

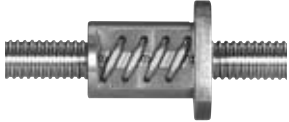





**B-I-7.1 T Type (Return tube type, fine lead) Ball Screws**

**(1) Product categories**

T Type ball screws use return tube recirculation system which is price competitive and suitable for large volume production. There are several models by difference in the preload system (Table I-7-1).

**Table I-7-1 Classification of T Type ball screws**

Nut models	Shape	Flange shape	Preload system	Nut length	Page
SFT		Flanged d=16 or under Rectangle d=20 or over Circular I Circular II	Non-preload, Slight axial play	Short	B311
PFT		Flanged d=16 or under Rectangle d=20 or over Circular I Circular II	P preload (light preload) Spacer ball 1:1	Short	B323
ZFT		Flanged d=20 or over Circular I Circular II	Z preload (medium preload)	Medium	B329
DFT		Flanged d=20 or over Circular I Circular II	D preload (medium preload) (heavy preload)	Long	B335
DFFT		Flanged to flanged Circular I	D preload (medium preload) (heavy preload)	Long	B345
GSCT (General industrial use, extra-large)	 Accuracy grade is Ct10.	No flange	Non-preload, Slight axial play	Projecting-tube type	B351

**(2) Special ball screw specifications**

Other than specified in "Screw shaft diameter/lead combinations" of JIS B1192, the combinations of medium size screw shaft diameter are added to T type series as the standard specifications.

◇Appearance of ball nut

In the standard specification, the recirculation return tube is contained within the outer circumference of the ball nut. On request, NSK also makes "projecting-tube" type for smaller outside diameter.

◇Shaft diameter/lead combinations

NSK makes non-standard shaft diameter/lead combinations as well as leads of special specifications such as "inch" leads and "π"- leads on request.

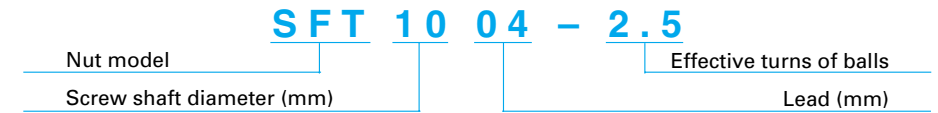
◇Flange shape/size

NSK makes nut flanges of special shapes and sizes. Please consult NSK.

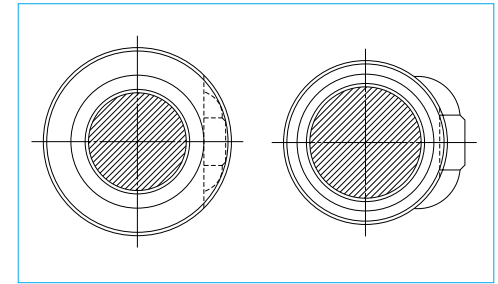
**(3) Ball nut model number**

A model number that indicates specification factors is structured as shown below.

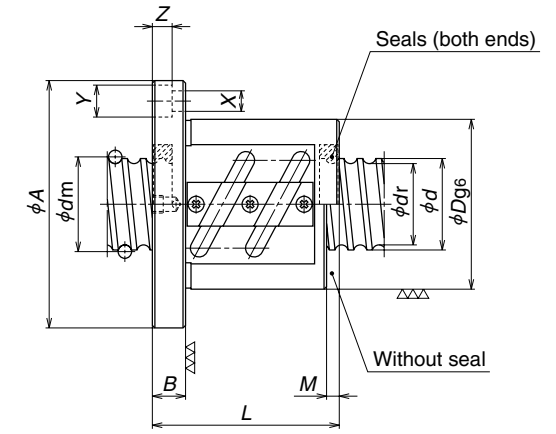
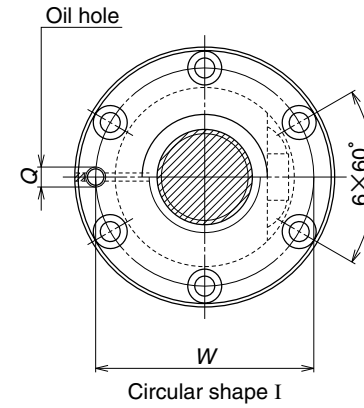
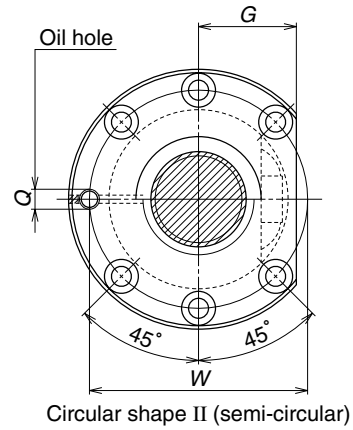
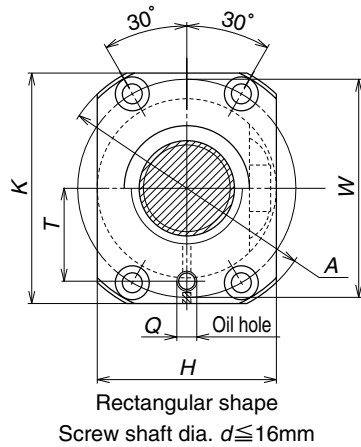
(Example) Nut model SFT; shaft diameter 10 mm; lead 4 mm; effective turns of balls 2.5\* (Note)



\* Note: In case of Z preload, the number here is twice as large as the effective turns of balls.



