# **Lateral Plungers** • with plastic spring and pin
## EH 22150.

## Product Description

To be used for positioning and applying pressure, e.g. during painting and sandblasting.

### Material

**Spring**
- plastic

**Pin**
- Steel, case-hardened, blackened
- Stainless steel
- Thermoplastic POM, white

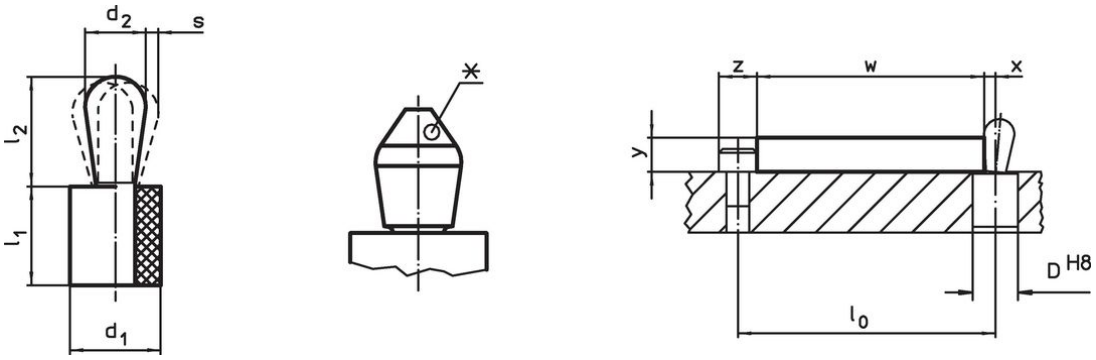
### Assembly

It is recommended to moisten the body.
Installation by pressing in.
Formula for calculating the center distance for the mounting hole:
$l_0$ = z/2 + w + x,
$l_0$ = center distance,
y = workpiece height,
w = workpiece length,
x = coordinate dimension,
s = stroke,
z = stop diameter
Calculation dimension x:
y greater than or equal to $l_2 - d_2/2$,
then $x = d_2/2 - s$
or
y smaller than $l_2 - d_2/2$,
then $x = d_2/2 - s - [(l_2 - d_2/2 - y) * 0{,}123]$

### Characteristic

Version light spring load = blue spring
Version standard spring load = red spring
Version heavy spring load = green spring

## Drawing




*some sizes (see chart) have a deviating pin shape

## Order information

| Dimensions $d_1$ [mm] | Dimensions $d_2$ [mm] | Spring load F max. [1] ~ [N] | Dimensions $l_1$ -1 [mm] | Dimensions $l_2$ ±0.5 [mm] | Stroke s [mm] | Location hole D H8 [mm] | max. [°C] | [g] | Art. No. |
|---|---|---|---|---|---|---|---|---|---|
| **Pin: Steel/pin from steel, light spring load** | | | | | | | | | |
| **6** | **3** | **10** | 7 | 3.7 | 0.4 | 5.9 | 100 | 0.5 | 22150.0200[2] |
| **8** | **4** | **15** | 9 | 5.2 | 0.6 | 7.9 | 100 | 1.2 | 22150.0202 |
| **10** | **5** | **30** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0204 |
| **10** | **6** | **20** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0207 |

[1] statistical average value

[2] deviating pin shape (see drawing)

