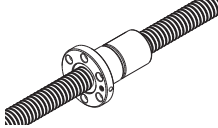
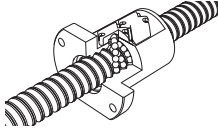
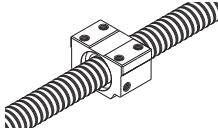
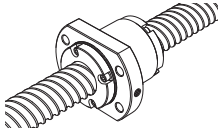
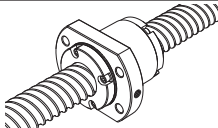
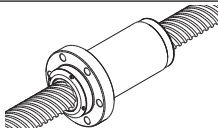
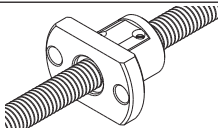


Transport Ball Screw

Series	Model		Features	
Transport	JPF		Constant-pressure preloading, compact nut	
	BTK-V		High DN value	
	BNT		Flat nut	
	BLK		Large lead	
	WTF		Super large lead	
	CNF		Super large lead	
	MTF Unfinished Shaft Ends		Miniature	
	MTF			

	Caged Ball	Compact nut	Miniature	High load capacity	Preload	DN value	Shaft diameter (mm)	Lead (mm)	Page No.
					✓	50,000	14 to 40	4 to 10	A15-260
						100,000	10 to 50	6 to 16	A15-262
						50,000	14 to 45	4 to 12	A15-264
						70,000	15 to 50	10 to 50	A15-266
						70,000	15 to 50	20 to 100	A15-268
						70,000	15 to 30	30 to 60	A15-270
			✓			50,000	6 to 12	1 to 2	A15-272
						70,000	6 to 14	1 to 5	A15-274

Standard Combinations of Outer Diameters and Leads of the Screw Shafts

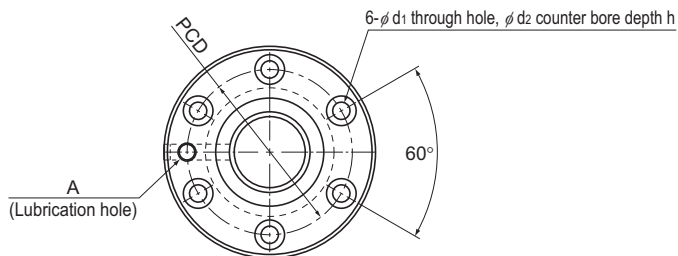
Shaft diameter	Lead										
	1	2	4	5	6	8	10	12	16	20	
6	MTF										
8	MTF	MTF		MTF		BLK					
10		MTF	MTF		BTK-V		BLK				
12		MTF				BTK-V					
14		MTF	JPF BTK-V BNT	JPF BTK-V BNT							
15							BLK			WTF	
16				JPF BTK-V BNT					BLK		
18						BTK-V BNT					
20				JPF BTK-V BNT			BTK-V BNT			BLK	
25				JPF BTK-V BNT			JPF BTK-V BNT				
28				JPF	JPF BTK-V BNT						
30											
32							JPF BTK-V BNT				
36							JPF BTK-V BNT			BLK	
40							JPF BTK-V				
45								BTK-V BNT			
50									BTK-V		

Ball Screw

[illegible]

JPF With Preload

DN value	50,000
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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		Outer diameter D	Flange diameter D ₁	Outer diameter D ₂
						Ca kN	C _{0a} kN			
JPF 1404-4	14	4	14.4	11.5	2×1	2.8	5.1	26	46	25.5
JPF 1405-4	14	5	14.5	11.2	2×1	3.9	8.6	26	46	25.5
JPF 1605-4	16	5	16.75	13.5	2×1	3.7	8.2	30	49	29.5
JPF 2005-6	20	5	20.5	17.2	3×1	6	16	34	57	33.5
JPF 2505-6	25	5	25.5	22.2	3×1	6.9	20.8	40	66	39.5
JPF 2510-4	25	10	26.8	20.2	2×1	11.4	24.5	47	72	46.5
JPF 2805-6	28	5	28.75	25.2	3×1	7.3	23.9	43	69	42.5
JPF 2806-6	28	6	28.5	25.2	3×1	7.3	23.9	43	69	42.5
JPF 3210-6	32	10	33.75	27.2	3×1	19.3	49.9	54	88	53.5
JPF 3610-6	36	10	37	30.5	3×1	20.6	56.2	58	98	57.5
JPF 4010-6	40	10	41.75	35.2	3×1	22.2	65.3	62	104	61.5

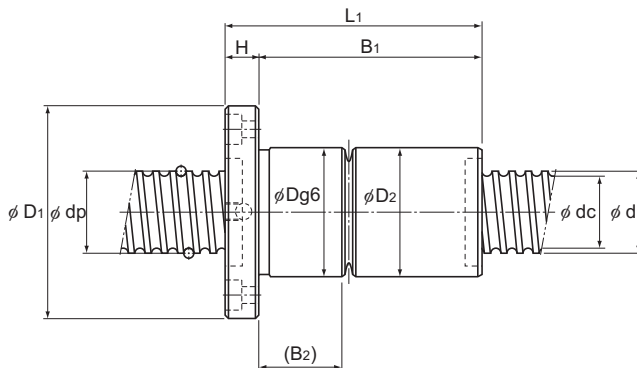
Model number coding

JPF1404-4 RR G0 +500L C7 T

Model No. Seal symbol (*1) Overall screw shaft length (in mm) Symbol for rolled shaft

Symbol for clearance in the axial direction Accuracy symbol (*2)

(*1) See **A15-354**. (*2) See **A15-12**.



