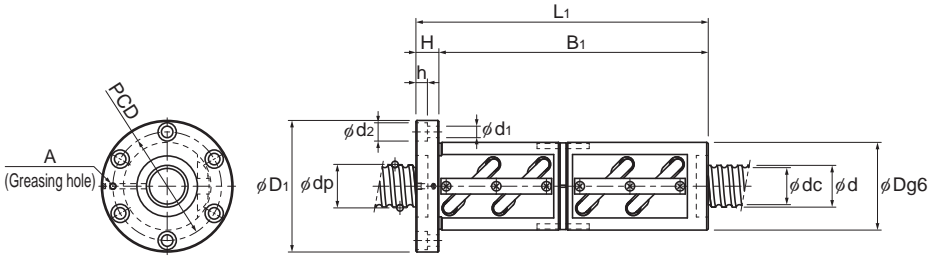
BNFN-V Small/Medium With Preload

DN value	Small	100000
	Medium	130000



<Small> BNFN1605V/2805V/2806V/3205V

Model No.	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		Rigidity K N/μm
						Ca	C _{0a}	
						kN	kN	
BNFN 1605V-5	16	5	16.75	13.2	2×2.5	13.5	27.9	640
BNFN 2805V-7.5	28	5	28.75	25.2	3×2.5	24.8	73.8	1470
BNFN 2806V-7.5	28	6	28.75	25.2	3×2.5	24.8	73.8	1470
BNFN 3205V-7.5	32	5	32.75	29.2	3×2.5	26.2	84.4	1640
BNFN 2810V-2.5	28	10	29.75	22.4	1×2.5	24.3	49	560
BNFN 3610V-7.5	36	10	37.75	30.5	3×2.5	71	189.8	1990
BNFN 3616V-5	36	16	38	30.1	2×2.5	58.3	142.9	1380
BNFN 4016V-5	40	16	42	34.1	2×2.5	61.5	158.8	1500
BNFN 4510V-7.5	45	10	46.75	39.5	3×2.5	78.8	237.8	2370
BNFN 5010V-7.5	50	10	51.75	44.4	3×2.5	82.5	264.4	2580



<Medium> BNFN2810V/3610V/3616V/4016V/4510V/5010V

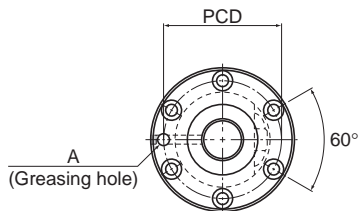
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole			
	D	D ₁	L ₁					A			
	40	60	106	10	96	50	4.5 × 8 × 4.5	M6	5.05 × 10 ⁻⁴	0.88	1.37
	55	85	134	12	122	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.88	4.45
	55	85	158	12	149	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	2.16	4.52
	58	85	136	12	124	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.93	5.89
	65	106	146	18	128	85	11 × 17.5 × 11	M6	4.74 × 10 ⁻³	3.41	4.15
	75	120	261	18	243	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻³	6.93	7.1
	78	123	268	18	250	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻³	7.8	7.99
	84	126	280	22	258	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	9.27	9.09
	88	132	261	18	243	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	8.92	11.36
	93	135	253	18	235	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	9.19	14.16

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

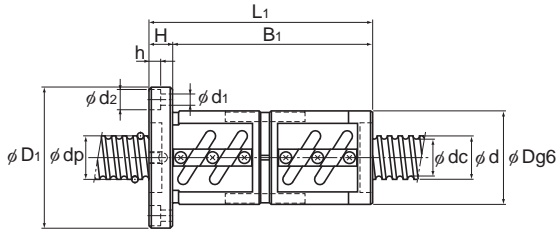
BNFN With Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
BNFN 5510-2.5	55	10	56.75	49.5	1×2.5	33.4	97	970
BNFN 5510-5	55	10	56.75	49.5	2×2.5	60.7	194	1890
BNFN 5510-7.5	55	10	56.75	49.5	3×2.5	85.9	291.1	2770
BNFN 5512-2.5	55	12	57	49.2	1×2.5	39.3	108.8	990
BNFN 5512-3	55	12	57	49.2	2×1.5	46	131.3	1180
BNFN 5512-3.5	55	12	57	49.2	1×3.5	52.4	152.9	1360
BNFN 5512-5	55	12	57	49.2	2×2.5	71.3	218.5	1920
BNFN 5512-7.5	55	12	57	49.2	3×2.5	100.9	327.3	2830
BNFN 5516-2.5	55	16	57.7	47.9	1×2.5	76.1	201.9	1310
BNFN 5516-5	55	16	57.7	47.9	2×2.5	138.2	402.8	2550
BNFN 5520-2.5	55	20	57.7	47.9	1×2.5	76	201.9	1320
BNFN 5520-5	55	20	57.7	47.9	2×2.5	138.2	403.8	2550
BNFN 6310-2.5	63	10	64.75	57.7	1×2.5	35.4	111.7	1090
BNFN 6310-5	63	10	64.75	57.7	2×2.5	64.2	222.5	2100
BNFN 6310-7.5	63	10	64.75	57.7	3×2.5	90.9	334.2	3090
BNFN 6312A-2.5	63	12	65.25	56.3	1×2.5	48.1	139.2	1120
BNFN 6312A-5	63	12	65.25	56.3	2×2.5	87.4	278.3	2160
BNFN 6316-2.5	63	16	65.7	55.9	1×2.5	81.1	231.3	1470
BNFN 6316-5	63	16	65.7	55.9	2×2.5	147	462.6	2840
BNFN 6320-2.5	63	20	65.7	55.9	1×2.5	81	231.3	1470
BNFN 6320-5	63	20	65.7	55.9	2×2.5	147	463.5	2640

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



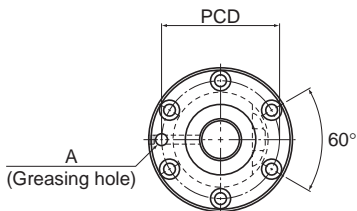
Unit: mm

	Nut dimensions							Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h			
102	144	141	18	123	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	6.54	16.43
102	144	201	18	183	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	8.88	16.43
102	144	261	18	243	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	11.23	16.43
105	147	165	18	147	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	8.07	16.29
105	147	191	18	173	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	9.17	16.29
105	147	189	18	171	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	9.09	16.29
105	147	237	18	219	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	11.13	16.29
105	147	309	18	291	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	14.19	16.29
110	158	196	25	171	133	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	11.28	15.46
110	158	292	25	267	133	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	15.94	15.46
112	158	227	28	199	134	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	13.49	16.1
112	158	347	28	319	134	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	19.61	16.1
108	154	137	22	115	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	6.98	21.93
108	154	197	22	175	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	9.4	21.93
108	154	257	22	235	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	11.81	21.93
115	161	159	22	137	137	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	9.32	21.14
115	161	231	22	209	137	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	12.84	21.14
122	184	208	24	184	152	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	14.61	20.85
122	184	304	24	280	152	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	20.19	20.85
122	180	227	28	199	150	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	15.91	20.85
122	180	347	28	319	150	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	22.88	20.85

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

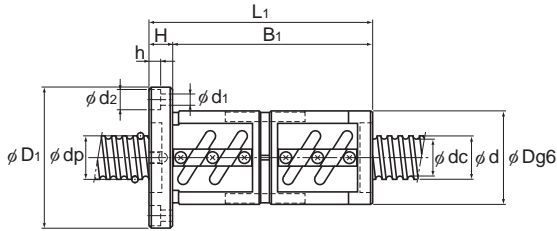
BNFN With Preload

DN value	70000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BNFN 7010-2.5	70	10	71.75	64.5	1×2.5	36.8	123.5	1180
BNFN 7010-5	70	10	71.75	64.5	2×2.5	66.9	247	2280
BNFN 7010-7.5	70	10	71.75	64.5	3×2.5	94.9	371.4	3350
BNFN 7012-2.5	70	12	72	64.2	1×2.5	43.5	139.2	1200
BNFN 7012-5	70	12	72	64.2	2×2.5	78.9	278.3	2320
BNFN 7012-7.5	70	12	72	64.2	3×2.5	111.7	417.5	3420
BNFN 7020-5	70	20	72.7	62.9	2×2.5	153.9	514.5	3090
BNFN 8010-2.5	80	10	81.75	75.2	1×2.5	38.9	141.1	1300
BNFN 8010-5	80	10	81.75	75.2	2×2.5	70.6	283.2	2530
BNFN 8010-7.5	80	10	81.75	75.2	3×2.5	100	424.3	3720
BNFN 8012-5	80	12	82.3	74.1	2×2.5	96.5	353.8	2620
BNFN 8020A-2.5	80	20	82.7	72.9	1×2.5	90.1	294	1770
BNFN 8020A-5	80	20	82.7	72.9	2×2.5	163.7	589	3430
BNFN 10020A-2.5	100	20	102.7	92.9	1×2.5	99	368.5	2110
BNFN 10020A-5	100	20	102.7	92.9	2×2.5	179.3	737	4080
BNFN 10020A-7.5	100	20	102.7	92.9	3×2.5	253.8	1105.4	6010