**Fig. I-7-1 Nut appearance**

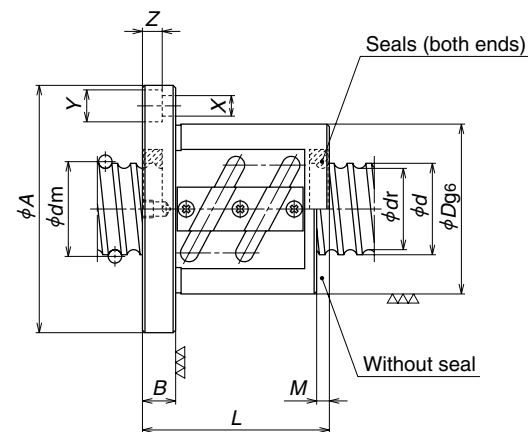
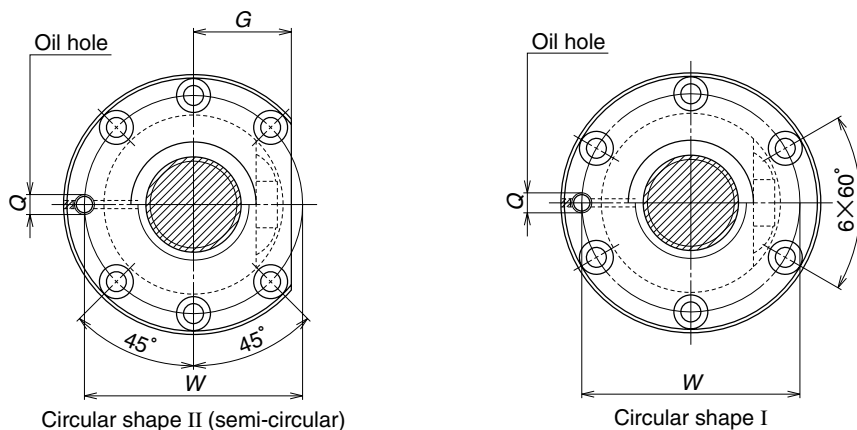


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>a</sub></i>	Static <i>C<sub>0a</sub></i>
SFT 1004-2.5	10	4	2.000	10.3	8.2	2.5×1	2740	4450
SFT 1204-2.5 SFT 1204-3	12	4	2.381	12.3	9.8	2.5×1 1.5×2	3760 4390	6310 7580
SFT 1205-2.5 SFT 1205-3		5	2.381	12.3	9.8	2.5×1 1.5×2	3760 4390	6310 7580
SFT 1405-2.5 SFT 1405-5	14	5	3.175	14.5	11.2	2.5×1 2.5×2	6790 12300	11700 23400
SFT 1604-2.5 SFT 1604-3		4	2.381	16.3	13.8	2.5×1 1.5×2	4300 5040	8530 10300
SFT 1605-2.5 SFT 1605-3 SFT 1605-5	16	5	3.175	16.5	13.2	2.5×1 1.5×2 2.5×2	7330 8570 13300	13500 16200 27000
SFT 1606-2.5 SFT 1606-3		6	3.175	16.5	13.2	2.5×1 1.5×2	7330 8570	13500 16200
SFT 2004-2.5 SFT 2004-5		4	2.381	20.3	17.8	2.5×1 2.5×2	4740 8600	10700 21500
SFT 2005-2.5 SFT 2005-3 SFT 2005-5	20	5	3.175	20.5	17.2	2.5×1 1.5×2 2.5×2	8230 9620 14900	17100 20600 34300
SFT 2006-2.5 SFT 2006-3		6	3.969	20.5	16.4	2.5×1 1.5×2	11000 12800	21100 25300
SFT 2008-2.5 SFT 2008-3		8	3.969	20.5	16.4	2.5×1 1.5×2	11000 12800	21100 25300

Remarks 1. Flanges for the shaft diameter of 16 mm and smaller are rectangular. There are Circular I and Circular II for those with 20 mm and larger.  
Select a flange shape which is suitable for the nut installation space.  
2. If there is no seal, the nut length is shorter by the size of "M" than those with a seal.  
3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions														
	<i>D</i>	<i>A</i>	<i>G</i>	<i>H</i>	<i>K</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>	<i>T</i>	
90	26	46	—	28	42	10	34	—	36	4.5	8	4.5	M6×1	14	
106 126	30	50	—	32	45	10	38 44	—	40	4.5	8	4.5	M6×1	15	
106 126	30	50	—	32	45	10	40 48	—	40	4.5	8	4.5	M6×1	15	
140 274	34	57	—	34	50	11	40 55	—	45	5.5	9.5	5.5	M6×1	17	
134 160	34	57	—	34	50	11	38 45	—	45	5.5	9.5	5.5	M6×1	17	
158 188 307	40	63	—	40	55	11	42 52 57	—	51	5.5	9.5	5.5	M6×1	20	
158 188	40	63	—	40	55	11	44 56	—	51	5.5	9.5	5.5	M6×1	20	
160 309	40	63	24	—	—	11	37 49	3	51	5.5	9.5	5.5	M6×1	—	
190 227 370	44	67	26	—	—	11	41 52 56	3	55	5.5	9.5	5.5	M6×1	—	
195 232	48	71	27	—	—	11	44 56	3	59	5.5	9.5	5.5	M6×1	—	
195 232	48	75	28	—	—	13	54 64	5	61	6.6	11	6.5	M6×1	—	

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>a</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.

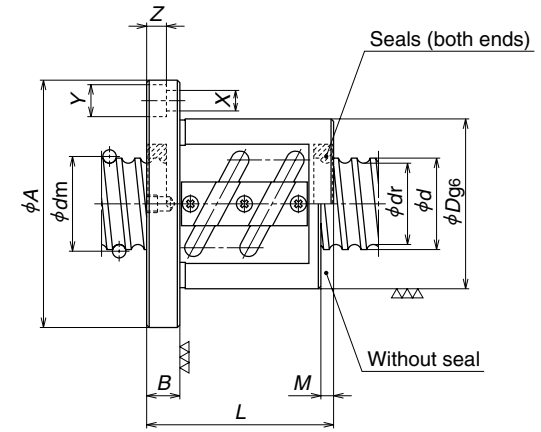
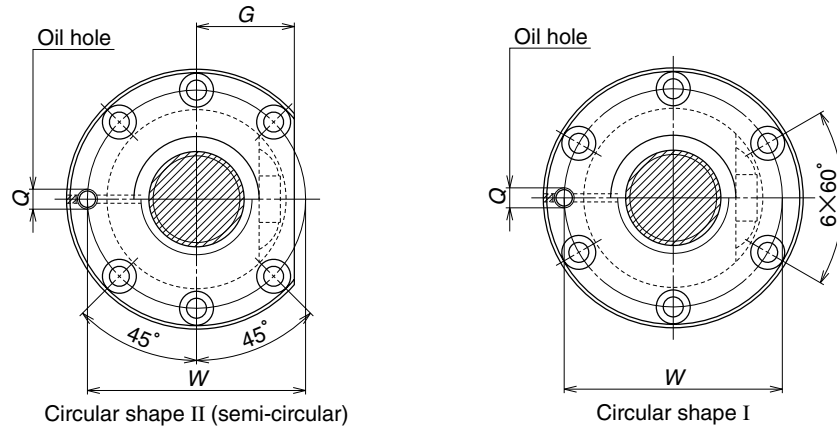


