

Groove Type / Roller Type

■ Groove Type

ℓ Dimension Selectable
BSPO
SBSP
 (Stainless Steel)

Full Thread under Head
BSPOZ
SBSPZ
 (Stainless Steel)

▽ ($\frac{Z}{P}$)

⚠ The ℓ dimensions marked with * in the specification table are for dimensions in the right table.

Type	D-L	ℓ
BSPO	5-15	8
	6-15	7
	6-20	12
	8-20	11
SBSP	8-25	16
	10-30	17
	10-35	22
	12-40	20

Full Thread under Head
BSPOZ
SBSPZ
 (Stainless Steel)

Type	Material	Surface Treatment	Accessory / Material
BSPO BSPOZ	EN 1.1191 Equiv.	Black Oxide	Nut 1 pc (JIS Class 1) JIS-SW0H Equiv.
SBSP SBSPZ	EN 1.4305 Equiv.	-	Nut 1 pc (JIS Class 1) EN 1.4301 Equiv.

RoHS 10

Part Number		L							M (Coarse)	ℓ^*	A	F	H	T	d	BSPO		SBSPO	
Type	D															Unit Price 1 ~ 49 pc(s)	Volume Discount Rate 50 ~ 100 pcs	Unit Price 1 ~ 49 pc(s)	Volume Discount Rate 50 ~ 100 pcs
ℓ Dimension Selectable BSPO SBSPO (Stainless Steel)	3	15	20	25	30	35	40	M3	10	1.0	3	1.0	1.2	1.8					
	4	15	20	25	30	35	40	50	M4	12					2.0				
	5	15	20	25	30	35	40	50	M5	2.0									
	6	15	20	25	30	35	40	45	50	60	M6	16							
	8	20	25	30	35	40	45	50	60	70	M8	20	3.0						
	10		30	35	40	45	50	60	70	M10	25	4	2.5						
	12		40	50	60	70	M12	30	4.0					1.8	6.5				

Part Number		L						M (Coarse)	A	F	H	T	d	BSPOZ		SBSP0Z	
Type	D													Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
Full Thread under Head BSPOZ SBSP0Z (Stainless Steel)	3	10	15	20	25		M3	1.0	3	1.0	1.2	1.8					
	4	10	15	20	25	30	M4	1.2				2.0					
	5		15	20	25	30	35	M5	2.0	3.0							
	6			20	25	30	35	45	M6	3.0		3.6					
	8			25	30	35	45	55	65			M8	5.0				
	10				30	35	45	55	65		M10	6.0					
	12						35	45	55	M12	4.0	1.8	6.5				



Ordering Example	Part Number	-	L
	BSP08	-	40

Roller Type

**YSPO
YJPO**

Components	Material / Treatment	YSPO	YJPO
① Roller	M Material	EN 1.4305 Equiv.	Polycetal (White)
	S Surface Treatment	Electroless Nickel Plating	-
	H Hardness	Hv1000 (Effective Depth 0.01)	-
② Main Body, Washer	M Material	EN 1.1191 Equiv.	EN 1.4305 Equiv.
	S Surface Treatment	Electroless Nickel Plating	-
③ Screw	M Material	EN 1.4567 Equiv.	EN 1.4567 Equiv.

Part Number		Mounting Length		① Roller			② Main Body, Washer					Accessory	Applicable	Unit Price	Volume Discount Rate		
Type	D	(L)	L1	D1	d	R	L2	Y	M	E	B	③ Screw	Tension Spring	1 ~ 10 pc(s).	11~20	21~50	51~100
YSPO YJPO	8	8	2.5	5.5	4.5	1	5.5	5.5	M4	10	7	SCB2-5	D 8				
	9	9	3	6.5	5.5	1.5	6.5	6	M5		8		D9・D10				
	12	11	3.5	8	7	2	7.5	7.5	M6	12	10	SCB3-5	D12・D14				
	15	13															
	18	16	4	13	11	2.5	8.5	12	M8	16	13	D16・D18					
													D20・D24				



Ordering Example	Part Number YSPO12
------------------	------------------------------



Alterations

	Y Dimensions	E Dimensions
Alterations		
Code	YC	EC
Spec.	Changes Y dimension. $Y < YC \leq 30$ Specify in 1mm Increment	Changes E dimension. $M \leq EC \leq M \times 5$ Specify in 1mm Increment

Disk Springs

Technical drawing of a DIN 934 hex nut. The drawing includes a perspective view of the nut and a cross-sectional view. Dimensions are labeled: D (outer diameter), d (pitch diameter), H (height), h (thread depth), and t (thread length). The material is specified as **SRBN** (Stainless Steel) and **SSRBN** (Stainless Steel). The drawing also shows the **RoHS 10** compliance logo.