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



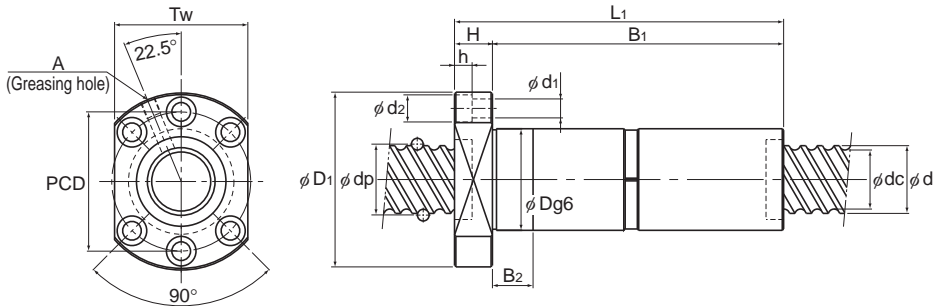
Unit: mm

	Nut dimensions							Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m	
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h				Greasing hole A
	125	167	141	18	123	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	9.19	27.4
	125	167	201	18	183	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	12.57	27.4
	125	167	261	18	243	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	15.96	27.4
	128	170	165	18	147	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	11.26	27.24
	128	170	237	18	219	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	15.63	27.24
	128	170	309	18	291	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	20	27.24
	130	186	325	28	297	158	18 × 26 × 17.5	R1/8 (PT1/8)	1.85 × 10 ⁻¹	23.4	27
	130	176	137	22	115	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	9.15	36.26
	130	176	197	22	175	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	12.41	36.26
	130	176	257	22	235	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	15.67	36.26
	135	181	231	22	209	157	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	16.02	35.26
	143	204	227	28	199	172	18 × 26 × 17.5	R1/8 (PT1/8)	3.16 × 10 ⁻¹	20.08	35.81
	143	204	347	28	319	172	18 × 26 × 17.5	R1/8 (PT1/8)	3.16 × 10 ⁻¹	28.97	35.81
	170	243	231	32	199	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	28.15	57.13
	170	243	351	32	319	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	39.99	57.13
	170	243	471	32	439	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	51.84	57.13

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

DKN With Preload

DN value	70000
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Unit: mm

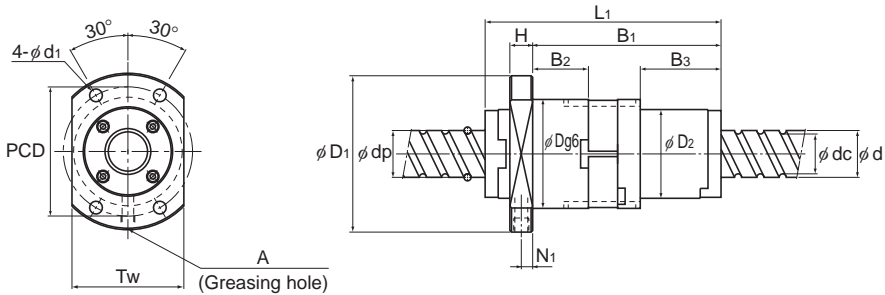
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K	Nut dimensions		
						Ca kN	C _{0a} kN		Outer diameter D	Flange diameter D ₁	Overall length L ₁
DKN 4020-3	40	20	41.75	34.7	3×1	29.4	69.3	750	62	104	223
DKN 5020-3	50	20	52.25	43.6	3×1	44.2	108.8	930	75	129	243
DKN 6320-3	63	20	65.7	55.9	3×1	83.5	229.3	1470	95	159	243

Model No.	Nut dimensions							Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole A			
DKN 4020-3	18	205	25	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	3.61	9.03
DKN 5020-3	28	215	30	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	6.0	13.8
DKN 6320-3	28	215	30	129	18 × 26 × 17.5	121	R1/8 (PT1/8)	1.21 × 10 ⁻²	9.5	20.85

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

BLW With Preload

DN value	70000
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Unit: mm

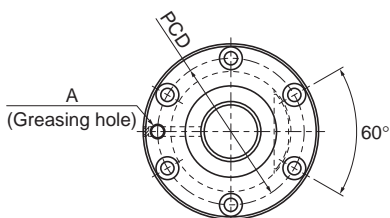
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K	Nut dimensions				
						Ca	C _{0a}		Outer diameter D	Flange diameter D ₁	D ₂	Overall length L ₁	H
						kN	kN	N/μm	D	D ₁	D ₂	L ₁	H
BLW 1510-3.6	15	10	15.75	12.5	2×2.8	14.3	27.8	680	43	64	34	89	10
BLW 1616-3.6	16	16	16.65	13.7	2×1.8	7.1	14.3	440	41	60	32	84.5	10
BLW 2020-3.6	20	20	20.75	17.5	2×1.8	11.1	24.7	570	48	69	39	105	10
BLW 2525-3.6	25	25	26	21.9	2×1.8	16.6	38.7	700	57	82	47	124.5	12
BLW 3232-3.6	32	32	33.25	28.3	2×1.8	23.7	59.5	880	68	99	58	155	15
BLW 3636-3.6	36	36	37.4	31.7	2×1.8	30.8	78	980	79	116	66	181	17
BLW 4040-3.6	40	40	41.75	35.2	2×1.8	38.7	99.2	1090	84	121	73	191	17
BLW 5050-3.6	50	50	52.2	44.1	2×1.8	57.8	155	1340	106	149	90	245	20

Model No.	Nut dimensions								Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	B ₁	B ₂	B ₃	PCD	d ₁	Tw	N ₁	A Greasing hole			
BLW 1510-3.6	69	18.7	28.6	52	5.5	46	5	M6	3.9×10 ⁻⁴	0.81	1.07
BLW 1616-3.6	65.5	18.1	27.1	49	4.5	44	6	M6	5.05×10 ⁻⁴	0.67	1.42
BLW 2020-3.6	84	25	36	57	5.5	50	5	M6	1.23×10 ⁻³	0.54	2.25
BLW 2525-3.6	101.5	33	44	68	6.6	60	5	M6	3.01×10 ⁻³	0.94	3.52
BLW 3232-3.6	127	42.4	55.4	81	9	70	6	M6	8.08×10 ⁻³	3.19	5.83
BLW 3636-3.6	147.9	49.4	65.4	95	11	82	7	M6	1.29×10 ⁻²	5.99	7.34
BLW 4040-3.6	158	54.5	70.5	100	11	87	7	M6	1.97×10 ⁻²	6.16	9.01
BLW 5050-3.6	203.8	70.7	91.7	126	14	108	8	M6	4.82×10 ⁻²	9.06	14.08

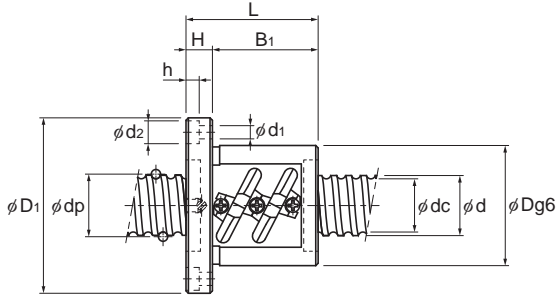
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).
Model BLW cannot be attached with seal.

BNF-V Small No Preload

DN value	10000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BNF 1604V-5	16	4	16.5	13.8	2×2.5	7.8	17.4	290
BNF 1605V-2.5	16	5	16.75	13.2	1×2.5	7.4	13.9	170
BNF 1605V-5	16	5	16.75	13.2	2×2.5	13.5	27.9	320
BNF 2004V-2.5	20	4	20.5	17.8	1×2.5	4.8	10.9	180
BNF 2004V-5	20	4	20.5	17.8	2×2.5	8.6	21.8	350
BNF 2005V-2.5	20	5	20.75	17.2	1×2.5	8.3	17.5	200
BNF 2005V-5	20	5	20.75	17.2	2×2.5	15.1	35	380
BNF 2010V-2.5	20	10	20.75	17.2	1×2.5	8.3	17.6	197
BNF 2504V-2.5	25	4	25.5	22.8	1×2.5	5.2	13.7	210
BNF 2504V-5	25	4	25.5	22.8	2×2.5	9.5	27.4	410
BNF 2505V-2.5	25	5	25.75	22.2	1×2.5	9.2	21.9	240
BNF 2505V-5	25	5	25.75	22.2	2×2.5	16.7	43.9	460
BNF 2506V-2.5	25	6	26	21.4	1×2.5	12.4	27.4	250
BNF 2506V-5	25	6	26	21.4	2×2.5	22.6	54.8	470
BNF 2805V-2.5	28	5	28.75	25.2	1×2.5	9.7	24.6	250
BNF 2805V-5	28	5	28.75	25.2	2×2.5	17.5	49.2	500
BNF 2805V-7.5	28	5	28.75	25.2	3×2.5	24.8	73.8	740
BNF 2806V-2.5	28	6	28.75	25.2	1×2.5	9.6	24.6	250
BNF 2806V-5	28	6	28.75	25.2	2×2.5	17.5	49.2	500
BNF 2806V-7.5	28	6	28.75	25.2	3×2.5	24.8	73.8	740
BNF 3205V-2.5	32	5	32.75	29.2	1×2.5	10.2	28.1	280
BNF 3205V-5	32	5	32.75	29.2	2×2.5	18.5	56.3	560
BNF 3205V-7.5	32	5	32.75	29.2	3×2.5	26.2	84.4	810
BNF 3206V-2.5	32	6	33	28.4	1×2.5	13.9	35.2	290
BNF 3206V-5	32	6	33	28.4	2×2.5	25.2	70.3	580