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>a</sub></i>	Static <i>C<sub>0a</sub></i>
SFT 2504-2.5 SFT 2504-5	25	4	2.381	25.3	22.8	2.5×1	5270	13600
2.5×2						9560	27200	
SFT 2505-2.5 SFT 2505-3 SFT 2505-5		5	3.175	25.5	22.2	2.5×1	9130	21900
1.5×2						10700	25700	
2.5×2						16600	43700	
SFT 2506-2.5 SFT 2506-3 SFT 2506-5		6	3.969	25.5	21.4	2.5×1	12300	26800
1.5×2						14400	32100	
2.5×2						22300	53500	
SFT 2508-2.5 SFT 2508-3		8	4.762	25.5	20.5	2.5×1	15800	32000
1.5×2						18500	38100	
SFT 2510-2.5 SFT 2510-3 SFT 2510-3.5	10	4.762	25.5	20.5	2.5×1	15800	32000	
1.5×2					18500	38100		
3.5×1					21100	44200		
SFT 2805-2.5 SFT 2805-5	28	5	3.175	28.5	25.2	2.5×1	9600	24400
2.5×2						17400	48800	
SFT 2806-2.5 SFT 2806-3 SFT 2806-5		6	3.175	28.5	25.2	2.5×1	9600	24400
1.5×2						11200	29300	
2.5×2						17400	48800	
SFT 2810-2.5 SFT 2810-3		10	4.762	28.5	23.5	2.5×1	16700	36100
1.5×2	19500					43000		

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
193 374	46	69	26	11	36 48	3	57	5.5	9.5	5.5	M6×1
231 271 447	50	73	28	11	52 55	3	61	5.5	9.5	5.5	M6×1
235 280 456	53	76	29	11	44 56 62	3	64	5.5	9.5	5.5	M6×1
242 286	58	85	32	13	56 69	5	71	6.6	11	6.5	M6×1
242 286 330	58	85	32	15	67 81 77	8	71	6.6	11	6.5	M6×1
252 487	55	85	31	12	41 56	3	69	6.6	11	6.5	M6×1
252 300 487	55	85	31	12	45 57 63	3	69	6.6	11	6.5	M6×1
265 314	60	94	36	15	68 82	7	76	9	14	8.5	M6×1

- Remarks
1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.
  2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.
  3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>a</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.

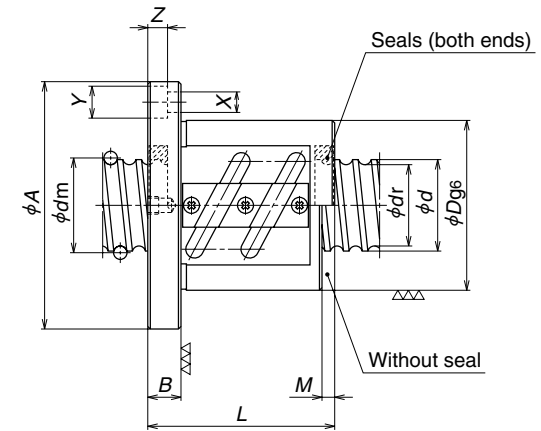
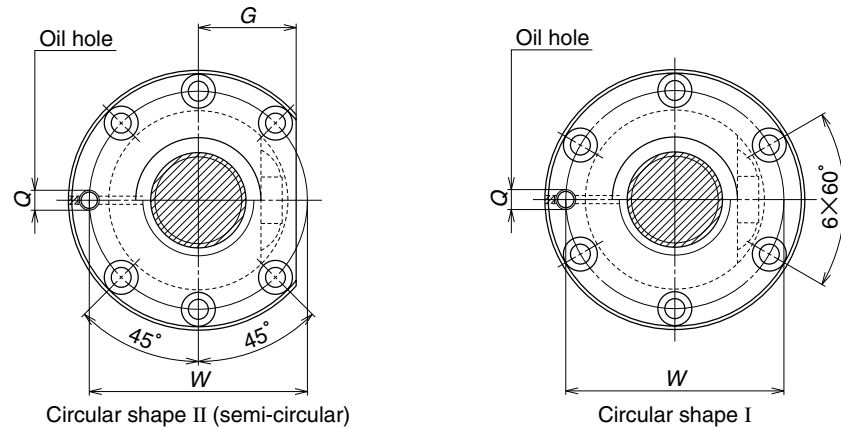


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)		
							Dynamic <i>C<sub>d</sub></i>	Static <i>C<sub>s</sub></i>	
SFT 3204-2.5 SFT 3204-5	32	4	2.381	32.3	29.8	2.5×1 2.5×2	5800	17500	
SFT 3205-2.5 SFT 3205-3 SFT 3205-5 SFT 3205-7.5							10200	28000	
SFT 3206-2.5 SFT 3206-3 SFT 3206-5		5	3.175	32.5	29.2	1.5×2 2.5×2 2.5×3	11900	33600	
SFT 3208-2.5 SFT 3208-3 SFT 3208-5							18500	56100	
SFT 3210-2.5 SFT 3210-3 SFT 3210-3.5 SFT 3210-5		6	3.969	32.5	28.4	2.5×1 1.5×2 2.5×2	26200	84100	
SFT 3212-2.5 SFT 3212-3							13600	34700	
SFT 3210-2.5 SFT 3210-3 SFT 3210-5		8	4.762	32.5	27.5	1.5×2 2.5×2	15900	41200	
SFT 3208-2.5 SFT 3208-3 SFT 3208-5							24700	69400	
SFT 3210-2.5 SFT 3210-3 SFT 3210-3.5 SFT 3210-5		10	6.35	33	26.4	2.5×1 1.5×2 3.5×1 2.5×2	17500	41000	
SFT 3212-2.5 SFT 3212-3							20400	49500	
SFT 3605-5 SFT 3605-7.5		36	5	3.175	36.5	33.2	2.5×1 2.5×3	25500	54000
SFT 3606-5 SFT 3606-7.5								29900	64800
SFT 3610-2.5 SFT 3610-3 SFT 3610-5			6	3.969	36.5	32.4	2.5×2 2.5×3	34100	77000
SFT 3605-5 SFT 3605-7.5								46300	108000
SFT 3610-2.5 SFT 3610-3 SFT 3610-5			10	6.35	37.0	30.4	2.5×1 1.5×2 2.5×2	25500	54000
SFT 3606-5 SFT 3606-7.5								29900	64800
SFT 3610-2.5 SFT 3610-3 SFT 3610-5	10	6.35	37.0	30.4	2.5×1 1.5×2 2.5×2	27200	61300		
SFT 3610-2.5 SFT 3610-3 SFT 3610-5						31800	73500		
SFT 3610-2.5 SFT 3610-3 SFT 3610-5	10	6.35	37.0	30.4	2.5×1 1.5×2 2.5×2	49300	123000		
SFT 3610-2.5 SFT 3610-3 SFT 3610-5						49300	123000		