Unit: mm

Nut dimensions								Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed
Overall length	L ₁	H	B ₁	B ₂	PCD	d ₁ ×d ₂ ×h	Lubrication hole				
	L ₁	H	B ₁	B ₂	PCD	d ₁ ×d ₂ ×h	A	kg·m ² /mm	kg	kg/m	min ⁻¹
	52	10	42	16.5	36	4.5×8×4.5	M6	2.96×10 ⁻⁸	0.22	1	3,470
	60	10	50	20	36	4.5×8×4.5	M6	2.96×10 ⁻⁸	0.24	0.99	3,440
	60	10	50	19.5	39	4.5×8×4.5	M6	5.05×10 ⁻⁸	0.3	1.34	2,980
	80	11	69	26.5	45	5.5×9.5×5.5	M6	1.23×10 ⁻⁷	0.46	2.15	2,430
	80	11	69	26	51	5.5×9.5×5.5	M6	3.01×10 ⁻⁷	0.6	3.45	1,960
	112	12	100	42	58	6.6×11×6.5	M6	3.01×10 ⁻⁷	1.2	3.26	1,860
	80	12	68	25	55	6.6×11×6.5	M6	4.74×10 ⁻⁷	0.66	4.27	1,730
	90	12	78	35	55	6.6×11×6.5	M6	4.74×10 ⁻⁷	0.72	4.44	1,750
	135	15	120	53.5	70	9×14×8.5	M6	8.08×10 ⁻⁷	1.84	5.49	1,480
	138	18	120	53.5	77	11×17.5×11	M6	1.29×10 ⁻⁶	2.22	6.91	1,350
	138	18	120	53.5	82	11×17.5×11	Rc1/8 (PT1/8)	1.97×10 ⁻⁶	2.42	8.81	1,190

Notes: The ball screw nut and the screw shaft of Model JPF are not sold separately.

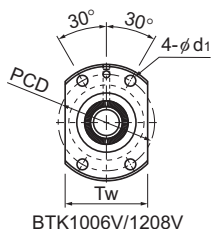
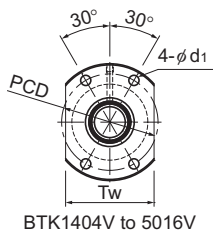
The basic load rating corresponds to the recommended loading direction.

If a load is applied in the opposite direction, the value must be $0.1 \times Ca$ or less during use.

BTK-V

No Preload

DN value	100,000
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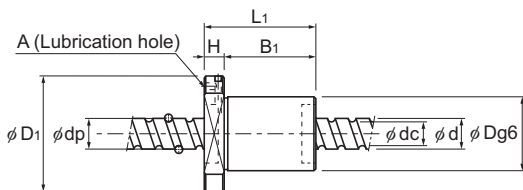
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K				
						Ca	C _a		Outer diameter D	Flange diameter D ₁	Overall length L ₁	H
BTK 1006V-2.6	10	6	10.5	7.8	1×2.65	2.8	4.9	88	26	42	36	8
BTK 1208V-2.6	12	8	12.65	9.7	1×2.65	3.8	6.8	108	29	45	44	8
BTK 1404V-3.6	14	4	14.4	11.5	1×3.65	5.5	11.5	150	31	50	40	10
BTK 1405V-2.6	14	5	14.5	11.2	1×2.65	5	11.4	116	32	50	40	10
BTK 1605V-2.6	16	5	16.75	13.5	1×2.65	5.4	13.3	130	34	54	40	10
BTK 1808V-3.6	18	8	19.3	14.4	1×3.65	13.1	31	210	50	80	61	12
BTK 2005V-2.6	20	5	20.5	17.2	1×2.65	6	16.5	150	40	60	40	10
BTK 2010V-2.6	20	10	21.25	16.4	1×2.65	10.6	25.1	160	52	82	61	12
BTK 2505V-2.6	25	5	25.5	22.2	1×2.65	6.7	20.8	180	43	67	40	10
BTK 2510V-5.3	25	10	26.8	20.2	2×2.65	31.2	83.7	400	60	96	98	15
BTK 2806V-2.6	28	6	28.5	25.2	1×2.65	7	23.4	200	50	80	47	12
BTK 2806V-5.3	28	6	28.5	25.2	2×2.65	12.8	46.8	390	50	80	65	12
BTK 3210V-2.6	32	10	33.75	27.2	1×2.65	19.8	53.8	250	67	103	68	15
BTK 3210V-5.3	32	10	33.75	27.2	2×2.65	36	107.5	490	67	103	98	15
BTK 3610V-2.6	36	10	37	30.5	1×2.65	20.8	59.8	270	70	110	70	17
BTK 3610V-5.3	36	10	37	30.5	2×2.65	37.8	118.7	530	70	110	100	17
BTK 4010V-5.3	40	10	41.75	35.2	2×2.65	40.3	134.9	590	76	116	100	17
BTK 4512V-5.3	45	12	46.5	39.2	2×2.65	49.5	169	650	82	128	118	20
BTK 5016V-5.3	50	16	52.7	42.9	2×2.65	93.8	315.2	930	102	162	145	25

