

SPRING PLUNGERS / WRENCHES

Spring plungers —Steel type—

Type	Main body			Pin			Spring	Service temp. range
	M	H	S	M	H	S		
Steel nose	S45C	29~35HRC	Black oxide (Fe ₃ O ₄)	S45C	57~63HRC (Carburizing)	Bright chrome plating	SWP-B	-30~80°C
For light load			PJL			Black oxide (Fe ₃ O ₄)		
For heavy load			PJH			Nickel plating		
For extremely heavy load	PJX							
Resin nose	Polycetal	—	Black oxide (Fe ₃ O ₄)	—	—	—	—	—
For light load			NPJL			Nickel plating		
For heavy load			NPJH					
For extremely heavy load	NPJX							

Ⓢ Only M3, M4 become the electroless nickel plating.
Ⓢ 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.

d	ℓ	L		B	For light load (PJL-NPJL)		For heavy load (PJH-NPJH)		For extremely heavy load (PJX-NPJX)		Catalog No.	Base unit price 1~49 pieces
		Light and heavy loads	Extremely heavy loads		min. N (kgf) Load	max. N (kgf) Load	min. N (kgf) Load	max. N (kgf) Load	min. N (kgf) Load	max. N (kgf) Load		
1.1	10 (15)	10	15	0.9	0.44 (0.05)	1.6 (0.2)	0.9 (0.1)	4.2 (0.4)	2.5 (0.3)	5.1 (0.5)	3	1.5
1.1	15 (20)	15	20	0.9	0.29 (0.03)	1.0 (0.1)	1.1 (0.1)	4.9 (0.5)	2.5 (0.3)	6.8 (0.7)		
1.6	15 (24)	15	24	1.3	0.9 (0.1)	4.1 (0.4)	1.9 (0.2)	8.7 (0.9)	6.2 (0.6)	15.3 (1.6)	5	3
1.6	24	24	24	1.3	0.7 (0.1)	2.2 (0.2)	0.29 (0.03)	8.3 (0.9)	4.8 (0.5)	15.0 (1.5)		
2.0	20 (27)	20	27	1.5	1.5 (0.2)	9.8 (1.0)	2.0 (0.2)	22.5 (2.3)	11.0 (1.1)	30.4 (3.1)	7	5
2.0	27 (39)	27	39	1.5	1.6 (0.2)	10.4 (1.1)	2.5 (0.3)	23.4 (2.4)	11.6 (1.2)	31.5 (3.2)		
2.5	25 (30)	25	30	2	3.4 (0.4)	10.4 (1.1)	12.5 (1.3)	33.8 (3.5)	17.2 (1.8)	46.6 (4.8)	9	7
2.5	30 (36)	30	36	2	1.9 (0.2)	9.7 (1.0)	6.2 (0.6)	32.6 (3.3)	16.8 (1.7)	47.4 (4.8)		
2.5	30	39	—	2	1.5 (0.2)	10.9 (1.1)	5.0 (0.5)	32.7 (3.3)	—	—	11	9
3.1	25 (27)	25	27	2.5	3.5 (0.4)	9.4 (1.0)	11.7 (1.2)	31.2 (3.2)	28.1 (2.9)	56.9 (5.8)		
3.1	27 (30)	27	35	2.5	2.9 (0.3)	9.6 (1.0)	8.3 (0.9)	31.9 (3.3)	10.5 (1.1)	39.9 (4.1)	13	11
3.1	30	43	—	2.5	3.1 (0.3)	11.2 (1.1)	8.4 (0.9)	36.4 (3.7)	—	—		
3.8	30	30	35	3	2.8 (0.3)	14.1 (1.4)	11.4 (1.2)	51.0 (5.2)	17.0 (1.7)	73.7 (7.5)	15	13
