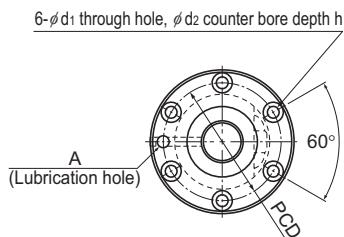


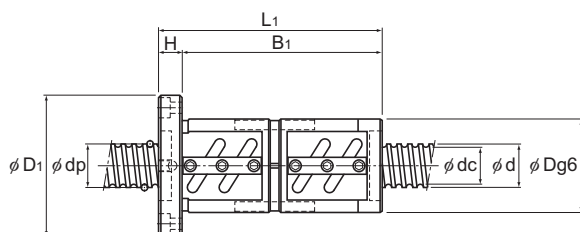
BNFN With Preload

DN value	70,000
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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 $\times$ turns	Basic load rating		Rigidity K N/ μ m
						Ca kN	C _{0a} kN	
BNFN 5510-2.5	55	10	56.75	49.5	1 $\times$ 2.5	33.4	97	970
BNFN 5510-5	55	10	56.75	49.5	2 $\times$ 2.5	60.7	194	1,890
BNFN 5510-7.5	55	10	56.75	49.5	3 $\times$ 2.5	85.9	291.1	2,770
BNFN 5512-2.5	55	12	57	49.2	1 $\times$ 2.5	39.3	108.8	990
BNFN 5512-3	55	12	57	49.2	2 $\times$ 1.5	46	131.3	1,180
BNFN 5512-3.5	55	12	57	49.2	1 $\times$ 3.5	52.4	152.9	1,360
BNFN 5512-5	55	12	57	49.2	2 $\times$ 2.5	71.3	218.5	1,920
BNFN 5512-7.5	55	12	57	49.2	3 $\times$ 2.5	100.9	327.3	2,830
BNFN 5516-2.5	55	16	57.7	47.9	1 $\times$ 2.5	76.1	201.9	1,310
BNFN 5516-5	55	16	57.7	47.9	2 $\times$ 2.5	138.2	402.8	2,550
BNFN 5520-2.5	55	20	57.7	47.9	1 $\times$ 2.5	76	201.9	1,320
BNFN 5520-5	55	20	57.7	47.9	2 $\times$ 2.5	138.2	403.8	2,550
BNFN 6310-2.5	63	10	64.75	57.7	1 $\times$ 2.5	35.4	111.7	1,090
BNFN 6310-5	63	10	64.75	57.7	2 $\times$ 2.5	64.2	222.5	2,100
BNFN 6310-7.5	63	10	64.75	57.7	3 $\times$ 2.5	90.9	334.2	3,090
BNFN 6312A-2.5	63	12	65.25	56.3	1 $\times$ 2.5	48.1	139.2	1,120
BNFN 6312A-5	63	12	65.25	56.3	2 $\times$ 2.5	87.4	278.3	2,160
BNFN 6316-2.5	63	16	65.7	55.9	1 $\times$ 2.5	81.1	231.3	1,470
BNFN 6316-5	63	16	65.7	55.9	2 $\times$ 2.5	147	462.6	2,840
BNFN 6320-2.5	63	20	65.7	55.9	1 $\times$ 2.5	81	231.3	1,470
BNFN 6320-5	63	20	65.7	55.9	2 $\times$ 2.5	147	463.5	2,640

Positioning Ball Screw



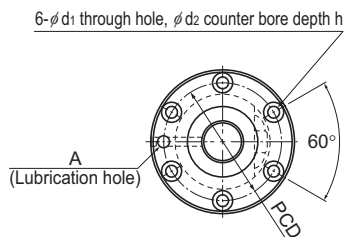
Unit: mm

	Nut dimensions							Lubrication hole A	Screw shaft inertial moment/mm kg·m²/mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min ⁻¹
	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	Rc1/8 (PT1/8)	7.05×10 ⁻⁶	6.54	16.43	1,230
	102	144	201	18	183	122	11×17.5×11		7.05×10 ⁻⁶	8.88	16.43	1,230
	102	144	261	18	243	122	11×17.5×11		7.05×10 ⁻⁶	11.23	16.43	1,230
	105	147	165	18	147	125	11×17.5×11		7.05×10 ⁻⁶	8.07	16.29	1,220
	105	147	191	18	173	125	11×17.5×11		7.05×10 ⁻⁶	9.17	16.29	1,220
	105	147	189	18	171	125	11×17.5×11		7.05×10 ⁻⁶	9.09	16.29	1,220
	105	147	237	18	219	125	11×17.5×11		7.05×10 ⁻⁶	11.13	16.29	1,220
	105	147	309	18	291	125	11×17.5×11		7.05×10 ⁻⁶	14.19	16.29	1,220
	110	158	196	25	171	133	14×20×13		7.05×10 ⁻⁶	11.28	15.46	1,210
	110	158	292	25	267	133	14×20×13		7.05×10 ⁻⁶	15.94	15.46	1,210
	112	158	227	28	199	134	14×20×13		7.05×10 ⁻⁶	13.49	16.1	1,210
	112	158	347	28	319	134	14×20×13		7.05×10 ⁻⁶	19.61	16.1	1,210
	108	154	137	22	115	130	14×20×13		1.21×10 ⁻⁵	6.98	21.93	1,080
	108	154	197	22	175	130	14×20×13		1.21×10 ⁻⁵	9.4	21.93	1,080
	108	154	257	22	235	130	14×20×13		1.21×10 ⁻⁵	11.81	21.93	1,080
	115	161	159	22	137	137	14×20×13		1.21×10 ⁻⁵	9.32	21.14	1,070
	115	161	231	22	209	137	14×20×13		1.21×10 ⁻⁵	12.84	21.14	1,070
	122	184	208	24	184	152	18×26×17.5		1.21×10 ⁻⁵	14.61	20.85	1,060
	122	184	304	24	280	152	18×26×17.5		1.21×10 ⁻⁵	20.19	20.85	1,060
	122	180	227	28	199	150	18×26×17.5		1.21×10 ⁻⁵	15.91	20.85	1,060
	122	180	347	28	319	150	18×26×17.5		1.21×10 ⁻⁵	22.88	20.85	1,060

