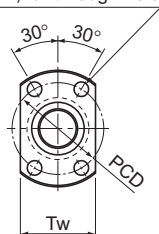


MDK (Unfinished Shaft Ends) No Preload

DN value	70,000
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4- ϕ d₁ through hole

Model No.	Ball screw specifications							Nut			
	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Outer diameter	Flange diameter	Overall length	H
	d	Ph	dp	dc	Rows X turns	Ca kN	C _{0a} kN	D	D ₁	L ₁	
MDK 0401-3	4	1	4.15	3.4	3×1	0.29	0.42	9	19	13	3
MDK 0601-3	6	1	6.2	5.3	3×1	0.54	0.94	11	23	14.5	3.5
MDK 0801-3	8	1	8.2	7.3	3×1	0.64	1.4	13	26	15	4
MDK 0802-3	8	2	8.3	7	3×1	1.4	2.3	15	28	22	5
MDK 1002-3	10	2	10.3	9	3×1	1.5	2.9	17	34	22	5

Model number coding

MDK0401-3 GT +95L C5 A

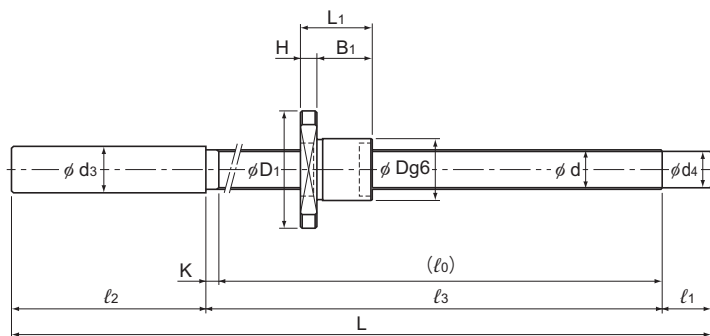
Model No.

Overall screw shaft
length (in mm)

Unfinished shaft ends code

Symbol for clearance
in the axial direction¹Accuracy symbol²
¹ See **A15-19**. ² See **A15-12**.

Positioning Ball Screw



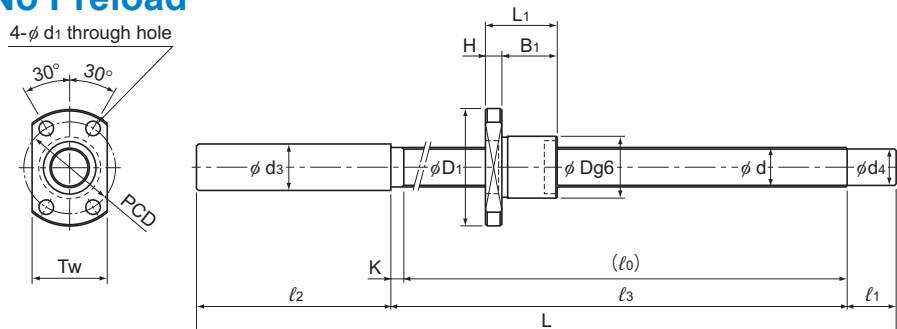
Unit: mm

dimensions					Screw shaft dimensions									Nut mass	Shaft mass	Permissible rotational speed
	B_1	PCD	d_1	Tw	Unfinished shaft end symbol	Overall length L	ℓ_0	ℓ_1	ℓ_2	ℓ_3	d_3	d_4	K	kg	kg/m	min^{-1}
	10	14	2.9	13	A	95	47	10	35	50	6.2	3.2	3	0.01	0.07	3,500
						115	67			70						
						145	97			100						
	11	17	3.4	15	A	120	67	10	40	70	8.2	5.3	3	0.02	0.14	3,500
						150	97			100						
						180	127			130						
	11	20	3.4	17	A	130	67	15	45	70	10.2	7.3	3	0.02	0.29	3,500
						160	97			100						
						190	127			130						
						240	177			180						
	17	22	3.4	19	A	140	76	15	45	80	10.2	7	4	0.04	0.27	3,500
						170	106			110						
						200	136			140						
						250	186			190						
	17	26	4.5	21	A	160	86	15	55	90	12.2	9	4	0.05	0.47	3,500
						210	136			140						
						260	186			190						
						310	236			240						

Note: Models MDK 0401, 0601, and 0801 are not provided with a labyrinth seal.

MDK (Unfinished Shaft Ends) No Preload

DN value	70,000
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MDK1202/1402/1404

Model No.	Ball screw specifications							Nut			
	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Outer diameter	Flange diameter	Overall length	Nut
	d	Ph	dp	dc	Rows X turns	Ca kN	C _{0a} kN	D	D ₁	L ₁	
MDK 1202-3	12	2	12.3	11	3×1	1.7	3.6	19	36	22	5
MDK 1402-3	14	2	14.3	13	3×1	1.8	4.3	21	40	23	6
MDK 1404-3	14	4	14.65	12.2	3×1	4.2	7.6	26	45	33	6
MDK 1405-3	14	5	14.75	11.2	3×1	7	11.6	26	45	42	10

Model number coding

MDK1202-3 RR GT +165L C5 A

Model No.