3.8	30	43	53	3	2.9 (0.3)	14.6 (1.5)	9.5 (1.0)	60.8 (6.2)	13.7 (1.4)	75.5 (7.7)		
3.8	30	58	—	3	3.4 (0.4)	17.0 (1.7)	7.2 (0.7)	57.3 (5.8)	—	—	17	15
5.5	30 (35)	30	43	4	3.5 (0.4)	17.1 (1.7)	5.6 (0.6)	41.0 (4.2)	35.3 (3.6)	107.9 (11.0)		
5.5	35	43	58	4	2.5 (0.3)	21.1 (2.2)	5.2 (0.5)	55.9 (5.7)	12.7 (1.3)	107.9 (11.0)	19	17
5.5	35	51	78	4	2.3 (0.2)	19.4 (2.0)	5.1 (0.5)	53.6 (5.5)	16.7 (1.7)	140.2 (14.3)		
5.5	35	78	—	4	4.1 (0.4)	22.5 (2.3)	8.7 (0.9)	56.1 (5.7)	—	—	21	19
8	35	60	60	5	12.1 (1.2)	38.0 (3.9)	26.5 (2.7)	78.0 (8.0)	29.6 (3.0)	157.9 (16.1)		
8	35	60	70	5	9.7 (1.0)	39.7 (4.1)	14.2 (1.5)	79.4 (8.1)	10.0 (1.0)	142.2 (14.5)	23	21
8	35	85	90	5	8.6 (0.9)	40.1 (4.1)	16.8 (1.7)	80.4 (8.2)	4.3 (0.4)	146.1 (14.9)		
8	35	125	125	5	17.0 (1.7)	38.0 (3.9)	19.8 (2.0)	81.2 (8.3)	5.2 (0.5)	140.7 (14.4)	25	23
8	35	125	—	5	5.5 (0.6)	41.2 (4.2)	7.6 (0.8)	84.3 (8.6)	—	—		
8	35	155	—	5	4.4 (0.5)	48.3 (4.9)	7.5 (0.8)	78.8 (8.0)	—	—	27	25
8	35	159	—	5	4.1 (0.4)	49.6 (5.1)	6.4 (0.7)	78.1 (8.0)	—	—		
8	35	185	—	5	3.1 (0.3)	55.7 (5.7)	4.3 (0.4)	95.0 (9.7)	—	—	29	27
8	35	185	—	5	2.5 (0.3)	51.3 (5.2)	3.2 (0.3)	103.5 (10.6)	—	—		
10	45	60	80	6	14.4 (1.5)	79.4 (8.1)	22.5 (2.3)	147.1 (15.0)	14.5 (1.5)	274.6 (28.0)	31	29
10	45	72	—	6	13.9 (1.4)	83.4 (8.5)	23.0 (2.4)	157.9 (16.1)	—	—		
10	45	96	—	6	13.6 (1.4)	88.3 (9.0)	18.6 (1.9)	154.0 (15.7)	—	—	33	31
10	45	120	—	6	13.4 (1.4)	109.8 (11.2)	26.8 (2.7)	195.1 (19.9)	—	—		
10	45	60	—	10	27.8 (2.8)	65.9 (6.7)	40.7 (4.2)	127.9 (13.0)	—	—	35	33
10	45	60	84	10	25.5 (2.6)	106.9 (10.9)	46.9 (4.8)	226.5 (23.1)	55.1 (5.6)	375.2 (38.3)		
10	45	75	—	10	15.3 (1.6)	101.0 (10.3)	43.1 (4.4)	224.6 (22.9)	—	—	37	35
10	45	100	—	10	19.1 (2.0)	100.0 (10.2)	47.8 (4.9)	231.4 (23.6)	—	—		
10	45	124	—	10	17.1 (1.7)	98.1 (10.0)	44.1 (4.5)	225.5 (23.0)	—	—	39	37
14	45	66	—	14	9.3 (1.0)	104.4 (10.7)	32.4 (3.3)	259.9 (26.5)	—	—		
14	45	78	—	14	55.2 (5.6)	156.9 (16.0)	72.6 (7.4)	356.5 (36.4)	—	—	41	39
14	45	100	—	14	28.4 (2.9)	128.3 (13.1)	41.6 (4.2)	290.3 (29.6)	—	—		
14	45	123	—	14	14.7 (1.5)	109.2 (11.1)	44.4 (4.5)	303.0 (30.9)	—	—	43	41

