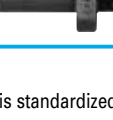


B-I-6.5 Rolled Ball Screw R Series

(1) Product classification

NSK rolled ball screws are classified by nut model as shown in Table I-6.4.

Table I-6.4 Classification of rolled ball screws

Nut model	Nut shape	Recirculation system	Lead classification	Page
RNFTL		Return tube type	Fine, medium lead High helix lead	B257 B261
RNFBL		Return tube type	Fine, medium lead	B263
RNCT		Return tube type	Fine lead	B265
RNSTL		Return tube type	Small, medium leads	B267
RNFCL		End cap type	High helix lead Ultra high helix lead	B269 B271

(2) Features

- Short delivery time: R Series is standardized, and available in stock.
- Interchangeable screw shaft and ball nut: Screw shaft and nut assembly components are sold separately, and randomly-matched. The maximum axial play after assembly is shown in the dimension tables (from Page B257 ~ B272).
- Low prices: Screw shaft is processed by rolling. This is why prices are lower than those of precision types.
- Abundant series: There are 128 types of nut assembly combinations in the series. Each combination has two to three different lengths in screw shaft.

(3) Accuracy

◇ Lead accuracy: Ct10 grade ($v_{300}=0.210$).

Refer to "Technical Description: Lead Accuracy" (Page B499) for details.

◇ Axial play: Varies with internal specification. Refer to the dimension tables (Page B257).

◇ Run out of screw shaft center: Ct10 grade

(4) Nut installation

Refer to "Technical Description: Installation" (Page B529).

(5) Shaft end machining

It is necessary to machine screw shaft end of the rolled ball screw.

Refer to "Configuration of rolled ball screw shaft end" (Page B29) if you use standard support unit. Refer to "Technical Description: Shaft end machining" (Page B537) for procedures and precautions.

(6) Rust prevention

Rust prevention agent is applied at time of delivery. But special surface treatment is not given to these ball screws.

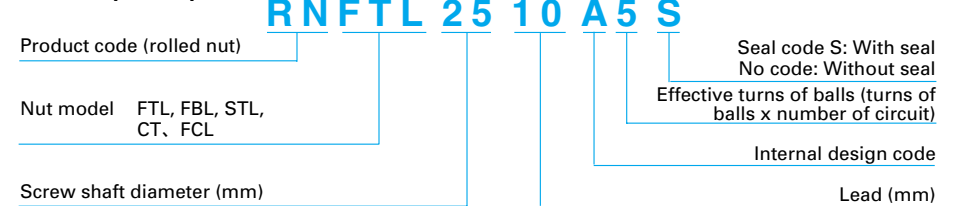
Rolled ball screws

NSK furnishes treatment such as phosphate coating or electrolysis low temperature chrome plating on request.

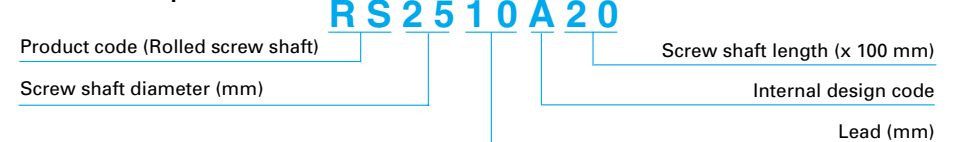
Reference number of rolled ball screw is described below. Please use reference number to order, or for a price inquiry.

(7) Reference number

Nut assembly (example)



Screw shaft (example)



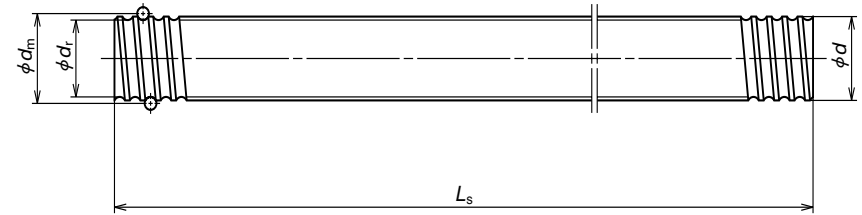
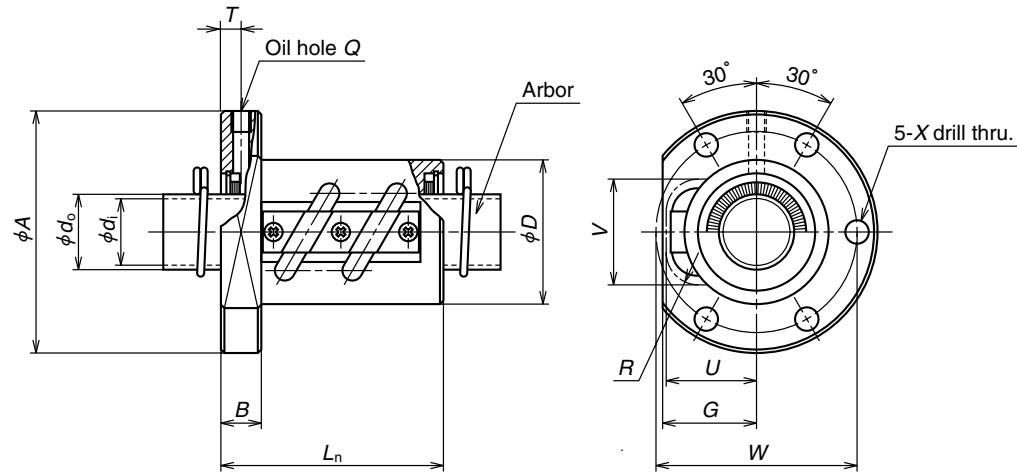
(8) Combinations of shaft diameter/lead

Combinations are shown below in Table I-6.5. The table also indicates nut model codes and page numbers to be referred.

Table I-6.5 Combinations of shaft diameter/lead

Screw shaft diameter (mm)	Lead (mm)															
	3	4	5	6	8	10	12	16	20	25	32	40	50	64	80	
10	○B257 △B265			○B257●B263												
12					○B257●B263		○B261○B269									
14		○B257●B263 △B265□B267	○B257●B263 △B265□B267													
15									◎B269							
16						○B257		○B261 ◎B269			◎B271					
18					○B257●B263 △B265□B267											
20			○B257●B263 △B265□B267			○B257●B263 □B267			○B261 ◎B269			◎B271				
25			○B257●B263 △B265□B267			○B257●B263 △B265□B267				○B261 ◎B269			◎B271			
28				○B259●B263 △B265□B267												
32						○B259●B263 △B265□B267					○B261 ◎B269			◎B271		
36						○B259●B263 △B265□B267										
40						○B259△B265 ●B263						○B261 ◎B269			◎B271	
45							○B259 △B265□B267									
50						○B259 △B265		○B259 △B265					◎B269			

