

Short Spring Plungers

Steel / Stainless Steel

Steel

RoHS 10

Load Category	Type	Body		Pin		Spring	Operating Temperature
		Material	Hardness	Material	Hardness		
Steel Tip	Ultra Light Load	SPJS	SPJS-N	SCM435	29~35HRC	S45C	57~63HRC (Carburized)
	Light Load	SPJL	SPJL-N				
	Heavy Load	SPJH	SPJH-N				
Plastic Tip	Ultra Light Load	SPJF	SPJF-N	Equivalent	-	Polyacetal	-
	Light Load	SPRH	-				
	Heavy Load	SPRF	-				

Thread Locking Compound (M5~M16)

Thread-Lock Untreated Type is not available for M3 or M4 (M3 and M4 Standard Type are not thread-locking treated.)
Thread Locking Treatment: Micro-encapsulated anaerobic adhesive used to hold objects in place. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.

Part Number	Type	M (Coarse)	d	S	L	ℓ	B	Load (N)				Unit Price						
								Ultra Light Load		Light Load		Heavy Load		Extra Heavy Load		SPJL	SPJH	SPRH, SPRM, SPRF
								min.	max.	min.	max.	min.	max.	min.	max.			
		3	1.2	1	7	1	1.5	0.11	0.48	0.4	1.5	0.8	2.0	-	-	-	-	-
		4	2.1	1.2	9	1.5	2	0.49	1.55	1.6	5.0	2.0	9.0	4.4	11.9	-	-	-
		5	2.7	1.5	12	2	2.5	0.53	2.53	2.0	7.8	4.9	14.7	4.1	24.9	-	-	-
		6	3.2	1.5	13	2.5	3	0.89	3.11	2.9	9.8	5.9	19.6	7.7	30.6	-	-	-
		8	4	2	15	2.5	4	0.9	3.14	2.9	9.8	5.9	19.6	8.6	43	-	-	-
		10	5	2.5	16	3	5	1.76	4.71	4.9	14.7	9.8	29.4	14.1	53.1	-	-	-
		12	6	3.5	20	3	6	1.96	4.82	4.9	14.7	9.8	29.4	23.1	58.3	-	-	-
		16	8	4.5	22	3	8	3.29	9	9.8	29.4	19.6	58.8	26.6	78.8	-	-	-

No slits for swaging on the tip. Min. is the initial load, and max. is the load when the tip is fully compressed. Extra Heavy Load Type is available from M4 size.

No Thread Locking Compound

Part Number	Type	M (Coarse)	d	S	L	ℓ	B	Load (N)				Unit Price						
								Ultra Light Load		Light Load			Heavy Load		Extra Heavy Load			
								min.	max.	min.	max.		min.	max.	min.	max.		
		5	2.7	1.5	12	2	2.5	0.53	2.53	2	7.8	4.9	14.7	4.1	24.9	-	-	-
		6	3.2	1.5	13	2.5	3	0.89	3.11	2.9	9.8	5.9	19.6	7.7	30.6	-	-	-
		8	4	2	15	2.5	4	0.9	3.14	2.9	9.8	5.9	19.6	8.6	43	-	-	-
		10	5	2.5	16	3	5	1.76	4.71	4.9	14.7	9.8	29.4	14.1	53.1	-	-	-
		12	6	3.5	20	3	6	1.96	4.82	4.9	14.7	9.8	29.4	23.1	58.3	-	-	-
		16	8	4.5	22	3	8	3.29	9	9.8	29.4	19.6	58.8	26.6	78.8	-	-	-

No slits for swaging on the tip. Min. is the initial load, and max. is the load when the tip is fully compressed.

Ordering Example: Part Number SPJL12, SPRH-N5

Stainless Steel

Stainless Steel

RoHS 10

Load Category	Type	Body		Pin		Spring	Operating Temperature
		Material	Hardness	Material	Hardness		
Stainless Steel Tip	Ultra Light Load	SPJY	SPJK	SUS304	SUS440C	55HRC~	-30~260°C
	Light Load	SPJK	SPJZ				
	Heavy Load	SPJZ	SPJX				
Plastic Tip	Ultra Light Load	SPRY	-	Equivalent	-	SUS631J1	-30~80°C
	Light Load	SPRK	-				
	Heavy Load	SPRZ	-				

Part Number	Type	M (Coarse)	d	S	L	ℓ	B	Ultra Light Load (SPJY, SPRY)		Light Load (SPJK, SPRK)		Heavy Load (SPJZ, SPRZ)		Extra Heavy Load (SPJX, SPRX)		Unit Price	
								Load (N)		Load (N)		Load (N)		Load (N)			
								min.	max.	min.	max.	min.	max.	min.	max.		
		3	1.2	1	7	1	1.5	0.11	0.49	0.5	1.51	0.8	2.0	-	-	-	-
		4	2.1	1.2	9	1.5	2	0.51	1.54	1.6	4.8	2.0	9.0	4.0	11.5	-	-
		5	2.7	1.5	12	2	2.5	0.62	2.49	2	7.9	5.1	14.7	6.0	24.2	-	-
		6	3.2	1.5	13	2.5	3	0.97	3.06	2.8	9.9	5.5	19.6	9.4	29.5	-	-
		8	4	2	15	2.5	4	1.16	3.26	3.6	10.9	6.1	19.6	13.5	43.7	-	-
		10	5	2.5	16	3	5	1.54	4.76	4.2	14.6	9.6	29.4	19.1	53.3	-	-
		12	6	3.5	20	3	6	1.81	4.82	4.6	14.8	10.4	29.4	24.5	58.8	-	-
		16	8	4.5	22	3	8	3.1	9.1	9.9	29.3	18.0	58.8	26.6	78.7	-	-