| Dimensions $d_1$ [mm] | Dimensions $d_2$ [mm] | Spring load F max. [1] ~ [N] | Dimensions $l_1$ -1 [mm] | Dimensions $l_2$ ±0.5 [mm] | Stroke s [mm] | Location hole D H8 [mm] | max. [°C] | [g] | Art. No. |
|---|---|---|---|---|---|---|---|---|---|
| **Pin: Steel/pin from steel, standard spring load** | | | | | | | | | |
| **6** | **3** | **20** | 7 | 3.7 | 0.4 | 5.9 | 100 | 0.5 | 22150.0201[2] |
| **8** | **4** | **30** | 9 | 5.2 | 0.6 | 7.9 | 100 | 1.2 | 22150.0203 |
| **10** | **5** | **60** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0205 |
| **10** | **6** | **30** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0208 |
| **12** | **8** | **50** | 13 | 13.3 | 1.2 | 11.9 | 100 | 6.8 | 22150.0211 |
| **16** | **10** | **80** | 16 | 16.9 | 1.6 | 15.9 | 100 | 14.0 | 22150.0213 |
| **Pin: Steel/pin from steel, heavy spring load** | | | | | | | | | |
| **10** | **5** | **90** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0206 |
| **10** | **6** | **60** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0209 |
| **12** | **8** | **100** | 13 | 13.3 | 1.2 | 11.9 | 100 | 6.8 | 22150.0212 |
| **16** | **10** | **160** | 16 | 16.9 | 1.6 | 15.9 | 100 | 15.0 | 22150.0214 |
| **Pin: Stainless steel/pin from stainless steel, light spring load** | | | | | | | | | |
| **6** | **3** | **10** | 7 | 3.7 | 0.4 | 5.9 | 100 | 0.5 | 22150.0215[2] |
| **8** | **4** | **15** | 9 | 5.2 | 0.6 | 7.9 | 100 | 1.2 | 22150.0217 |
| **10** | **5** | **30** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0219 |
| **10** | **6** | **20** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0222 |
| **Pin: Stainless steel/pin from stainless steel, standard spring load** | | | | | | | | | |
| **6** | **3** | **20** | 7 | 3.7 | 0.4 | 5.9 | 100 | 0.5 | 22150.0216[2] |
| **8** | **4** | **30** | 9 | 5.2 | 0.6 | 7.9 | 100 | 1.2 | 22150.0218 |
| **10** | **5** | **60** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0220 |
| **10** | **6** | **30** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0223 |
| **12** | **8** | **50** | 13 | 13.3 | 1.2 | 11.9 | 100 | 6.8 | 22150.0226 |
| **16** | **10** | **80** | 16 | 16.9 | 1.6 | 15.9 | 100 | 15.0 | 22150.0228 |
| **Pin: Stainless steel/pin from stainless steel, heavy spring load** | | | | | | | | | |
| **10** | **5** | **90** | 9 | 7.3 | 0.8 | 9.9 | 100 | 2.1 | 22150.0221 |
| **10** | **6** | **60** | 9 | 10.3 | 1.0 | 9.9 | 100 | 2.9 | 22150.0224 |
| **12** | **8** | **100** | 13 | 13.2 | 1.2 | 11.9 | 100 | 6.8 | 22150.0227 |
| **16** | **10** | **160** | 16 | 16.6 | 1.6 | 15.9 | 100 | 15.0 | 22150.0229 |
| **Pin: Thermoplastic/pin from thermoplastic, light spring load** | | | | | | | | | |
| **6** | **3** | **10** | 7 | 3.7 | 0.4 | 5.9 | 80 | 0.3 | 22150.0230[2] |
| **8** | **4** | **15** | 9 | 5.2 | 0.6 | 7.9 | 80 | 0.6 | 22150.0232 |
| **10** | **5** | **30** | 9 | 7.3 | 0.8 | 9.9 | 80 | 1.0 | 22150.0234 |
| **10** | **6** | **20** | 9 | 10.3 | 1.0 | 9.9 | 80 | 1.1 | 22150.0237 |
| **Pin: Thermoplastic/pin from thermoplastic, standard spring load** | | | | | | | | | |
| **6** | **3** | **20** | 7 | 3.7 | 0.4 | 5.9 | 80 | 0.3 | 22150.0231[2] |
| **8** | **4** | **30** | 9 | 5.2 | 0.6 | 7.9 | 80 | 0.6 | 22150.0233 |
| **10** | **5** | **60** | 9 | 7.3 | 0.8 | 9.9 | 80 | 1.0 | 22150.0235 |
| **10** | **6** | **30** | 9 | 10.3 | 1.0 | 9.9 | 80 | 1.1 | 22150.0238 |
| **12** | **8** | **50** | 13 | 13.3 | 1.2 | 11.9 | 80 | 2.3 | 22150.0240 |
| **16** | **10** | **80** | 16 | 16.9 | 1.6 | 15.9 | 80 | 4.9 | 22150.0242 |
| **Pin: Thermoplastic/pin from thermoplastic, heavy spring load** | | | | | | | | | |
| **10** | **5** | **90** | 9 | 7.3 | 0.8 | 9.9 | 80 | 1.0 | 22150.0236 |
| **10** | **6** | **60** | 9 | 10.3 | 1.0 | 9.9 | 80 | 1.1 | 22150.0239 |
| **12** | **8** | **100** | 13 | 13.3 | 1.2 | 11.9 | 80 | 2.3 | 22150.0241 |
| **16** | **10** | **160** | 16 | 16.9 | 1.6 | 15.9 | 80 | 5.1 | 22150.0243 |

[1] statistical average value

[2] deviating pin shape (see drawing)

## Accessories

| | Dimensions $d_1$ [mm] | [g] | Art. No. |
|---|---|---|---|
| **assembly tool** | | | |
| | **6** | 23 | 22150.0840 |
| | **8** | 47 | 22150.0841 |
| | **10** | 46 | 22150.0842 |
| | **12** | 96 | 22150.0843 |
| | **16** | 145 | 22150.0844 |

## Compliance

For detailed compliance information please select the desired article number.