○ : RNFTL ● : RNFBL △ : RNCT □ : RNSTL ◎ : RNFCL



Ball nut No.	Shaft dia. d	Lead l	Ball dia. D_o	Ball circle dia. d_m	Root dia. d_i	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. D
							Dynamic C_a	Static C_{0a}		
RNFTL 1003A3.5	10	3	2.381	10.65	8.1	3.5×1	3780	6730	0.10	20
RNFTL 1006A2.5S	10	6	2.381	10.65	8.1	2.5×1	2830	4810	0.10	20
RNFTL 1208A2.5S	12	8	2.778	12.65	9.6	2.5×1	3730	6560	0.10	25
RNFTL 1404A3.5S	14	4	2.778	14.5	11.5	3.5×1	5370	10800	0.10	25
RNFTL 1405A2.5S	14	5	3.175	14.5	11.0	2.5×1	5260	9720	0.10	30
RNFTL 1610A2.5	16	10	3.175	16.75	13.3	2.5×1	5660	11500	0.10	30
RNFTL 1610A2.5S	16	10	3.175	16.75	13.3	2.5×1	5660	11500	0.10	30
RNFTL 1808A3.5	18	8	4.762	18.5	13.6	3.5×1	13200	25800	0.15	34
RNFTL 1808A3.5S	18	8	4.762	18.5	13.6	3.5×1	13200	25800	0.15	34
RNFTL 2005A2.5	20	5	3.175	20.5	17.0	2.5×1	6360	14200	0.10	40
RNFTL 2005A2.5S	20	5	3.175	20.5	17.0	2.5×1	6360	14200	0.10	40
RNFTL 2010A2.5	20	10	4.762	21.25	16.2	2.5×1	10900	21800	0.15	40
RNFTL 2010A2.5S	20	10	4.762	21.25	16.2	2.5×1	10900	21800	0.15	40
RNFTL 2505A5	25	5	3.175	25.5	22.0	2.5×2	12800	36300	0.10	42
RNFTL 2505A5S	25	5	3.175	25.5	22.0	2.5×2	12800	36300	0.10	42
RNFTL 2510A2.5	25	10	6.35	26	19.0	2.5×1	17500	35200	0.20	44
RNFTL 2510A2.5S						2.5×1	17500	35200		
RNFTL 2510A5						2.5×2	31800	70300		
RNFTL 2510A5S	25	10	6.35	26	19.0	2.5×2	31800	70300	0.20	44

Remarks 1. Protruding portion of the tube does not have any interference with the ball nut housing if its dimensions corresponding to U and V are large enough.

2. The actual entire screw shaft length may become slightly longer than nominal length L_s due to manufacturing tolerance.

3. Seal are provided in the nut. Therefore, the external dimensions of those with the seals are the same as those without.

In the side view drawing of ball nut, the above of the center line is with seal, and beneath is without seal.

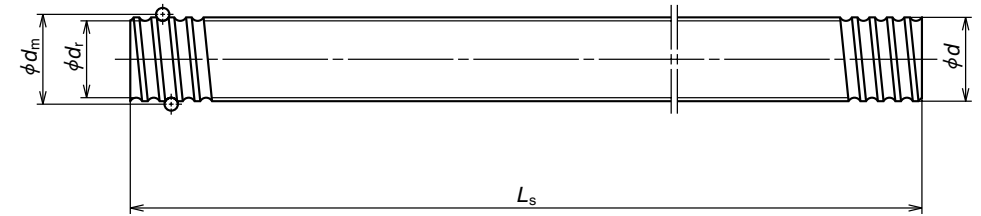
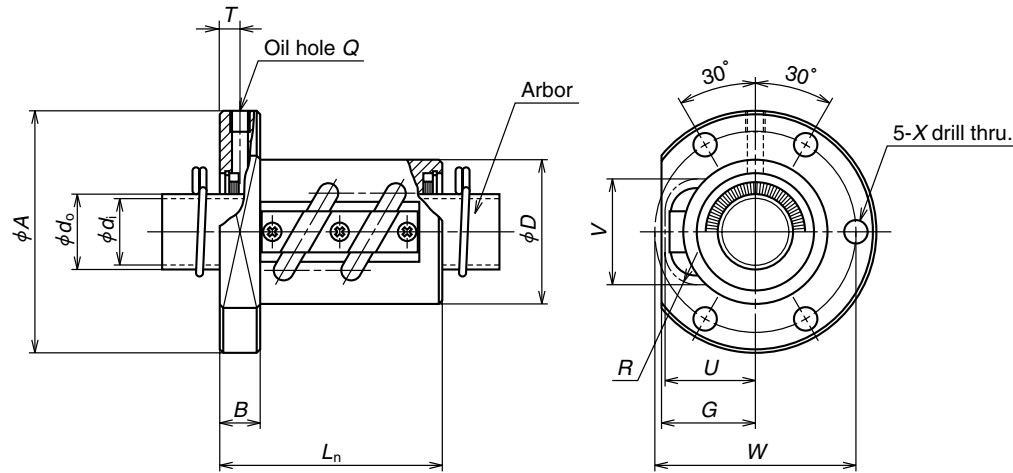
Seal for those with the shaft diameter of 14 mm or less is made of synthetic resin. Seal for those of 16 mm or over is a "Brush-seal."

Ball nut dimensions											Nut Mass. (kg)	Arbor		Screw shaft				Shaft mass/m (kg)
Flange		Length	Bolt hole		Oil hole		Projecting tube			Outside dia.		Bore	Standard length		Screw shaft			
A	G	B	L _n	W	X	Q	T	U	V	R		d _o	d	L _s	No.			
40	15	6	34	30	4.5	M3×0.5	3.0	15	15	7	0.092	8.1	6.1	400	800		RS1003A**	0.50
40	15	6	36	30	4.5	M3×0.5	3.5	15	15	5	0.095	8.1	6.1	400	800		RS1006A**	0.56
45	19	8	46	35	4.5	M3×0.5	5.5	19	18	7	0.18	9.6	7.6	400	800		RS1208A**	0.74
50	19	10	43	40	4.5	M6×1	5.0	19	20	7	0.20	11.5	9.5	500	1000		RS1404A**	1.02
50	22	10	45	40	4.5	M6×1	5.0	22	21	8	0.26	11.0	9.0	500	1000		RS1405A**	1.00
53	23	10	54	41	5.5	M6×1	5.5	23	22.5	8	0.28	13.3	11.3	500	1000	1500	RS1610A**	1.37
63	27	12	58	49	6.6	M6×1	6.0	27	27	8	0.43	13.6	11.6	500	1000	1500	RS1808A**	1.60
60	28	10	46	50	4.5	M6×1	5.0	28	27	10	0.42	17.0	14.6	500	1000	2000	RS2005A**	2.17
67	30	12	59	53	6.6	M6×1	6.0	30	29	12	0.55	16.2	13.8	500	1000	2000	RS2010A**	2.18
71	28	12	66	57	6.6	M6×1	6.0	28	31	10	0.62	22.0	19.6	1000	2000	2500	RS2505A**	3.47
80	34	15	62	62	9	M6×1	7.5	34	37	17	0.75	19.0	16.6	1000	2000	2500	RS2510A**	3.13
80	34	15	92	62	9	M6×1	7.5	34	37	17								

Remarks 4. Nut assembly with arbor and the screw shaft are separated at time of delivery.

