

## Side Clamps with Clamping Thread

### SPECIFICATION

#### Types

- Type **E**: With serrated clamping jaw
- Type **P**: With prism clamping jaw

#### Coding

- **G**: Clamping stroke with ball point screw
- **K**: Clamping stroke with adjustable hand lever

Clamping mechanisms  
Steel

- Case-hardened
- Blackened

Nut for T-slot

- Steel, blackened
- Property class 10

Socket cap screw DIN 912

- Steel, blackened
- Property class 12.9

Ball point screw (coding G)

- Steel, blackened
- Ball hardened

Adjustable hand lever (coding K)

- Zinc die casting  
Powder coated  
Black RAL 9005, textured finish
- Threaded insert  
Steel, blackened  
Ball hardened

### INFORMATION

With side clamps GN 9190.1, workpieces are clamped with a pivoted clamping jaw. The clamping force acts laterally and from above to pull down on the workpiece and clamp it against fixed stops and the supporting surface.

The clamping stroke of the clamping jaw results from the screw-in depth of the clamping thread  $d_4$ . When the set screw is released, the clamping jaw is returned by spring force. The low overall height of the side clamps allow full-surface machining of the workpiece.

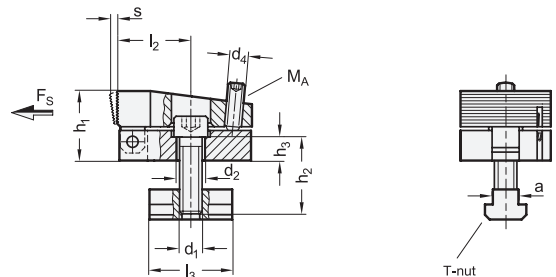
Side clamps can be screwed in directly, e.g. in a mounting plate, or fastened to machine tables with T-slots. In addition, they can be mounted in any position perpendicular to the T-slot using the slotted support blocks GN 9190.3 (see page ), which are available as accessory.

### ACCESSORY

- Slotted Support Blocks GN 9190.3 (see page )

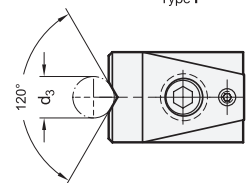
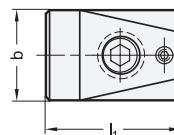
### TECHNICAL INFORMATION

- Strength values of screws / nuts (see page A20)

