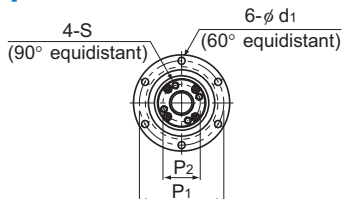
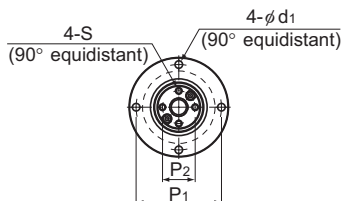


NS-A Compact Type: Linear Motion No Preload

DN value	70,000
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Ball screw unit (Models NS 1616A to 4040A)



Ball screw unit (Models NS 0812A and 1015A)

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 ₁	Overall length L ₁	D ₃ h7	D ₄ H7	
				Ca kN	C _{0a} kN								
NS 0812A	8	—	12	1.1	1.8	8.4	6.6	32	44	28.5	22	19	
NS 1015A	10	—	15	1.7	2.7	10.5	8.3	36	48	34.5	26	23	
NS 1616A	16	11	16	3.9	7.2	16.65	13.7	48	64	40	36	32	
NS 2020A	20	14	20	6.1	12.3	20.75	17.5	56	72	48	43.5	39	
NS 2525A	25	18	25	9.1	19.3	26	21.9	66	86	58	52	47	
NS 3232A	32	23	32	13	29.8	33.25	28.3	78	103	72	63	58	
NS 4040A	40	29	40	21.4	49.7	41.75	35.2	100	130	88	79.5	73	

Ball spline

Model No.	Ball spline dimensions						
	Basic load rating		Static permissible moment M _A N·m	Basic torque rating		Outer diameter D ₇	Flange diameter D ₅ ⁰ _{-0.2}
	C kN	C ₀ kN		C _T N·m	C _{0T} N·m		
NS 0812A	1.5	2.6	5.9	2	2.9	16 ⁰ _{-0.011}	32
NS 1015A	2.8	4.9	15.7	3.9	7.8	21 ⁰ _{-0.013}	42
NS 1616A	7.1	12.6	67.6	31.4	34.3	31 ⁰ _{-0.013}	51
NS 2020A	10.2	17.8	118	56.8	55.8	35 ⁰ _{-0.016}	58
NS 2525A	15.2	25.8	210	105	103	42 ⁰ _{-0.016}	65
NS 3232A	20.5	34	290	180	157	49 ⁰ _{-0.016}	77
NS 4040A	37.8	60.5	687	418	377	64 ⁰ _{-0.019}	100

Notes: For K hollow shaft, please refer to the db dimension for the inner bore diameter of the shaft.

A solid shaft is also available upon request. See "Ball Spline" **A3-120** for details.

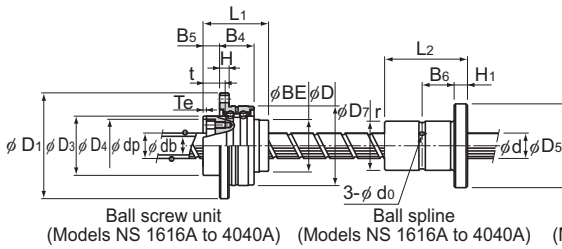
Model number coding

NS2020A +500L C5

Model number Overall shaft length (in mm) Accuracy symbol¹

¹ See **A15-12**.

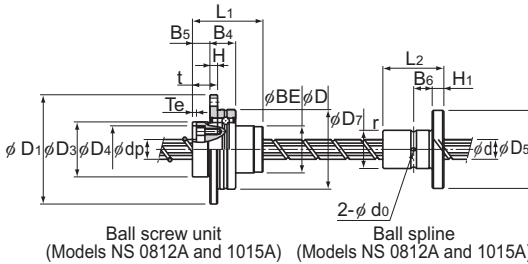
Rotary Nut Ball Screw



4- ϕ d_{s1} through hole, ϕ d_2 counter bore depth h
(90° equidistant)



Ball spline
(Models NS 1616A to 4040A)



4- ϕ d_{s1} through hole, ϕ d_2 counter bore depth h
(90° equidistant)



Ball spline
(Models NS 0812A and 1015A)

Unit: mm

	BE	H	B ₄	B ₅	T _e	P ₁	P ₂	S	t	d ₁	Support bearing basic load rating		Nut inertial moment kg·m ²	Screw shaft inertial moment kg·m ² /mm	Nut mass kg	Shaft mass kg/m	Permissible rotational speed min ⁻¹
											C _a	C _{0a}					
	19	3	10.5	7	1.5	38	14.5	M2.6	10	3.4	0.8	0.5	3.00×10 ⁻⁶	3.16×10 ⁻⁹	0.08	0.35	3,500
	23	3	10.5	8	1.5	42	18	M3	11.5	3.4	0.9	0.7	8.00×10 ⁻⁶	7.71×10 ⁻⁹	0.15	0.52	3,500
	32	6	21	10	2	56	25	M4	13.5	4.5	8.7	10.5	3.50×10 ⁻⁵	3.92×10 ⁻⁸	0.31	0.8	4,200
	39	6	21	11	2.5	64	31	M5	16.5	4.5	9.7	13.4	8.50×10 ⁻⁵	9.37×10 ⁻⁸	0.54	1.21	3,370
	47	7	25	13	3	75	38	M6	20	5.5	12.7	18.2	2.12×10 ⁻⁴	2.20×10 ⁻⁷	0.88	1.79	2,690
	58	8	25	14	3	89	48	M6	21	6.6	13.6	22.3	5.42×10 ⁻⁴	5.92×10 ⁻⁷	1.39	2.96	2,100
	73	10	33	16.5	3	113	61	M8	24.5	9	21.5	36.8	1.72×10 ⁻³	1.43×10 ⁻⁶	3.16	4.51	1,670

Unit: mm

Overall length L ₂	H ₁	B ₆	r	Lubrication hole d ₀	P ₃	Mounting hole			Nut mass kg
						ds ₁	d ₂	h	
25	5	7.5	0.5	1.5	24	3.4	6.5	3.3	0.04
33	6	10.5	0.5	1.5	32	4.5	8	4.4	0.09
50 ^{+0.2}	7	18	0.5	2	40	4.5	8	4.4	0.23
63 ^{+0.2}	9	22.5	0.5	2	45	5.5	9.5	5.4	0.33
71 ^{+0.3}	9	26.5	0.5	3	52	5.5	9.5	5.4	0.45
80 ^{+0.3}	10	30	0.5	3	62	6.6	11	6.5	0.58
100 ^{+0.3}	14	36	0.5	4	82	9	14	8.6	1.46