5. At the end of the screw shaft reference number where marked with "**", fill with the value obtained by dividing the standard screw shaft length by 100 mm.

6. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.

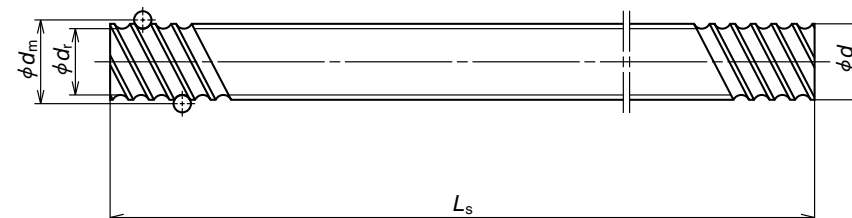
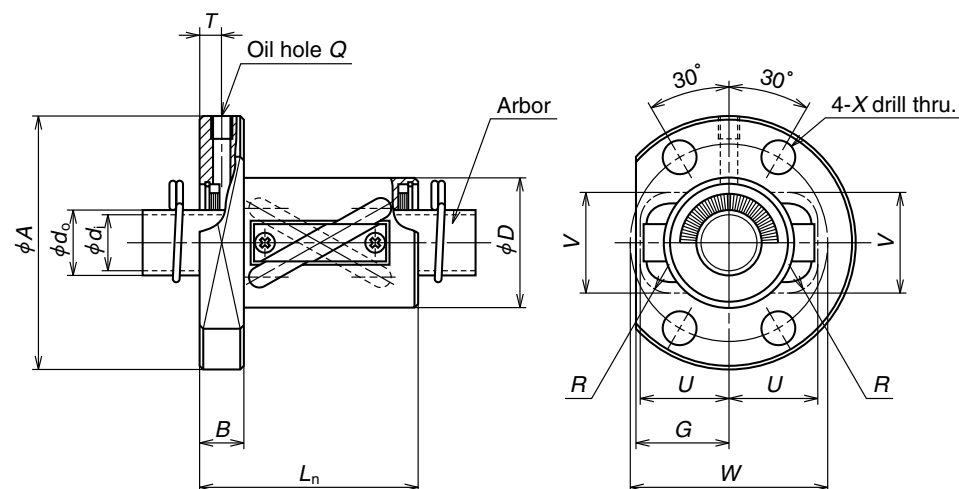


Ball nut No.	Shaft dia. d	Lead l	Ball dia. D_o	Ball circle dia. d_m	Root dia. d_i	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. D
							Dynamic C_a	Static C_{0a}		
RNFTL 2806A2.5 RNFTL 2806A2.5S RNFTL 2806A5 RNFTL 2806A5S	28	6	3.175	28.5	25.0	2.5×1	7430	20300	0.10	50
						2.5×2	13500	40600		50
RNFTL 3210A5 RNFTL 3210A5S						2.5×2	35700	92200		55
RNFTL 3610A2.5 RNFTL 3610A2.5S RNFTL 3610A5 RNFTL 3610A5S						2.5×1	21000	51000		60
	36	10	6.35	37	30.0	2.5×2	38100	102000	0.20	60
RNFTL 4010A7 RNFTL 4010A7S	40	10	6.35	41.75	35.0	3.5×2	53500	164000	0.20	65
RNFTL 4512A5 RNFTL 4512A5S	45	12	7.144	46.5	39.0	2.5×2	49600	147000	0.23	70
RNFTL 5010A7 RNFTL 5010A7S	50	10	6.35	51.75	45.0	3.5×2	59500	205000	0.20	80
RNFTL 5016A5 RNFTL 5016A5S	50	16	9.525	52	42.0	2.5×2	99900	293000	0.23	85

Remarks 1. The protruding portion of the tube does not interfere with nut housing if its corresponding dimensions to U and V are large enough.
 2. The actual screw shaft length may become slightly longer than nominal length of L_s due to manufacturing tolerance.
 3. Seal are provided in the nut. Therefore, the external dimensions of those with the seals are the same as those without.
 In the side view drawing of the nut, the above of the center line is with seal, and beneath is without seal.
 Seal is "BBBrush-seal".

Ball nut dimensions											Nut Mass. (kg)	Arbor		Screw shaft				Shaft mass/m (kg)
Flange		Length	Bolt hole		Oil hole		Projecting tube			Outside dia.		Bore	Standard length		Screw shaft			
A	G	B	L _n	W	X	Q	T	U	V	R		d _o	d	L _s		No.		
79	33	15	55	65	6.6	M6×1	7.5	33	34	10	0.85	25.0	22.6	1000	2000	2500	RS2806A**	4.47
79	33	15	79	65	6.6	M6×1	7.5	33	34	10	1.07							
97	39	18	97	75	11	M6×1	9.0	39	42	17	1.55	27.0	24.6	1000	2000	3000	RS3210A**	5.53
102	42	18	68	80	11	M6×1	9.0	42	46	17	1.47	30.0	27.6	1000	2000	3000	RS3610A**	6.91
102	42	18	98	80	11	M6×1	9.0	42	46	17	1.80							
114	44	20	120	90	14	M6×1	10.0	44	50	20	2.49	35.0	31.8	2000	3000	4000	RS4010A**	8.87
130	47	22	116	100	18	M6×1	11.0	47	55	20	3.07	39.0	35.8	2000	3000	4000	RS4512A**	11.16
140	52	22	122	110	18	M6×1	11.0	52	59	20	4.06	45.0	41.8	2000	3000	4000	RS5010A**	14.15
163	57	28	146	125	22	M6×1	14.0	57	63	25	6.42	42.0	38.8	2000	3000	4000	RS5016A**	13.48

Remarks 4. Nut assembly with arbor and the screw shaft are separated at time of delivery.
 5. At the end of the screw shaft reference number where marked with "**", fill with the value obtained by dividing the standard screw shaft length by 100 mm.
 6. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.

