

SPRING PLUNGERS

—SHORT TYPE / HEX-PIN TYPE / WRENCHES FOR HEX-PINS—

Short type RoHS

Length	Load	Type	Main body			Pin			Spring	Service temperature range
			M	H	S	M	H	S		
Short Extremely short	Light	PJLS PJFW	S45C	29~35HRC	Fe3O4	S45C	57~63HRC Carburizing	Unichrome plating Black oxide	SWP-B	-30°~80°

Loosening prevention treatment

⚠ To fix the position of the ball plunger microencapsulated anaerobic adhesive is applied. Once the parts have been loosened, adhesion is lost, use an anaerobic adhesive when reassembling.
 ⚠ The adhesive is most effective if left on the part for 48 hours and more in 25°C. Note if the parts are left for short period of time and in low temperature, the thread-lock will be less-effective.
 ⚠ In attachment or removal, please use the wrench for spring plungers (PJG) in accordance with an example, and do not use the hind hexagon socket.

■ PJLS·PJFW features Due to the special structure, these plungers have a short full length L.

M×P (Coarse thread)	d	S	L		B	Load				Catalog No.	Base unit price 1~19 pieces
			PJLS	PJFW		PJLS		PJFW			
10×1.5	3.8	5	22	—	3	min. N {kgf} max.	min. N {kgf} max.			PJLS 10-5	
			30	—		7.6 (0.8) 18.1 (1.8) 2.9 (0.3) 16.4 (1.7)	—				
12×1.75	5.5	10	22	19	4	5.6 (0.6) 18.2 (1.9)	5.7 (0.6) 16.2 (1.7)			PJLS 12-5	Quotation
			30	23		4.8 (0.5) 22.4 (2.3)	2.7 (0.3) 15.9 (1.6)				
			39	30		6.1 (0.6) 22.5 (2.3)	2.5 (0.3) 16.7 (1.7)				
16×2.0	8	15	—	24	5	—	3.6 (0.4) 22.6 (2.3)			PJFW 16-10	
			—	33		3.3 (0.3) 21.1 (2.1)					
			—	38		3.0 (0.3) 21.9 (2.2)					

⚠ Load was corrected to the actual measurement from this catalog. There is no change to the product itself.

Hex pin type RoHS

Length	Load	Type	Main body			Pin			Spring	Service temperature range
			M	H	S	M	H	S		
For light load For heavy load	Light Heavy	PJLR PJHR	S45C	29~35HRC	Fe3O4	S45C	57~63HRC Carburizing	Unichrome plating Fe3O4	SWP-B	-30°~80°

Loosening prevention treatment

⚠ To fix the position of the ball plunger microencapsulated anaerobic adhesive is applied. Once the parts have been loosened, adhesion is lost, use an anaerobic adhesive when reassembling.
 ⚠ The adhesive is most effective if left on the part for 72 hours and more in 25°C. Note if the parts are left for short period of time and in low temperature, the thread-lock will be less-effective.
 ⚠ In attachment or removal, please do not use the hind hexagon socket.

■ Features of PJLR and PJHR Because the pin shape is hexagonal, the pins can be installed using a wrench. No special wrench is required.

