

# Spring Plungers

## Steel

For details of spring plungers with a switch, see P.2107.



Load Category	Type		Body			Pin			Spring	Operating Temperature
	Standard	No. Thread Locking Compound	M Material	H Hardness	S Surface Treatment	M Material	H Hardness	S Surface Treatment		
Steel Nose	Ultra Light Load	PJS	EN 1.1191 Equiv.	29~35HRC	Black Oxide	EN 1.1191 Equiv.	57~63HRC (Carburized)	Trivalent Chromate	JIS-SWP-B	-30~80°C
	Light Load	PJL								
	Heavy Load	PJH								
Plastic Tip	Ultra Light Load	NPJS	EN 1.1191 Equiv.	29~35HRC	Black Oxide	Polyacetal	-	-	JIS-SWP-B	-30~80°C
	Light Load	NPJL								
	Heavy Load	NPJH								
		Extra Heavy Load			Nickel Plating					

Electroless Nickel Plating for only M3 and M4.

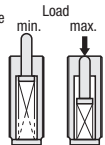
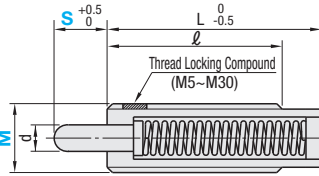
Thread Locking Treatment is not provided on M3 and M4.

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.

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.



## Standard

Part Number			d	ℓ	L		B	Ultra Light Load		Light Load		Heavy Load		Extra Heavy Load		Unit Price	
Type	M (Coarse)	S			Ultra Light / Light / Heavy Load	Extra Heavy Load		min.	N Load max.	min.	N Load max.	min.	N Load max.	min.	N Load max.	Ultra Light / Light / Heavy Load	Extra Heavy Load
(Steel Tip)	3	**1.5	1.1	10(15)	10	15	0.9	0.05	0.32	0.49	1.0	0.78	2.9	2.2	4.5		
			1.1	15(20)	15	20	0.9	0.09	0.32	0.29	1.0	0.78	2.9	1.8	4.5		
			1.6	15(24)	15	24	1.3	0.23	0.65	1.0	2.0	2.9	8.8	5.2	13		
	4	**4	1.6	24	24	24	1.3	0.24	0.65	0.59	2.0	2.0	8.8	5.2	13		
			2.0	20(27)	20	27	1.5	0.74	2.95	2.0	9.8	4.9	19.6	9.1	24.5		
			2.5	27(39)	27	39	1.5	0.72	2.95	2.0	9.8	2.9	19.6	8.8	24.8		
	5	**3	2.5	25(30)	25	30	2	0.85	3.2	5.9	9.8	7.8	29.4	14.2	39.5		
			2.5	30(36)	30	36	2	0.85	3.2	2.0	9.8	4.9	29.4	14.1	39.4		
			10	2.5	30	39	-	2	-	-	1.4	9.8	5.0	28.0	-	-	
	8	**3	3.1	25(27)	25	27	2.5	0.9	3.3	5.9	9.8	14.7	29.4	35.3	41.2		
			3.1	27(30)	27	35	2.5	0.9	3.3	2.9	9.8	7.8	29.4	14.7	41.2		
			10	3.1	30	43	-	2.5	-	-	3.0	9.8	7.0	28.8	-	-	
10	**5	3.8	30	30	35	3	1.9	4.7	5.9	14.7	8.8	49.0	15.7	62.8			
		3.8	30	43	53	3	1.7	4.7	2.9	14.7	7.8	49.0	12.7	62.8			
		15	3.8	30	58	-	3	-	-	2.9	14.7	6.2	48.7	-	-		
12	**5	5.5	30(35)	30	43	4	1.5	4.7	5.9	14.7	18.6	49.0	37.2	98.1			
		5.5	35	43	58	4	1.3	5.9	2.9	19.6	7.8	49.0	14.7	98.1			
		15	5.5	35	51	78	4	1.6	5.9	2.9	19.6	4.9	49.0	14.9	98.1		
16	**10	8	35	60	60	5	1.7	12.8	5.9	39.2	12.7	78.5	23.5	147.2			
		15	8	35	60	70	5	1.7	12.8	3.9	39.2	12.7	78.5	21.6	147.2		
		20	8	35	85	90	5	1.7	12.8	4.9	39.2	9.8	78.5	12.7	147.2		
16	*30	8	35	125	125	5	-	-	2.9	39.2	6.9	78.5	19.6	147.2			
		40	8	35	125	-	5	-	-	4.9	39.2	6.9	78.5	-	-		
		50	8	35	155	-	5	-	-	19.6	49.0	29.4	78.5	-	-		
20	*15	10	45	60	80	6	-	-	2.9	49.0	3.9	78.5	-	-			
		20	10	45	72	-	6	-	-	4.9	49.0	3.9	78.5	-	-		
		30	10	45	96	-	6	-	-	19.6	49.0	29.4	93.2	-	-		
24	*15	10	45	60	84	10	-	-	12.7	78.5	24.5	147.1	12.7	245.3			
		20	10	45	75	-	10	-	-	11.7	78.5	22.6	147.1	-	-		
		30	10	45	100	-	10	-	-	11.7	78.5	22.6	147.1	-	-		
30	*15	14	45	66	-	14	-	-	17.7	98.1	44.1	215.7	-	-			
		20	14	45	78	-	14	-	-	17.7	98.1	44.1	215.7	-	-		
		30	14	45	100	-	14	-	-	27.5	117.7	53.0	274.6	-	-		
30	*40	14	45	100	-	14	-	-	27.5	117.7	45.1	274.6	-	-			
		20	14	45	123	-	14	-	-	27.5	117.7	47.1	274.6	-	-		