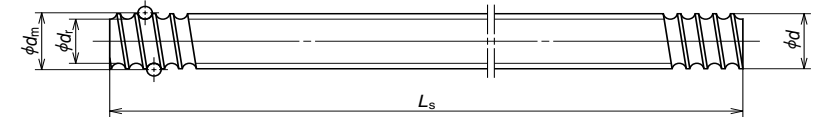
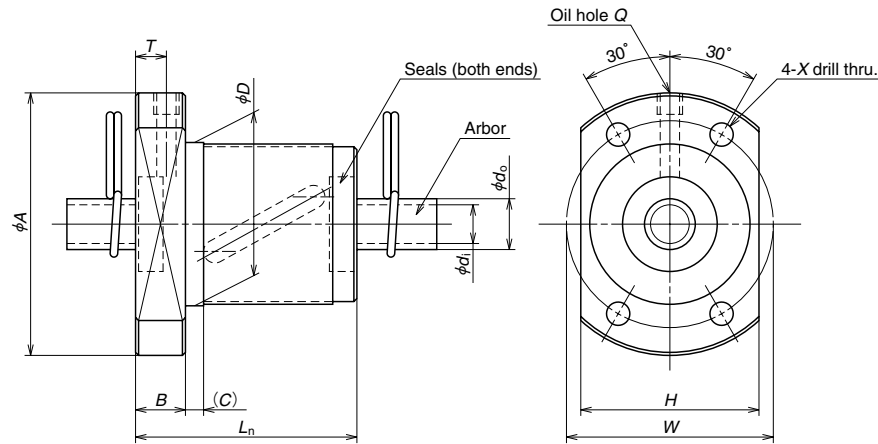


Ball nut No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D_w</i>	Ball circle dia. <i>d_m</i>	Root dia. <i>d_i</i>	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. <i>D</i>
							Dynamic <i>C_a</i>	Static <i>C_{0a}</i>		
RNFTL 1212A3	12	12	2.381	12.65	10.1	1.5 × 2	3360	6270	0.10	24
RNFTL 1616A3 RNFTL 1616A3S	16	16	2.778	16.65	13.6	1.5 × 2	4880	9650	0.10	30
RNFTL 2020A3 RNFTL 2020A3S	20	20	3.175	20.75	17.3	1.5 × 2	7010	15400	0.10	35
RNFTL 2525A3 RNFTL 2525A3S	25	25	3.969	26	22.0	1.5 × 2	10500	24100	0.12	45
RNFTL 3232A3 RNFTL 3232A3S	32	32	4.762	33.25	28.0	1.5 × 2	15300	37100	0.15	55
RNFTL 4040A3 RNFTL 4040A3S	40	40	6.35	41.75	35.0	1.5 × 2	24400	61600	0.20	70

Remarks 1. Protruding portion of the tube does not have any interference with the ball nut housing if its dimensions corresponding to U and V are large enough.
 2. The actual entire screw shaft length may become slightly longer than nominal length L_s due to manufacturing tolerance.
 3. Seal are provided in the nut. Therefore, the external dimensions of those with the seals are the same as those without.
 In the side view drawing of ball nut, the above of the center line is with seal, and beneath is without seal.
 Seal for those with the shaft diameter of 14 mm or less is made of synthetic resin. Seal for those of 16 mm or over is a "Brush-seal."

Ball nut dimensions											Nut Mass. (kg)	Arbor		Screw shaft		Shaft mass/m (kg)	
Flange			Length		Bolt hole		Oil hole		Projecting tube			Outside dia.	Bore	Standard length			Screw shaft No.
A	G	B	L _n	W	X	Q	T	U	V	R		d _o	d _i	L _s			
44	17	8	44	34	4.5	M3×0.5	4.0	17	16	5	0.16	10.1	8.1	400 800	RS1212A**	0.74	
55	22	10	50	43	6.6	M6×1	5.0	22	22	7	0.29	13.6	11.6	500 1000 1500	RS1616A**	1.37	
68	25	12	59	52	9	M6×1	6.0	25	27	8	0.49	17.3	14.9	500 1000 2000	RS2020A**	2.19	
80	31	12	69	63	9	M6×1	6.0	31	32	10	0.80	22.0	19.6	1000 2000 2500	RS2525A**	3.43	
100	37	15	84	80	11	M6×1	7.5	37	40	12	1.46	28.0	25.6	1000 2000 3000	RS3232A**	5.71	
120	46	18	103	95	14	M6×1	9.0	46	49	15	2.69	35.0	31.8	2000 3000 4000	RS4040A**	8.82	

Remarks 4. Nut assembly with arbor and the screw shaft are separated at time of delivery.
 5. At the end of the screw shaft reference number where marked with "**", fill with the value obtained by dividing the standard screw shaft length by 100 mm.
 6. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.



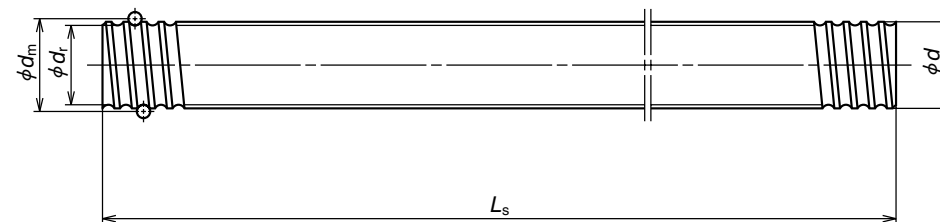
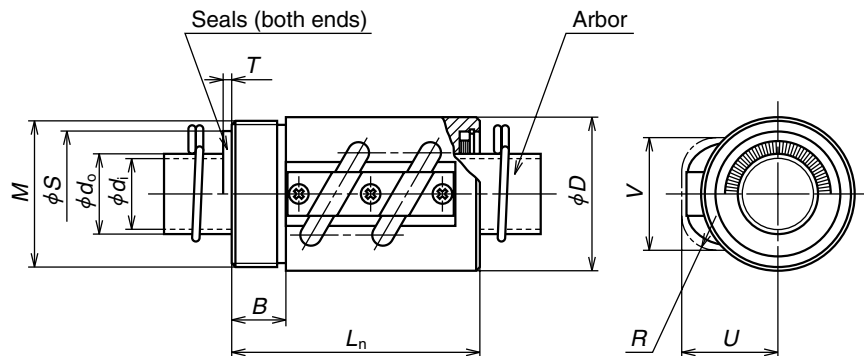
Ball nut No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D_w</i>	Ball circle dia. <i>d_m</i>	Root dia. <i>d_r</i>	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. <i>D</i>
							Dynamic <i>C_s</i>	Static <i>C_{0s}</i>		
RNFBL 1006A2.5S	10	6	2.381	10.65	8.1	2.5×1	2830	4810	0.10	26
RNFBL 1208A2.5S	12	8	2.778	12.65	9.6	2.5×1	3730	6560	0.10	29
RNFBL 1404A3.5S	14	4	2.778	14.5	11.5	3.5×1	5370	10800	0.10	31
RNFBL 1405A2.5S	14	5	3.175	14.5	11.0	2.5×1	5260	9720	0.10	32
RNFBL 1808A3.5S	18	8	4.762	18.5	13.6	3.5×1	13200	25800	0.15	50
RNFBL 2005A2.5S	20	5	3.175	20.5	17.0	2.5×1	6360	14200	0.10	40
RNFBL 2010A2.5S	20	10	4.762	21.25	16.2	2.5×1	10900	21800	0.15	52
RNFBL 2505A2.5S	25	5	3.175	25.5	22.0	2.5×1	7070	18200	0.10	43
RNFBL 2505A5S						2.5×2	12800	36300		
RNFBL 2510A2.5S	25	10	6.35	26	19.0	2.5×1	17500	35200	0.20	60
RNFBL 2510A5S						2.5×2	31800	70300		
RNFBL 2806A2.5S	28	6	3.175	28.5	25.0	2.5×1	7430	20300	0.10	50
RNFBL 2806A5S						2.5×2	13500	40600		
RNFBL 3210A2.5S	32	10	6.35	33.75	27.0	2.5×1	19700	46100	0.20	67
RNFBL 3210A5S						2.5×2	35700	92200		
RNFBL 3610A2.5S	36	10	6.35	37	30.0	2.5×1	21000	51000	0.20	70
RNFBL 3610A5S						2.5×2	38100	102000		
RNFBL 4010A5S	40	10	6.35	41.75	35.0	2.5×2	40100	116000	0.20	76

- Remarks 1. The actual screw shaft length may be slightly longer than nominal length *L_s* due to manufacturing tolerance.
2. Nut assembly with arbor and screw shaft are separated at time of delivery.
3. The value obtained by dividing the standard screw length by 100 mm will be entered at the end of the reference number where marked with "**".