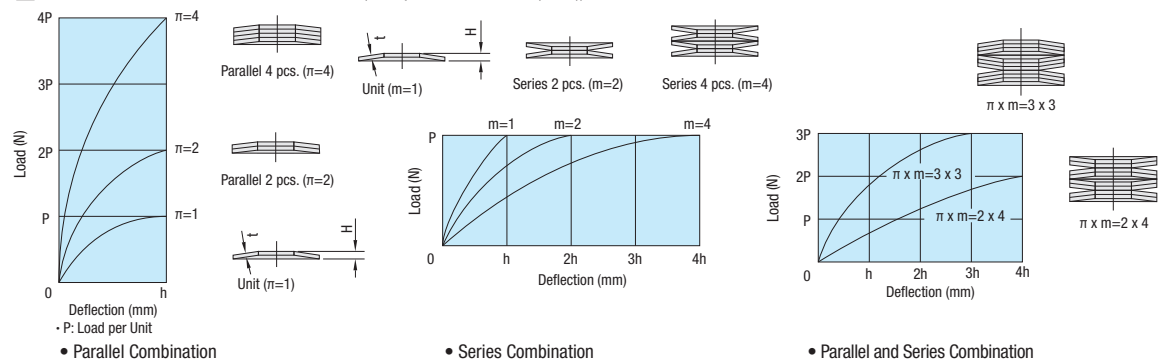
t	Load Tolerance (75% Deflection)
0.3~1.1	+25% -7.5%
1.2~3	+15% -7.5%

Type	Material	Surface Treatment	Hardness
SRBN8-45	EN 1.1221 Equiv.	Black Oxide	42~48HRC
SRBN50	EN 1.8159 Equiv.	D45 and 50 are not treated.	
SSRBN	EN 1.4301 (316) Equiv.	-	37~46HRC

Part Number		Load Type	D	d		t		H		h	Load (75% Deflection) N		SRBN				SSRBN			
Type	D										SRBN	SSRBN	Unit Price	Volume	Discount	Rate	Unit Price	Volume	Discount	Rate
												1 - 49 pcs	50 - 74	75 - 99	100 - 500	1 - 49 pcs	50 - 74	75 - 99	100 - 500	
SRBN SSRBN (Stainless Steel)	8	A	0 -0.15	4.2		0.3	0.55		0.25	133	117.7									
		B				0.4	0.60		0.20	234	205.9									
	10	A	5.2	0.4		0.70	0.30		232	205.9										
		B		0.5		0.75	0.25		360	323.6										
	12.5	A	+0.15 0	0.5	0.85	0.35	333	294.2												
		B		0.7	1.00	0.30	769	657.1												
	14	A		7.2	0.5	0.90	0.40	316	274.6											
		B			0.8	1.10	0.30	921	794.3											
	16	A	8.2		0.6	1.05	0.45	459	411.9											
		B			0.9	1.25	0.35	1,120	1,029.7											
	18	A		9.2	0.7	1.20	0.50	630	568.8											
		B			1.0	1.40	±0.15	0.40	1,380	1,274.9										
	20	A	0 -0.25		10.2	0.8	1.35	±0.10	0.55	812	745.3									
		B				1.1	1.55	±0.15	0.45	1,540	1,520									
	22.5	A		11.2		0.8	1.45	±0.10	0.65	766	706.1									
		B				1.2(1.25)	1.7(1.75)	±0.15	0.50	1,870	1,931.9									
	25	A	+0.20 0		12.2	0.9	1.60	±0.10	0.70	929	863									
		B				1.6(1.5)	2.15(2.05)	±0.15	0.55	3,770	2,922.4									
	28	A		14.2		1.0	1.80	±0.10	0.80	1,180	1,127.8									
		B				1.6(1.5)	2.25(2.15)	0.65	3,680	2,843.9										
	31.5	A			16.3	1.2(1.25)	2.1(2.15)	0.90	1,810	1,912.3										
		B				1.8(1.75)	2.5(2.45)	0.70	4,490	3,873.6										
	35.5	A		0 -0.30		18.3	1.2(1.25)	2.2(2.25)	1.00	1,590	1,696.6									
		B					2.0	2.80	0.80	5,460	5,197.5									
	40	A	+0.25 0		20.4		1.6(1.5)	2.75(2.65)	1.15	3,290	2,618.4									
		B					2.0(2.25)	3.1(3.15)	0.90	6,000	6,501.8									
	45	A		22.4		1.8(1.75)	3.1(3.05)	1.30	4,130	3,648.1										
		B				2.5	3.50	±0.2	1.00	8,040	7,698.2									
50	A	25.4	2.0		3.40	±0.15	1.40	5,110	4,765.2											
	B		3.0		4.10	±0.2	1.10	13,400	11,964											

Ⓢ t and H dimensions for SSRBN are shown in (). (Different from JIS) kgf=Nx0.101972 Ⓢ Load is reference value.

■ **Load Characteristics in Combination** (Excerpt from JIS B 2706 (2003))



💡 A guide is necessary to keep the springs aligned.

⚠ Please use the disc springs of same size and load only.



Ordering Example **Part Number** - **Load Type**
SRBN22.5 - **A**