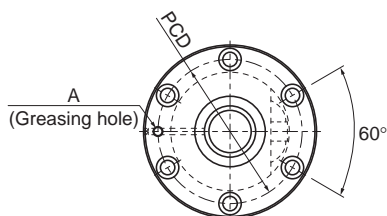
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole			
	D	D ₁	L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	A			
	36	59	53	11	42	47	5.5 × 9.5 × 5.5	M6	5.05 × 10 ⁻⁴	0.42	1.42
	40	60	41	10	31	50	4.5 × 8 × 4.5	M6	5.05 × 10 ⁻⁴	0.37	1.37
	40	60	56	10	46	50	4.5 × 8 × 4.5	M6	5.05 × 10 ⁻⁴	0.49	1.37
	40	63	37	11	26	51	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.3	2.22
	40	63	49	11	38	51	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.49	2.22
	44	67	41	11	30	55	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.46	2.19
	44	67	56	11	45	55	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.6	2.19
	46	74	58	15	43	59	5.5 × 9.5 × 5.5	M6	1.23 × 10 ⁻³	0.68	2.46
	46	69	36	11	25	57	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.21	3.6
	46	69	48	11	37	57	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.55	3.6
	50	73	40	11	29	61	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.52	3.52
	50	73	55	11	44	61	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.68	3.52
	53	76	44	11	33	64	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.61	3.43
	53	76	62	11	51	64	5.5 × 9.5 × 5.5	M6	3.01 × 10 ⁻³	0.91	3.43
	55	85	44	12	32	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.02	4.45
	55	85	59	12	47	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.06	4.45
	55	85	74	12	62	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.16	4.45
	55	85	50	12	38	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	0.87	4.52
	55	85	68	12	56	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.09	4.52
	55	85	86	12	74	69	6.6 × 11 × 6.5	M6	4.74 × 10 ⁻³	1.3	4.52
	58	85	41	12	29	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	0.76	5.89
	58	85	56	12	44	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	0.94	5.89
	58	85	71	12	59	71	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.13	5.89
	62	89	45	12	33	75	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	0.94	5.88
	62	89	63	12	51	75	6.6 × 11 × 6.5	M6	8.08 × 10 ⁻³	1.21	5.88

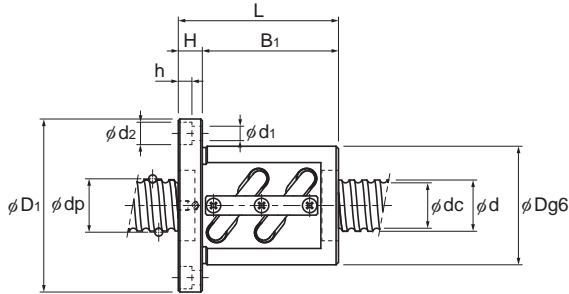
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

BNF-V Medium No Preload

DN value	130000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BNF 2508V-2.5	25	8	26.25	20.5	1×2.5	15.8	32.9	250
BNF 2508V-3.5	25	8	26.25	20.5	1×3.5	21.1	46	340
BNF 2508V-5	25	8	26.25	20.5	2×2.5	28.7	65.7	480
BNF 2510V-2.5	25	10	26.25	21.5	1×2.5	15.8	32.9	250
BNF 2810V-2.5	28	10	29.75	22.4	1×2.5	24.3	49	280
BNF 3210V-2.5	32	10	33.75	26.4	1×2.5	26	56.2	310
BNF 3210V-3.5	32	10	33.75	26.4	1×3.5	34.8	78.6	440
BNF 3210V-5	32	10	33.75	26.4	2×2.5	47.3	112.3	620
BNF 3212V-3.5	32	12	34	26.1	1×3.5	40.4	88.5	440
BNF 3216V-5	32	16	33.75	26.4	2×2.5	47.1	113.1	616
BNF 3610V-2.5	36	10	37.75	30.5	1×2.5	27.6	63.3	350
BNF 3610V-5	36	10	37.75	30.5	2×2.5	50.1	126.5	680
BNF 3610V-7.5	36	10	37.75	30.5	3×2.5	71	189.8	990
BNF 3612V-2.5	36	12	38	30.1	1×2.5	32.2	71.2	350
BNF 3612V-5	36	12	38	30.1	2×2.5	58.4	142.3	690
BNF 3616V-2.5	36	16	38	30.1	1×2.5	32.1	71.5	350
BNF 3620V-1.5	36	20	37.75	30.5	1×1.5	17.7	38.4	215
BNF 4010V-2.5	40	10	41.75	34.4	1×2.5	29	70.4	380
BNF 4010V-3.5	40	10	41.75	34.4	1×3.5	38.8	98.5	520
BNF 4010V-5	40	10	41.75	34.4	2×2.5	52.7	140.7	740
BNF 4012V-2.5	40	12	42	34.1	1×2.5	33.9	79.2	390
BNF 4012V-3.5	40	12	42	34.1	1×3.5	45.3	110.8	530
BNF 4012V-5	40	12	42	34.1	2×2.5	61.6	158.3	750
BNF 4016V-5	40	16	42	34.1	2×2.5	61.5	158.8	740
BNF 4020V-5	40	20	41.75	34.4	2×2.5	52.4	142	736



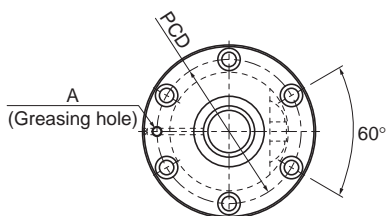
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole A			
58	85	58	15	43	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.07	3.51	
58	85	66	15	51	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.29	3.51	
58	85	82	15	67	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.44	3.51	
58	85	70	18	52	71	6.6 × 11 × 6.5	M6	3.01 × 10 ⁻³	1.43	3.5	
65	106	86	18	68	85	11 × 17.5 × 11	M6	4.74 × 10 ⁻⁴	2.3	4.15	
74	108	70	15	55	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	2.2	5.53	
74	108	80	15	65	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	2.44	5.53	
74	108	100	15	85	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	2.92	5.53	
76	121	98	18	80	98	11 × 17.5 × 11	M6	8.08 × 10 ⁻³	3.4	5.7	
74	108	139	18	121	90	9 × 14 × 8.5	M6	8.08 × 10 ⁻³	3.81	5.82	
75	120	81	18	63	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	2.75	7.1	
75	120	111	18	93	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.45	7.1	
75	120	141	18	123	98	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.15	7.1	
78	123	87	18	69	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.14	7.99	
78	123	123	18	105	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	4.07	7.99	
78	123	92	18	74	100	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	3.27	7.99	
75	114	82	18	64	93	11 × 17.5 × 11	M6	1.29 × 10 ⁻²	2.38	7.54	
82	124	73	18	55	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	2.86	8.87	
82	124	83	18	65	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.14	8.87	
82	124	103	18	85	102	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.69	8.87	
84	126	83	18	65	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.31	8.83	
84	126	95	18	77	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	3.66	8.83	
84	126	119	18	101	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	4.36	8.83	
84	126	144	18	126	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	5.52	9.09	
82	126	162	18	144	104	11 × 17.5 × 11	M6	1.97 × 10 ⁻²	5.17	9.37	

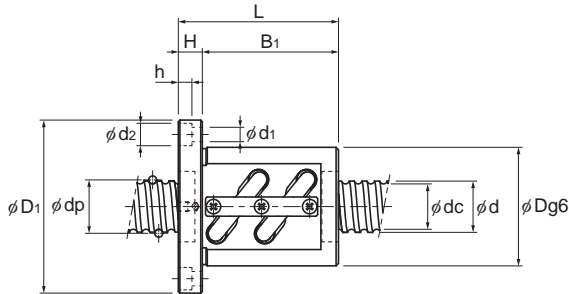
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

BNF-V Medium No Preload

DN value	130000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _a a kN	
BNF 4510V-2.5	45	10	46.75	39.5	1×2.5	30.6	79.3	420
BNF 4510V-3	45	10	46.75	39.5	2×1.5	35.8	95.1	500
BNF 4510V-5	45	10	46.75	39.5	2×2.5	55.6	158.5	800
BNF 4510V-7.5	45	10	46.75	39.5	3×2.5	78.8	237.8	1190
BNF 4512V-5	45	12	47	39.2	2×2.5	65.2	178.3	820
BNF 4520V-2.5	45	20	47	39.2	1×2.5	35.8	89.7	424
BNF 5010V-2.5	50	10	51.75	44.4	1×2.5	32.1	88.1	450
BNF 5010V-3.5	50	10	51.75	44.4	1×3.5	42.9	123.4	620
BNF 5010V-5	50	10	51.75	44.4	2×2.5	58.2	176.3	880
BNF 5010V-7.5	50	10	51.75	44.4	3×2.5	82.5	264.4	1290
BNF 5012V-2.5	50	12	52.25	43.3	1×2.5	43.4	110.1	470
BNF 5012V-3.5	50	12	52.25	43.3	1×3.5	58	154.1	640
BNF 5012V-5	50	12	52.25	43.3	2×2.5	78.8	220.2	910
BNF 5016V-2.5	50	16	52.7	42.9	1×2.5	72.6	183.1	620
BNF 5016V-5	50	16	52.7	42.9	2×2.5	131.8	366.2	1180
BNF 5020V-2.5	50	20	52.7	42.9	1×2.5	72.5	183.6	620