Unit: mm

Ball nut dimensions										Nut Mass (kg)	Arbor		Screw shaft				Shaft mass/m (kg)
Flange			Length	Bolt hole			Oil hole		Outside dia		Bore	Standard length			Screw shaft No.		
A	H	B	Overall length L	(C)	W	X	Q	T	d _o		d _i	L _s					
42	29	8	36	3	34	4.5	M3×0.5	5.0	0.16	8.1	6.1	400	800		RS1006A**	0.56	
45	32	8	44	3	37	4.5	M3×0.5	5.5	0.21	9.6	7.6	400	800		RS1208A**	0.81	
50	37	10	40	4	40	4.5	M6×1	5.0	0.25	11.5	9.5	500	1000		RS1404A**	1.02	
50	38	10	40	4	40	4.5	M6×1	5.0	0.26	11.0	9.0	500	1000		RS1405A**	1.00	
80	60	12	61	4	65	6.6	M6×1	6.0	1.00	13.6	11.6	500	1000	1500	RS1808A**	1.60	
60	46	10	40	4	50	4.5	M6×1	5.0	0.37	17.0	14.6	500	1000	2000	RS2005A**	2.17	
82	64	12	61	5	67	6.6	M6×1	6.0	1.05	16.2	13.8	500	1000	2000	RS2010A**	2.18	
67	50	10	40	4	55	5.5	M6×1	5.0	0.40	22.0	19.6	1000	2000	2500	RS2505A**	3.47	
			55						0.50								
96	72	15	66	5	78	9.0	M6×1	7.5	1.52	19.0	16.6	1000	2000	2500	RS2510A**	3.13	
			96						1.99								
80	60	12	47	5	65	6.6	M6×1	6.0	0.70	25.0	22.6	1000	2000	2500	RS2806A**	4.47	
			65						0.87								
103	78	15	67	5	85	9.0	M6×1	7.5	1.72	27.0	24.6	1000	2000	3000	RS3210A**	5.53	
			97						2.25								
110	82	17	69	5	90	11.0	M6×1	8.5	1.97	30.0	27.6	1000	2000	3000	RS3610A**	6.91	
			99						2.53								
116	88	17	99	5	96	11.0	M6×1	8.5	2.86	35.0	31.8	2000	3000	4000	RS4010A**	8.87	

- Remarks 4. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.
5. Seal for those with the shaft diameter of 14 mm or less is made of synthetic resin. Seal for those with 16 mm or larger is "Brush-seal."



Unit: mm

Ball nut No	Shaft dia. d	Lead l	Ball dia. D_w	Ball circle dia. d_m	Root dia. d_r	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. D
							Dynamic C_a	Static C_{0a}		
RNCT 1003A3.5	10	3	2.381	10.65	8.1	3.5 × 1	3780	6730	0.10	20
RNCT 1404A3.5S	14	4	2.778	14.5	11.5	3.5 × 1	5370	10800	0.10	25
RNCT 1405A2.5S	14	5	3.175	14.5	11.0	2.5 × 1	5260	9720	0.10	30
RNCT 1808A3.5	18	8	4.762	18.5	13.6	3.5 × 1	13200	25800	0.15	34
RNCT 1808A3.5S	18	8	4.762	18.5	13.6	3.5 × 1	13200	25800	0.15	34
RNCT 2005A2.5	20	5	3.175	20.5	17.0	2.5 × 1	6360	14200	0.10	40
RNCT 2005A2.5S	20	5	3.175	20.5	17.0	2.5 × 1	6360	14200	0.10	40
RNCT 2505A5	25	5	3.175	25.5	22.0	2.5 × 2	12800	36300	0.10	42
RNCT 2505A5S	25	5	3.175	25.5	22.0	2.5 × 2	12800	36300	0.10	42
RNCT 2510A5	25	10	6.35	26	19.0	2.5 × 2	31800	70300	0.20	44
RNCT 2510A5S	25	10	6.35	26	19.0	2.5 × 2	31800	70300	0.20	44
RNCT 2806A5	28	6	3.175	28.5	25.0	2.5 × 2	13500	40600	0.10	50
RNCT 2806A5S	28	6	3.175	28.5	25.0	2.5 × 2	13500	40600	0.10	50
RNCT 3210A5	32	10	6.35	33.75	27.0	2.5 × 2	35700	92200	0.20	55
RNCT 3210A5S	32	10	6.35	33.75	27.0	2.5 × 2	35700	92200	0.20	55
RNCT 3610A5	36	10	6.35	37	30.0	2.5 × 2	38100	102000	0.20	60
RNCT 3610A5S	36	10	6.35	37	30.0	2.5 × 2	38100	102000	0.20	60
RNCT 4010A7	40	10	6.35	41.75	35.0	3.5 × 2	53500	164000	0.20	65
RNCT 4010A7S	40	10	6.35	41.75	35.0	3.5 × 2	53500	164000	0.20	65
RNCT 4512A5	45	12	7.144	46.5	39.0	2.5 × 2	49600	147000	0.23	70
RNCT 4512A5S	45	12	7.144	46.5	39.0	2.5 × 2	49600	147000	0.23	70
RNCT 5010A7	50	10	6.35	51.75	45.0	3.5 × 2	59500	205000	0.20	80
RNCT 5010A7S	50	10	6.35	51.75	45.0	3.5 × 2	59500	205000	0.20	80
RNCT 5016A5	50	16	9.525	52	42.0	2.5 × 2	99900	293000	0.23	85
RNCT 5016A5S	50	16	9.525	52	42.0	2.5 × 2	99900	293000	0.23	85

- Remarks
1. Protruding portion of the tube does not have any interference with the ball nut housing if its dimensions corresponding to U and V are large enough.
 2. The actual entire screw shaft length may become slightly longer than nominal length L_s due to manufacturing tolerance.
 3. A seal cannot be installed in the V thread side. It may be installed in the opposite side.
Seal is provided in the nut. Therefore, the external dimensions of those with a seal are the same as those without. In the side view drawing of ball nut, the above of the center line is with seal, and beneath is without seal.