Remarks 1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.  
2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.  
3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
234 454	54	81	31	12	37 49	3	67	6.6	11	6.5	M6×1
281 333 543 799	58	85	32	12	41 53 56 71	3	71	6.6	11	6.5	M6×1
287 339 555	62	89	34	12	45 57 63	3	75	6.6	11	6.5	M6×1
292 349 565	66	100	38	15	58 71 82	5	82	9	14	8.5	M6×1
302 360 422 585	74	108	41	15	70 87 80 100	7	90	9	14	8.5	M6×1
302 360	74	108	41	18	81 97	9	90	9	14	8.5	M6×1
597 878	65	100	38	15	59 74	3	82	9	14	8.5	M6×1
615 905	65	100	38	15	66 84	3	82	9	14	8.5	M6×1
334 397 647	75	120	45	18	73 90 103	7	98	11	17.5	11	M6×1

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>d</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.

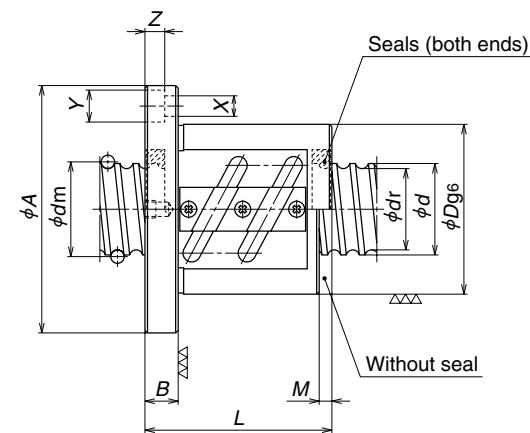
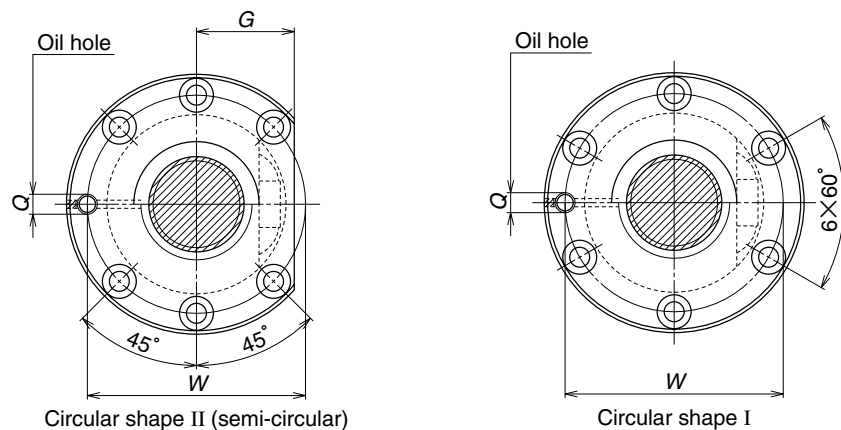


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>a</sub></i>	Static <i>C<sub>0a</sub></i>
SFT 4005-2.5	40	5	3.175	40.5	37.2	2.5×1	11100	35300
SFT 4005-3						1.5×2	13000	42400
SFT 4005-5						2.5×2	20200	70600
SFT 4005-7.5						2.5×3	28700	106000
SFT 4006-3		6	3.969	40.5	36.4	1.5×2	17800	52600
SFT 4006-5						2.5×2	27600	87600
SFT 4006-7.5						2.5×3	39100	131000
SFT 4008-2.5		8	4.762	40.5	35.5	2.5×1	19200	51600
SFT 4008-3						1.5×2	22500	62600
SFT 4008-5						2.5×2	34900	103000
SFT 4010-2.5		10	6.35	41.0	34.4	2.5×1	28600	68600
SFT 4010-3						1.5×2	33500	82300
SFT 4010-3.5	3.5×1					38300	96000	
SFT 4010-5	2.5×2					52000	137000	
SFT 4012-2.5	12	7.144	41.5	34.1	2.5×1	33600	77500	
SFT 4012-5					2.5×2	61000	155000	
SFT 4016-2.5	16	7.144	41.5	34.1	2.5×1	33600	77500	
SFT 4016-3					1.5×2	39300	93100	
SFT 4510-5	45	10	6.35	46.0	39.4	2.5×2	54200	155000
SFT 4510-7.5						2.5×3	76800	232000
SFT 4512-2.5						12	7.144	46.5
SFT 4512-5	2.5×2	64200	177000					

Remarks 1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.  
2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.  
3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
336	67	101	39	15	44	3	83	9	14	8.5	Rc1/8
399											56
649											59
956											74
411	70	104	40	15	60	3	86	9	14	8.5	Rc1/8
668											66
984											84
349	74	108	41	15	58	5	90	9	14	8.5	Rc1/8
418											71
675											82
706											103
365	82	124	47	18	73	7	102	11	17.5	11	Rc1/8
434											90
503											83
706											103
373	86	128	48	18	81	9	106	11	17.5	11	Rc1/8
722											117
373	86	128	48	22	102	14	106	11	17.5	11	Rc1/8
440											118
772	88	132	50	18	103	7	110	11	17.5	11	Rc1/8
1140											133
412	90	132	50	18	83	8	110	11	17.5	11	Rc1/8
798											119

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>a</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.