Model number coding

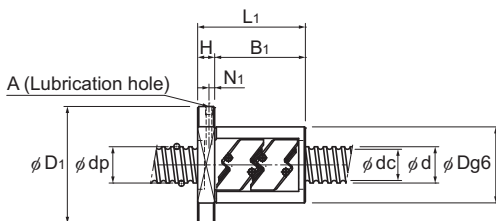
BTK1405V-2.6 ZZ +500L C7 T H1K

Model No.	Contamination protection accessory symbol (*1)	Overall screw shaft length (in mm)	Symbol for rolled shaft	Accuracy symbol (*2)	Recommended shaft ends shape code
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(*1) See **A15-354**. (*2) See **A15-12**.



BTK1006V/1208V



BTK1404V to 5016V

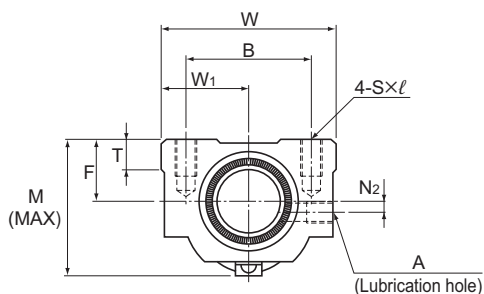
Unit: mm

Nut dimensions						Axial clear- ance	Standard shaft length	Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed	
	B ₁	PCD	d ₁	Tw	Lubrication hole							
					N ₁							A
								kg·m ² /mm	kg	kg/m	min ⁻¹	
	28	34	4.5	29	—	3	0.05	200, 300, 500, 1,000	7.71×10 ⁻⁹	0.12	0.48	5,000
	36	37	4.5	32	—	3	0.05	200, 300, 500, 1,000	1.60×10 ⁻⁸	0.18	0.72	5,000
	30	40	4.5	37	5	M6	0.1	500, 1,000	2.96×10 ⁻⁸	0.23	1	5,000
	30	40	4.5	38	5	M6	0.1	500, 1,000	2.96×10 ⁻⁸	0.22	0.99	5,000
	30	44	4.5	40	5	M6	0.1	500, 1,000, 1,500	5.05×10 ⁻⁸	0.24	1.34	5,000
	49	65	6.6	60	5	M6	0.1	500, 1,000, 1,500	8.09×10 ⁻⁸	0.84	1.71	5,000
	30	50	4.5	46	5	M6	0.1	500, 1,000, 1,500, 2,000	1.23×10 ⁻⁷	0.32	2.15	4,870
	49	67	6.6	64	5	M6	0.1	500, 1,000, 1,500, 2,000	1.23×10 ⁻⁷	0.93	2.16	4,700
	30	55	5.5	50	5	M6	0.1	500, 1,000, 1,500, 2,000	3.01×10 ⁻⁷	0.34	3.45	3,920
	83	78	9	72	5	M6	0.1	500, 1,000, 1,500, 2,000	3.01×10 ⁻⁷	1.83	3.26	3,730
	35	65	6.6	60	6	M6	0.1	500, 1,000, 2,000, 2,500	4.74×10 ⁻⁷	0.59	4.44	3,500
	53	65	6.6	60	6	M6	0.1	500, 1,000, 2,000, 2,500	4.74×10 ⁻⁷	0.75	4.44	3,500
	53	85	9	78	5	M6	0.14	500, 1,000, 1,500, 2,000, 2,500, 3,000	8.08×10 ⁻⁷	1.56	5.49	2,960
	83	85	9	78	5	M6	0.14	500, 1,000, 1,500, 2,000, 2,500, 3,000	8.08×10 ⁻⁷	2.1	5.49	2,960
	53	90	11	82	7	M6	0.17	500, 1,000, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	1.78	6.91	2,700
	83	90	11	82	7	M6	0.17	500, 1,000, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	2.35	6.91	2,700
	83	96	11	88	7	M6	0.17	1,000, 1,500, 2,000, 2,500, 3,000, 3,500	1.97×10 ⁻⁶	2.6	8.81	2,390
	98	104	14	94	8	M6	0.17	1,000, 1,500, 2,000, 3,000, 3,500, 4,000	3.16×10 ⁻⁶	3.48	11.08	2,150
	120	132	18	104	12.5	Rc1/8 (PT1/8)	0.2	1,000, 1,500, 2,000, 3,000, 3,500, 4,000	4.82×10 ⁻⁶	6.52	13.66	1,890

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-364** for further details.

