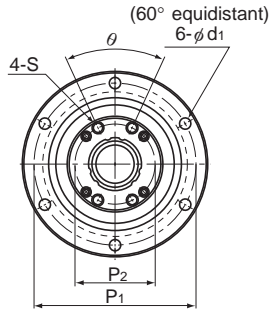


Model NS Heavy-load Type: Linear Motion



Ball screw unit

Model No.	Screw shaft outer diameter d	Screw shaft inner diameter db	Lead Ph	Ball screw dimensions							
				Basic load rating		Ball center-to-center diameter dp	Thread minor diameter dc	Outer diameter D	Flange diameter D _f	Overall length L ₁	D ₃ h7
				Ca kN	C _{0a} kN						
NS 1616	16	11	16	3.9	7.2	16.65	13.7	52 ⁰ _{-0.007}	68	43.5	40
NS 2020	20	14	20	6.1	12.3	20.75	17.5	62 ⁰ _{-0.007}	78	54	50
NS 2525	25	18	25	9.1	19.3	26	21.9	72 ⁰ _{-0.007}	92	65	58
NS 3232	32	23	32	13	29.8	33.25	28.3	80 ⁰ _{-0.007}	105	80	66
NS 4040	40	29	40	21.4	49.7	41.75	35.2	110 ⁰ _{-0.008}	140	98	90
NS 5050	50	36	50	31.8	77.6	52.2	44.1	120 ⁰ _{-0.008}	156	126	100

Ball spline

Model No.	Ball spline dimensions					
	Basic load rating		Static permissible moment M _k N-m	Basic torque rating		Outer diameter D ₇
	C kN	C ₀ kN		C _T N-m	C _{0T} N-m	
NS 1616	7.1	12.6	67.6	31.4	34.3	31 ⁰ _{-0.013}
NS 2020	10.2	17.8	118	56.9	55.9	35 ⁰ _{-0.016}
NS 2525	15.2	25.8	210	105	103	42 ⁰ _{-0.016}
NS 3232	20.5	34	290	180	157	49 ⁰ _{-0.016}
NS 4040	37.8	60.5	687	419	377	64 ⁰ _{-0.019}
NS 5050	60.9	94.5	1340	842	769	80 ⁰ _{-0.019}

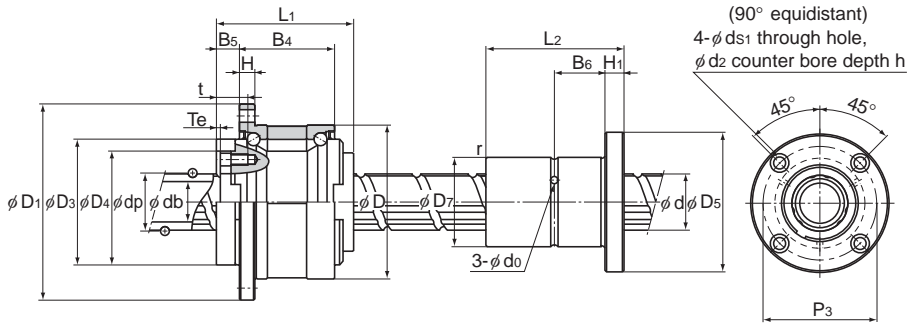
Note) For K hollow shaft, please refer to the db dimension for the inner bore diameter of the shaft. If requested solid shaft is also available. See "Ball Spline" **A3-84** for details.

Model number coding

NS2525 +600L

Model number Overall shaft length (in mm)

Precision Ball Screw/Spline



Unit: mm

D ₄	H7	H	B ₄	B ₅	T _e	P ₁	P ₂	S	t	d ₁	θ°	Support bearing basic load rating		Nut inertial moment kg·cm ²	Screw shaft inertial moment/mm J kg·cm ² /mm	Nut mass kg	Shaft mass kg/m
												C _a kN	C _{0a} kN				
32	5	27.5	9	2	60	25	M4	12	4.5	40	19.4	19.2	0.48	3.92 × 10 ⁻⁴	0.38	0.8	
39	6	34	11	2	70	31	M5	16	4.5	40	26.8	29.3	1.44	9.37 × 10 ⁻⁴	0.68	1.21	
47	8	43	12.5	3	81	38	M6	19	5.5	40	28.2	33.3	3.23	2.2 × 10 ⁻³	1.1	1.79	
58	9	55	14	3	91	48	M6	19	6.6	40	30	39	6.74	5.92 × 10 ⁻³	1.74	2.96	
73	11	68	16.5	3	123	61	M8	22	9	50	59.3	74.1	27.9	1.43 × 10 ⁻²	3.95	4.51	
90	12	80	25	4	136	75	M10	28	11	50	62.2	83	58.2	3.52 × 10 ⁻²	6.22	7.16	

Unit: mm

Flange diameter D ₅	Overall length L ₂	H ₁	B ₆	r	Greasing hole d ₀	P ₃	Mounting hole			Nut mass kg
							d _{s1}	d ₂	h	
51	50 ⁰ _{-0.2}	7	18	0.5	2	40	4.5	8	4.4	0.23
58	63 ⁰ _{-0.2}	9	22.5	0.5	2	45	5.5	9.5	5.4	0.33
65	71 ⁰ _{-0.3}	9	26.5	0.5	3	52	5.5	9.5	5.4	0.45
77	80 ⁰ _{-0.3}	10	30	0.5	3	62	6.6	11	6.5	0.58
100	100 ⁰ _{-0.3}	14	36	0.5	4	82	9	14	8.6	1.46
124	125 ⁰ _{-0.3}	16	46.5	1	4	102	11	17.5	11	2.76