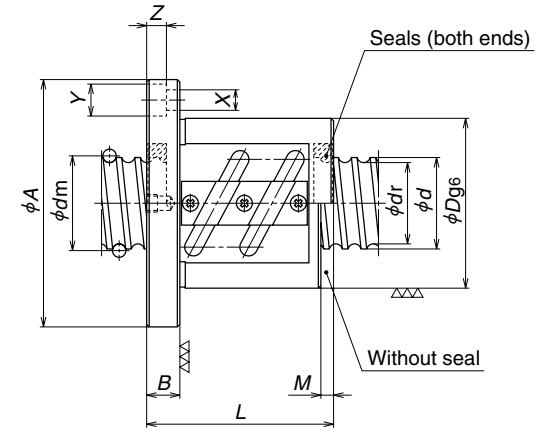
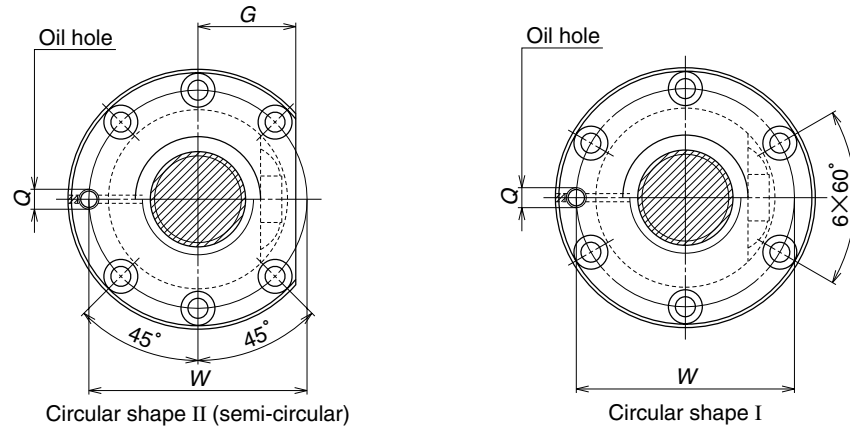


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>a</sub></i>	Static <i>C<sub>0s</sub></i>
SFT 5005-3 SFT 5005-4.5	50	5	3.175	50.5	47.2	1.5×2	14200	52500
						1.5×3	20200	78800
SFT 5006-3 SFT 5006-5 SFT 5006-7.5		6	3.969	50.5	46.4	1.5×2	19500	65100
						2.5×2	30300	109000
						2.5×3	42900	164000
SFT 5008-3 SFT 5008-5 SFT 5008-7.5		8	4.762	50.5	45.5	1.5×2	25000	77400
						2.5×2	38700	131000
						2.5×3	54900	197000
SFT 5010-2.5 SFT 5010-3 SFT 5010-5 SFT 5010-7.5		10	6.35	51	44.4	2.5×1	31800	87400
						1.5×2	37200	103000
						2.5×2	57700	175000
						2.5×3	81800	262000
SFT 5012-2.5 SFT 5012-5		12	7.938	51.5	43.2	2.5×1	42800	107000
						2.5×2	77600	214000
SFT 5016-2.5 SFT 5016-5		16	7.938	51.5	43.2	2.5×1	42800	107000
						2.5×2	77600	214000
SFT 5020-2.5 SFT 5020-3	20	7.938	51.5	43.2	2.5×1	42800	107000	
					1.5×2	50000	129000	
SFT 5510-5 SFT 5510-7.5	55	10	6.35	56.0	49.4	2.5×2	59500	192000
						2.5×3	84300	288000

- Remarks
1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.
  2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.
  3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
472 696	80	114	43	15	58 68	3	96	9	14	8.5	Rc1/8
486 794 1170	84	118	45	15	62 68 86	3	100	9	14	8.5	Rc1/8
496 815 1200	87	129	49	18	74 85 109	5	107	11	17.5	11	Rc1/8
440 517 853 1250	93	135	51	18	73 90 103 133	7	113	11	17.5	11	Rc1/8
449 869	100	146	55	22	87 123	8	122	14	20	13	Rc1/8
449 869	100	146	55	22	104 152	14	122	14	20	13	Rc1/8
449 534	100	146	55	28	127 147	17	122	14	20	13	Rc1/8
916 1350	102	144	54	18	103 133	7	122	11	17.5	11	Rc1/8

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>a</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.