M×P (Coarse thread)	H	R	S	L	B	Load				Catalog No.	Base unit price 1~19 pieces
						PJLR		PJHR			
10×1.5	4	1.9	5	30	3	min. N {kgf} max.	min. N {kgf} max.			PJLR 10-5	
						2.8(0.3) 14.1(1.4)	11.4(1.2) 51.0(5.2)				
12×1.75	5	2.9	10	43	4	3.5(0.4) 17.1(1.7)	5.6(0.6) 41.0(4.2)			PJLR 12-10	Quotation
						2.5(0.3) 21.1(2.2)	5.2(0.5) 55.9(5.7)				
						2.3(0.2) 19.4(2.0)	5.1(0.5) 53.6(5.5)				
16×2.0	7	4.1	15	60	5	12.1(1.2) 38.0(3.9)	26.5(2.7) 78.0(8.0)			PJHR 16-30	
						9.7(1.0) 39.7(4.1)	14.2(1.5) 79.4(8.1)				
						8.6(0.9) 40.1(4.1)	16.8(1.7) 80.4(8.2)				
						17.0(1.7) 38.0(3.9)	19.8(2.0) 81.2(8.3)				
						4.4(0.5) 48.3(4.9)	7.5(0.8) 78.8(8.0)				
						2.5(0.3) 51.3(5.2)	3.2(0.3) 103.5(10.6)				
24×3.0	10	15.0	7	60	10	27.8(2.8) 65.9(6.7)	40.7(4.2) 127.9(13.0)			PJHR 24-7	
						25.5(2.6) 106.9(10.9)	46.9(4.8) 226.5(23.1)				
30×3.5	13	7.6	20	78	14	55.2(5.6) 156.9(16.0)	72.6(7.4) 356.5(36.4)			PJHR 30-20	

⚠ Load was corrected to the actual measurement from this catalog. There is no change to the product itself.

Wrenches for hex pins RoHS

This product was discontinued in 2017.

Catalog No. : PJRW

Loosening prevention treatment

■ PJLR·PJHR features
 • Because the pin shape is hexagonal, it can be installed using a socket wrench or spanner.

Order RoHS Catalog No. PJLS 12-10 PJHR 10-10 Days to Ship Quotation

Price Quotation

SPRING PLUNGERS WITH FLANGES / BALL PLUNGERS WITH FLANGES / BALL BUTTONS

Spring plungers with flanges RoHS

Length	Load	Type	Main body			Pin			Spring	Service temperature range
			M	H	S	M	H	S		
For light load For heavy load	Light Heavy	FPJL FPJH	S45C	29~35HRC	Black oxide	S45C	57~63HRC Carburizing	Unichrome plating Black oxide	SWP-B	-30°~80°

Loosening prevention treatment (M5~M16)

⚠ Thread-locking adhesive is not applied on M3 and M4.
 ⚠ To fix the position of the ball plunger microencapsulated anaerobic adhesive is applied. Once the parts have been loosened, adhesion is lost, use an anaerobic adhesive when reassembling.
 ⚠ The adhesive is most effective if left on the part for 72 hours and more in 25°C. Note if the parts are left for short period of time and in low temperature, the thread-lock will be less-effective.
 ⚠ In attachment or removal, please use a minus driver or the wrench for spring plungers (PJG) in accordance with an example, and do not use the hind hexagon socket.