Seal symbol¹

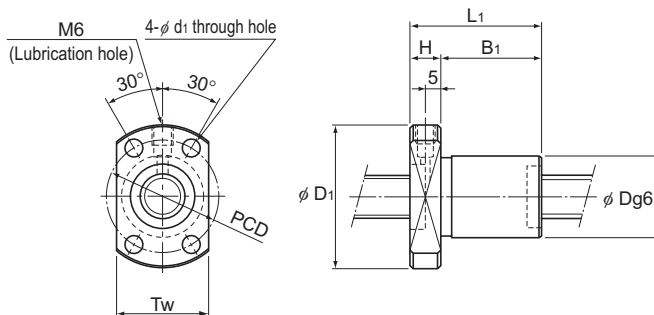
Overall screw shaft length (in mm)

Symbol for clearance in the axial direction²Accuracy symbol³

Unfinished shaft ends code

¹ See **A15-356**. ² See **A15-19**. ³ See **A15-12**.

Positioning Ball Screw



MDK1405

Unit: mm

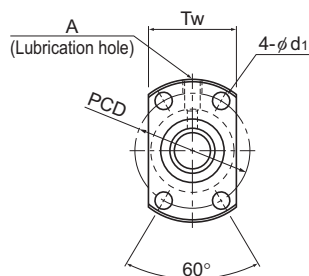
dimensions					Screw shaft dimensions										Nut mass	Shaft mass	Permissible rotational speed
	B ₁	PCD	d ₁	Tw	Unfinished shaft end symbol	L	ℓ ₀	ℓ ₁	ℓ ₂	ℓ ₃	d ₃	d ₄	K	kg			
	17	28	4.5	23	A	165	86	15	60	90	14.2	11	4	0.05	0.71	3,500	
					215	136	140										
					265	186	190										
					315	236	240										
					365	286	290										
	17	31	5.5	26	A	175	86	25	60	90	15.2	13	4	0.07	1	3,500	
					225	136	140										
					275	186	190										
					325	236	240										
					425	336	340										
	27	36	5.5	28	A	240	150	25	60	155	15.2	11.9	5	0.14	0.8	3,500	
					290	200	205										
					340	250	255										
					440	350	355										
					540	450	455										
	32	36	5.5	28	A	250	160	25	60	165	14	11.2	5	0.19	1.2	4,740	
					300	210	215										
					350	260	265										
					450	360	365										
					550	460	465										

Ball Screw

MDK

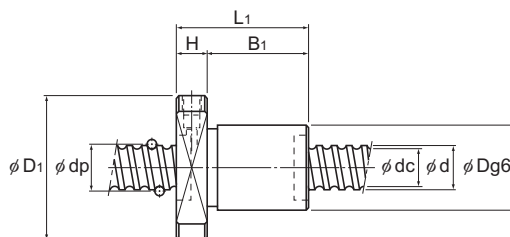
No Preload

DN value	70,000
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Model No.	Screw shaft outer diameter	Lead	Ball center- to-center diameter	Thread minor diameter	No. of loaded circuits	Basic load rating		Rigidity			
	d	Ph	dp	dc	Rows X turns	Ca kN	C _{0a} kN	K N/μm	Outer diameter D	Flange diameter D ₁	Overall length L ₁
MDK 0401-3	4	1	4.15	3.4	3×1	0.29	0.42	35	9	19	13
MDK 0601-3	6	1	6.2	5.3	3×1	0.54	0.94	60	11	23	14.5
MDK 0801-3	8	1	8.2	7.3	3×1	0.64	1.4	80	13	26	15
MDK 0802-3	8	2	8.3	7	3×1	1.4	2.3	80	15	28	22
MDK 1002-3	10	2	10.3	9	3×1	1.5	2.9	100	17	34	22
MDK 1202-3	12	2	12.3	11	3×1	1.7	3.6	120	19	36	22
MDK 1402-3	14	2	14.3	13	3×1	1.8	4.3	190	21	40	23
MDK 1404-3	14	4	14.65	12.2	3×1	4.2	7.6	190	26	45	33
MDK 1405-3	14	5	14.75	11.2	3×1	7	11.6	140	26	45	42

Positioning Ball Screw



Unit: mm

Nut dimensions							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	Lubrication hole A				
	3	10	14	2.9	13	—	1.97×10^{-10}	0.01	0.07	3,500
	3.5	11	17	3.4	15	—	9.99×10^{-10}	0.017	0.14	3,500
	4	11	20	3.4	17	—	3.16×10^{-9}	0.024	0.29	3,500
	5	17	22	3.4	19	—	3.16×10^{-9}	0.034	0.27	3,500
	5	17	26	4.5	21	—	7.71×10^{-9}	0.045	0.47	3,500
	5	17	28	4.5	23	—	1.60×10^{-8}	0.05	0.71	3,500
	6	17	31	5.5	26	—	2.96×10^{-8}	0.15	1	3,500
	6	27	36	5.5	28	—	2.96×10^{-8}	0.13	0.8	3,500
	10	32	36	5.5	28	M6	2.96×10^{-8}	0.18	0.91	4,740

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