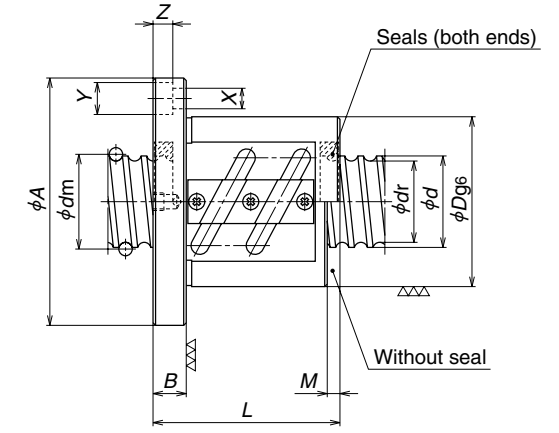
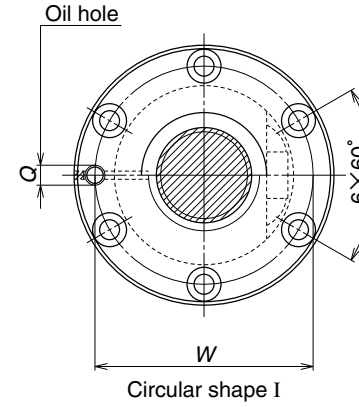
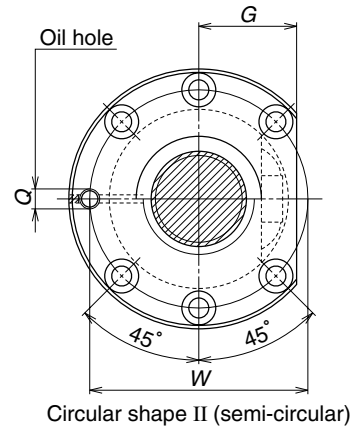
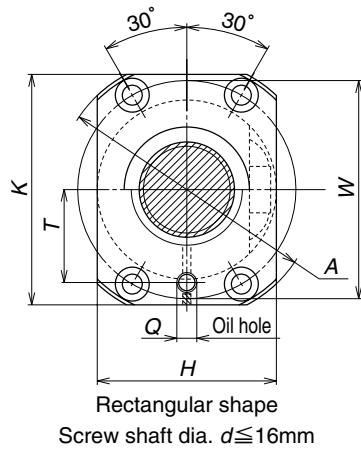
Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>s</sub></i>	Static <i>C<sub>0s</sub></i>
SFT 6310-2.5	63	10	6.35	64.0	57.4	2.5×1	34800	111000
SFT 6310-5						2.5×2	63200	221000
SFT 6310-7.5						2.5×3	89500	332000
SFT 6312-2.5		12	7.938	64.5	56.2	2.5×1	47400	137000
SFT 6312-5						2.5×2	86000	273000
SFT 6316-2.5						16	9.525	65.0
SFT 6316-5	2.5×2	144000	455000					
SFT 6320-2.5	20	9.525	65.0	55.2	2.5×1	79500	228000	
SFT 6320-5					2.5×2	144000	455000	
SFT 8010-5	80	10	6.35	81.0	74.4	2.5×2	70500	282000
SFT 8010-7.5						2.5×3	99800	424000
SFT 8012-5						12	7.938	81.5
SFT 8012-7.5		2.5×3	136000	526000				
SFT 8016-5		16	9.525	82.0	72.2	2.5×2	162000	582000
SFT 8016-7.5						2.5×3	230000	874000
SFT 8020-5	20	9.525	82.0	72.2	2.5×2	162000	582000	
SFT 8020-7.5					2.5×3	230000	874000	
SFT 10012-5	100	12	7.938	101.5	93.2	2.5×2	105000	441000
SFT 10012-7.5						2.5×3	149000	662000
SFT 10016-5						16	9.525	102
SFT 10016-7.5		2.5×3	250000	1100000				
SFT 10020-5		20	9.525	102	92.2	2.5×2	176000	737000
SFT 10020-7.5						2.5×3	250000	1100000
SFT 12516-5	125	16	9.525	127	117.2	2.5×2	195000	918000
SFT 12516-7.5						2.5×3	277000	1380000
SFT 12520-5						20	9.525	127
SFT 12520-7.5	2.5×3	277000	1380000					

Remarks 1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.  
 2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.  
 3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Unit: mm

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
528					77						
1020	108	154	58	22	107	7	130	14	20	13	Rc1/8
1500					137						
542					87						
1050	115	161	61	22	123	8	137	14	20	13	Rc1/8
713					110						
1380	122	180	69	28	158	10	150	18	26	17.5	Rc1/8
713					127						
1380	122	180	69	28	187	17	150	18	26	17.5	Rc1/8
1240					107						
1830	130	176	66	22	137	7	152	14	20	13	Rc1/8
1280					123						
1880	136	182	68	22	159	8	158	14	20	13	Rc1/8
1680					158						
2470	143	204	77	28	206	10	172	18	26	17.5	Rc1/8
1680					187						
2470	143	204	77	28	247	17	172	18	26	17.5	Rc1/8
1530					129						
2250	160	220	82	28	165	8	188	18	26	17.5	Rc1/8
2010					162						
2950	170	243	91	32	210	10	205	22	32	21.5	Rc1/8
2010					191						
2950	170	243	91	32	251	17	205	22	32	21.5	Rc1/8
2390					170						
3520	200	290	109	36	218	10	243	26	39	25.5	Rc1/8
2390					199						
3520	200	290	109	36	259	12	243	26	39	25.5	Rc1/8

4. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the axial load is 30% of the basic dynamic load rating (*C<sub>s</sub>*). Refer to "Technical Description" (Page B521) if axial load differs from the conditions above, or when considering change in the deformation of the ball nut itself.

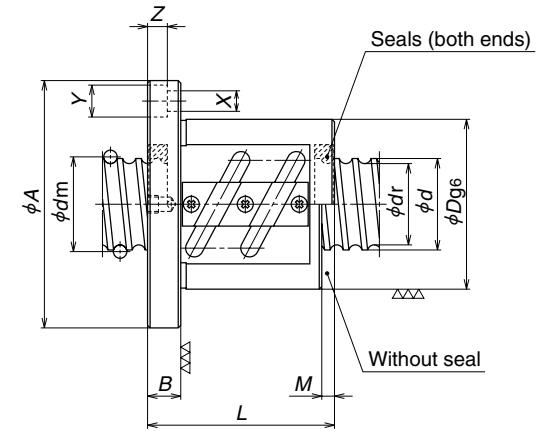
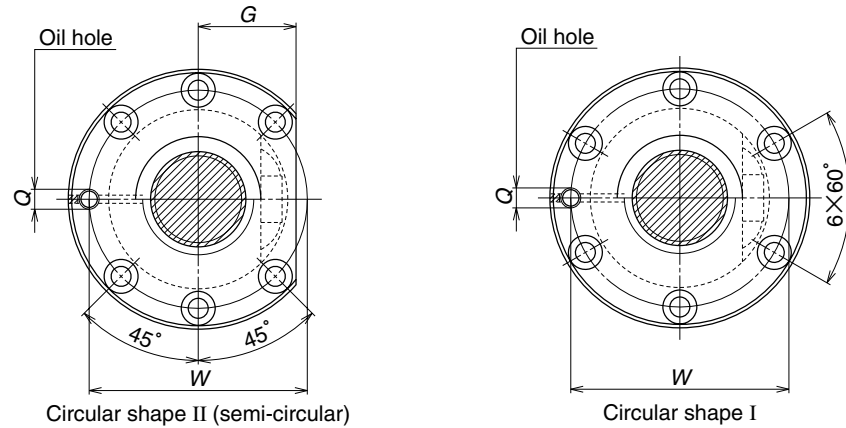