Ball nut dimensions						Nut Mass. (kg)	Seal dimensions		Arbor		Screw shaft			Shaft mass/m (kg)
Flange		Length	Projecting tube				Diameter	Thickness	Outside dia.	Bore	Standard length		Screw shaft No.	
M	B	L _n	U	V	R		S	T	d _o	d _i	L _s			
M18 × 1	10	38	15	15	7	0.049			8.1	6.1	400 800	RS1003A**	0.50	
M24 × 1	10	43	19	20	7	0.083			11.5	9.5	500 1000	RS1404A**	1.02	
M26 × 1.5	10	45	22	21	8	0.15			11.0	9.0	500 1000	RS1405A**	1.00	
M32 × 1.5	12	58	27	27	8	0.21	28.5	2.5	13.6	11.6	500 1000 1500	RS1808A**	1.60	
M36 × 1.5	12	48	28	27	10	0.28	29.5	2.5	17.0	14.6	500 1000 2000	RS2005A**	2.17	
M40 × 1.5	15	69	28	31	10	0.38	34.5	2.5	22.0	19.6	1000 2000 2500	RS2505A**	3.47	
M42 × 1.5	15	92	34	37	17	0.49	38.5	2.5	19.0	16.6	1000 2000 2500	RS2510A**	3.13	
M45 × 1.5	15	79	33	34	10	0.68	37.5	2.5	25.0	22.6	1000 2000 2500	RS2806A**	4.47	
M50 × 1.5	18	97	39	42	17	0.79	45.5	2.5	27.0	24.6	1000 2000 3000	RS3210A**	5.53	
M55 × 2	18	98	42	46	17	0.97	50.5	3.0	30.0	27.6	1000 2000 3000	RS3610A**	6.91	
M60 × 2	25	125	44	50	20	1.37	54.5	3.0	35.0	31.8	2000 3000 4000	RS4010A**	8.87	
M65 × 2	30	124	47	55	20	1.42	60.5	3.0	39.0	35.8	2000 3000 4000	RS4512A**	11.16	
M75 × 2	40	140	52	59	20	2.41	64.5	3.0	45.0	41.8	2000 3000 4000	RS5010A**	14.15	
M80 × 2	40	158	57	63	25	3.14	68.5	3.0	42.0	38.8	2000 3000 4000	RS5016A**	13.48	

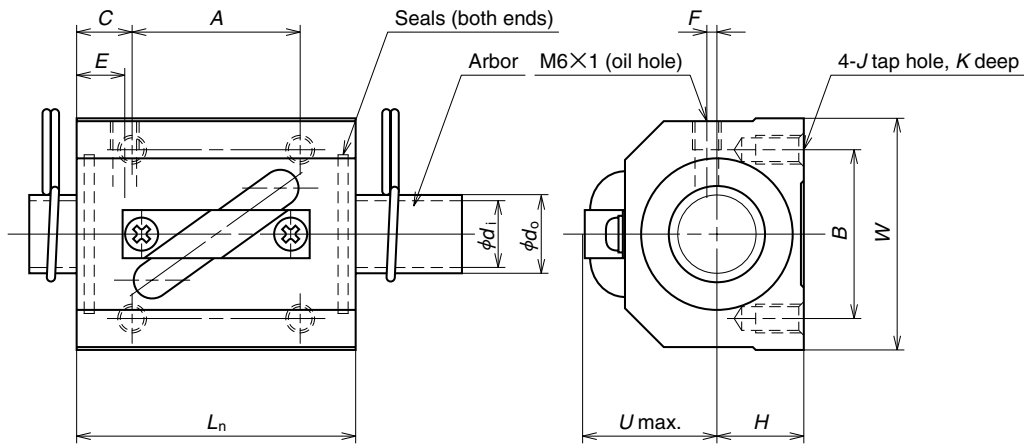
Seal for those with the shaft diameter of 14 mm or less is made of synthetic resin. Seal for those of 16 mm or over is a "Brush-seal."

There is no seal on the V-thread side for RNCT1404A3.5S and RNCT1405A2.5S.

4. Nut assembly with arbor and the screw shaft are separated at time of delivery.

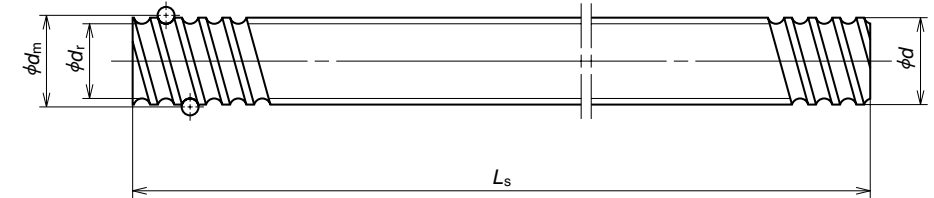
5. At the end of the screw shaft reference number where marked with "**", fill with the value obtained by dividing the standard screw shaft length by 100 mm.

6. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.



Ball nut No.	Shaft dia. d	Lead l	Ball dia. D_w	Ball circle dia. d_m	Root dia. d_r	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Length L_n
							Dynamic C_o	Static C_{oa}		
RNSTL 1404A3.5S	14	4	2.778	14.5	11.5	3.5×1	5370	10800	0.10	38
RNSTL 1405A2.5S	14	5	3.175	14.5	11.0	2.5×1	5260	9720	0.10	38
RNSTL 1808A3.5S	18	8	4.762	18.5	13.6	3.5×1	13200	25800	0.15	56
RNSTL 2005A2.5S	20	5	3.175	20.5	17.0	2.5×1	6360	14200	0.10	38
RNSTL 2010A2.5S	20	10	4.762	21.25	16.2	2.5×1	10900	21800	0.15	58
RNSTL 2505A2.5S	25	5	3.175	25.5	22.0	2.5×1	7070	18200	0.10	35
RNSTL 2510A5S	25	10	6.35	26	19.0	2.5×2	31800	70300	0.20	94
RNSTL 2806A2.5S	28	6	3.175	28.5	25.0	2.5×1	7430	20300	0.10	42
RNSTL 2806A5S						2.5×2	13500	40600		67
RNSTL 3210A2.5S	32	10	6.35	33.75	27.0	2.5×1	19700	46100	0.20	64
RNSTL 3210A5S						2.5×2	35700	92200		94
RNSTL 3610A2.5S	36	10	6.35	37	30.0	2.5×1	21000	51000	0.20	64
RNSTL 3610A5S						2.5×2	38100	102000		96
RNSTL 4512A5S	45	12	7.144	46.5	39.0	2.5×2	49600	147000	0.23	115

