

# **Clamping Nuts, Hydro-Mechanical**

## with through-hole thread and optional clamping force display



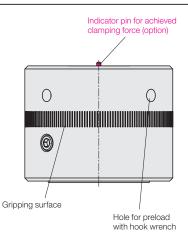
#### Advantages

- Temperature resistance up to 120 °C
- Safe clamping with visual clamping force display (as an option)
- High clamping force with low torque
- Easy to retrofit
- Clamping nut with through-hole thread, therefore high adaptability to varying heights of clamping edges and tolerances
- No need for adaptation of the tie rod length
- Easy clamping and unclamping by hand
- Maintenance free

**Clamping nut** 

with two tightening screws

• Maximum force density in the smallest space



### Application example

#### Application

- Clamping and locking of dies on press bed and ram
- When highest clamping force is required in the smallest possible space
- If no hydraulic power unit is available

#### Description

Following manual positioning of the clamping nut against the clamping edge, the integral hydraulic cushion is preloaded by turning the hexagon socket. A low torque is transmitted to a high clamping force.

For the version without clamping force display, use a torque wrench to ensure safe and defined build-up of the clamping force.

In the version with clamping force display, the clamping force indicator pin projects when the clamping force is reached.

Admissible temperature difference ± 20 °C

Temperature resistance up to max. 120 °C.

#### **Technical data**

|      | A-A   |
|------|---|
| A SW | (////// <del>//////////////////////////////</del> |

Projection of the indicator pin of the optical clamping force indicator when the nominal clamping force is reached:

 Types 2273 and 2274:
 2,0 mm

 Types 2275, 2276 and 2277:
 2,5 mm



| Clamping force   | [kN]     | 15        | 30        | 60        | 100       | 100       | 150       |
|--|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Max. stroke*   | [mm]     | 2         | 2         | 2         | 2         | 2         | 2         |
| Tightening torque  | [Nm]     | 9         | 9         | 9         | 30        | 30        | 40        |
| D  |          | M 12      | M16       | M 20      | M 24      | M 30      | M 30      |
| d  | [mm]     | 47        | 56        | 70        | 95        | 108       | 112       |
| d1   | [mm]     | 20        | 25        | 30        | 40        | 48        | 50        |
| d2   | [mm]     | 33        | 37        | 50        | 65        | 70        | 80        |
| SW   | [mm]     | 6         | 6         | 8         | 8         | 8         | 10        |
| I  | [mm]     | 54        | 61        | 71        | 75        | 75        | 90        |
| Weight   | [kg]     | 0.7       | 1.0       | 2.0       | 3.7       | 4.8       | 6.1       |
| Clamping nut without T-bolt without clamping force display   | Part no. | -         | -         | 822750001 | 822760001 | _         | 822770001 |
| Clamping nut without T-bolt<br>with clamping force display** | Part no. | 822730002 | 822740002 | 822750002 | 822760002 | 822760005 | 822770002 |

\* Stroke at maximum adjustment of tightening screws. Before activating the tightening screws preload nut with hook wrench.

\*\* Torque wrench is not required.

## Dimensions Technical data

### Accessories

### T-bolt, separate

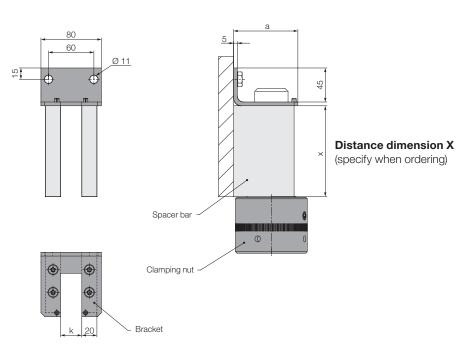
| For T-slot     | [mm] | 14      | 18      | 22      | 28      | 36      |
|----------------|------|---------|---------|---------|---------|---------|
| Thread         |      | M 12    | M 16    | M20     | M24     | M30     |
| Length         | [mm] | 160     | 160     | 200     | 250     | 250     |
| Property class |      | 8.8     | 12.9    | 12.9    | 12.9    | 8.8     |
| Weight         | [kg] | 0.16    | 0.29    | 0.58    | 1.1     | 1.8     |
| Part no.       |      | 5700142 | 5700022 | 5700023 | 5700024 | 5700048 |

### Parking station during die change

### Bracket mounted with spacer bars

| (without connecting block) | Part no. | 827531430 | 827531830 | 827532230 | 827532830 | 827533630 |
|----------------------------|----------|-----------|-----------|-----------|-----------|-----------|
| T-slot width k             | [mm]     | 14        | 18        | 22        | 28        | 36        |
| а                          | [mm]     | 65        | 70        | 72        | 85        | 90        |
| Bracket, separate          | Part no. | 2753140   | 2753180   | 2753220   | 2753280   | 2753360   |

Special designs on request



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