

Spring Plungers • with ball and slot

EH 22050.



Product Description

Spring plungers can be used for locating or for applying pressure, as a detent or for ejection.

Material

Body

- Free cutting steel, blackened
- Stainless steel 1.4305

Ball

- Ball-bearing steel, hardened
- Stainless steel, hardened

Spring

- Stainless steel

Characteristic

Standard spring load: no marking
Heavy spring load: two longitudinal markings
The marking of the spring load is deleted for all production batches starting from Q2/2025.



Standard spring load



Heavy spring load

More information

Notes

Customized design on request.
Spring plungers are specially tested for spring range and spring load.
The marking of the spring load is deleted for all production batches starting from Q2/2025.

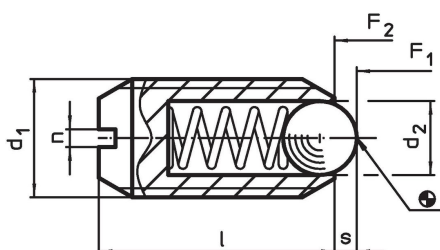
References

Thread lock on request, please refer to appendix - Technical Data -
Calculation of indexing resistance, please refer to appendix - Technical Data -

Further products

- Locators, with bore hole, for spring plungers
- Locators, smooth, for spring plungers
- Holders, for spring plungers
- Spring Plungers, with ball and slot - INCH

Drawing



Order information

Dimensions				Stroke s	Spring load ¹⁾		 max.		Art. No.
d ₁	d ₂	l	n		F ₁ ~	F ₂ ~	°C	[g]	
[mm]				[mm]	[N]				
free cutting steel, standard spring load									
M 2	1.0	4	0.25	0.3	0.8	1.5	250	0.1	22050.0002
M 3	1.5	7	0.40	0.4	3.0	4.5	250	0.2	22050.0003
M 4	2.5	9	0.60	0.8	8.5	14.0	250	0.4	22050.0004
M 5	3.0	12	0.80	0.9	8.0	14.0	250	1.0	22050.0005
M 6	3.5	14	1.00	1.0	11.0	18.0	250	1.7	22050.0006
M 8	4.5	16	1.20	1.5	18.0	31.0	250	3.5	22050.0008
M10	6.0	19	1.50	2.0	24.0	45.0	250	6.5	22050.0010

