

Spring Plungers

With Hex Socket Hole / Hex Nose

Spring Plungers

Flat Tip, For Inclined Surface, Flanged

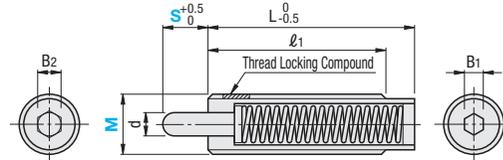
■ **Features:** As it can be fixed with a hex wrench from the top, no dedicated wrench is required.

■ **Body with Hexagon Socket Hole**



RoHS10

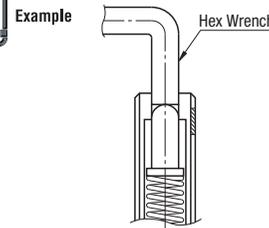
Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJLH (Light Load)	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Trivalent Chromate	JIS-SWP-B	-30~80°C



- ⚠ Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ⚠ The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.
- ⚠ Do not use the rear hex socket at the time of mounting or removal.

Part Number Type	M	S	d	ℓ ₁	L	B ₁	B ₂	For Light Load N (kgf)		Unit Price
								min.	max.	
PJLH	8	3	3	25	25	2.5	3	5.8 {0.6}	9.8 {1.0}	
		5	4	30	34	3	4	5.8 {0.6}	14.7 {1.5}	
	10	5	4	30	38	4	5	2.6 {0.3}	14.7 {1.5}	
		10	5	35	40	4	5	5.6 {0.6}	14.7 {1.5}	
	12	5	5	35	40	4	5	3.0 {0.3}	19.7 {2.0}	
		10	5	35	40	4	5	3.0 {0.3}	19.7 {2.0}	

kgf=Nx0.101972



Ordering Example Part Number - S
PJLH 8 - 3

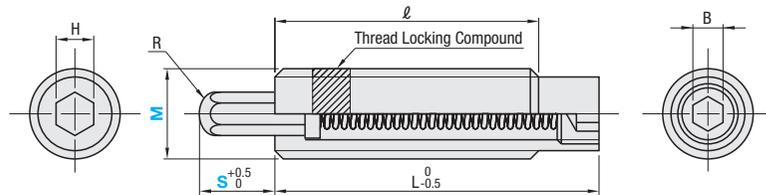
■ **Features:** The hex shape of pin allow this spring plunger to be installed with socket wrenches or spanners, without any dedicated wrenches.

■ **With Hex Nose**



RoHS10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
Light Load PJLR	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Trivalent Chromate	JIS-SWP-B	-30~80°C
Heavy Load PJHR	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Black Oxide	JIS-SWP-B	-30~80°C

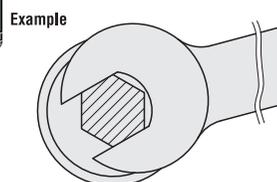


- ⚠ Do not use the rear hex socket at the time of mounting or removal.
- ⚠ Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ⚠ The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.

Part Number Type	M	S	M x Pitch (Coarse)	H	R	ℓ	L	B	Light Load				Heavy Load				Unit Price
									min.		max.		min.		max.		
									min.	max.	min.	max.	min.	max.	min.	max.	
PJLR PJHR	10	5	10x1.5	4	2.2	30	30	3	5.9 {0.6}	14.7 {1.5}	8.8 {0.9}	49.0 {5.0}					
		10					3	2.9 {0.3}	14.7 {1.5}	7.8 {0.8}	49.0 {5.0}						
		5	12x1.75	5	2.9		30	4	5.9 {0.6}	14.7 {1.5}	18.6 {1.9}	49.0 {5.0}					
		10					4	2.9 {0.3}	19.6 {2.0}	7.8 {0.8}	49.0 {5.0}						
		15	16x2.0	7	4.1		51	5	2.9 {0.3}	19.6 {2.0}	4.9 {0.5}	49.0 {5.0}					
		10					60	5	5.9 {0.6}	39.2 {4.0}	12.7 {1.3}	78.5 {8.0}					
	16	15	16x2.0	7	4.1	60	5	3.9 {0.4}	39.2 {4.0}	12.7 {1.3}	78.5 {8.0}						
						20	85	5	4.9 {0.5}	39.2 {4.0}	9.8 {1.0}	78.5 {8.0}					

kgf=Nx0.101972

Ordering Example Part Number - S
PJHR 10 - 10

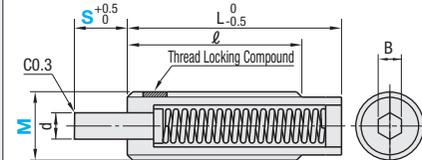


■ **Flat Tip**



RoHS10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJLF (Light Load)	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Trivalent Chromate	JIS-SWP-B	-30~80°C

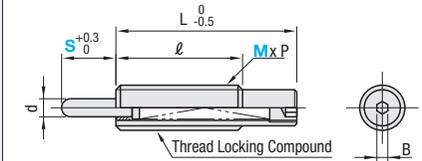


■ **For Inclined Surface**



RoHS10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJHZ	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	50HRC~ (Carburized)	Electroless Nickel Plating	JIS-SWP-B	-30~80°C