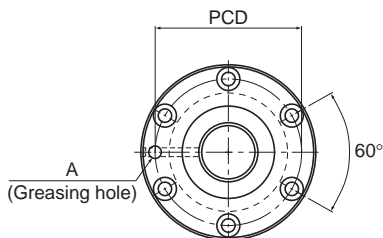
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole A			
	88	132	81	18	63	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	3.43	11.36
	88	132	94	18	76	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	3.83	11.36
	88	132	111	18	93	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	4.35	11.36
	88	132	141	18	123	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	5.26	11.36
	90	130	119	18	101	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	4.74	11.32
	90	130	102	18	84	110	11 × 17.5 × 11	R1/8 (PT1/8)	3.16 × 10 ⁻²	4.28	11.1
	93	135	73	18	55	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.33	14.16
	93	135	83	18	65	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.66	14.16
	93	135	103	18	85	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.31	14.16
	93	135	133	18	115	113	11 × 17.5 × 11	R1/8 (PT1/8)	4.82 × 10 ⁻²	5.28	14.16
	100	146	87	22	65	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	4.57	13.82
	100	146	99	22	77	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	5.05	13.82
	100	146	123	22	101	122	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	6.02	13.82
	105	152	116	25	91	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	6.98	13.71
	105	152	164	25	139	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	9.18	13.71
	105	152	141	28	113	128	14 × 20 × 13	R1/8 (PT1/8)	4.82 × 10 ⁻²	8.32	14.05

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

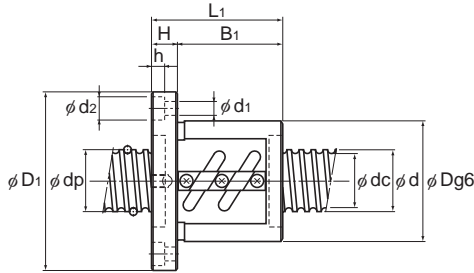
BNF No Preload

DN value	70000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BNF 5510-2.5	55	10	56.75	49.5	1×2.5	33.4	97	490
BNF 5510-5	55	10	56.75	49.5	2×2.5	60.7	194	950
BNF 5510-7.5	55	10	56.75	49.5	3×2.5	85.9	291.1	1390
BNF 5512-2.5	55	12	57	49.2	1×2.5	39.3	108.8	500
BNF 5512-3	55	12	57	49.2	2×1.5	46	131.3	590
BNF 5512-3.5	55	12	57	49.2	1×3.5	52.4	152.9	680
BNF 5512-5	55	12	57	49.2	2×2.5	71.3	218.5	960
BNF 5512-7.5	55	12	57	49.2	3×2.5	100.9	327.3	1420
BNF 5516-2.5	55	16	57.7	47.9	1×2.5	76.1	201.9	650
BNF 5516-5	55	16	57.7	47.9	2×2.5	138.2	402.8	1280
BNF 5520-2.5	55	20	57.7	47.9	1×2.5	76	201.9	660
BNF 5520-5	55	20	57.7	47.9	2×2.5	138.2	403.8	1280
BNF 6310-2.5	63	10	64.75	57.7	1×2.5	35.4	111.7	550
BNF 6310-5	63	10	64.75	57.7	2×2.5	64.2	222.5	1050
BNF 6310-7.5	63	10	64.75	57.7	3×2.5	90.9	334.2	1550
BNF 6312A-2.5	63	12	65.25	56.3	1×2.5	48.1	139.2	560
BNF 6312A-5	63	12	65.25	56.3	2×2.5	87.4	278.3	1090
BNF 6316-5	63	16	65.7	55.9	2×2.5	147	462.6	1420
BNF 6320-2.5	63	20	65.7	55.9	1×2.5	81	231.3	740
BNF 6310-5	63	20	65.7	55.9	2×2.5	147	463.5	1420

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



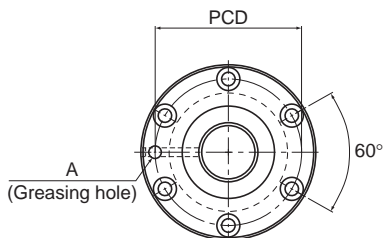
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ² kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole A			
102	144	81	18	63	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	4.19	16.43	
102	144	111	18	93	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	5.36	16.43	
102	144	141	18	123	122	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	6.54	16.43	
105	147	93	18	75	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	5.01	16.29	
105	147	107	18	89	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	5.6	16.29	
105	147	105	18	87	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	5.52	16.29	
105	147	129	18	111	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	6.54	16.29	
105	147	165	18	147	125	11 × 17.5 × 11	R1/8 (PT1/8)	7.05 × 10 ⁻²	8.07	16.29	
110	158	116	25	91	133	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	7.4	15.46	
110	158	164	25	139	133	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	9.73	15.46	
112	158	127	28	99	134	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	8.4	16.1	
112	158	187	28	159	134	14 × 20 × 13	R1/8 (PT1/8)	7.05 × 10 ⁻²	11.45	16.1	
108	154	77	22	55	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	4.57	21.93	
108	154	107	22	85	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	5.77	21.93	
108	154	137	22	115	130	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	6.98	21.93	
115	161	87	22	65	137	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	5.8	21.14	
115	161	123	22	101	137	14 × 20 × 13	R1/8 (PT1/8)	1.21 × 10 ⁻¹	7.56	21.14	
122	184	160	24	136	152	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	11.82	20.85	
122	180	127	28	99	150	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	10.1	21.57	
122	180	187	28	159	150	18 × 26 × 17.5	R1/8 (PT1/8)	1.21 × 10 ⁻¹	13.58	21.57	

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

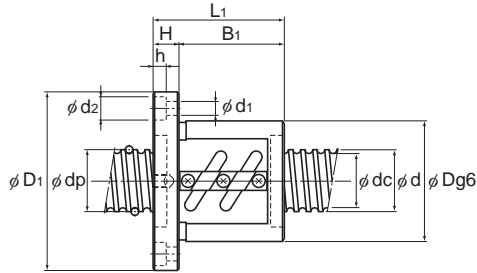
BNF No Preload

DN value	7000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BNF 7010-2.5	70	10	71.75	64.5	1×2.5	36.8	123.5	590
BNF 7010-5	70	10	71.75	64.5	2×2.5	66.9	247	1140
BNF 7010-7.5	70	10	71.75	64.5	3×2.5	94.9	371.4	1680
BNF 7012-2.5	70	12	72	64.2	1×2.5	43.5	139.2	600
BNF 7012-5	70	12	72	64.2	2×2.5	78.9	278.3	1160
BNF 7012-7.5	70	12	72	64.2	3×2.5	111.7	417.5	1710
BNF 7020-5	70	20	72.7	62.9	2×2.5	153.9	514.5	1550
BNF 8010-2.5	80	10	81.75	75.2	1×2.5	38.9	141.1	650
BNF 8010-5	80	10	81.75	75.2	2×2.5	70.6	283.2	1270
BNF 8010-7.5	80	10	81.75	75.2	3×2.5	100	424.3	1860
BNF 8020A-2.5	80	20	82.7	72.9	1×2.5	90.1	294	890
BNF 8020A-5	80	20	82.7	72.9	2×2.5	163.7	589	1720
BNF 8020A-7.5	80	20	82.7	72.9	3×2.5	231.6	883.2	2520
BNF 10020A-2.5	100	20	102.7	92.9	1×2.5	99	368.5	2110
BNF 10020A-5	100	20	102.7	92.9	2×2.5	179.3	737	4080
BNF 10020A-7.5	100	20	102.7	92.9	3×2.5	253.8	1105.4	6010