BNT (Rolled Ball Screw) No Preload

DN value	50,000
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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/μm	Width		
						Ca kN	C _{0a} kN		W	Center height F	Overall length L ₁
BNT 1404-3.6	14	4	14.4	11.5	1×3.65	5.5	11.5	150	34	13	35
BNT 1405-2.6	14	5	14.5	11.2	1×2.65	5	11.4	110	34	13	35
BNT 1605-2.6	16	5	16.75	13.5	1×2.65	5.4	13.3	130	42	16	36
BNT 1808-3.6	18	8	19.3	14.4	1×3.65	13.1	31	210	48	17	56
BNT 2005-2.6	20	5	20.5	17.2	1×2.65	6	16.5	150	48	17	35
BNT 2010-2.6	20	10	21.25	16.4	1×2.65	10.6	25.1	160	48	18	58
BNT 2505-2.6	25	5	25.5	22.2	1×2.65	6.7	20.8	180	60	20	35
BNT 2510-5.3	25	10	26.8	20.2	2×2.65	31.2	83.7	400	60	23	94
BNT 2806-2.6	28	6	28.5	25.2	1×2.65	7	23.4	200	60	22	42
BNT 2806-5.3	28	6	28.5	25.2	2×2.65	12.8	46.8	390	60	22	67
BNT 3210-2.6	32	10	33.75	27.2	1×2.65	19.8	53.8	250	70	26	64
BNT 3210-5.3	32	10	33.75	27.2	2×2.65	36	107.5	490	70	26	94
BNT 3610-2.6	36	10	37	30.5	1×2.65	20.8	59.3	270	86	29	64
BNT 3610-5.3	36	10	37	30.5	2×2.65	37.8	118.7	530	86	29	96
BNT 4512-5.3	45	12	46.5	39.2	2×2.65	49.5	169	650	100	36	115

Model number coding

BNT2010-2.6 ZZ +1000L C7 T H1K

Model No.

Contamination protection accessory symbol (*1)

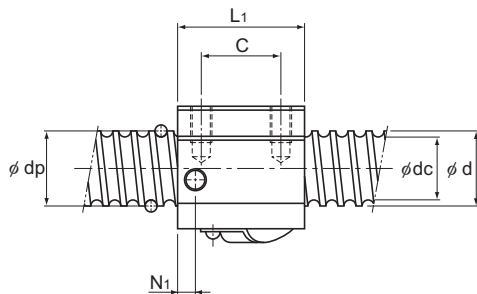
Overall screw shaft length (in mm)

Accuracy symbol (*2)

Symbol for rolled shaft

Recommended shaft ends shape code

(*1) See **A15-354**. (*2) See **A15-12**.



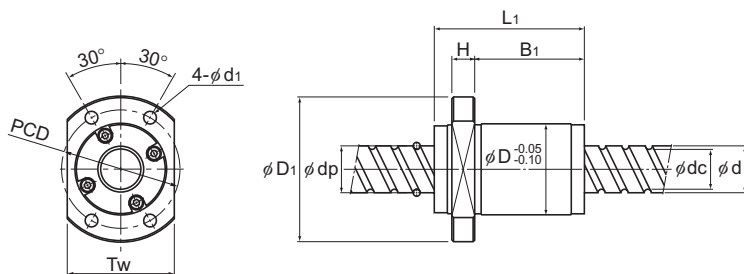
Unit: mm

Nut dimensions										Axial clearance	Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed
Mounting hole			W ₁	T	M	N ₁	N ₂	A						
B	C	S×ℓ												
	26	22	M4×7	17	6	30	6	2	M6	0.1	2.96×10 ⁻⁸	0.15	1	4,860
	26	22	M4×7	17	6	31	6	2	M6	0.1	2.96×10 ⁻⁸	0.15	0.99	4,820
	32	22	M5×8	21	21.5	32.5	6	2	M6	0.1	5.05×10 ⁻⁸	0.3	1.34	4,170
	35	35	M6×10	24	10	44	8	3	M6	0.1	8.09×10 ⁻⁸	0.47	1.71	3,620
	35	22	M6×10	24	9	39	5	3	M6	0.1	1.23×10 ⁻⁷	0.28	2.15	3,410
	35	35	M6×10	24	9	46	10	2	M6	0.1	1.23×10 ⁻⁷	0.5	2.16	3,290
	40	22	M8×12	30	9.5	45	7	5	M6	0.1	3.01×10 ⁻⁷	0.41	3.45	2,740
	40	60	M8×12	30	10	55	10	—	M6	0.1	3.01×10 ⁻⁷	1.18	3.26	2,610
	40	18	M8×12	30	10	50	8	—	M6	0.1	4.74×10 ⁻⁷	0.81	4.44	2,450
	40	40	M8×12	30	10	50	8	—	M6	0.1	4.74×10 ⁻⁷	0.78	4.44	2,450
	50	45	M8×12	35	12	62	10	—	M6	0.14	8.08×10 ⁻⁷	1.3	5.49	2,070
	50	60	M8×12	35	12	62	10	—	M6	0.14	8.08×10 ⁻⁷	2	5.49	2,070
	60	45	M10×16	43	17	67	11	—	M6	0.17	1.29×10 ⁻⁶	1.8	6.91	1,890
	60	60	M10×16	43	17	67	11	—	M6	0.17	1.29×10 ⁻⁶	2.4	6.91	1,890
	75	75	M12×20	50	20.5	80	13	—	M6	0.2	3.16×10 ⁻⁶	4.1	11.08	1,500

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-364** for further details.

