Self-Aligning Pads • self-resetting EH 22731.



Product Description

Self-aligning pads are used as stop, support and thrust pad and are suitable for installation in clamping elements.

By resetting to the parallel position the contact point of the self-aligning pad provides a defined initial position, thus preventing the pad clamping in an oblique position when inserting the workpiece.

Material

- Spring element
- Thermoplastic PUR

Ball

- Ball-bearing steel, hardened, bright
- Stainless steel 1.3541, nickel-plated

Body

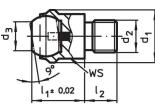
- Heat-treated steel, tempered, phosphated
- Stainless steel 1.4057, heat-treated

More information

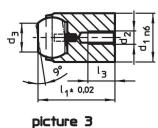
Notes

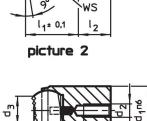
Ball protected against rotating. Loading capacity valid for steel and stainless steel designs.

Drawing



picture 1





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picture 4

l1 ± 0,1

Order information

| Dimensions | | | | | | | | Location hole | | Load capacity | Tightening | I | Art. No. |
|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|----------|---------------|------|-----------------|------------|-----|------------|
| d ₁ | d ₂ | d ₃ | l ₁ | I ₂ | I ₃ | Ball diameter | ø | Depth | | for static load | torque | | |
| | | | | -0.5 | max. | | H7 | min. | | max. | max. | | |
| | [mm] | | | | | | | | [mm] | [kN] | [Nm] | [g] | |
| with male | thread, flat | -faced ball, | bearing | surface | plain – pi | cture 1, Heat-tre | ated ste | el | | | | | |
| 13 | M 6 | 7.2 | 13 | 8 | - | 10 | - | - | 11 | 10 | 10.0 | 12 | 22731.0012 |
| 13 | M 8 | 7.2 | 13 | 8 | - | 10 | - | - | 11 | 10 | 25.0 | 13 | 22731.0013 |
| 20 | M 8 | 10.5 | 18 | 10 | - | 16 | - | - | 17 | 25 | 25.0 | 38 | 22731.0018 |
| 20 | M10 | 10.5 | 18 | 10 | - | 16 | - | - | 17 | 25 | 46.0 | 40 | 22731.0019 |
| 20 | M12 | 10.5 | 18 | 12 | - | 16 | - | - | 17 | 25 | 82.0 | 43 | 22731.0020 |
| 30 | M16 | 20.0 | 27 | 16 | - | 25 | - | - | 27 | 90 | 206.0 | 149 | 22731.0030 |
| 50 | M20 | 34.5 | 35 | 20 | - | 40 | - | - | 41 | 165 | 407.0 | 486 | 22731.0050 |
| 50 | M24 | 34.5 | 35 | 24 | - | 40 | - | - | 41 | 165 | 698.0 | 516 | 22731.0060 |
| with male | thread, flat | faced ball, | bearing | surface | plain – pi | cture 1, Stainles | s steel | | | | | | |
| 13 | M 6 | 7.2 | 13 | 8 | - | 10 | - | - | 11 | 10 | 10.0 | 12 | 22731.0112 |
| 13 | M 8 | 7.2 | 13 | 8 | - | 10 | - | - | 11 | 10 | 25.0 | 13 | 22731.0113 |
| 20 | M 8 | 10.5 | 18 | 10 | _ | 16 | _ | - | 17 | 25 | 25.0 | 38 | 22731.0118 |
| 20 | M10 | 10.5 | 18 | 10 | _ | 16 | - | - | 17 | 25 | 46.0 | 40 | 22731.0119 |

¹⁾ Applies only when the minimum bore depth is kept to.

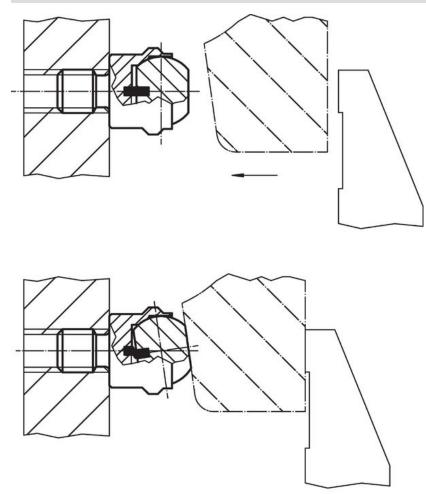


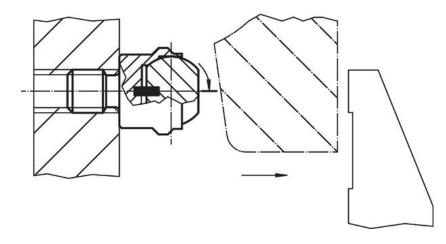
Machine and Fixture Elements Self-Aligning Pads

