

SPR TYPE

part number structure

example

SPR **25** - **2** - **T1** - **436** / **CU**

SPR type

nominal

diameter

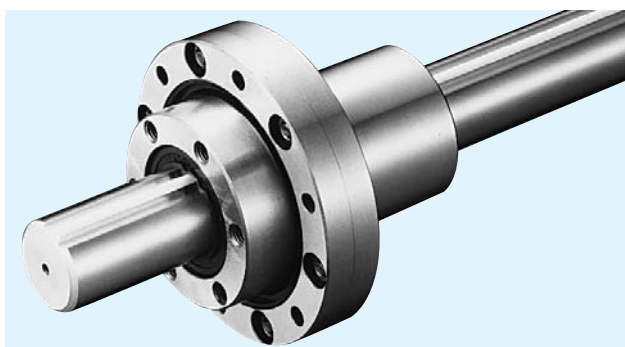
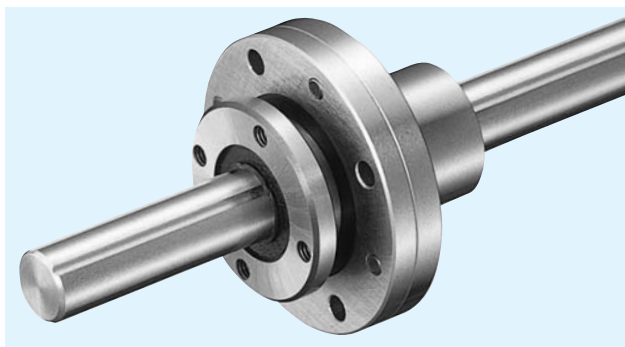
number of nuts attached
to one shaft