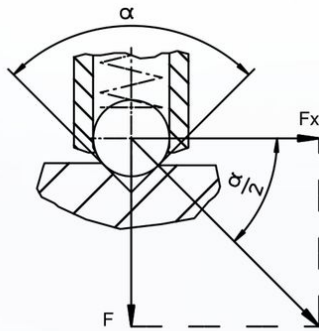
¹⁾ statistical average value

d ₁	Dimensions			Stroke s	Spring load ¹⁾		max. 		Art. No.
	d ₂	l	n		F ₁ ~	F ₂ ~			
	[mm]			[mm]	[N]		[°C]	[g]	
M12	8.0	22	2.00	2.5	26.0	49.0	250	11.0	22050.0012
M16	10.0	24	2.00	3.5	41.0	86.0	250	22.0	22050.0016
M20	12.0	30	2.50	4.5	56.0	111.0	250	45.0	22050.0020
M24	15.0	34	3.00	5.5	81.0	151.0	250	72.0	22050.0024
free cutting steel, heavy spring load									
M 2	1.0	4	0.25	0.3	1.6	2.0	250	0.1	22050.0202
M 3	1.5	7	0.40	0.4	6.4	9.5	250	0.3	22050.0203
M 4	2.5	9	0.60	0.8	12.0	18.0	250	0.4	22050.0204
M 5	3.0	12	0.80	0.9	15.0	22.0	250	1.0	22050.0205
M 6	3.5	14	1.00	1.0	19.0	28.0	250	1.7	22050.0206
M 8	4.5	16	1.20	1.5	36.0	62.0	250	3.6	22050.0208
M10	6.0	19	1.50	2.0	57.0	104.0	250	6.7	22050.0210
M12	8.0	22	2.00	2.5	61.0	110.0	250	11.0	22050.0212
M16	10.0	24	2.00	3.5	68.0	142.0	250	23.0	22050.0216
M20	12.0	30	2.50	4.5	84.0	166.0	250	45.0	22050.0220
M24	15.0	34	3.00	5.5	127.0	237.0	250	72.0	22050.0224
stainless steel, standard spring load									
M 2	1.0	4	0.25	0.3	0.8	1.5	250	0.1	22050.0402
M 3	1.5	7	0.40	0.4	3.0	4.5	250	0.2	22050.0403
M 4	2.5	9	0.60	0.8	8.5	14.0	250	0.5	22050.0404
M 5	3.0	12	0.80	0.9	8.0	14.0	250	1.0	22050.0405
M 6	3.5	14	1.00	1.0	11.0	18.0	250	1.7	22050.0406
M 8	4.5	16	1.20	1.5	18.0	31.0	250	3.6	22050.0408
M10	6.0	19	1.50	2.0	24.0	45.0	250	6.6	22050.0410
M12	8.0	22	2.00	2.5	26.0	49.0	250	11.0	22050.0412
M16	10.0	24	2.00	3.5	41.0	86.0	250	22.0	22050.0416
M20	12.0	30	2.50	4.5	56.0	111.0	250	45.0	22050.0420
M24	15.0	34	3.00	5.5	81.0	151.0	250	73.0	22050.0424
stainless steel, heavy spring load									
M 2	1.0	4	0.25	0.3	1.6	2.0	250	0.1	22050.0602
M 3	1.5	7	0.40	0.4	6.4	9.5	250	0.3	22050.0603
M 4	2.5	9	0.60	0.8	12.0	18.0	250	0.5	22050.0604
M 5	3.0	12	0.80	0.9	15.0	22.0	250	1.0	22050.0605
M 6	3.5	14	1.00	1.0	19.0	28.0	250	1.7	22050.0606
M 8	4.5	16	1.20	1.5	36.0	62.0	250	3.7	22050.0608
M10	6.0	19	1.50	2.0	57.0	104.0	250	6.8	22050.0610
M12	8.0	22	2.00	2.5	61.0	110.0	250	11.0	22050.0612
M16	10.0	24	2.00	3.5	68.0	142.0	250	23.0	22050.0616
M20	12.0	30	2.50	4.5	84.0	166.0	250	45.0	22050.0620
M24	15.0	34	3.00	5.5	127.0	237.0	250	73.0	22050.0624

¹⁾ statistical average value

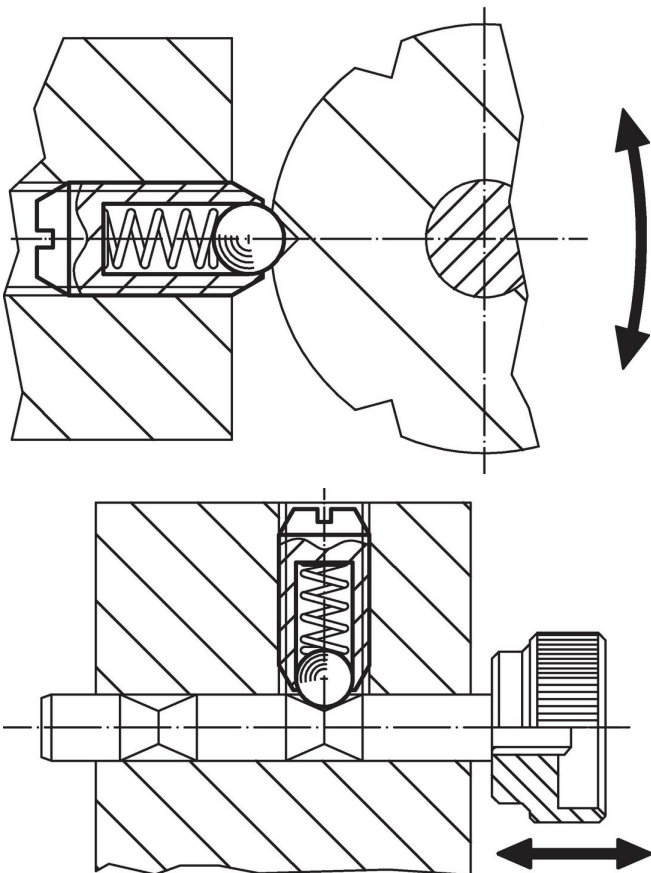
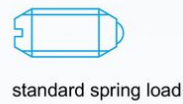
Application example

CALCULATION OF THE INDEXING RESISTANCE



$$F_x = \frac{F}{\tan \frac{\alpha}{2}}$$

Sample calculation for:
 $\alpha = 60^\circ$, $F_x = 1,732 \times F$
 $\alpha = 90^\circ$, $F_x = F$
 $\alpha = 120^\circ$, $F_x = 0,577 \times F$



Compliance

For detailed compliance information please select the desired article number.