| Dimensions | | | | | | | Location hole | | ws | Load capacity | Tightening | | Art. No. |
|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|---------------|--------------------|------|------------------|------------|-----|------------|
| d ₁ | d ₂ | d ₃ | l ₁ | I ₂ | I ₃ | Ball diameter | ø | Depth | | for static load | torque | - | |
| | | | | -0.5 | max. | | H7 | min. nm] | | max. | max. | | |
| | [mm] | | | | | | | | [mm] | [kN] | [Nm] | [g] | |
| 20 | M12 | 10.5 | 18 | 12 | - | 16 | - | - | 17 | 25 | 82.0 | 43 | 22731.0120 |
| 30 | M16 | 20.0 | 27 | 16 | - | 25 | - | - | 27 | 90 | 206.0 | 149 | 22731.0130 |
| 50 | M20 | 34.5 | 35 | 20 | - | 40 | - | - | 41 | 165 | 407.0 | 486 | 22731.0150 |
| 50 | M24 | 34.5 | 35 | 24 | - | 40 | - | - | 41 | 165 | 698.0 | 516 | 22731.0160 |
| with male | thread, flat | -faced ball, | bearing | surface | ribbed – I | picture 2, Heat-tr | eated s | teel | | | | | |
| 13 | M 6 | 7.2 | 13 | 8 | - | 10 | _ | - | 11 | 10 | 10.0 | 12 | 22731.0312 |
| 13 | M 8 | 7.2 | 13 | 8 | - | 10 | - | - | 11 | 10 | 25.0 | 13 | 22731.0313 |
| 20 | M 8 | 10.5 | 18 | 10 | - | 16 | - | - | 17 | 25 | 25.0 | 37 | 22731.0318 |
| 20 | M10 | 10.5 | 18 | 10 | - | 16 | - | - | 17 | 25 | 46.0 | 40 | 22731.0319 |
| 20 | M12 | 10.5 | 18 | 12 | - | 16 | - | - | 17 | 25 | 82.0 | 43 | 22731.0320 |
| 30 | M16 | 20.0 | 27 | 16 | - | 25 | - | - | 27 | 90 | 206.0 | 149 | 22731.0330 |
| 50 | M20 | 34.5 | 35 | 20 | - | 40 | - | - | 41 | 165 | 407.0 | 482 | 22731.0350 |
| 50 | M24 | 34.5 | 35 | 24 | _ | 40 | - | - | 41 | 165 | 698.0 | 511 | 22731.0360 |
| for locatin | g hole, flat | -faced ball, | bearing | surface | plain – pi | cture 3, Heat-trea | ated ste | el | | | | | |
| 12 n6 | М 3 | 7.2 | 17 | - | 3.2 | 10 | 12 | 12 | - | 10 ¹⁾ | 1.3 | 13 | 22731.0412 |
| 18 n6 | M 4 | 10.5 | 23 | - | 4.0 | 16 | 18 | 14 | - | 25 ¹⁾ | 2.9 | 40 | 22731.0418 |
| 28 n6 | M 5 | 20.0 | 34 | _ | 6.0 | 25 | 28 | 22 | - | 90 ¹⁾ | 6.0 | 151 | 22731.0428 |
| for locating | g hole, flat | -faced ball, | bearing | surface | plain – pi | cture 3, Stainles | s steel | | | | | | |
| 12 n6 | М 3 | 7.2 | 17 | - | 3.2 | 10 | 12 | 12 | - | 10 ¹⁾ | 1.3 | 13 | 22731.0452 |
| 18 n6 | M 4 | 10.5 | 23 | _ | 4.0 | 16 | 18 | 14 | - | 25 ¹⁾ | 2.9 | 40 | 22731.0458 |
| 28 n6 | M 5 | 20.0 | 34 | _ | 6.0 | 25 | 28 | 22 | - | 90 ¹⁾ | 6.0 | 151 | 22731.0468 |
| for locatin | g hole, flat | -faced ball, | bearing | surface | ribbed – p | picture 4, Heat-tr | eated s | teel | | | | · | |
| 12 n6 | М 3 | 7.2 | 17 | - | 3.2 | 10 | 12 | 12 | - | 10 ¹⁾ | 1.3 | 13 | 22731.0712 |
| 18 n6 | M 4 | 10.5 | 23 | - | 4.0 | 16 | 18 | 14 | - | 25 ¹⁾ | 2.9 | 40 | 22731.0718 |
| 28 n6 | M 5 | 20.0 | 34 | _ | 6.0 | 25 | 28 | 22 | _ | 90 ¹⁾ | 6.0 | 150 | 22731.0728 |

¹⁾ Applies only when the minimum bore depth is kept to.

Application example





Compliance

RoHS compliant

Compliant according to Directive 2011/65/EU and Directive 2015/863.

Does not contain SVHC substances

No SVHC substances with more than 0.1% w/w contained - SVHC list [REACH] as of 27.06.2024.

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.