BLK (Rolled Ball Screw) No Preload

DN value	70,000
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BLK0808/1010

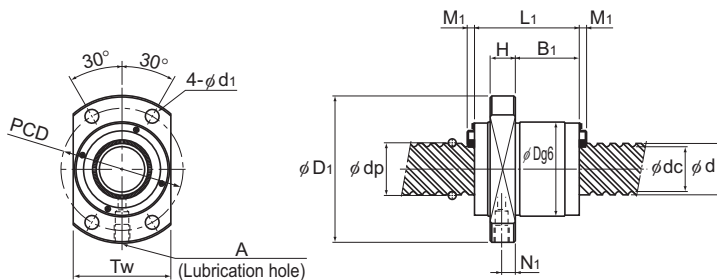
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K				
						Ca	C _a		Outer diameter D	Flange diameter D ₁	Overall length L ₁	H
BLK 0808-3.2	8	8	8.4	6.7	2×1.6	2.2	3.8	95	18	31	20	4
BLK 1010-3.2	10	10	10.5	8.4	2×1.6	3.3	5.9	117	23	40	24	5
BLK 1510-5.6	15	10	15.75	12.5	2×2.8	9.8	25.2	260	34	57	44	10
BLK 1616-3.6	16	16	16.65	13.7	2×1.8	5.8	12.9	170	32	53	38	10
BLK 1616-7.2	16	16	16.65	13.7	4×1.8	10.5	25.9	340	32	53	38	10
BLK 2020-3.6	20	20	20.75	17.5	2×1.8	7.7	22.3	210	39	62	45	10
BLK 2020-7.2	20	20	20.75	17.5	4×1.8	13.9	44.6	410	39	62	45	10
BLK 2525-3.6	25	25	26	21.9	2×1.8	12.1	35	270	47	74	55	12
BLK 2525-7.2	25	25	26	21.9	4×1.8	21.9	69.9	520	47	74	55	12
BLK 3232-3.6	32	32	33.25	28.3	2×1.8	17.3	53.9	330	58	92	70	15
BLK 3232-7.2	32	32	33.25	28.3	4×1.8	31.3	107.8	650	58	92	70	15
BLK 3620-5.6	36	20	37.75	31.2	2×2.8	39.8	121.7	570	70	110	78	17
BLK 3624-5.6	36	24	38	30.7	2×2.8	46.2	137.4	590	75	115	94	18
BLK 3636-3.6	36	36	37.4	31.7	2×1.8	22.4	70.5	370	66	106	77	17
BLK 3636-7.2	36	36	37.4	31.7	4×1.8	40.6	141.1	730	66	106	77	17
BLK 4040-3.6	40	40	41.75	35.2	2×1.8	28.1	89.8	420	73	114	85	17
BLK 4040-7.2	40	40	41.75	35.2	4×1.8	51.1	179.6	810	73	114	85	17
BLK 5050-3.6	50	50	52.2	44.1	2×1.8	42.1	140.4	510	90	135	106	20
BLK 5050-7.2	50	50	52.2	44.1	4×1.8	76.3	280.7	1,000	90	135	106	20

Model number coding

BLK3232-3.6 ZZ +1500L C7 T H1K

Model No.

Contamination
protection
accessory
symbol (*1)Overall screw
shaft length
(in mm)Symbol for
rolled shaftAccuracy symbol (*2) Recommended shaft
ends shape code(*1) See **A15-354**. (*2) See **A15-12**.



BLK1510~5050

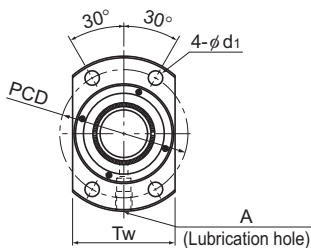
Unit: mm

Nut dimensions								Axial clearance	Standard shaft length	Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed
	B ₁	PCD	d ₁	Tw	Lubrication hole		Seal						
					N ₁	A							
	10	25	3.4	20	—	—	—	0.1	—	3.16×10 ⁻⁹	0.03	0.36	3,500
	13	32	4.5	25	—	—	—	0.1	—	7.71×10 ⁻⁹	0.06	0.55	3,500
	24	45	5.5	40	5	M6	3.5	0.1	500, 1,000	3.90×10 ⁻⁸	0.26	1.16	4,440
	21.5	42	4.5	38	5	M6	3.5	0.1	500, 1,000, 1,500	5.05×10 ⁻⁸	0.21	1.35	4,200
	21.5	42	4.5	38	5	M6	3.5	0.1	500, 1,000, 1,500	5.05×10 ⁻⁸	0.25	1.35	4,200
	27.5	50	5.5	46	5	M6	3.5	0.1	500, 1,000, 1,500	1.23×10 ⁻⁷	0.35	2.18	3,370
	27.5	50	5.5	46	5	M6	3.5	0.1	500, 1,000, 1,500	1.23×10 ⁻⁷	0.35	2.18	3,370
	35	60	6.6	56	6	M6	3.5	0.1	500, 1,000, 1,500, 2,000, 2,500	3.01×10 ⁻⁷	0.64	3.41	2,690
	35	60	6.6	56	6	M6	3.5	0.1	500, 1,000, 1,500, 2,000, 2,500	3.01×10 ⁻⁷	0.64	3.41	2,690
	45	74	9	68	7.5	M6	3.8	0.14	1,000, 1,500, 2,000, 2,500, 3,000	8.08×10 ⁻⁷	1.14	5.69	2,100
	45	74	9	68	7.5	M6	3.8	0.14	1,000, 1,500, 2,000, 2,500, 3,000	8.08×10 ⁻⁷	1.14	5.69	2,100
	45	90	11	80	8.5	M6	5	0.17	1,000, 1,500, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	1.74	7.09	1,850
	59	94	11	86	9	M6	5	0.17	1,000, 1,500, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	2.42	7.02	1,840
	50	85	11	76	8.5	M6	5	0.17	1,000, 1,500, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	1.74	7.12	1,870
	50	85	11	76	8.5	M6	5	0.17	1,000, 1,500, 2,000, 2,500, 3,000	1.29×10 ⁻⁶	1.74	7.12	1,870
	56.5	93	11	84	8.5	M6	5.4	0.17	1,000, 1,500, 2,000, 2,500, 3,000, 4,000	1.97×10 ⁻⁶	2.16	8.76	1,670
	56.5	93	11	84	8.5	M6	5.4	0.17	1,000, 1,500, 2,000, 2,500, 3,000, 4,000	1.97×10 ⁻⁶	2.16	8.76	1,670
	72	112	14	104	10	M6	5.4	0.2	1,000, 1,500, 2,000, 3,000, 4,000	4.82×10 ⁻⁶	3.89	13.79	1,340
	72	112	14	104	10	M6	5.4	0.2	1,000, 1,500, 2,000, 3,000, 4,000	4.82×10 ⁻⁶	3.86	13.79	1,340