Applicable wrench	M×P (Coarse thread)	d	S	D	T	L	B	a	FPJL		FPJH		Catalog No.	Base unit price 1~19 pieces
									Load		Load			
—	3×0.5	1.1	1.5	5	1.5	5	10	0.9	0.5	min. N {kgf} max.	min. N {kgf} max.			FPJL 3-1.5
										0.44(0.05) 1.6(0.2)	0.9(0.1) 4.2(0.4)			
										0.29(0.03) 1.0(0.1)	1.1(0.1) 4.9(0.5)			
										0.9(0.1) 4.1(0.4)	1.9(0.2) 8.7(0.9)			
PJG1	4×0.7	1.6	4	6	1.8	6	24	1.3	0.7	0.7(0.1) 2.2(0.2)	0.29(0.03) 8.3(0.9)			FPJL 4-4
										1.5(0.2) 9.8(1.0)	2.0(0.2) 22.5(2.3)			
										1.6(0.2) 10.4(1.1)	2.5(0.3) 23.4(2.4)			
										3.4(0.4) 10.4(1.1)	12.5(1.3) 33.8(3.5)			
PJG2A	5×0.8	2.0	3	7	2.0	8	20	1.5	1.2	1.9(0.2) 9.7(1.0)	6.2(0.6) 32.6(3.3)			FPJL 5-5
										3.4(0.4) 10.4(1.1)	12.5(1.3) 33.8(3.5)			
										1.9(0.2) 9.7(1.0)	6.2(0.6) 32.6(3.3)			
										3.5(0.4) 9.4(1.0)	11.7(1.2) 31.2(3.2)			
PJG3	12×1.75	5.5	10	14	20	43	4	4	2.0	2.9(0.3) 9.6(1.0)	8.3(0.9) 31.9(3.3)			FPJH 10-10
										2.8(0.3) 14.1(1.4)	11.4(1.2) 51.0(5.2)			
										2.9(0.3) 14.6(1.5)	9.5(1.0) 60.8(6.2)			
										3.5(0.4) 17.1(1.7)	5.6(0.6) 41.0(4.2)			
PJG4	16×2.0	8.0	15	18	3.0	60	5	2.0	2.0	12.1(1.2) 38.0(3.9)	26.5(2.7) 78.0(8.0)			FPJH 16-30
										9.7(1.0) 39.7(4.1)	14.2(1.5) 79.4(8.1)			
										8.6(0.9) 40.1(4.1)	16.8(1.7) 80.4(8.2)			
										17.0(1.7) 38.0(3.9)	19.8(2.0) 81.2(8.3)			
										4.4(0.5) 48.3(4.9)	7.5(0.8) 78.8(8.0)			
										2.5(0.3) 51.3(5.2)	3.2(0.3) 103.5(10.6)			
—	16×2.0	8.0	15	18	3.0	125	5	2.0	2.0	5.5(0.6) 41.2(4.2)	7.6(0.8) 84.3(8.6)			FPJH 16-40
										5.5(0.6) 41.2(4.2)	7.6(0.8) 84.3(8.6)			
										17.0(1.7) 38.0(3.9)	19.8(2.0) 81.2(8.3)			
										17.0(1.7) 38.0(3.9)	19.8(2.0) 81.2(8.3)			

⚠ M3 and M4 are installed using a flat head screwdriver. P.866
 ⚠ Load was corrected to the actual measurement from this catalog. There is no change to the product itself. (kgf)=N×0.101972

Order RoHS Catalog No. FPJL 10-5 Days to Ship Quotation Price Quotation

Ball plungers with flanges RoHS

Length	Load	Type	Main body		Ball		Spring	Service temperature range	
			M	H	M	H			
For light load For heavy load	Light Heavy	FBPJ FBPJ5	S45C	29~35HRC	Black oxide	SUS440C	55HRC~	SUS631J1	-30°~80° -30°~260°

Loosening prevention treatment

Load min. max.

Applicable wrench	d	S	D	L	a	FBPJ Load (N)		FBPJ5 Load (N)		Catalog No.	Base unit price 1~49 pieces
						min.	max.	min.	max.		
BPJG1	3	0.8	7	5	0.8	0.6	5.6	1.3	6.4	FBPJ 5	
BPJG2	4	1.0	8	6	1.0	2.8	6.3	2.7	8.0	FBPJ 6	
BPJG3	5	1.6	10	7		2.9	9.6	1.3	10.2	FBPJ 8	Quotation
BPJG4	6.35	1.9	12	9	1.5	6.4	11.7	6.1	17.2	FBPJ5 10	
BPJG5	7.94	2.4	14	11.5		9.0	15.0	2.1	18.8	FBPJ5 12	
						9.9	21.5	13.0	25.5	FBPJ5 16	

(kgf)=N×0.101972

Order RoHS Catalog No. FBPJ 5 Days to Ship Quotation Price Quotation

Ball buttons RoHS

Length	Load	Type	D _{KS}	L	d	Catalog No.	Base unit price 1~19 pieces	Volume discount unit price 20~49 50~199 200~500	
									Type
BBT	Light	—	6-8	2	2	BBT	6	Quotation	
									8
									10
									12
									16

Loosening prevention treatment

⚠ When using in combination with a ball plunger, use a product with the same No. (M=D). (BBT6 can also be used for M5.)

Order RoHS Catalog No. BBT6 Days to Ship Quotation Price Quotation