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>d</sub></i>	Static <i>C<sub>s</sub></i>
PFT 1004-2.5	10	4	2.000	10.3	8.2	2.5×1	1730	2230
PFT 1204-2.5	12	4	2.381	12.3	9.8	2.5×1	2370	3160
PFT 1204-3		5	2.381	12.3	9.8	1.5×2	2770	3790
PFT 1205-2.5	14	5	3.175	14.5	11.2	2.5×1	2370	3160
PFT 1205-3		5	3.175	14.5	11.2	2.5×2	2770	3790
PFT 1405-2.5	16	4	2.381	16.3	13.8	1.5×2	3170	5150
PFT 1405-5		5	2.381	16.3	13.8	2.5×2	4920	8530
PFT 1604-3	20	5	3.175	16.5	13.2	1.5×2	5400	8100
PFT 1605-5		6	3.175	16.5	13.2	2.5×2	8380	13500
PFT 1606-2.5	25	6	3.175	16.5	13.2	2.5×1	4620	6750
PFT 2004-5		4	2.381	20.3	17.8	2.5×2	5420	10700
PFT 2005-3	20	5	3.175	20.5	17.2	1.5×2	6060	10300
PFT 2005-5		5	3.175	20.5	17.2	2.5×2	9410	17100
PFT 2006-2.5	25	6	3.969	20.5	16.4	2.5×1	6900	10500
PFT 2006-3		8	3.969	20.5	16.4	1.5×2	8080	12700
PFT 2008-2.5	25	8	3.969	20.5	16.4	2.5×1	6900	10500
PFT 2504-5		4	2.381	25.3	22.8	2.5×2	6020	13600
PFT 2505-3	25	5	3.175	25.5	22.2	1.5×2	6730	12800
PFT 2505-5		6	3.175	25.5	22.2	2.5×2	10400	21900
PFT 2506-3	25	6	3.969	25.5	21.4	1.5×2	9070	16100
PFT 2506-5		6	3.969	25.5	21.4	2.5×2	14100	26800

Remarks 1. Flanges for shaft diameter of 16 mm and smaller are rectangle. There are Circular I and Circular II for those with 20 mm and larger. Select a flange shape which is suitable for the nut installation space.  
 2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.  
 3. Right turn screw is standard. "L" is added to the end of the model code for left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions														
	<i>D</i>	<i>A</i>	<i>G</i>	<i>H</i>	<i>K</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>	<i>T</i>	
76	26	46	—	28	42	10	34	—	36	4.5	8	4.5	M6×1	14	
89	30	50	—	32	45	10	38	—	40	4.5	8	4.5	M6×1	15	
106							44	—	40	4.5	8	4.5	M6×1	15	
89	30	50	—	32	45	10	40	—	40	4.5	8	4.5	M6×1	15	
106							48	—	40	4.5	8	4.5	M6×1	15	
116	34	57	—	34	50	11	40	—	45	5.5	9.5	5.5	M6×1	17	
225							55	—	45	5.5	9.5	5.5	M6×1	17	
135	34	57	—	34	50	11	45	—	45	5.5	9.5	5.5	M6×1	17	
215							50	—	45	5.5	9.5	5.5	M6×1	17	
158	40	63	—	40	55	11	52	—	51	5.5	9.5	5.5	M6×1	20	
258							57	—	51	5.5	9.5	5.5	M6×1	20	
133	40	63	—	40	55	11	44	—	51	5.5	9.5	5.5	M6×1	20	
260	40	63	24	—	—	11	49	3	51	5.5	9.5	5.5	M6×1	—	
191	44	67	26	—	—	11	52	—	55	5.5	9.5	5.5	M6×1	—	
311							56	3	55	5.5	9.5	5.5	M6×1	—	
164	48	71	27	—	—	11	44	—	59	5.5	9.5	5.5	M6×1	—	
195							56	3	59	5.5	9.5	5.5	M6×1	—	
164	48	75	28	—	—	13	54	5	61	6.6	11	6.5	M6×1	—	
312	46	69	26	—	—	11	48	3	57	5.5	9.5	5.5	M6×1	—	
223	50	73	28	—	—	11	52	—	61	5.5	9.5	5.5	M6×1	—	
372							55	3	61	5.5	9.5	5.5	M6×1	—	
235	53	76	29	—	—	11	56	—	64	5.5	9.5	5.5	M6×1	—	
383							62	3	64	5.5	9.5	5.5	M6×1	—	

4. Load balls and spacer balls are installed at a ratio of 1:1. Therefore, the basic load rating differs from those of other models.  
 5. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the preload is 5% of the basic dynamic load rating (*C<sub>d</sub>*), and the axial load is applied to it. Refer to "Technical description" (Page B521) if preload differs from the conditions above, or when considering change in the deformation of the ball nut itself.

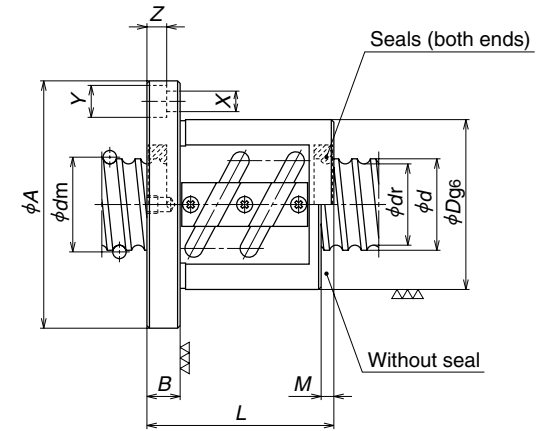
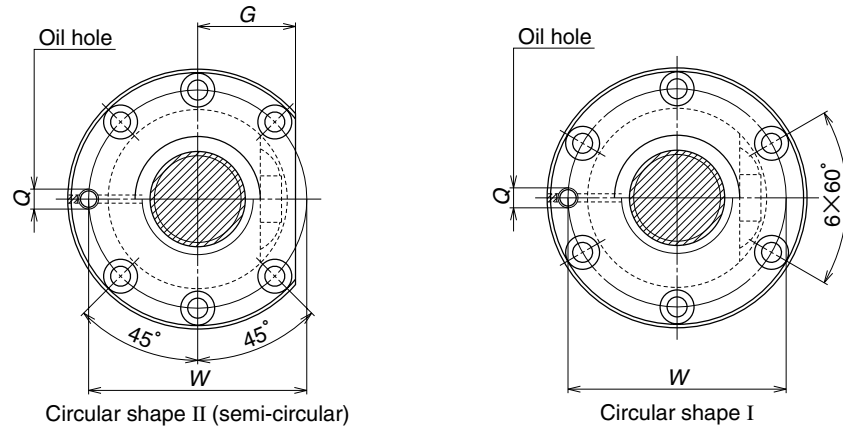


Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)	
							Dynamic <i>C<sub>d</sub></i>	Static <i>C<sub>s</sub></i>
PFT 2508-2.5 PFT 2508-3	25	8	4.762	25.5	20.5	2.5×1 1.5×2	9940 11600	16000 19000
PFT 2510-2.5 PFT 2510-3		10	4.762	25.5	20.5	2.5×1 1.5×2	9940 11600	16000 19000
PFT 2805-5 PFT 2806-3 PFT 2806-5	28	5	3.175	28.5	25.2	2.5×2	11000	24400
PFT 2810-2.5 PFT 2810-3		10	4.762	28.5	23.5	2.5×1 1.5×2	10500 12300	18000 21500
PFT 3204-5 PFT 3205-3 PFT 3205-5 PFT 3205-7.5		32	4	2.381	32.3	29.8	2.5×2	6630
PFT 3206-3 PFT 3206-5	6		3.969	32.5	28.4	1.5×2 2.5×2	10000 15500	20600 34700
PFT 3208-3 PFT 3208-5	8		4.762	32.5	27.5	1.5×2 2.5×2	12900 20000	24800 41000
PFT 3210-2.5 PFT 3210-3 PFT 3210-5	10		6.35	33.0	26.4	2.5×1 1.5×2 2.5×2	16100 18800 29200	27000 32400 54000
PFT 3212-2.5 PFT 3212-3	12	6.35	33.0	26.4	2.5×1 1.5×2	16100 18800	27000 32400	

- Remarks
1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.
  2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.
  3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
203 234	58	85	32	13	56 69	5	71	6.6	11	6.5	M6×1
203 234	58	85	32	15	67 81	8	71	6.6	11	6.5	M6×1
410	55	85	31	12	56	3	69	6.6	11	6.5	M6×1
252 410	55	85	31	12	57 63	3	69	6.6	11	6.5	M6×1
220 265	60	94	36	15	68 82	7	76	9	14	8.5	M6×1
382	54	81	31	12	49	3	67	6.6	11	6.5	M6×1
281 455 672	58	85	32	12	53 56 71	3	71	6.6	11	6.5	M6×1
285 468	62	89	34	12	57 63	3	75	6.6	11	6.5	M6×1
294 470	66	100	38	15	71 82	5	82	9	14	8.5	M6×1
255 303 494	74	108	41	15	70 87 100	7	90	9	14	8.5	M6×1
255 303	74	108	41	18	81 97	9	90	9	14	8.5	M6×1

4. Load balls and spacer balls are installed at a ratio of 1:1. Therefore, the basic load rating differs from those of other models.
5. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the preload is 5% of the basic dynamic load rating (*C<sub>d</sub>*), and the axial load is applied to it. Refer to "Technical description" (Page B521) if preload differs from the conditions above, or when considering change in the deformation of the ball nut itself.



Model No.	Shaft dia. <i>d</i>	Lead <i>l</i>	Ball dia. <i>D<sub>w</sub></i>	Ball circle dia. <i>d<sub>m</sub></i>	Root dia. <i>d<sub>r</sub></i>	Effective turns of balls Turns × Circuits	Basic load rating (N)		
							Dynamic <i>C<sub>a</sub></i>	Static <i>C<sub>0a</sub></i>	
<b>PFT 3605-5</b> <b>PFT 3605-7.5</b>	36	5	3.175	36.5	33.2	2.5×2 2.5×3	12200 17300	31700 47500	
<b>PFT 3606-5</b> <b>PFT 3606-7.5</b>		6	3.969	36.5	32.4	2.5×2 2.5×3	16700 23700	39300 58900	
<b>PFT 3610-2.5</b> <b>PFT 3610-3</b> <b>PFT 3610-5</b>		10	6.35	37.0	30.4	2.5×1 1.5×2 2.5×2	17100 20000 31100	30600 36800 61300	
<b>PFT 4005-3</b> <b>PFT 4005-5</b> <b>PFT 4005-7.5</b>		40	5	3.175	40.5	37.2	1.5×2 2.5×2 2.5×3	8210 12700 18100	21200 35300 53000
<b>PFT 4006-5</b> <b>PFT 4006-7.5</b>			6	3.969	40.5	36.4	2.5×2 2.5×3	17400 24600	43800 65700
<b>PFT 4008-3</b> <b>PFT 4008-5</b>			8	4.762	40.5	35.5	1.5×2 2.5×2	14200 22000	31300 51600
<b>PFT 4010-2.5</b> <b>PFT 4010-3</b> <b>PFT 4010-5</b>	10		6.35	41.0	34.4	2.5×1 1.5×2 2.5×2	18000 21100 32800	34300 41100 68600	
<b>PFT 4012-2.5</b> <b>PFT 4012-5</b>	12		7.144	41.5	34.1	2.5×1 2.5×2	21200 38400	38800 77500	

Axial rigidity <i>K</i> (N/μm)	Ball nut dimensions										
	<i>D</i>	<i>A</i>	<i>G</i>	<i>B</i>	<i>L</i>	<i>M</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>Q</i>
504 740	65	100	38	15	59 74	3	82	9	14	8.5	M6×1
518 763	65	100	38	15	66 84	3	82	9	14	8.5	M6×1
278 327 537	75	120	45	18	73 90 103	7	98	11	17.5	11	M6×1
337 548 806	67	101	39	15	56 59 74	3	83	9	14	8.5	Rc1/8
564 827	70	104	40	15	66 84	3	86	9	14	8.5	Rc1/8
352 570	74	108	41	15	71 82	5	90	9	14	8.5	Rc1/8
307 366 595	82	124	47	18	73 90 103	7	102	11	17.5	11	Rc1/8
310 600	86	128	48	18	81 117	9	106	11	17.5	11	Rc1/8

- Remarks
1. Flange comes in Circular I and Circular II shape. Select a flange that is suitable for the nut installation space.
  2. If there is no seal, the nut length is shorter by the length of "M" than those with a seal.
  3. The right turn screw is standard. "L" is added to the end of the model code for the left turn screw.

4. Load balls and spacer balls are installed at a ratio of 1:1. Therefore, the basic load rating differs from those of other models.
5. Rigidity in the Table is theoretical value obtained from the elastic deformation between screw groove and ball when the preload is 5% of the basic dynamic load rating (*C<sub>a</sub>*), and the axial load is applied to it. Refer to "Technical description" (Page B521) if preload differs from the conditions above, or when considering change in the deformation of the ball nut itself.