pre-load symbol

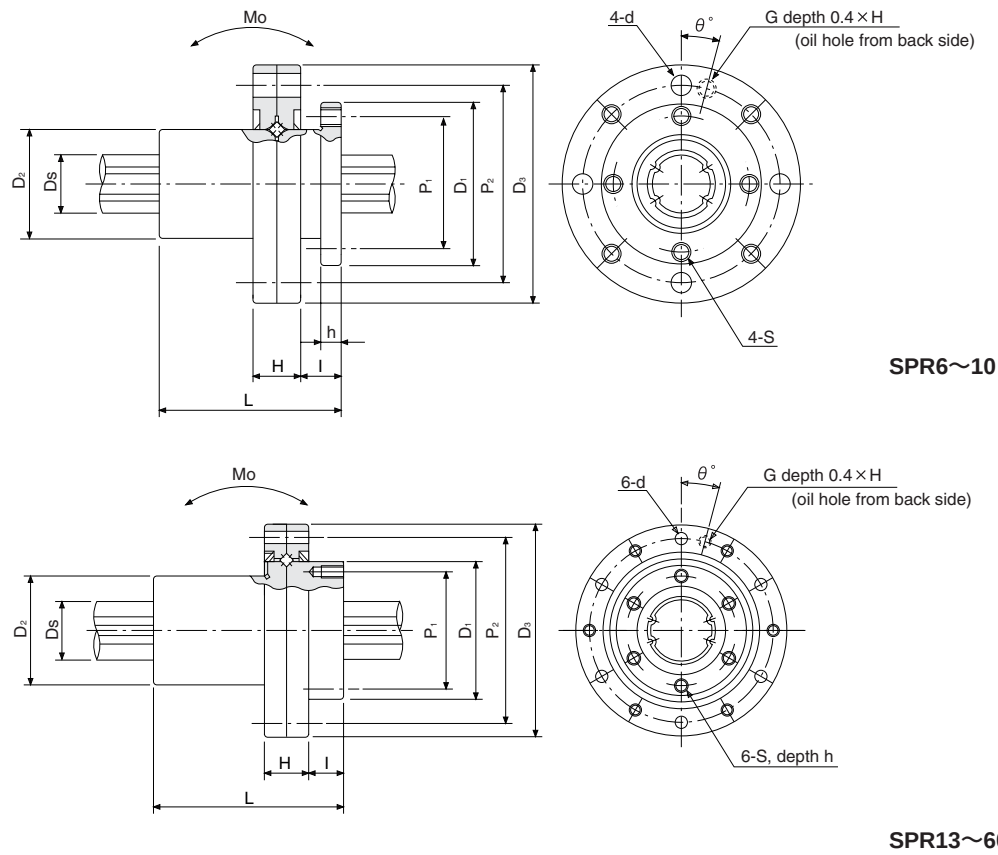
blank	standard
T1	light
T2	medium

with special
specification

spline shaft total length



part number	ball spline major dimensions								major dimensions of support bearing								
	D ₁		D ₂	L		P ₁	S	h	I	H	D ₃		P ₂	d	G	θ°	
	mm	μm		mm	mm						mm	μm					
SPR 6	20	0 -21	13	25	0 -0.2	16	M2	2.5	5	6.5	30	0/-21	24	2.4	ϕ2	20°	
SPR 8	22		15	25		18	M2.5	3	6	6.5	33	0 -25	27	2.9			
SPR10	27		19	33		22	M3	4	8	7	40		33	3.4			
SPR13	29		24	36		24	M3	5	8	9	50		42	3.4	ϕ3	15°	
SPR16	36	0 -25	31	50	0 -0.3	30	M4	6	10	11	60	0 -30	50	4.5			M6×0.75
SPR20A	44		35	63		38	M4	7	12	13	72		62	4.5			
SPR20	40		34	60		34	M4	7	12	13	66		56	4.5			
SPR25A	55		42	71		47	M5	8	13	16	82		72	4.5			
SPR25	50	0 -30	40	70	0 -0.3	42	M5	8	13	16	78	0 -35	68	4.5			
SPR30	61		47	80		52	M6	10	17	17	100		0	86	6.6		
SPR40	76		62	100		64	M6	10	23	20	120		-35	104	9		
SPR50	88		75	112		77	M8	13	24	22	130		0	114	9		
SPR60	102	-35	90	127		90	M8	13	25	25	150	-40	132	9			



spline shaft		ball spline				support bearing		allowable static moment	second cross-sectional moment of inertia	cross-sectional coefficient	mass		※maximum rotational speed	part number
Ds		basic torque rating		basic load rating		basic load rating					nut	spline shaft		
	tolerance	dynamic	static	dynamic	static	dynamic	static							
mm	μm	C _T N・m	C _{OT} N・m	C kN	C _O kN	C _R kN	C _{OR} kN	Mo N・m	mm ⁴	mm ³	kg	kg/m	rpm	
6	0/−12	1.5	2.4	1.22	2.28	0.6	0.5	5.1	5.9 × 10	1.97×10	0.04	0.21	3,500	SPR 6
8	0	2.1	3.7	1.45	2.87	1.2	1.14	7.4	1.9 × 10 ²	4.76×10	0.05	0.38	3,500	SPR 8
10	−15	4.4	8.2	2.73	5.07	2.4	2.45	18.0	4.61×10 ²	9.22×10	0.09	0.60	3,000	SPR10
13	0	21	39.2	2.67	4.89	3.0	3.70	13.7	1.38×10 ³	2.13×10 ²	0.17	1.0	1,800	SPR13
16	−18	60	110	6.12	11.2	5.6	6.70	46	2.98×10 ³	3.73×10 ²	0.33	1.5	1,500	SPR16
20	0 −21	105	194	8.9	16.3	6.61	7.89	63	7.35×10 ³	7.34×10 ²	0.57	2.4	1,100	SPR20A
18.2		83	133	7.84	11.3	5.90	7.35	63	5.05×10 ³	5.54×10 ²	0.45	2.0	1,200	SPR20
25		189	346	12.8	23.4	10.0	13.4	171	1.79×10 ⁴	1.43×10 ³	0.81	3.7	900	SPR25A
23		162	239	12.3	16.1	9.11	11.5	104	1.27×10 ⁴	1.11×10 ³	0.75	3.1	1,000	SPR25
28		289	412	18.6	23.2	13.2	18.0	181	2.75×10 ⁴	1.96×10 ³	1.25	4.8	800	SPR30
37.4	0	637	882	30.8	37.5	22.8	32.3	358	8.73×10 ⁴	4.67×10 ³	2.30	8.6	800	SPR40
47	−25	1,390	3,180	46.1	74.2	27.2	42.1	696	2.16×10 ⁵	9.21×10 ³	3.10	13.1	570	SPR50
56.5	0/−30	2,100	4,800	58.0	127.4	30.0	48.2	1,300	4.51×10 ⁵	1.60×10 ⁴	4.70	19	500	SPR60

※Maximum rotational speed for grease lubrication.

1kN ≒ 102kgf 1N · m ≒ 0.102kgf · m

Contact NB for further information when higher speeds or oil lubrication is required.