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-364** for further details.

WTF No Preload

DN value	70,000
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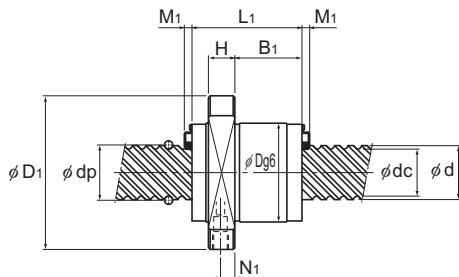
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K				
						Ca	C:a		Outer diameter D	Flange diameter D ₁	Overall length L ₁	H
WTF 1520-3	15	20	15.75	12.5	2X1.5	5.5	14.2	140	32	53	45	10
WTF 1520-6	15	20	15.75	12.5	4X1.5	10.1	28.5	280	32	53	45	10
WTF 1530-2	15	30	15.75	12.5	4X0.6	4.3	9.3	120	32	53	33	10
WTF 1530-3	15	30	15.75	12.5	2X1.6	5.6	12.4	160	32	53	63	10
WTF 2040-2	20	40	20.75	17.5	4X0.65	5.4	13.6	160	37	57	41.5	10
WTF 2040-3	20	40	20.75	17.5	2X1.65	6.6	17.2	200	37	57	81.5	10
WTF 2550-2	25	50	26	21.9	4X0.65	8.5	21.2	200	45	69	52	12
WTF 2550-3	25	50	26	21.9	2X1.65	10.4	26.9	260	45	69	102	12
WTF 3060-2	30	60	31.25	26.4	4X0.65	11.8	30.6	240	55	89	62.5	15
WTF 3060-3	30	60	31.25	26.4	2X1.65	14.5	38.9	310	55	89	122.5	15
WTF 4080-2	40	80	41.75	35.2	4X0.65	19.8	54.5	320	73	114	79	17
WTF 4080-3	40	80	41.75	35.2	2X1.65	24.3	69.2	400	73	114	159	17
WTF 50100-2	50	100	52.2	44.1	4X0.65	29.6	85.2	390	90	135	98	20
WTF 50100-3	50	100	52.2	44.1	2X1.65	36.3	108.1	500	90	135	198	20

Model number coding

WTF3060-3 ZZ +1500L C7 T H1K

Model No.	Contamination protection accessory symbol (*1)	Overall screw shaft length (in mm)	Symbol for rolled shaft	Accuracy symbol (*2)	Recommended shaft ends shape code
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(*1) See **A15-354**. (*2) See **A15-12**.



Unit: mm

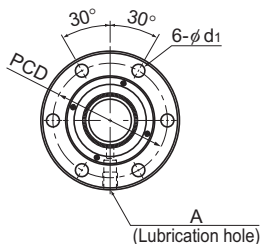
Nut dimensions							Axial clearance	Standard shaft length	Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed	
	B _i	PCD	d _i	Tw	Lubrication hole								Seal
					N _i	A							
	28	43	5.5	33	5	M6	3.5	0.1	500, 1,000	3.90×10 ⁻⁸	0.2	1.17	4,440
	28	43	5.5	33	5	M6	3.5	0.1	500, 1,000	3.90×10 ⁻⁸	0.2	1.17	4,440
	17	43	5.5	33	5	M6	3.5	0.1	500, 1,000, 1,500	3.90×10 ⁻⁸	0.22	1.19	4,440
	47	43	5.5	33	5	M6	3.5	0.1	500, 1,000, 1,500	3.90×10 ⁻⁸	0.4	1.19	4,440
	25.5	47	5.5	38	5.5	M6	3.5	0.1	500, 1,000, 1,500, 2,000	1.23×10 ⁻⁷	0.25	2.12	3,370
	65.5	47	5.5	38	5.5	M6	3.5	0.1	500, 1,000, 1,500, 2,000	1.23×10 ⁻⁷	0.5	2.12	3,370
	31.5	57	6.6	46	7	M6	3.5	0.1	1,000, 1,500, 2,000, 3,000	3.01×10 ⁻⁷	0.45	3.34	2,690
	81.5	57	6.6	46	7	M6	3.5	0.1	1,000, 1,500, 2,000, 3,000	3.01×10 ⁻⁷	0.85	3.34	2,690
	37.5	71	9	56	9	M6	3.8	0.14	1,000, 2,000, 3,000, 4,000	6.24×10 ⁻⁷	0.8	4.84	2,240
	97.5	71	9	56	9	M6	3.8	0.14	1,000, 2,000, 3,000, 4,000	6.24×10 ⁻⁷	1.7	4.84	2,240
	50.5	93	11	74	9	M6	5.4	0.17	1,000, 1,500, 2,000, 3,000	1.97×10 ⁻⁶	2.1	8.66	1,670
	130.5	93	11	74	9	M6	5.4	0.17	1,000, 1,500, 2,000, 3,000	1.97×10 ⁻⁶	3.67	8.66	1,670
	64	112	14	92	10	M6	5.4	0.2	1,500, 3,000	4.82×10 ⁻⁶	3.5	13.86	1,340
	164	112	14	92	10	M6	5.4	0.2	1,500, 3,000	4.82×10 ⁻⁶	6.4	13.86	1,340

