chanhvinh.com

Spring Plungers • smooth, with collar and pin, flattened
EH 22080.



Product Description

Smooth spring plungers with a collar and flat-faced pin are used for pressing, cushioning, positioning and ejecting components.
They are particularly suitable for applications that require contact over a larger surface area in addition to a defined spring force.
The flat-faced pin offers improved, gentle force transmission to flat locating surfaces by distributing the load over a larger area, rather than the point loading associated with ball versions.
Typical applications include repetitive positioning, push-on and push-off functions in mechanical assemblies and technical components.
The spring plunger consists of a smooth body with a collar and an integrated, spring-loaded flat-faced pin.
The preloaded compression spring generates a defined axial spring force, which is transmitted to the counterpart via the pin. When the pin is depressed, the spring is compressed and stores mechanical energy.
Once the load is removed, the spring automatically returns the pin to its original position with a high degree of repeatability. The captive pin is retained within the body by design.
These spring plungers offer the following features:

- Suitable for applications requiring flush installation
- Body with collar for a defined installation depth
- Smooth body for quick and easy assembly
- Tested, defined spring force for repeatable precise positioning and push-on/push-off functions
- Captive pin retained by design
- Flat-faced pin for surface contact and defined force transmission

Material

Pin
- Stainless steel 1.4305
- Thermoplastic POM

Body
- Stainless steel 1.4303

Spring
- Stainless steel

Assembly

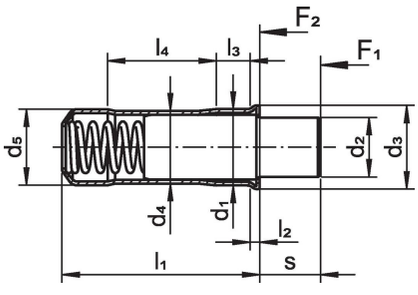
A tolerance of H7 is recommended for the locating hole of d_1.

More information

Notes

Customized design on request.
Spring plungers are specially tested for spring range and spring load.

Drawing



Order information

Dimensions									Stroke	Spring load[1]					Art. No.
d_1 +0.1 +0.04	d_2	d_3	d_4	d_5 ±0.04	l_1	l_2 ~	l_3 ~	l_4 ~	s	F_1 ~	F_2 ~	min.	max.		
[mm]									[mm]	[N]		[°C]		[g]	
body and pin from stainless steel															
4	2.8	4.6	3.85	4	10.7	0.9	1.8	5.6	2.7	3.0	8.2	–	250	0.7	22080.0134
5	3.8	5.6	4.85	5	12.0	0.9	2.1	6.0	4.0	3.3	9.0	–	250	1.2	22080.0135
6	4.8	6.5	5.85	6	15.0	1.0	2.3	8.2	5.5	6.1	12.0	–	250	2.1	22080.0136
8	6.2	8.5	7.55	8	18.0	1.1	2.9	9.5	6.5	9.0	20.1	–	250	4.3	22080.0138
10	7.8	11.0	9.55	10	26.0	1.5	4.2	14.3	8.0	16.2	29.0	–	250	9.4	22080.0140

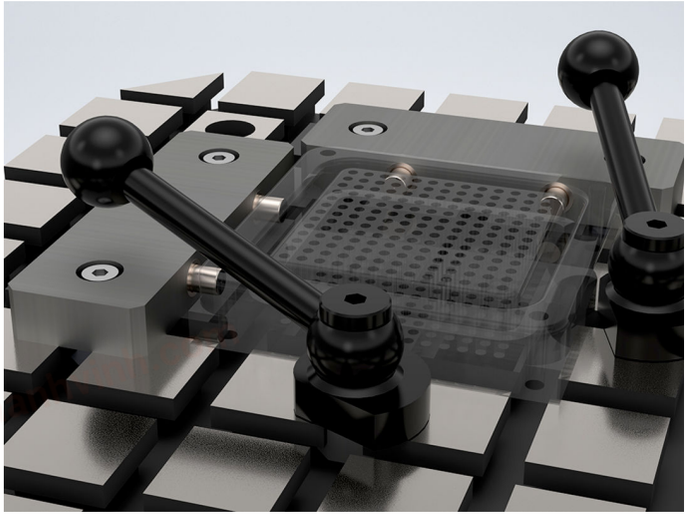
[1] statistical average value

chanhvinh.com

Dimensions									Stroke	Spring load[1]					Art. No.
d_1 +0.1 +0.04	d_2	d_3	d_4	d_5 ±0.04	l_1	l_2 ~	l_3 ~	l_4 ~	s	F_1 ~	F_2 ~	min.	max.		
[mm]									[mm]	[N]		[°C]		[g]	
stainless steel body, thermoplastic pin															
4	2.8	4.6	3.85	4	10.7	0.9	1.8	5.6	2.7	3.0	8.2	-30	50	0.5	22080.0144
5	3.8	5.6	4.85	5	12.0	0.9	2.1	6.0	4.0	3.3	9.0	-30	50	0.7	22080.0145
6	4.8	6.5	5.85	6	15.0	1.0	2.3	8.2	5.5	6.1	12.0	-30	50	1.2	22080.0146
8	6.2	8.5	7.55	8	18.0	1.1	2.9	9.5	6.5	9.0	20.1	-30	50	2.4	22080.0148
10	7.8	11.0	9.55	10	26.0	1.5	4.2	14.3	8.0	16.2	29.0	-30	50	4.9	22080.0150

[1] statistical average value

Application example



Compliance

RoHS-compliant
Compliant with Directive 2011/65/EU [RoHS].

Does not contain SVHC substances
No SVHC substances with more than 0.1% w/w contained - SVHC list [REACH] as of 04.02.2026.

SCIP-code
N/A

Does not contain Proposition 65 substances
No Proposition 65 substances included.
https://www.P65Warnings.ca.gov/

Free from Conflict Minerals
This product does not contain any substances designated as "conflict minerals" such as tantalum, tin, gold or tungsten from the Democratic Republic of Congo or adjacent countries.

POP-compliant
Contains no persistent organic pollutants – Stockholm Convention [POP] as of September 2025.

PFAS-compliant
Contains no per- and polyfluoroalkyl substances (PFAS).

TSCA-compliant
Agent concentration in this product does not exceed the specified threshold.