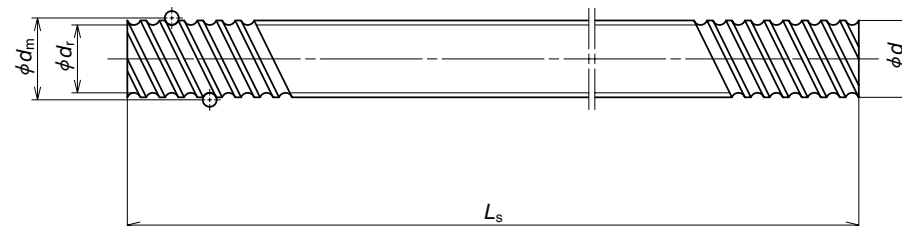
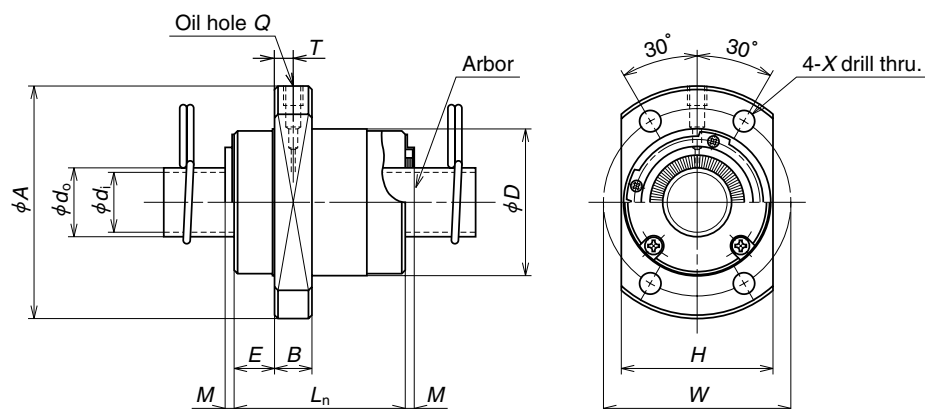
Remarks 1. The actual screw shaft length may be slightly longer than nominal length L_s due to manufacturing tolerance.
2. Nut assembly with arbor and screw shaft are separated at time of delivery.
3. The value obtained by dividing the standard screw length by 100 mm will be entered at the end of the reference number where marked with "** *".



Unit: mm

Ball nut dimensions										Nut Mass. (kg)	Arbor		Screw shaft			Shaft mass/m (kg)
Width	Center height	Bolt hole					Oil hole				Outside dia.	Bore	Standard length		Screw shaft No.	
		<i>W</i>	<i>H</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>J</i>	<i>K</i>			<i>E</i>	<i>F</i>	<i>U</i>	<i>d</i> _o		
34	13	22	26	8	M4	7	7	3	20	0.20	11.5	9.5	500 1000	RS1404A**	1.02	
34	13	22	26	8	M4	7	7	3	21	0.20	11.0	9.0	500 1000	RS1405A**	1.00	
48	17	35	35	10.5	M6	10	8	3	26	0.31	13.6	11.6	500 1000 1500	RS1808A**	1.60	
48	17	22	35	8	M6	9	6	2	27	0.24	17.0	14.6	500 1000 2000	RS2005A**	2.17	
48	18	35	35	11.5	M6	10	10	2	28	0.35	16.2	13.8	500 1000 2000	RS2010A**	2.18	
60	20	22	40	6.5	M8	10	6	0	27	0.31	22.0	19.6	1000 2000 2500	RS2505A**	3.47	
60	23	60	40	17	M8	12	10	0	32	1.32	19.0	16.6	1000 2000 2500	RS2510A**	3.13	
60	22	18	40	12	M8	12	8	0	32	0.65	25.0	22.6	1000 2000 2500	RS2806A**	4.47	
60	22	40	40	13.5						1.04						
70	26	45	50	9.5	M8	12	10	0	38	1.12	27.0	24.6	1000 2000 3000	RS3210A**	5.53	
70	26	60	50	17						1.75						
86	29	45	60	9.5	M10	16	11	0	41	1.76	30.0	27.6	1000 2000 3000	RS3610A**	6.91	
86	29	60	60	18						2.64						
100	36	75	75	20	M12	20	13	0	46	1.22	39.0	35.8	2000 3000 4000	RS4512A**	11.16	

Remarks 4. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.
5. Seal for those with the shaft diameter of 14 mm or less is made of synthetic resin. Seal for those with 18 mm or larger is "Brush-seal."



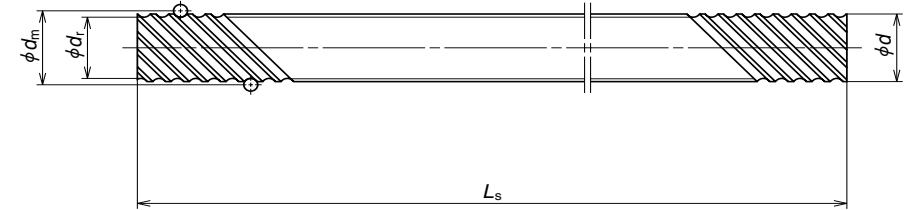
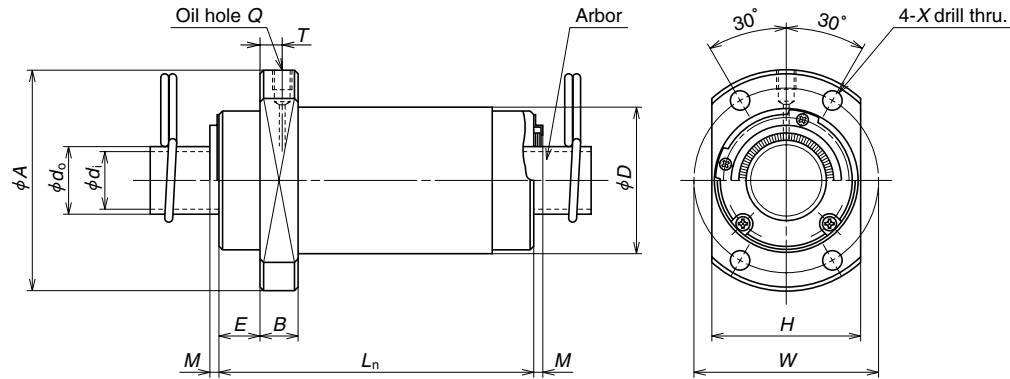
Ball nut No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D_w</i>	Ball circle dia. <i>d_m</i>	Root dia. <i>d_r</i>	Effective turns of balls Turns × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions	
							Dynamic <i>C_s</i>	Static <i>C_{0s}</i>		Outside dia. <i>D</i>	
RNFCL 1212A3 RNFCL 1212A6	12	12	2.381	12.65	10.1	1.7 × 2 1.7 × 4	3740 6780	6640 13300	0.10	26	
RNFCL 1520A3 RNFCL 1520A3S	15	20	3.175	15.5	12.2	1.7 × 2	6730	12300	0.10	33	
RNFCL 1616A3 RNFCL 1616A3S	16	16	2.778	16.65	13.5	1.7 × 2	5430	10400	0.10	32	
RNFCL 1616A6 RNFCL 1616A6S						1.7 × 4	9860	20800			
RNFCL 2020A3 RNFCL 2020A3S	20	20	3.175	20.75	17.3	1.7 × 2	7810	16500	0.10	39	
RNFCL 2020A6 RNFCL 2020A6S						1.7 × 4	14200	33000			
RNFCL 2525A3 RNFCL 2525A3S	25	25	3.969	26	22.0	1.7 × 2	11700	25800	0.12	47	
RNFCL 2525A6 RNFCL 2525A6S						1.7 × 4	21200	51500			
RNFCL 3232A3 RNFCL 3232A3S	32	32	4.762	33.25	28.0	1.7 × 2	17100	40500	0.15	58	
RNFCL 3232A6 RNFCL 3232A6S						1.7 × 4	31000	81000			
RNFCL 4040A3 RNFCL 4040A3S	40	40	6.35	41.75	35.0	1.7 × 2	27200	67900	0.20	73	
RNFCL 4040A6 RNFCL 4040A6S						1.7 × 4	49300	136000			
RNFCL 5050A3 RNFCL 5050A3S	50	50	7.938	52.25	44.0	1.7 × 2	40600	106000	0.25	90	
RNFCL 5050A6 RNFCL 5050A6S						1.7 × 4	73700	212000			