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-364** for further details.

CNF

No 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 × 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	H	B ₁	
CNF 1530-6	15	30	15.75	12.5	4×1.6	10.1	24.7	310	32	53	63	10	47	
CNF 2040-6	20	40	20.75	17.5	4×1.65	12	34.4	400	37	57	81	10	65	
CNF 2550-6	25	50	26	21.9	4×1.65	18.9	53.9	460	45	69	102	12	81.5	
CNF 3060-6	30	60	31.25	26.4	4×1.65	26.2	77.7	600	55	89	122	15	97	

Model number coding

CNF2040-6 ZZ +1500L C7 T H1K

Model No.

Contamination protection accessory symbol (*1)

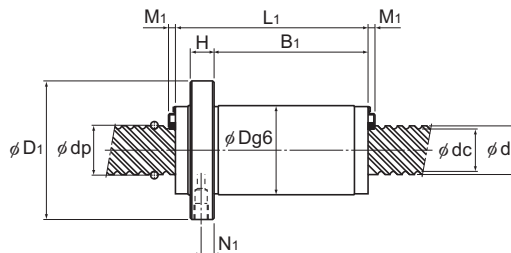
Overall screw shaft length (in mm)

Accuracy symbol (*2)

Symbol for rolled shaft

Recommended shaft ends shape code

(*1) See **A15-354**. (*2) See **A15-12**.



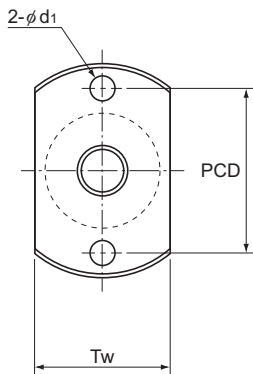
Unit: mm

Nut dimensions						Axial clearance	Standard shaft length	Screw shaft inertial moment/ mm	Nut mass	Shaft mass	Permissible rotational speed
PCD	d _i	Lubrication hole		Seal							
		N _i	A		M _i						
	43	5.5	5	M6	3.5	0.1	500, 1,000, 1,500	3.90×10 ⁻⁸	0.42	1.19	4,440
	47	5.5	5.5	M6	3.5	0.1	500, 1,000, 1,500, 2,000	1.23×10 ⁻⁷	0.5	2.12	3,370
	57	6.6	7	M6	3.5	0.1	1,000, 1,500, 2,000, 3,000	3.01×10 ⁻⁷	0.85	3.34	2,690
	71	9	9	M6	3.8	0.14	1,000, 2,000, 3,000, 4,000	6.24×10 ⁻⁷	1.7	4.84	2,240

Note: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-364** for further details.

MTF (Unfinished Shaft Ends) No Preload

DN value	50,000
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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×turns	Basic load rating		Rigidity K N/μm		
						Ca kN	C _{0a} kN		Outer diameter D	Flange diameter D _f
MTF 0601-3.7	6	1	6.15	5.3	1×3.7	0.7	1.2	70	13	30
MTF 0802-3.7	8	2	8.3	6.6	1×3.7	2.1	3.8	90	20	40
MTF 1002-3.7	10	2	10.3	8.6	1×3.7	2.3	4.8	110	23	43
MTF 1202-3.7	12	2	12.3	10.6	1×3.7	2.5	5.8	130	25	47

Model number coding

MTF 08 02 -3.7 +250L C7 T

Model No.