■ **Features of PJHZ**

- ① Special structure with high abrasion resistance and seizing resistance enables the use on inclines. (For conventional spring plungers, use 0°, under oil free condition; 5° or less with oil lubrication.)
- ② Oil free use is possible.
- ③ Angle : 0~30°

Part Number Type	M (Coarse)	S	d	ℓ	L	B	Load N		Unit Price
							min.	max.	
PJLF	5	3	2.0	20	20	1.5	2.0	9.8	
		5	2.0	27	27	1.5	2.0	9.8	
	6	3	2.5	25	25	2	5.9	9.8	
		5	2.5	30	30	2	2.0	9.8	
	8	3	3.1	25	25	2.5	5.9	9.8	
		5	3.1	27	27	2.5	2.9	9.8	
	10	5	3.8	30	30	3	5.9	14.7	
		10	3.8	30	43	3	2.9	14.7	
	12	10	5.5	35	43	4	2.9	19.6	

kgf=Nx0.101972

- ⚠ Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ⚠ The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.
- ⚠ Do not use the rear hex socket at the time of mounting or removal.

Part Number Type	M (Coarse)	S	d	S	ℓ	L	B	Load N		Unit Price
								min.	max.	
PJHZ	10	10	4	10	30	43	3	7.8	49.0	
		10	5	15	35	51	4	4.9	49.0	
	12	10	10	35	60	12.7	78.5			
		15	15	35	60	12.7	78.5			
	16	20	20	35	85	9.8	78.5			
		30	30	35	125	6.9	78.5			

kgf=Nx0.101972

Test Conditions

- Press Machine : 20 TON Crank Press
- Cyclic Speed : 130SPM
- Inclination Angle : 30°
- Lubrication : Oil-Free

Type	Operating Life	
	A	B
PJHZ16-30	Over 300 thousand times or more	Over 300 thousand times or more
PJH16-30	Gauging at 17,000 cycles	Gauging at 50,000 cycles

(Note) This test result was obtained in conditions specified above. The service life changes according to the usage condition.

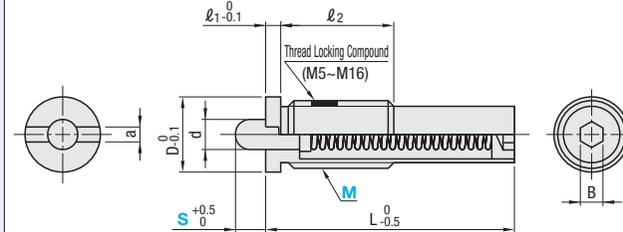
- ⚠ Do not use the rear hex socket at the time of mounting or removal.

■ **Flanged**



RoHS10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
Light Load FPJL	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Trivalent Chromate	JIS-SWP-B	-30~80°C
Heavy Load FPJH	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Black Oxide	JIS-SWP-B	-30~80°C



- ⚠ Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ⚠ The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.

Part Number Type	M (Coarse)	S	d	L	B	D	ℓ ₁	ℓ ₂	a	FPJL Load N (kgf)			FPJH Load N (kgf)			Applicable Wrench	Unit Price
										min.	max.	min.	max.	min.	max.		
										min.	max.	min.	max.	min.	max.		
FPJL FPJH	3	1.5	1.1	10	0.9	5	1.5	0.5	0.5	0.5	1	0.8	2.9				
		3	0.3	1	1.5	0.8	2.9										
	4	2	1.6	15	1.3	6	1.8	6	0.7	1	2	2.9	8.8				
		4	0.6	2	2	8.8											
	5	3	2	20	1.5	7	2	8	1.2	2	9.8	4.9	19.6				
		5	2	27	2	8	8	1.2	2	9.8	2.9	19.6					
	6	3	2.5	25	2	8	9			5.9	9.8	7.8	29.4				
		5	2	30	2	8	9			2	9.8	4.9	29.4				
	8	3	3.1	25	2.5	10	2.5	12	1.5	5.9	9.8	14.7	29.4				
		5	3.1	27	2.5	10	2.5	12	1.5	2.9	9.8	7.8	29.4				
	10	5	3.8	30	3	12	15			5.9	14.7	8.8	49				
		10	4.3	43	3	12	15			2.9	14.7	7.8	49				
12	5	5.5	43	4	14	20			5.9	14.7	18.6	49					
	10	5.5	43	4	14	20			2.9	19.6	7.8	49					
16	15	51	51	5	18	25			2.9	19.6	4.9	49					
	10	60	60	5	18	25			5.9	39.2	12.7	78.5					
15	60	60	60	5	18	25			3.9	39.2	12.7	78.5					
	20	85	85	5	18	25			4.9	39.2	9.8	78.5					
30	125	125	125	5	18	25			2.9	39.2	6.9	78.5					
	40	125	125	5	18	25			4.9	39.2	6.9	78.5					

kgf=Nx0.101972

- ⚠ M3 and M4 can be fixed with a flathead screwdriver.
- ⚠ Do not use the rear hex socket at the time of mounting or removal.

■ **Features:** The flange makes easier height adjustment.