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-366** for further details.

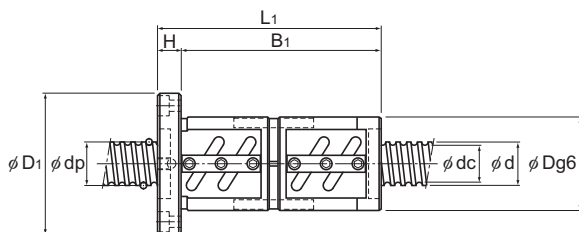
BNFN With Preload

DN value	70,000
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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/ μ m
						Ca kN	C _{0a} kN	
BNFN 7010-2.5	70	10	71.75	64.5	1×2.5	36.8	123.5	1,180
BNFN 7010-5	70	10	71.75	64.5	2×2.5	66.9	247	2,280
BNFN 7010-7.5	70	10	71.75	64.5	3×2.5	94.9	371.4	3,350
BNFN 7012-2.5	70	12	72	64.2	1×2.5	43.5	139.2	1,200
BNFN 7012-5	70	12	72	64.2	2×2.5	78.9	278.3	2,320
BNFN 7012-7.5	70	12	72	64.2	3×2.5	111.7	417.5	3,420
BNFN 7020-5	70	20	72.7	62.9	2×2.5	153.9	514.5	3,090
BNFN 8010-2.5	80	10	81.75	75.2	1×2.5	38.9	141.1	1,300
BNFN 8010-5	80	10	81.75	75.2	2×2.5	70.6	283.2	2,530
BNFN 8010-7.5	80	10	81.75	75.2	3×2.5	100	424.3	3,720
BNFN 8012-5	80	12	82.3	74.1	2×2.5	96.5	353.8	2,620
BNFN 8020A-2.5	80	20	82.7	72.9	1×2.5	90.1	294	1,770
BNFN 8020A-5	80	20	82.7	72.9	2×2.5	163.7	589	3,430
BNFN 10020A-2.5	100	20	102.7	92.9	1×2.5	99	368.5	2,110
BNFN 10020A-5	100	20	102.7	92.9	2×2.5	179.3	737	4,080
BNFN 10020A-7.5	100	20	102.7	92.9	3×2.5	253.8	1105.4	6,010

Positioning Ball Screw



Unit: mm

	Nut dimensions							Screw shaft inertial moment/mm	Nut mass	Shaft mass	Permissible rotational speed	
	Outer diameter	Flange diameter	Overall length									Lubrication hole
	D	D ₁	L ₁	H	B ₁	PCD	d ₁ ×d ₂ ×h					A
	125	167	141	18	123	145	11×17.5×11	Rc1/8 (PT1/8)	1.85×10 ⁻⁵	9.19	27.4	970
	125	167	201	18	183	145	11×17.5×11		1.85×10 ⁻⁵	12.57	27.4	970
	125	167	261	18	243	145	11×17.5×11		1.85×10 ⁻⁵	15.96	27.4	970
	128	170	165	18	147	148	11×17.5×11		1.85×10 ⁻⁵	11.26	27.24	970
	128	170	237	18	219	148	11×17.5×11		1.85×10 ⁻⁵	15.63	27.24	970
	128	170	309	18	291	148	11×17.5×11		1.85×10 ⁻⁵	20	27.24	970
	130	186	325	28	297	158	18×26×17.5		1.85×10 ⁻⁵	23.4	27	960
	130	176	137	22	115	152	14×20×13		3.16×10 ⁻⁵	9.15	36.26	850
	130	176	197	22	175	152	14×20×13		3.16×10 ⁻⁵	12.41	36.26	850
	130	176	257	22	235	152	14×20×13		3.16×10 ⁻⁵	15.67	36.26	850
	135	181	231	22	209	157	14×20×13		3.16×10 ⁻⁵	16.02	35.26	850
	143	204	227	28	199	172	18×26×17.5		3.16×10 ⁻⁵	20.08	35.81	840
	143	204	347	28	319	172	18×26×17.5		3.16×10 ⁻⁵	28.97	35.81	840
	170	243	231	32	199	205	22×32×21.5		7.71×10 ⁻⁵	28.15	57.13	680
	170	243	351	32	319	205	22×32×21.5		7.71×10 ⁻⁵	39.99	57.13	680
	170	243	471	32	439	205	22×32×21.5		7.71×10 ⁻⁵	51.84	57.13	680

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-366** for further details.