No slits for swaging on the tip. Min. is the initial load, and max. is the load when the tip is fully compressed. Thread locking treatment is not applied.

Ordering Example: Part Number SPJZ10

Micro Spring Plungers

Standard / Short / Set Screw

Standard

Load Category	Type			Body		Pin		Spring	Operating Temperature
	Flat	Spherical	Taper R	Material	Material	Material	Material		
Light Load	MPFL	MPJL	MPTL	SUS303	SUS304	SUS304	-	-30~140°C	
Heavy Load	MPFH	MPJH	-	-	-	-	-	-	

Flat **Spherical** **Taper R**

Tapered R Portion

Part Number	Type	Dh7	S	d	D1	L	C	R	Light Load N		Heavy Load N		Unit Price
									min. Load max.		min. Load max.		
									min.	max.	min.	max.	
		1.5	1.5	0.5	2	13	0.05	0.15	0.49	0.98	0.93	1.86	-
		2	1.5	1	2.5	16	0.1	0.3	0.49	0.98	1.96	3.92	-
		3	3	2	3.5	16	0.15	0.5	0.49	0.98	1.67	3.73	-
		4	3	3	4.5	16	0.2	1	0.49	1.47	2.45	3.92	-
		5	4	4	5.5	16	0.3	1.5	0.49	1.47	2.26	3.73	-
						26			0.59	1.47	3.43	5.3	-
						20			0.49	2.06	2.45	5.3	-
						32			0.69	3.92	2.94	6.47	-
						17			0.64	1.96	3.73	6.96	-
						24			0.78	3.82	3.04	7.06	-
						32			0.83	5.79	2.75	7.06	-

Recommended Diameter of Mounting Hole: Dh7. Use adhesive to prevent loosening.

Ordering Example: Part Number MPJL2, S 1.5

Features: Shorter in dimensions by 30~50% compared to the conventional products. Can be used in the limited space.

Short

Load Category	Type			Body		Pin		Spring	Operating Temperature
	Flat	Spherical	Taper R	Material	Material	Material	Material		
Light Load	MPFS	MPJS	-	SUS303	SUS304	SUS304	-	-30~140°C	

Flat **Spherical**

Part Number	Type	Dh7	S	d	D1	L	C	Light Load (N)		Unit Price	
								min. Load max.			
								min.	max.		
		1.5	1.5	0.5	2	9.5	0.05	0.05	0.49	0.98	-
		2	1.5	1	2.5	8	0.1	0.1	0.49	0.98	-
		3	3	2	3.5	10	0.15	0.15	0.49	1.47	-
		4	3	3	4.5	10	0.2	0.2	0.59	1.47	-
		5	4	4	5.5	11.5	0.3	0.3	0.64	1.96	-

Recommended Diameter of Mounting Hole: Dh7. Use adhesive to prevent loosening.

Ordering Example: Part Number MPFS4, S 3

Features: Slits are applied for side-mounting with a set screw.

Set Screw

Load Category	Type			Body		Pin		Spring	Operating Temperature
	Flat	Spherical	Taper R	Material	Material	Material	Material		
Light Load	MPFLT	MPFHT	-	SUS303	SUS304	SUS304	-	-30~140°C	

Flat

Ordering Example: Part Number MPFLT3, S 6

Part Number	Type	Dh7	S	d	D1	L	ℓ	F	G	C	Light Load		Heavy Load		Unit Price
											min. Load max.		min. Load max.		
											min.	max.	min.	max.	
		1.5	1.5	0.5	2	17.5	2.5	0.5	1	0.05	0.49	0.98	0.93	1.86	-
		2	1.5	1	2.5	20.5	2.5	0.5	1	0.1	0.49	0.98	1.96	3.92	-
		3	3	2	3.5	30.5	2.5	0.5	1	0.15	0.49	0.98	1.67	3.73	-
		4	3	3	4.5	20.5	2.5	0.5	1	0.2	0.49	1.47	2.26	3.73	-
		5	4	4	5.5	25.5	3.5	0.8	1	0.3	0.49	1.47	3.43	5.3	-
						37.5					0.49	2.06	2.45	5.3	-
						22.5					0.69	3.92	2.94	6.47	-
						29.5					0.64	1.96	3.73	6.96	-
						29.5					0.78	3.82	3.04	7.06	-
						37.5					0.83	5.79	2.75	7.06	-

Recommended Diameter of Mounting Hole: Dh7. Use adhesive to prevent loosening.