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



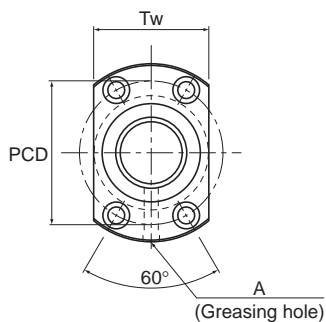
Unit: mm

	Nut dimensions								Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁ × d ₂ × h	Greasing hole A			
	125	167	81	18	63	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	5.8	27.4
	125	167	111	18	93	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	7.49	27.4
	125	167	141	18	123	145	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	9.19	27.4
	128	170	93	18	75	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	6.89	27.24
	128	170	129	18	111	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	9.08	27.24
	128	170	165	18	147	148	11 × 17.5 × 11	R1/8 (PT1/8)	1.85 × 10 ⁻¹	11.26	27.24
	130	186	185	28	157	158	18 × 26 × 17.5	R1/8 (PT1/8)	1.85 × 10 ⁻¹	14.5	27
	130	176	77	22	55	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	5.9	36.26
	130	176	107	22	85	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	7.53	36.26
	130	176	137	22	115	152	14 × 20 × 13	R1/8 (PT1/8)	3.16 × 10 ⁻¹	9.15	36.26
	143	204	127	28	99	172	18 × 26 × 17.5	R1/8 (PT1/8)	3.16 × 10 ⁻¹	12.68	35.81
	143	204	187	28	159	172	18 × 26 × 17.5	R1/8 (PT1/8)	3.16 × 10 ⁻¹	17.12	35.81
	143	204	247	28	219	172	18 × 26 × 17.5	R1/8 (PT1/8)	3.16 × 10 ⁻¹	21.56	35.81
	170	243	131	32	99	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	18.28	57.13
	170	243	191	32	159	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	24.2	57.13
	170	243	251	32	219	205	22 × 32 × 21.5	R1/8 (PT1/8)	7.71 × 10 ⁻¹	30.12	57.13

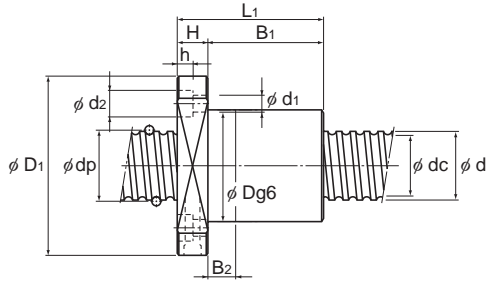
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **15-344** for further details.
For model number coding, see **15-230**.

DK No Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
DK 1404-4	14	4	14.5	11.8	4×1	5.4	10.2	180
DK 1404-6	14	4	14.5	11.8	6×1	7.7	15.4	270
DK 1605-3	16	5	16.75	13.1	3×1	7.4	13	160
DK 1605-4	16	5	16.75	13.1	4×1	9.5	17.4	210
DK 2004-3	20	4	20.5	17.8	3×1	5.2	11.6	190
DK 2004-4	20	4	20.5	17.8	4×1	6.6	15.5	250
DK 2005-3	20	5	20.75	17.1	3×1	8.5	17.3	200
DK 2005-4	20	5	20.75	17.1	4×1	11	23.1	260
DK 2006-3	20	6	21	16.4	3×1	11.4	21.5	410
DK 2006-4	20	6	21	16.4	4×1	14.6	28.6	540
DK 2008-4	20	8	21	16.4	4×1	14.6	28.8	270



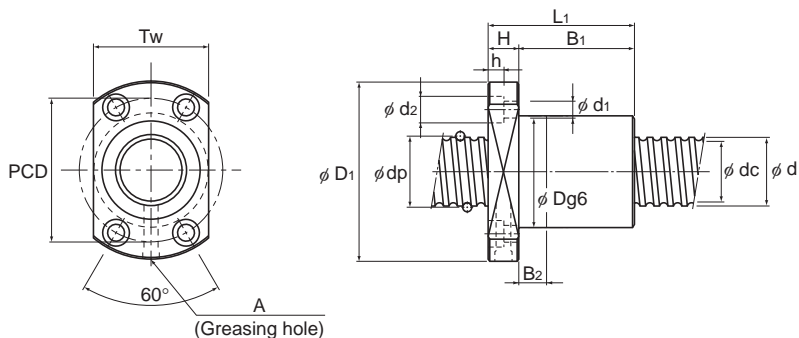
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length							Greasing hole			
	D	D ₁	L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	A			
	26	45	48	10	38	10	35	4.5 × 8 × 4.5	29	M6	2.96 × 10 ⁻⁴	0.2	1
	26	45	60	10	50	10	35	4.5 × 8 × 4.5	29	M6	2.96 × 10 ⁻⁴	0.23	1
	30	49	45	10	35	10	39	4.5 × 8 × 4.5	31	M6	5.05 × 10 ⁻⁴	0.24	1.25
	30	49	50	10	40	10	39	4.5 × 8 × 4.5	31	M6	5.05 × 10 ⁻⁴	0.26	1.25
	32	56	42	11	31	10	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 ⁻³	0.26	2.18
	32	56	46	11	35	10	44	5.5 × 9.5 × 5.5	35	M6	1.23 × 10 ⁻³	0.27	2.18
	34	58	46	11	35	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.31	2.06
	34	58	51	11	40	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.34	2.06
	35	58	52	11	41	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.36	1.93
	35	58	59	11	48	10	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.39	1.93
	35	58	69	11	58	15	46	5.5 × 9.5 × 5.5	36	M6	1.23 × 10 ⁻³	0.45	2.06

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

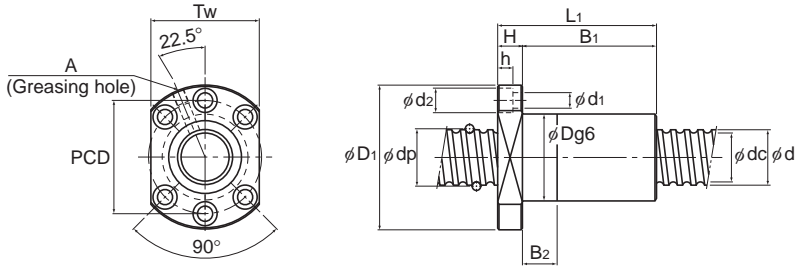
DK No Preload

DN value	70000
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DK2504/2505/2506/2508/2510

Model No.	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		Rigidity K N/μm
						Ca kN	Ca kN	
DK 2504-3	25	4	25.5	22.8	3×1	5.7	15	230
DK 2504-4	25	4	25.5	22.8	4×1	7.4	19.9	310
DK 2505-3	25	5	25.75	22.1	3×1	9.7	22.6	250
DK 2505-4	25	5	25.75	22.1	4×1	12.4	30.3	320
DK 2506-3	25	6	26	21.4	3×1	12.8	27	250
DK 2506-4	25	6	26	21.4	4×1	16.8	37.4	330
DK 2508-3	25	8	26	21.4	3×1	13.1	28.1	500
DK 2508-4	25	8	26	21.4	4×1	16.8	37.5	330
DK 2510-3	25	10	26	21.6	3×1	12.7	27	250
DK 2510-4	25	10	26	21.6	4×1	16.7	37.6	330
DK 2805-3	28	5	28.75	25.2	3×1	10.5	26.4	270
DK 2805-4	28	5	28.75	25.2	4×1	13.4	35.2	360
DK 2806-3	28	6	29	24.4	3×1	14	32	280
DK 2806-4	28	6	29	24.4	4×1	18	42.5	370
DK 2810-4	28	10	29.25	23.6	4×1	22.4	50	370



DK2805/2806/2810

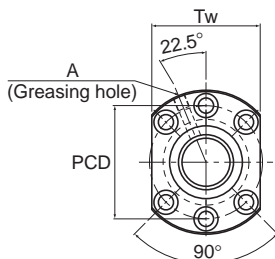
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole A			
	38	63	43	11	32	10	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 ⁻³	0.33	3.5
	38	63	47	11	36	10	51	5.5 × 9.5 × 5.5	39	M6	3.01 × 10 ⁻³	0.35	3.5
	40	63	46	11	35	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.38	3.35
	40	63	51	11	40	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.41	3.35
	40	63	52	11	41	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.41	3.19
	40	63	60	11	49	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.46	3.19
	40	63	62	12	50	10	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.48	3.35
	40	63	71	12	59	15	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.54	3.35
	40	63	80	15	65	15	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.62	3.45
	40	63	85	15	70	20	51	5.5 × 9.5 × 5.5	41	M6	3.01 × 10 ⁻³	0.65	3.45
	43	71	49	12	37	10	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.48	4.27
	43	71	54	12	42	10	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.51	4.27
	43	71	53	12	41	10	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.5	4.36
	43	71	61	12	49	10	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.56	4.36
	45	71	84	15	69	20	57	6.6 × 11 × 6.5	55	M6	4.74 × 10 ⁻³	0.82	4.18

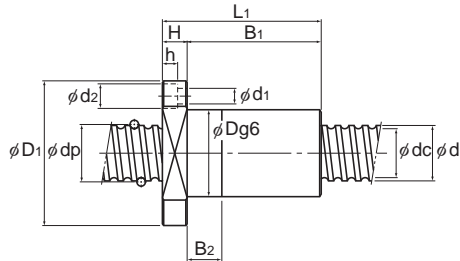
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