Overall shaft length
(in mm)

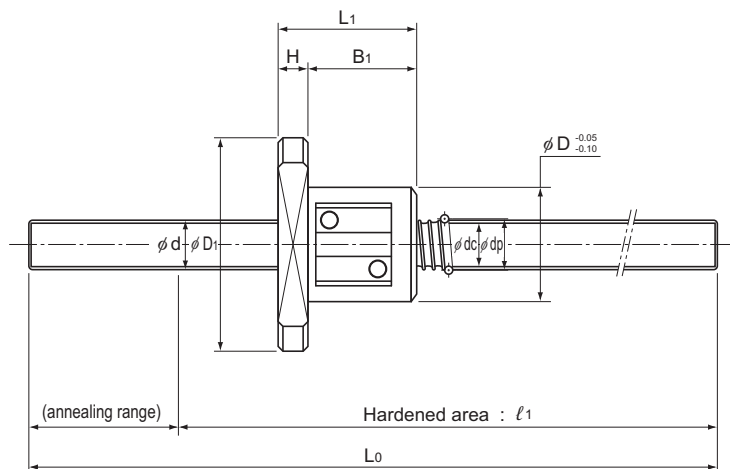
Symbol for ball screw shaft

Screw shaft
outer diameter
(in mm)

Lead
(in mm)

Accuracy symbol (No symbol for Normal Grade)

Note) Model MTF is only sold as a set (ball screw nut and screw shaft).
Model MTF has only anti-rust oil applied.



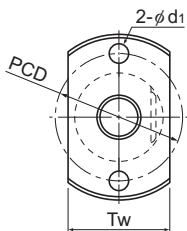
Unit: mm

Nut dimensions							Axial clearance	Standard shaft length	ℓ_1	Screw shaft inertial moment/ mm kg·m²/mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min ⁻¹
	Overall length L ₁	H	B ₁	PCD	d _i	T _w							
	21	5	16	21.5	3.4	17	0.05	150	100	9.99×10 ⁻¹⁰	0.03	0.19	3,500
								250	200				
	28	6	22	30	4.5	24	0.05	150	95	3.16×10 ⁻⁹	0.08	0.31	3,500
								250	195				
	28	6	22	33	4.5	27	0.05	200	140	7.71×10 ⁻⁹	0.1	0.52	3,500
								300	240				
	30	8	22	36	5.5	29	0.05	200	140	1.6×10 ⁻⁸	0.13	0.77	3,500
								300	240				

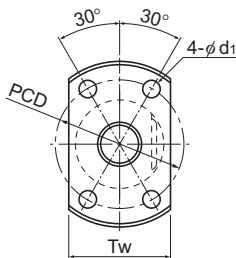
MTF No Preload

DN value

50,000



Nut type I



Nut type II

Model No.	Screw shaft outer diameter	Lead	Ball center- to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Rigidity			
						Ca	C _a		K	Outer diameter	Flange diameter
	d	Ph	dp	dc	Rows X turns	kN	kN	N/μm	D	D ₁	L ₁
* MTF 0601-3.7	6	1	6.15	5.3	1×3.7	0.7	1.2	70	13	30	21
MTF 0801-3.7	8	1	8.15	7.3	1×3.7	0.78	1.65	95	16	29	17
* MTF 0802-3.7	8	2	8.3	6.6	1×3.7	2.1	3.8	90	20	40	28
MTF 0805-2.7	8	5	8.3	6.6	1×2.7	1.85	3	82	18	31	28
* MTF 1002-3.7	10	2	10.3	8.6	1×3.7	2.3	4.8	110	23	43	28
MTF 1004-2.7	10	4	10.3	8.2	1×2.7	3	5.2	104	24	41	28
* MTF 1202-3.7	12	2	12.3	10.6	1×3.7	2.5	5.8	130	25	47	30
MTF 1402-3.7	14	2	14.3	12.6	1×3.7	3.2	7.5	176	26	45	25

Model number coding

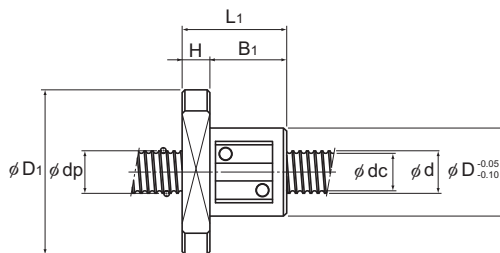
MTF 0802-3.7 +250L C7 T

Model No.

Overall screw shaft length (in mm)

Symbol for rolled shaft

Accuracy code: (No code for Normal Grade)



Unit: mm

Nut dimensions							Axial clearance	Standard shaft length	Screw shaft inertial moment/ mm kg·m ² /mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min ⁻¹
	H	B ₁	PCD	d ₁	Tw	Nut type						
	5	16	21.5	3.4	17	I	0.05	150, 250	9.99×10^{-10}	0.03	0.19	3,500
	4	13	23	3.4	18	II	0.05	—	3.16×10^{-9}	0.02	0.36	3,500
	6	22	30	4.5	24	I	0.05	150, 250	3.16×10^{-9}	0.08	0.31	3,500
	4	24	25	3.4	20	II	0.05	—	3.16×10^{-9}	0.05	0.33	3,500
	6	22	33	4.5	27	I	0.05	200, 300	7.71×10^{-9}	0.1	0.52	3,500
	5	23	33	4.5	26	II	0.05	—	7.71×10^{-9}	0.09	0.52	3,500
	8	22	36	5.5	29	I	0.05	200, 300	1.60×10^{-8}	0.13	0.77	3,500
	6	19	36	5.5	28	II	0.05	—	2.96×10^{-8}	0.08	1.07	3,500

Notes: Seals are not installed on the Model MTF.

For the MTF models marked with an asterisk in the dimensional table, nuts are processed with AP-C treatment as standard. For details, see [B0-20](#).

Model MTF is only sold as a set (ball screw nut and screw shaft).

Model MTF has only anti-rust oil applied.