Remarks 1. The actual screw shaft length may be slightly longer than nominal length L_s due to manufacturing tolerance.
 2. Nut assembly with arbor and screw shaft are separated at time of delivery.
 3. The value obtained by dividing the standard screw length by 100 mm will be entered at the end of the reference number where marked with "**".

Unit: mm

Ball nut dimensions										Nut Mass. (kg)	Arbor		Screw shaft				Shaft mass/m (kg)
Flange			Length			Bolt hole		Oil hole			Outside dia.	Bore	Standard length		Screw shaft No.		
A	H	B	E	L _n	M	W	X	Q	T		d _o	d _i	L _s				
44	28	6	9	30	—	35	4.5	M3 × 0.5	3.0	0.12	10.1	8.1	400 800	RS1212A**	0.74		
51	35	10	11	45	— 3	42	4.5	M6 × 1	5.0	0.28	12.2	10.2	500 1000 1500	RS1520A**	1.15		
53	34	10	10	38	— 3	42	4.5	M6 × 1	5.0	0.23	13.5	11.5	500 1000 1500	RS1616A**	1.37		
					— 3												
					— 3												
62	41	10	11.5	46	— 3	50	5.5	M6 × 1	5.0	0.37	17.3	14.9	500 1000 2000	RS2020A**	2.19		
					— 3												
					— 3												
74	49	12	13	55	— 3	60	6.6	M6 × 1	6.0	0.62	22.0	19.6	1000 2000 2500	RS2525A**	3.43		
					— 3												
					— 3												
92	60	12	16	70	— 3	74	9	M6 × 1	5.5	1.10	28.0	25.6	1000 2000 3000	RS3232A**	5.71		
					— 3												
					— 3												
114	75	15	19.5	85	— 3.5	93	11	M6 × 1	6.5	2.09	35.0	31.8	2000 3000 4000	RS4040A**	8.82		
					— 3.5												
					— 3.5												
135	92	20	21.5	107	— 3.5	112	14	M6 × 1	7.0	3.90	44.0	40.8	2000 3000 4000	RS5050A**	13.81		
					— 3.5												
					— 3.5												

Remarks 4. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.
 5. The entire length of the nut becomes longer by "2 $\times$ M" for those with a seal. The seal is "Brush-seal."



Ball nut No.	Shaft dia. d	Lead l	Ball dia. D_w	Ball circle dia. d_m	Root dia. d_r	Effective turns of balls × Circuits	Basic load rating (N)		Axial play Max.	Ball nut dimensions Outside dia. D
							Dynamic C_a	Static C_{0a}		
RNFCL 1632A2 RNFCL 1632A2S RNFCL 1632A3 RNFCL 1632A3S RNFCL 1632A6 RNFCL 1632A6S	16	32	2.778	16.65	13.5	0.7 × 4	4600	8460	0.10	32
						1.7 × 2	5430	10400		
						1.7 × 4	9860	20800		
RNFCL 2040A2 RNFCL 2040A2S RNFCL 2040A3 RNFCL 2040A3S RNFCL 2040A6 RNFCL 2040A6S	20	40	3.175	20.75	17.3	0.7 × 4	6610	13600	0.10	38
						1.7 × 2	7810	16500		
						1.7 × 4	14200	33000		
RNFCL 2550A2 RNFCL 2550A2S RNFCL 2550A3 RNFCL 2550A3S RNFCL 2550A6 RNFCL 2550A6S	25	50	3.969	26	22.0	0.7 × 4	9870	21200	0.12	46
						1.7 × 2	11700	25800		
						1.7 × 4	21200	51500		
RNFCL 3264A3 RNFCL 3264A3S RNFCL 3264A6 RNFCL 3264A6S	32	64	4.762	33.25	28.0	1.7 × 2	17100	40500	0.15	58
						1.7 × 4	31000	81000		
RNFCL 4080A3 RNFCL 4080A3S RNFCL 4080A6 RNFCL 4080A6S	40	80	6.350	41.75	35.0	1.7 × 2	27200	67900	0.20	73
						1.7 × 4	49300	136000		

- Remarks 1. The actual screw shaft length may be slightly longer than nominal length L_s due to manufacturing tolerance.
 2. Nut assembly with arbor and screw shaft are separated at time of delivery.
 3. The value obtained by dividing the standard screw length by 100 mm will be entered at the end of the reference number where marked with "**".

Unit: mm

Ball nut dimensions										Nut	Arbor		Screw shaft		Shaft mass/m (kg)
Flange			Length			Bolt hole		Oil hole	Mass. (kg)	Outside dia. d_o	Bore d_i	Standard length		Screw shaft No.	
A	H	B	E	L_n	M	W	X	Q				T	L_s		
50	34	10	10	34	—	41	4.5	M6 × 1	5.5	0.21	13.5	11.5	500 1000 1500	RS1632A**	1.34
				—	3					0.33					
				66	—										
				—	3										
58	40	10	11	41	—	48	5.5	M6 × 1	5.5	0.31	17.3	14.9	500 1000 1500 2000	RS2040A**	2.15
				—	3					0.53					
				81	—										
				—	3										
70	48	12	13	50	—	58	6.6	M6 × 1	7.0	0.53	22.0	19.6	1000 2000 2500	RS2550A**	3.37
				—	3					0.91					
				100	—										
				—	3										
92	60	12	15.5	126	—	74	9	M6 × 1	7.5	1.76	28.0	25.6	1000 2000 3000 4000	RS3264A**	5.63
				—	3					1.76					
				—	3										
				—	3										
114	75	15	19	158	—	93	11	M6 × 1	10	3.44	35.0	31.8	2000 3000 4000 5000	RS4080A**	8.69
				—	3.5					3.44					
				—	3.5										
				—	3.5										

B272

- Remarks 4. Items in stock are not applied surface treatment. NSK provides treatment such as phosphate coating on request.
 5. The entire length of the nut becomes longer by "2 × M" for those with a seal. The seal is "Brush-seal."