DK No Preload

DN value	70000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
DK 3204-3	32	4	32.5	30.1	3 × 1	6.4	19.6	290
DK 3204-4	32	4	32.5	30.1	4 × 1	8.2	26.1	380
DK 3205-3	32	5	32.75	29.2	3 × 1	11.1	30.2	300
DK 3205-4	32	5	32.75	29.2	4 × 1	14.2	40.3	400
DK 3205-6	32	5	32.75	29.2	6 × 1	20.1	60.4	600
DK 3206-3	32	6	33	28.4	3 × 1	14.9	37.1	310
DK 3206-4	32	6	33	28.4	4 × 1	19.1	49.5	410
DK 3210-3	32	10	33.75	26.4	3 × 1	25.7	52.2	300
DK 3210-4	32	10	33.75	26.4	4 × 1	33	69.7	390
DK 3212-4	32	12	33.75	26.4	4 × 1	34.2	73.9	420
DK 3610-3	36	10	37.75	30.5	3 × 1	28.8	63.8	350
DK 3610-4	36	10	37.75	30.5	4 × 1	36.8	85	470
DK 4010-3	40	10	41.75	34.4	3 × 1	29.8	69.3	380
DK 4010-4	40	10	41.75	34.4	4 × 1	38.1	92.4	500
DK 4012-3	40	12	41.75	34.4	3 × 1	30.6	72.3	390
DK 4012-4	40	12	41.75	34.4	4 × 1	39.2	96.4	520
DK 4016-4	40	16	41.75	34.4	4 × 1	39.1	96.8	520
DK 4020-3	40	20	41.75	34.7	3 × 1	29.4	69.3	750



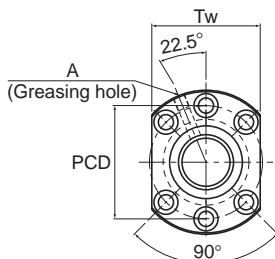
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ³ kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter	Flange diameter	Overall length	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole			
	D	D ₁	L ₁	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	A			
	45	76	44	11	33	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.44	5.86
	45	76	48	11	37	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.47	5.86
	46	76	47	12	35	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.5	5.67
	46	76	52	12	40	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.53	5.67
	46	76	62	12	50	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.6	5.67
	48	76	53	12	41	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.58	6.31
	48	76	61	12	49	10	63	6.6 × 11 × 6.5	59	M6	8.08 × 10 ⁻³	0.65	6.31
	54	87	80	15	65	15	69	9 × 14 × 8.5	66	M6	8.08 × 10 ⁻³	1.22	4.98
	54	87	90	15	75	20	69	9 × 14 × 8.5	66	M6	8.08 × 10 ⁻³	1.34	4.98
	54	87	98	15	83	25	69	9 × 14 × 8.5	66	M6	8.08 × 10 ⁻³	1.43	5.2
	58	98	82	18	64	15	77	11 × 17.5 × 11	75	M6	1.29 × 10 ⁻²	1.52	6.51
	58	98	93	18	75	20	77	11 × 17.5 × 11	75	M6	1.29 × 10 ⁻²	1.66	6.51
	62	104	83	18	65	15	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	3.14	8.22
	62	104	93	18	75	20	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	3.41	8.22
	62	104	90	18	72	20	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	1.77	8.5
	62	104	103	18	85	25	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	1.95	8.5
	62	104	120	18	102	30	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.19	8.83
	62	104	123	18	105	30	82	11 × 17.5 × 11	79	R1/8 (PT1/8)	1.97 × 10 ⁻²	2.23	9.03

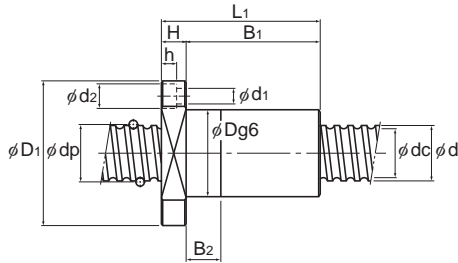
Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

DK No Preload

DN value	70000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
DK 5010-3	50	10	51.75	44.4	3×1	33.9	90.7	470
DK 5010-4	50	10	51.75	44.4	4×1	43.4	120.5	610
DK 5010-6	50	10	51.75	44.4	6×1	62.7	186.8	930
DK 5012-3	50	12	52.25	43.3	3×1	45.8	113	490
DK 5012-4	50	12	52.25	43.3	4×1	58.6	150.6	640
DK 5016-3	50	16	52.25	43.3	3×1	45.7	113.3	490
DK 5016-4	50	16	52.25	43.3	4×1	58.5	151	640
DK 5020-3	50	20	52.25	43.6	3×1	44.2	108.8	470
DK 6310-4	63	10	64.75	57.7	4×1	49.5	160.7	780
DK 6310-6	63	10	64.75	57.7	6×1	70.3	242.1	1140
DK 6312-3	63	12	65.25	56.3	3×1	51.9	147.4	600
DK 6312-4	63	12	65.25	56.3	4×1	66.4	196.6	785
DK 6320-3	63	20	65.7	55.9	3×1	83.5	229.3	1470



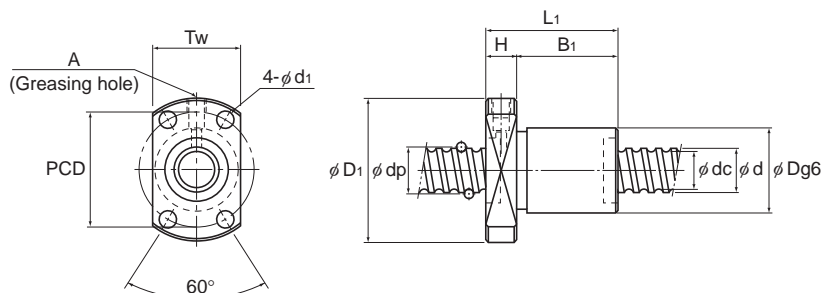
Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Outer diameter	Flange diameter	Overall length	H	B ₁	B ₂	PCD	d ₁ × d ₂ × h	Tw	Greasing hole			
	D	D ₁	L ₁						A	kg-cm ² /mm			
	72	123	83	18	65	15	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	2.14	13.38
	72	123	93	18	75	20	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	2.3	13.38
	72	123	114	18	96	30	101	11 × 17.5 × 11	92	R1/8 (PT1/8)	4.82 × 10 ⁻²	2.65	13.38
	75	129	97	22	75	20	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	2.91	12.74
	75	129	110	22	88	25	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.16	12.74
	75	129	111	22	89	25	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.18	13.41
	75	129	129	22	107	30	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.52	13.41
	75	129	136	28	108	30	105	14 × 20 × 13	98	R1/8 (PT1/8)	4.82 × 10 ⁻²	3.94	13.8
	85	146	97	22	75	20	122	14 × 20 × 13	110	R1/8 (PT1/8)	1.21 × 10 ⁻¹	3.28	21.93
	85	146	118	22	96	30	122	14 × 20 × 13	110	R1/8 (PT1/8)	1.21 × 10 ⁻¹	3.7	21.93
	90	146	98	22	76	20	122	14 × 20 × 13	110	R1/8 (PT1/8)	1.21 × 10 ⁻¹	3.71	21.14
	90	146	111	22	89	25	122	14 × 20 × 13	110	R1/8 (PT1/8)	1.21 × 10 ⁻¹	4.04	21.14
	95	159	136	28	108	30	129	18 × 26 × 17.5	121	R1/8 (PT1/8)	1.21 × 10 ⁻¹	6.17	21.57

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.
For model number coding, see **A15-230**.

MDK No Preload

DN value	70000
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Unit: mm

Model No.	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Rigidity	Nut dimensions		
						Ca	C _{0a}		K	Outer diameter	Flange diameter
						kN	kN	N/ μ m			
MDK 0401-3	4	1	4.15	3.4	3×1	0.29	0.42	35	9	19	13
MDK 0601-3	6	1	6.2	5.3	3×1	0.54	0.94	60	11	23	14.5
MDK 0801-3	8	1	8.2	7.3	3×1	0.64	1.4	80	13	26	15
MDK 0802-3	8	2	8.3	7	3×1	1.4	2.3	80	15	28	22
MDK 1002-3	10	2	10.3	9	3×1	1.5	2.9	100	17	34	22
MDK 1202-3	12	2	12.3	11	3×1	1.7	3.6	120	19	36	22
MDK 1402-3	14	2	14.3	13	3×1	1.8	4.3	190	21	40	23
MDK 1404-3	14	4	14.65	12.2	3×1	4.2	7.6	190	26	45	33
MDK 1405-3	14	5	14.75	11.2	3×1	7	11.6	140	26	45	42

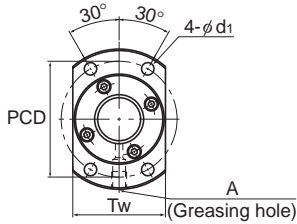
Model No.	Nut dimensions						Screw shaft inertial moment/mm	Nut mass	Shaft mass
	H	B ₁	PCD	d ₁	T _w	Greasing hole A			
MDK 0401-3	3	10	14	2.9	13	—	1.97×10 ⁻⁶	0.01	0.07
MDK 0601-3	3.5	11	17	3.4	15	—	9.99×10 ⁻⁶	0.017	0.14
MDK 0801-3	4	11	20	3.4	17	—	3.16×10 ⁻⁵	0.024	0.29
MDK 0802-3	5	17	22	3.4	19	—	3.16×10 ⁻⁵	0.034	0.27
MDK 1002-3	5	17	26	4.5	21	—	7.71×10 ⁻⁵	0.045	0.47
MDK 1202-3	5	17	28	4.5	23	—	1.6×10 ⁻⁴	0.05	0.71
MDK 1402-3	6	17	31	5.5	26	—	2.96×10 ⁻⁴	0.15	1
MDK 1404-3	6	27	36	5.5	28	—	2.96×10 ⁻⁴	0.13	0.8
MDK 1405-3	10	32	36	5.5	28	M6	2.96×10 ⁻⁴	0.18	0.91

Note) Models MDK0401, 0601 and 0801 are not provided with a seal.