Ⓢ Values in parentheses for ℓ dimension are for extremely heavy load. Ⓢ Load was corrected to the actual measurement from this catalog. There is no change to the product itself. Ⓢ (kgf) = N × 0.101972

Order **Catalog No.**
PJL12-5
NPJH3-1.5

Days to Ship **Quotation**

Price **Quotation**

Order **Catalog No.**
PJG1

Days to Ship **Quotation**

Wrenches for spring plungers

PJG

Ⓢ S45C
Ⓢ 35~43HRC
Ⓢ Black oxide (Fe₃O₄)

M	Catalog No.	Base unit price	Volume discount unit price
5-6	PJG1	1~9 pieces	10~19 pieces
8-10	PJG2	1~9 pieces	10~19 pieces
	PJG2A		
12	PJG3	Quotation	
16	PJG4	Quotation	
20-24	PJG5		
30	PJG6		

Order **Catalog No.**
PJG1

Days to Ship **Quotation**

EX Example

Spring plunger M3-M4
(Flat head screwdriver)

Spring plunger M5-M30
(Special wrench PJG)

Spring plungers —Stainless steel type—

Type	Main body			Nose		Spring	Service temp. range	
	M	H	S	M	H			
Stainless steel nose	Equivalent to SUS304	SUS440C	55HRC~	—	—	SUS631	-30~260°C	
For light load								PJLW
For heavy load								PJHW
For extremely heavy load	PJXW							
Resin nose	Polyacetal	—	—	—	—	—	-30~80°C	
For light load								PJLK
For heavy load								PJHK
For extremely heavy load	PJXK							

Ⓢ 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.

d	ℓ	L	B	For light load (PJLW-PJLK)		For heavy load (PJHW-PJHK)		For extremely heavy load (PJXW-PJXK)		Catalog No.		Base unit price 1~49 pieces
				min. N Load	max. N Load	min. N Load	max. N Load	min. N Load	max. N Load	Type	M (Coarse thread)	
1.0	15	15	0.9	0.4	1.3	0.8	2.94	1.1	3.42	PJLW	3	1.5
1.0	15	15	0.9	0.2	1.3	0.6	2.93	0.8	3.41			
1.6	15	15	1.3	0.9	2.0	2.0	8.8	6.1	13.8	PJXW	5	3
1.6	24	24	1.3	0.6	2.1	1.9	8.75	5.8	13.6			
2.0	20	20	1.5	1.4	9.7	2.7	16.3	6.8	22.0	PJHW	7	5
2.0	27	27	1.5	1.1	10.3	1.0	17.1	5.7	21.5			
2.5	25	25	2	6.0	9.8	8.0	26.4	15.8	35.6	PJLW	9	7
2.5	30	30	2	3.4	9.86	4.4	26.6	12.9	34.4			
3.1	25	25	2.5	6.0	9.9	14.7	27.0	21.9	36.3	PJXW	11	9
3.1	27	27	2.5	4.0	9.83	6.7	26.6	14.7	34.5			
3.8	30	30	3	5.7	14.7	8.2	45.7	24.5	58.6	PJHW	13	11
3.8	30	43	3	4.4	14.7	6.2	45.1	19.8	58.7			
5.5	30	30	4	5.8	14.7	18.2	49.0	34.9	63.6	PJLW	15	13
5.5	35	43	4	5.0	14.7	8.2	49.1	25.5	63.6			
5.5	35	51	4	6.9	14.7	7.5	48.9	20.1	63.7	PJXW	17	15
8.0	35	57	5	9.2	34.2	18.9	68.5	38.7	88.4			
8.0	35	57	5	8.6	34.4	14.4	68.6	33.9	88.1	PJHW	19	17
8.0	35	65	5	7.1	34.4	4.2	68.6	25.4	88.1			

Ⓢ Loosening prevention treatment is not used. Ⓢ Load min. is the initial load and max. is the load at the time when the pin is sunk furthest. Ⓢ (kgf) = N × 0.101972

Order **Catalog No.**
PJLW 12-5
PJHW 5-3

Days to Ship **Quotation**

Price **Quotation**

Spring plungers for slanted surfaces

PJHZ (For slanted surfaces) **RoHS**

M×P (Coarse thread)	d	S	ℓ	L	B	Load W N (kgf)		Catalog No.		Base unit price 1~19 pieces
						min.	max.	Type	M-S	
10×1.5	4	10	30	43	3	9.5(1.0)	60.8(6.2)	PJHZ	10-10	Quotation
12×1.75	5	10	35	43	4	5.2(0.5)	55.9(5.7)			
12×1.75	5	15	35	51	4	5.1(0.5)	53.6(5.5)	PJHZ	12-15	Quotation
16×2.0	8	10	35	60	5	26.5(2.7)	78.0(8.0)			
16×2.0	8	15	35	60	5	14.2(1.5)	79.4(8.1)	PJHZ	16-15	Quotation
16×2.0	8	20	35	85	5	16.8(1.7)	80.4(8.2)			
16×2.0	8	30	35	125	5	19.8(2.0)	81.2(8.3)	PJHZ	16-30	Quotation

Ⓢ 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. Ⓢ (kgf) = N × 0.101972
Ⓢ Load was corrected to the actual measurement from this catalog. There is no change to the product itself.

Order **Catalog No.**
PJHZ 12-15

Days to Ship **Quotation**

Price **Quotation</**