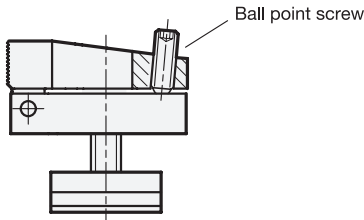


Type E

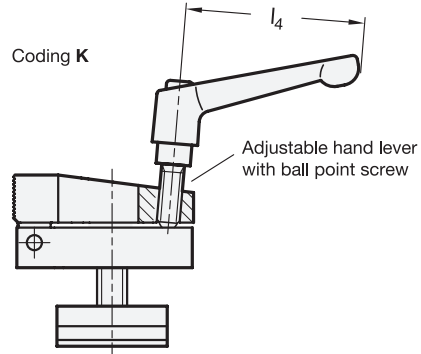
Type P



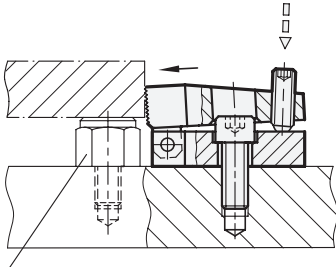
Coding G



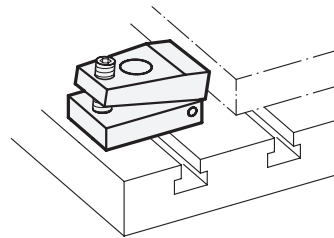
Coding K



Examples of application



Positioning element GN 408.1



GN 9190.1-E

| Description          | a<br>Slot<br>width | d1   | F <sub>s</sub><br>in kN | b  | d2   | d4   | h1 | h2 | h3 | l1 | l2 | l3 | l4  | s<br>Clamping<br>stroke | Max.<br>tightening<br>torque<br>MA in Nm | ⚖    |
|----------------------|--------------------|------|-------------------------|----|------|------|----|----|----|----|----|----|-----|-------------------------|------------------------------------------|------|
| GN 9190.1-10-M8-E-G  | 10                 | M 8  | 7                       | 32 | 8.4  | M 8  | 24 | 20 | 8  | 52 | 28 | 30 | -   | 3                       | 3                                        | 276  |
| GN 9190.1-10-M8-E-K  | 10                 | M 8  | 7                       | 32 | 8.4  | M 8  | 24 | 20 | 8  | 52 | 28 | 30 | 63  | 3                       | 3                                        | 413  |
| GN 9190.1-14-M12-E-G | 14                 | M 12 | 15                      | 48 | 12.5 | M 12 | 37 | 30 | 11 | 72 | 40 | 44 | -   | 4                       | 9                                        | 831  |
| GN 9190.1-14-M12-E-K | 14                 | M 12 | 15                      | 48 | 12.5 | M 12 | 37 | 30 | 11 | 72 | 40 | 44 | 78  | 4                       | 9                                        | 1042 |
| GN 9190.1-18-M16-E-G | 18                 | M 16 | 21.5                    | 68 | 16.5 | M 16 | 47 | 35 | 13 | 86 | 41 | 56 | -   | 7                       | 20                                       | 1749 |
| GN 9190.1-18-M16-E-K | 18                 | M 16 | 21.5                    | 68 | 16.5 | M 16 | 47 | 35 | 13 | 86 | 41 | 56 | 108 | 7                       | 20                                       | 2112 |

GN 9190.1-P

| Description          | a<br>Slot<br>width | d1   | F <sub>s</sub><br>in kN | b  | d2   | d3<br>Min. | d3<br>Max. | d4   | h1 | h2 | h3 | l1 | l2 | l3 | l4  | s<br>Clamping<br>stroke | Max.<br>tightening<br>torque<br>MA in Nm | ⚖    |
|----------------------|--------------------|------|-------------------------|----|------|------------|------------|------|----|----|----|----|----|----|-----|-------------------------|------------------------------------------|------|
| GN 9190.1-10-M8-P-G  | 10                 | M 8  | 7                       | 32 | 8.4  | 4          | 26         | M 8  | 24 | 20 | 8  | 52 | 28 | 30 | -   | 3                       | 3                                        | 266  |
| GN 9190.1-10-M8-P-K  | 10                 | M 8  | 7                       | 32 | 8.4  | 4          | 26         | M 8  | 24 | 20 | 8  | 52 | 28 | 30 | 63  | 3                       | 3                                        | 403  |
| GN 9190.1-14-M12-P-G | 14                 | M 12 | 15                      | 48 | 12.5 | 4          | 26         | M 12 | 37 | 30 | 11 | 72 | 40 | 44 | -   | 4                       | 9                                        | 833  |
| GN 9190.1-14-M12-P-K | 14                 | M 12 | 15                      | 48 | 12.5 | 4          | 26         | M 12 | 37 | 30 | 11 | 72 | 40 | 44 | 78  | 4                       | 9                                        | 1044 |
| GN 9190.1-18-M16-P-G | 18                 | M 16 | 21.5                    | 68 | 16.5 | 4          | 26         | M 16 | 47 | 35 | 13 | 86 | 41 | 56 | -   | 7                       | 20                                       | 1730 |
| GN 9190.1-18-M16-P-K | 18                 | M 16 | 21.5                    | 68 | 16.5 | 4          | 26         | M 16 | 47 | 35 | 13 | 86 | 41 | 56 | 108 | 7                       | 20                                       | 2093 |