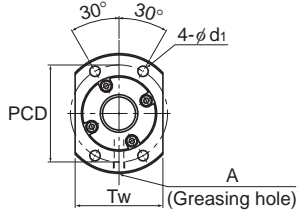
For model number coding, see **A15-230**.

WHF (Precision Ball Screw) No Preload

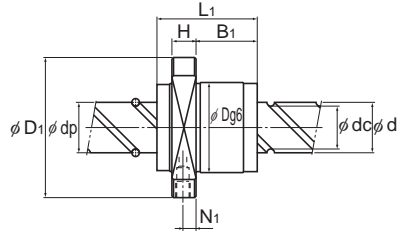
DN value	120000
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WHF1530/1540/2020/2025/
2030/2040/2550



WHF2525



Unit: mm

Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows × turns	Basic load rating		Rigidity K N/μm	Nut dimensions		
						Ca kN	C _{0a} kN		Outer diameter D	Flange diameter D ₁	Overall length L ₁
						WHF 1530-3.4	15	30	15.75	12.5	2 × 1.7
WHF 1540-3.4	15	40	15.75	12.5	2 × 1.7	7.7	16.3	209	34	57	81.6
WHF 2020-3.4	20	20	20.75	17.5	2 × 1.7	9.6	21	225	42	64	47.1
WHF 2025-3.4	20	25	20.75	17.6	2 × 1.7	9.8	22.3	236	39	62	56.2
WHF 2030-3.4	20	30	20.75	17.6	2 × 1.7	9.9	23.5	243	39	62	65.3
WHF 2040-3.4	20	40	20.75	17.5	2 × 1.7	9.6	20.3	256	37	57	82.7
WHF 2525-3.4	25	25	26	21.9	2 × 1.7	14.5	33.1	285	50	77	58.8
WHF 2550-3.4	25	50	26	21.9	2 × 1.7	14.4	31.9	323	45	69	103.3

Model No.	Nut dimensions							Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	H	B ₁	PCD	d ₁	Tw	N ₁	Greasing hole A			
WHF 1530-3.4	10	47.5	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.38	1.26
WHF 1540-3.4	10	64.6	45	5.5	40	5	M6	3.9 × 10 ⁻⁴	0.48	1.28
WHF 2020-3.4	10	24.1	53	5.5	46	5	M6	1.23 × 10 ⁻³	0.49	2.25
WHF 2025-3.4	10	33.2	50	5.5	46	5	M6	1.23 × 10 ⁻³	0.51	2.26
WHF 2030-3.4	10	43.3	50	5.5	46	5	M6	1.23 × 10 ⁻³	0.55	2.28
WHF 2040-3.4	10	65.7	47	5.5	38	5	M6	1.23 × 10 ⁻³	0.58	2.34
WHF 2525-3.4	12	31.3	63	6.6	56	6	M6	3.01 × 10 ⁻³	0.65	3.52
WHF 2550-3.4	12	79.3	57	6.6	46	6	M6	3.01 × 10 ⁻³	0.72	3.66

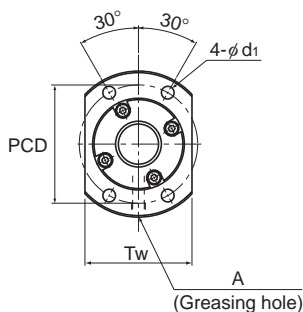
Note) Model WHF cannot be attached with seal.

The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.

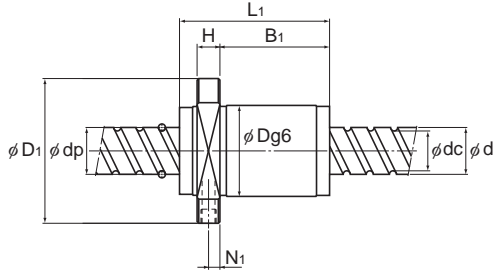
For model number coding, see **A15-230**.

BLK (Precision Ball Screw) No Preload

DN value	7000
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Model No.	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		Rigidity K N/μm
						Ca kN	C _{0a} kN	
BLK 1510-5.6	15	10	15.75	12.5	2×2.8	14.3	27.8	340
BLK 1616-2.8	16	16	16.65	13.7	1×2.8	5.2	9.9	180
BLK 1616-3.6	16	16	16.65	13.7	2×1.8	7.1	14.3	220
BLK 2020-2.8	20	20	20.75	17.5	1×2.8	8.1	17.2	230
BLK 2020-3.6	20	20	20.75	17.5	2×1.8	11.1	24.7	290
BLK 2525-2.8	25	25	26	21.9	1×2.8	12.2	26.9	270
BLK 2525-3.6	25	25	26	21.9	2×1.8	16.6	38.7	350
BLK 3232-2.8	32	32	33.25	28.3	1×2.8	17.3	41.4	340
BLK 3232-3.6	32	32	33.25	28.3	2×1.8	23.7	59.5	440
BLK 3620-5.6	36	20	37.75	31.2	2×2.8	54.9	134.3	760
BLK 3624-5.6	36	24	38	30.7	2×2.8	63.8	151.9	770
BLK 3636-2.8	36	36	37.4	31.7	1×2.8	22.4	54.1	390
BLK 3636-3.6	36	36	37.4	31.7	2×1.8	30.8	78	490
BLK 4040-2.8	40	40	41.75	35.2	1×2.8	28.2	68.9	430
BLK 4040-3.6	40	40	41.75	35.2	2×1.8	38.7	99.2	550
BLK 5050-2.8	50	50	52.2	44.1	1×2.8	42.2	107.8	530
BLK 5050-3.6	50	50	52.2	44.1	2×1.8	57.8	155	670



Unit: mm

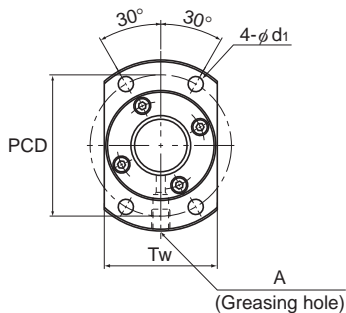
	Nut dimensions										Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	PCD	d ₁	Tw	N ₁	Greasing hole A			
	34	57	44	10	24	45	5.5	40	5	M6	3.9×10^{-4}	0.34	0.31
	32	53	54	10	37.5	42	4.5	38	5	M6	5.05×10^{-4}	0.32	1.41
	32	53	38	10	21.5	42	4.5	38	5	M6	5.05×10^{-4}	0.21	1.41
	39	62	65	10	47.5	50	5.5	46	5	M6	1.23×10^{-3}	0.49	2.25
	39	62	45	10	27.5	50	5.5	46	5	M6	1.23×10^{-3}	0.35	2.25
	47	74	80	12	60	60	6.6	56	6	M6	3.01×10^{-3}	0.89	3.52
	47	74	55	12	35	60	6.6	56	6	M6	3.01×10^{-3}	0.64	3.52
	58	92	102	15	77	74	9	68	7.5	M6	8.08×10^{-3}	1.78	5.83
	58	92	70	15	45	74	9	68	7.5	M6	8.08×10^{-3}	1.32	5.83
	70	110	78	17	45	90	11	80	8.5	M6	1.29×10^{-2}	2.23	6.49
	75	115	94	18	59	94	11	86	9	M6	1.29×10^{-2}	3.05	6.39
	66	106	113	17	86	85	11	76	8.5	M6	1.29×10^{-2}	2.61	7.34
	66	106	77	17	50	85	11	76	8.5	M6	1.29×10^{-2}	1.93	7.34
	73	114	125	17	96.5	93	11	84	8.5	M6	1.97×10^{-2}	3.4	9.01
	73	114	85	17	56.5	93	11	84	8.5	M6	1.97×10^{-2}	2.48	9.01
	90	135	156	20	122	112	14	104	10	M6	4.82×10^{-2}	6.18	14.08
	90	135	106	20	72	112	14	104	10	M6	4.82×10^{-2}	4.45	14.08

Note) Model BLK cannot be attached with seal.

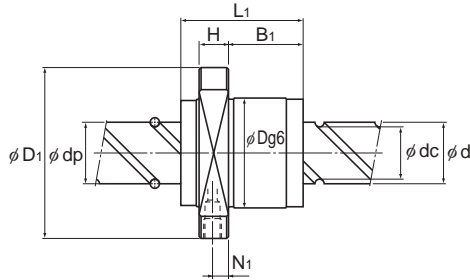
The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-344** for further details.For model number coding, see **A15-230**.