kgf=Nx0.101972

## No Thread Locking Compound

Part Number			d	ℓ	L		B	Ultra Light Load		Light Load		Heavy Load		Extra Heavy Load		Unit Price		
Type	M (Coarse)	S			Ultra Light / Light / Heavy Load	Extra Heavy Load		min.	N Load max.	min.	N Load max.	min.	N Load max.	min.	N Load max.	Ultra Light / Light / Heavy Load	Extra Heavy Load	
(Steel Tip)	5	5	2.0	20(27)	20	27	1.5	0.74	2.95	2.0	9.8	4.9	19.6	9.1	24.5			
			2.0	27(39)	27	39	1.5	0.72	2.95	2.0	9.8	2.9	19.6	8.8	24.8			
			3	2.5	25(30)	25	30	2	0.85	3.2	5.9	9.8	7.8	29.4	14.2	39.5		
6	5	5	2.5	30(36)	30	36	2	0.85	3.2	2.0	9.8	4.9	29.4	14.1	39.4			
			3	3.1	25(27)	25	27	2.5	0.9	3.3	5.9	9.8	14.7	29.4	35.3	41.2		
			5	3.1	27(30)	27	35	2.5	0.9	3.3	2.9	9.8	7.8	29.4	14.7	41.2		
10	5	5	3.8	30	30	35	3	1.9	4.7	5.9	14.7	8.8	49.0	15.7	62.8			
			10	3.8	30	43	53	3	1.7	4.7	2.9	14.7	7.8	49.0	12.7	62.8		
			16	5.5	30(35)	30	43	4	1.5	4.7	5.9	14.7	18.6	49.0	37.2	98.1		
12	10	10	5.5	35	43	58	4	1.3	5.9	2.9	19.6	7.8	49.0	14.7	98.1			
			15	5.5	35	51	78	4	1.6	5.9	2.9	19.6	4.9	49.0	14.9	98.1		
			20	8	35	60	60	5	1.7	12.8	5.9	39.2	12.7	78.5	23.5	147.2		
16	15	15	8	35	60	70	5	1.7	12.8	3.9	39.2	12.7	78.5	21.6	147.2			
			15	8	35	60	70	5	1.7	12.8	4.9	39.2	9.8	78.5	12.7	147.2		
			20	8	35	85	90	5	1.7	12.8	4.9	39.2	9.8	78.5	12.7	147.2		

kgf=Nx0.101972



Part Number  
NPJH3-1.5  
PJS-N10-5