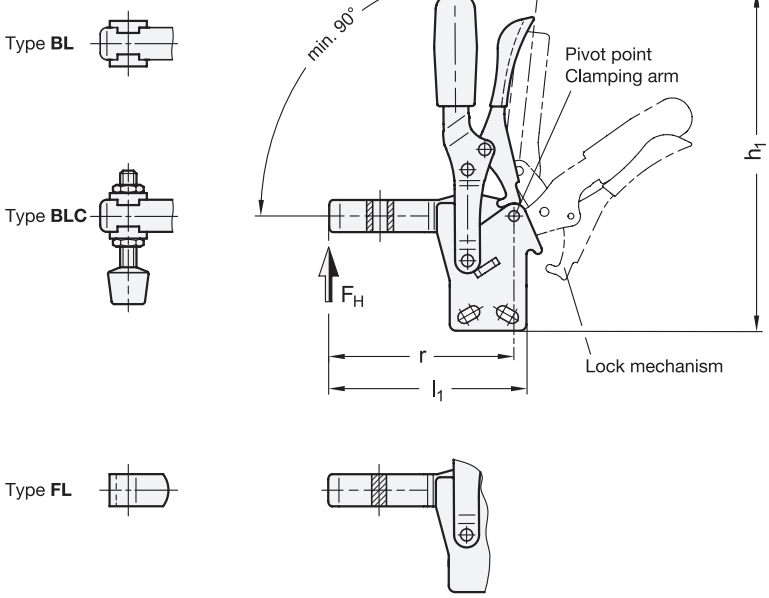
# Toggle Clamps

Steel / Stainless Steel , Operating Lever Vertical, with Lock Mechanism



SPEEDY BLOCK

STAIN LESS **

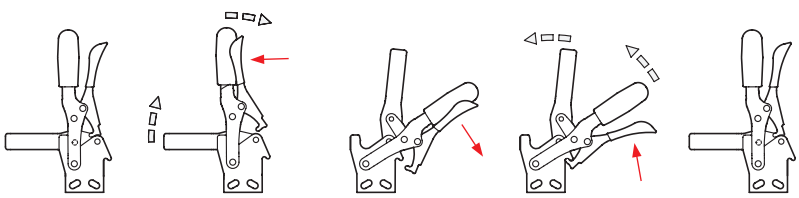
**2 Type**

**BL** Forked clamping arm, with two flanged washers

**BLC** Forked clamping arm, with two flanged washers and clamping screw GN 708.1

**FL** Solid clamping arm, with clasp for welding

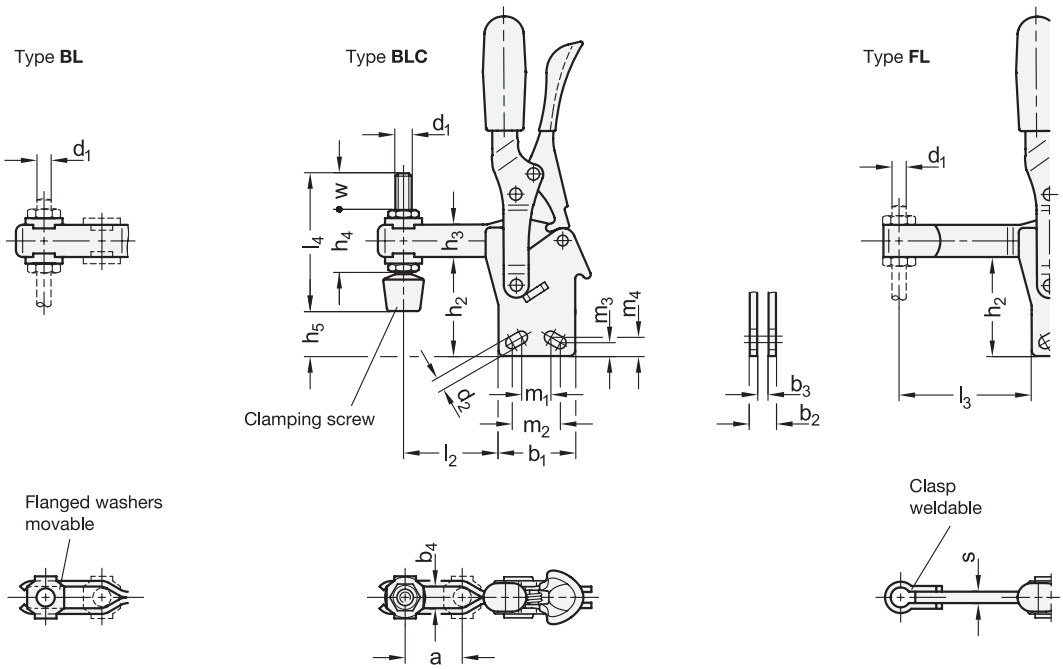
**Operating principle**



**1**

| Size | $F_H$ Holding capacity in N | a ≈ | $b_1$ | $b_2$ | $b_3$ | $b_4$ | $d_1$ | $d_2$ ≈ | $h_1$ ≈ | $h_2$ | $h_3$ | $h_4$ | $h_5$ max. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 130 | 1050 | 28 | 35 | 10 | 5 | 6,2 | M 6 | 5,5 | 156 | 41,5 | 16 | 25,5 | 25 |
| 230 | 2000 | 40 | 43 | 12 | 6 | 8,5 | M 8 | 6,5 | 183 | 48 | 18 | 30 | 24 |

| Size | $l_1$ ≈ Type BL Type BLC | Type FL | $l_2$ ≈ | $l_3$ max. | $l_4$ | $m_1$ | $m_2$ | $m_3$ | $m_4$ | r ≈ | s | w Adjustable range |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 130 | 85 | 86 | 42 | 54 | 55 | 12,5 | 19 | 6,5 | 7,5 | 79,5 | 5 | 17,5 |
| 230 | 110,5 | 112 | 58 | 73 | 68 | 18 | 21 | 6,5 | 6,5 | 104 | 6 | 20 |




## Specification

**Tensioning mechanism**
- Steel —
  - Sheet metal parts
    Case hardening steel C10, zinc plated, blue passivated
  - Bearing pins tempered
  - Bearing rivets case-hardened
- Stainless steel AISI 304 **NI**
- Moving parts lubricated with special grease

**Handle**
Plastic
Red, oil resistant

**Clasp** for type FL
- Steel, zinc plated, blue passivated
- Stainless steel AISI 304 for NI

**Flanged washers GN 898** for type BL / BLC
- Steel, zinc plated, blue passivated
- Stainless steel AISI 304 for NI

**Clamping screw GN 708.1** for type BLC
- Steel, zinc plated, blue passivated
- Stainless steel AISI 304 for NI
- Thrust pad
  Chloroprene rubber (CR)