WGF No Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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	Ca'a kN	
WGF 0812-3	8	12	8.4	6.6	2×1.65	2.2	3.9	110
WGF 1015-3	10	15	10.5	8.3	2×1.65	3.3	6.2	140
WGF 1320-3	13	20	13.5	10.8	2×1.65	4.7	9.6	180
WGF 1520-1.5	15	20	15.75	12.5	1×1.5	4.4	7.9	100
WGF 1520-3	15	20	15.75	12.5	2×1.5	8.1	15.8	190
WGF 1530-1	15	30	15.75	12.5	2×0.6	3.5	5.4	90
WGF 1530-3	15	30	15.75	12.5	2×1.6	8.1	14.6	220
WGF 1540-1.5	15	40	15.75	12.5	2×0.75	3.9	7.4	110
WGF 2040-1	20	40	20.75	17.5	2×0.65	4.3	8	110
WGF 2040-3	20	40	20.75	17.5	2×1.65	9.5	20.2	280
WGF 2060-1.5	20	60	20.75	17.5	2×0.75	4.5	11	140
WGF 2550-1	25	50	26	21.9	2×0.65	6.4	12.5	140
WGF 2550-3	25	50	26	21.9	2×1.65	14.3	31.7	340
WGF 3060-1	30	60	31.25	26.4	2×0.65	8.9	18	170
WGF 3060-3	30	60	31.25	26.4	2×1.65	19.9	45.7	410
WGF 3090-1.5	30	90	31.25	26.4	2×0.75	9.7	25.8	200
WGF 4080-1	40	80	41.75	35.2	2×0.65	15	32.1	220
WGF 4080-3	40	80	41.75	35.2	2×1.65	33.4	81.4	530
WGF 50100-1	50	100	52.2	44.1	2×0.65	22.4	50.1	270
WGF 50100-3	50	100	52.2	44.1	2×1.65	49.9	127.2	650



Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm ² kg-cm ² /mm	Nut mass kg	Shaft mass kg/m	
	Outer diameter	Flange diameter	Overall length											Greasing hole
	D	D ₁	L ₁	H	B ₁	PCD	d ₁	Tw	N ₁	A				
	18	31	27	4	17	25	3.4	20	—	—	3.16 × 10 ⁻⁵	0.054	0.35	
	23	40	33	5	22	32	4.5	25	—	—	7.71 × 10 ⁻⁵	0.11	0.55	
	28	45	43	5	29	37	4.5	30	—	—	2.2 × 10 ⁻⁴	0.18	0.96	
	32	53	45	10	28	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.29	1.22	
	32	53	45	10	28	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.29	1.22	
	32	53	33	10	17	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.23	1.26	
	32	53	63	10	47	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.38	1.26	
	32	53	42	10	26.3	43	5.5	33	5	M6	3.9 × 10 ⁻⁴	0.28	1.28	
	37	57	41	10	25	47	5.5	38	5.5	M6	1.23 × 10 ⁻³	0.24	2.34	
	37	57	81	10	65	47	5.5	38	5.5	M6	1.23 × 10 ⁻³	0.48	2.34	
	37	57	60	10	40.1	47	5.5	38	5	M6	1.23 × 10 ⁻³	0.4	2.37	
	45	69	52	12	31.5	57	6.6	46	7	M6	3.01 × 10 ⁻³	0.43	3.66	
	45	69	102	12	81.5	57	6.6	46	7	M6	3.01 × 10 ⁻³	0.85	3.66	
	55	89	62	15	37	71	9	56	9	M6	6.24 × 10 ⁻³	1.11	5.28	
	55	89	122	15	97	71	9	56	9	M6	6.24 × 10 ⁻³	1.9	5.28	
	55	89	92	15	61.3	71	9	56	9	M6	6.24 × 10 ⁻³	1.51	5.34	
	73	114	79	17	50.5	93	11	74	8.5	M6	1.97 × 10 ⁻²	2.34	9.38	
	73	114	159	17	130.5	93	11	74	8.5	M6	1.97 × 10 ⁻²	4.18	9.38	
	90	135	98	20	64	112	14	92	10	M6	4.82 × 10 ⁻²	4.18	14.66	
	90	135	198	20	164	112	14	92	10	M6	4.82 × 10 ⁻²	7.63	14.66	

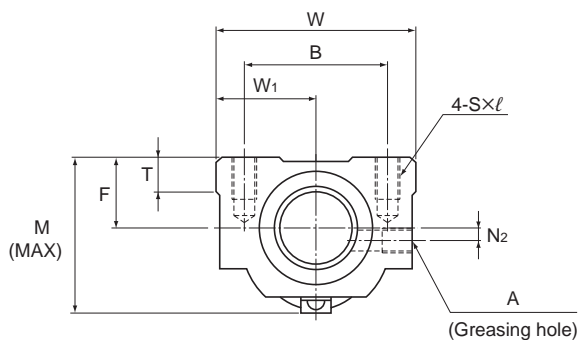
Note) Model WGF cannot be attached with seal.

The overall length of the nut will increase when equipping the QZ lubricating device. See **15-344** for further details.

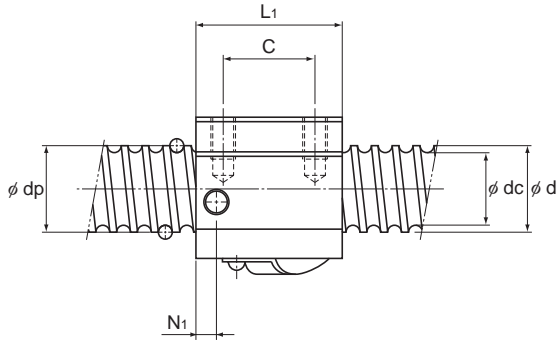
For model number coding, see **15-230**.

BNT (Precision Ball Screw) No Preload

DN value	70000
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Model No.	Screw shaft outer diameter d	Lead Ph	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 _{0a} kN	
BNT 1404-3.6	14	4	14.4	11.5	1×3.65	6.8	12.6	190
BNT 1405-2.6	14	5	14.5	11.2	1×2.65	7.2	12.6	150
BNT 1605-2.6	16	5	16.75	13.5	1×2.65	7.8	14.7	170
BNT 1808-3.6	18	8	19.3	14.4	1×3.65	18.2	34.4	270
BNT 2005-2.6	20	5	20.5	17.2	1×2.65	8.7	18.3	200
BNT 2010-2.6	20	10	21.25	16.4	1×2.65	14.7	27.8	220
BNT 2505-2.6	25	5	25.5	22.2	1×2.65	9.6	23	240
BNT 2510-5.3	25	10	26.8	20.2	2×2.65	43.4	92.8	520
BNT 2806-2.6	28	6	28.5	25.2	1×2.65	10.1	25.8	270
BNT 2806-5.3	28	6	28.5	25.2	2×2.65	18.3	51.6	510
BNT 3210-2.6	32	10	33.75	27.2	1×2.65	27.3	59.5	330
BNT 3210-5.3	32	10	33.75	27.2	2×2.65	49.6	118.9	640
BNT 3610-2.6	36	10	37	30.5	1×2.65	28.7	65.6	360
BNT 3610-5.3	36	10	37	30.5	2×2.65	52.1	131.2	700
BNT 4512-5.3	45	12	46.5	39.2	2×2.65	68.1	186.7	860



Unit: mm

	Nut dimensions											Screw shaft inertial moment/mm kg-cm ² /mm	Nut mass kg	Shaft mass kg/m	
	Outer diameter D	Center height F	Overall length L ₁	Mounting hole			W ₁	T	M	N ₁	N ₂				Greasing hole A
				B	C	S×ℓ									
34	13	35	26	22	M4×7	17	6	30	6	2	M6	2.96×10 ⁻⁴	0.15	0.93	
34	13	35	26	22	M4×7	17	6	31	6	2	M6	2.96×10 ⁻⁴	0.15	0.92	
42	16	36	32	22	M5×8	21	21.5	32.5	6	2	M6	5.05×10 ⁻⁴	0.3	1.24	
48	17	56	35	35	M6×10	24	10	44	8	3	M6	8.09×10 ⁻⁴	0.47	1.46	
48	17	35	35	22	M6×10	24	9	39	5	3	M6	1.23×10 ⁻³	0.28	2.06	
48	18	58	35	35	M6×10	24	9	46	10	2	M6	1.23×10 ⁻³	0.5	1.99	
60	20	35	40	22	M8×12	30	9.5	45	7	5	M6	3.01×10 ⁻³	0.41	3.35	
60	23	94	40	60	M8×12	30	10	55	10	—	M6	3.01×10 ⁻³	1.18	2.79	
60	22	42	40	18	M8×12	30	10	50	8	—	M6	4.74×10 ⁻³	0.81	4.42	
60	22	67	40	40	M8×12	30	10	50	8	—	M6	4.74×10 ⁻³	0.78	4.42	
70	26	64	50	45	M8×12	35	12	62	10	—	M6	8.08×10 ⁻³	1.3	4.98	
70	26	94	50	60	M8×12	35	12	62	10	—	M6	8.08×10 ⁻³	2	4.98	
86	29	64	60	45	M10×16	43	17	67	11	—	M6	1.29×10 ⁻²	1.8	6.54	
86	29	96	60	60	M10×16	43	17	67	11	—	M6	1.29×10 ⁻²	2.4	6.54	
100	36	115	75	75	M12×20	50	20.5	80	13	—	M6	3.16×10 ⁻²	4.1	10.56	

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See [A15-344](#) for further details.
For model number coding, see [A15-230](#).

Model Number Coding

Model number coding

