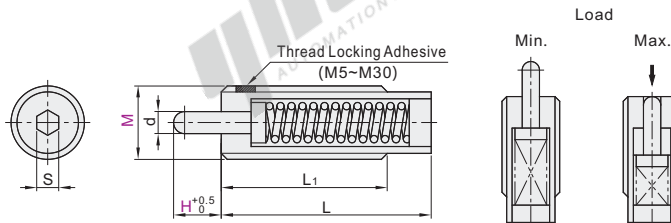


Long Stroke Carbon Steel Type ▶

Thread Locking Adhesive

Spring Plungers

Code	Type		Load	Body			Pin			Spring	Operating Temperature	
				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment			
ZAP10	Long Stroke Carbon Steel Type	Steel Nose	Ultra Light Load	S45C	29~35 HRC	Black Oxide	S45C	57~63 HRC	Zinc-plated	SWP-B	-30~80℃	
ZAP11			Light Load									Black Oxide
ZAP12			Heavy Load									
ZAP13		Extra Heavy Load	Nickel Plating									
ZAP15		Ultra Light Load				Black Oxide						
ZAP16		Light Load										
ZAP17		Heavy Load										
ZAP18		Extra Heavy Load	Nickel Plating									



① Thread Locking Treatment is not provided on M3 and M4.

② The adhesive is most effective if left on the part 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-lock will be less-effective.



Part Number		H	d	L		L ₁	S	Load(N)								
Code	M			Ultra Light Load Light Load Heavy Load	Extra Heavy Load			Ultra Light Load		Light Load		Heavy Load		Extra Heavy Load		
								min.	max.	min.	max.	min.	max.	min.	max.	
Steel Nose ZAP10 ZAP11 ZAP12 ZAP13	3	(1.5)*	1.1	10	15	10(15)	0.9	0.04	0.33	0.49	1	0.9	4.2	2.2	4.5	
		(3)*		15	20	15(20)		0.08	0.66	0.29	1	1.1	4.9	1.8	4.5	
	4	(2)*	1.6	15	24	15(24)	1.3	0.22	0.66	1	2	2.9	8.8	5.2	13	
		(4)*		24	24	0.23		0.59	2	2	2	8.8	5.2	13		
	5	(3)*	2	20	27	20(27)	1.5	0.73	2.96	2	9.8	4.9	19.6	9.1	24.5	
		(5)*		27	39	27(39)		0.71	2	2.9	19.6	8.8	24.8			
	6	(3)*	2.5	25	30	25(30)	2	0.84	3.21	5.9	7.8	29.4	14.2	39.5		
		(5)*		30	36	30(36)		2	9.8	4.9	29.4	14.1	39.4			
	8	(10)*	3.1	39	—	30	2.5	—	—	1.4	5	28	—	—		
		(3)*		25	27	25(27)		0.89	3.31	5.9	14.7	29.4	35.3	41.2		
	10	(5)*	3.8	27	35	27(30)	3	—	—	2.9	9.8	7.8	14.7	14.7	—	
		(10)*		43	—	30		—	3	7	28.8	—	—			
	12	(5)*	5.5	30	35	30(35)	4	1.89	4.71	5.9	14.7	8.8	49	15.7	62.8	
		(10)*		43	53	30		1.69	—	2.9	14.7	7.8	12.7	12.7	—	
	Plastic Nose ZAP15 ZAP16 ZAP17 ZAP18	15	(15)*	8	58	—	—	5	—	—	2.9	14.7	6.2	48.7	—	—
			(5)*		30	43	30(35)		1.49	4.71	5.9	14.7	18.6	—	37.2	—
		20	(10)*	10	43	58	43	6	1.29	5.91	2.9	19.6	7.8	49	14.7	98.1
			(15)*		51	78	35		1.59	—	2.9	19.6	4.9	—	14.9	—
		24	(20)*	14	78	—	—	10	—	—	3.5	—	6.9	—	—	
			(30)*		60	70	—		1.69	12.81	3.9	—	12.7	—	23.5	—
		30	(30)	10	85	90	—	14	—	—	4.9	39.2	9.8	—	12.7	147.2
			(40)		125	125	—		2.9	—	6.9	78.5	19.6	—		
		40	(40)	10	155	—	35	5	—	—	4.9	—	6.9	78.5	—	—
			(50)		159	—	—		—	—	19.6	29.4	—	—	—	
50		(60)	14	185	—	—	10	—	—	2.9	49	3.9	—	—	—	
		(70)		—	—	—		3.4	5.5	—	—	—				
60		(80)	10	—	80	—	6	—	—	19.6	—	29.4	93.2	—	—	
		(15)		60	72	45		—	12.7	24.5	12.7	245.3				
70		(20)	10	96	—	—	10	—	—	11.7	78.5	22.6	147.1	—	—	
		(30)		120	—	—		—	—	—	—	—				
80		(40)	14	—	84	—	10	—	—	19.6	—	44.1	196.1	—	—	
		(15)		60	75	45		—	17.7	44.1	215.7	—	—			
90		(20)	10	100	—	—	10	—	—	—	98.1	—	—	—	—	
		(30)		124	—	—		—	—	—	—	—				
100		(40)	14	66	—	—	14	—	—	—	—	44.1	—	—	—	
		(15)		78	—	—		—	—	53	274.6	—	—			
110		(20)	10	100	—	45	14	—	—	27.5	117.1	45.1	—	—	—	
		(30)		123	—	—		—	—	47.1	—	—	—			

① H value with () only for ZAP13/16/17.

② H value with * only for ZAP10/15/18.

③ L1: dimensions with () are applicable to the Extra Heavy Load Type.

kgf=N×0.101922



Part Number	M	H
ZAP12	3	1.5
ZAP11—M3—H1.5	3	1.5



Discount price
Per 1~29 30~
Price 100% Additional quotation



Delivery
12