  - Hardness 85 Shore A ≈
  - Vulcanized
  - Black
  - Type A (flat pressure area)

RoHS

**Technical Information**

| | |
|---|---|
| Operating Principle Toggle Lever / Overview of Toggle Clamp Types | QVX |
| Plastic Characteristics | QVX |
| Stainless Steel Characteristics | QVX |

Toggle clamps GN 810.4 are latched in both end positions. In the clamped position, this prevents unintentional opening or opening caused by vibrations and in the open position, it prevents self-closing of the toggle clamp, such as due to an extended clamping arm. The latching can be disabled with a single hand to allow for opening / closing.
They work according to the toggle principle: lever and clamping bar move in the same direction. In the clamped position the operating lever is in its vertical position.
Toggle clamps in the U-bar version with two flanged washers (type BL) can accommodate an application specific clamping screw. A clamping screw with neoprene rubber tip is also included for type BLC.
Type FL version can be utilized by welding the clasp which can then accommodate an application specific hold-down fastener component.

| see also... | Page |
|---|---|
| **GN 810.10** Toggle Clamps („Longlife“) | QVX |
| **GN 810.3** Toggle Clamps (with Horizontal Mounting Base) | QVX |

| Accessory | Page |
|---|---|
| Clamping Screws | QVX ff. |
| **GN 801.4** Sensor Holders | QVX |
| **GN 801** Holders for Clamping Screws (for Type BL / BLC) | QVX |
| **GN 801.1** Clamping Arm Extenders (for Type BL / BLC) | QVX |
| **GN 801.2** Clamping Arm Extenders (for Type BL / BLC) | QVX |
| **GN 809.1** Clamping Arm Extenders (for Type BL / BLC) | QVX |

How to order (Steel)
**GN 810.4-230-BL**

| | |
|---|---|
| 1 | Size |
| 2 | Type |

How to order (Stainless steel)
**GN 810.4-130-FL-NI**

| | |
|---|---|
| 1 | Size |
| 2 | Type |
| 3 | Material |