

Vertical acting toggle clamps

Operating Lever Vertical, with Lock Mechanism, with Horizontal Mounting Base

SPECIFICATION

Types

- Type **AL**: U-bar version, with two flanged washers
- Type **CL**: U-bar version, with two flanged washers and GN 708.1 spindle assembly (see page 1625)
- Type **EL**: Solid bar version, with clasp, for welding
- Type **UL**: Clamping arm extended, with slotted hole and with two flanged washers (Version in Steel)
- Type **ULC**: Clamping arm extended, with slotted hole, two flanged washers and clamping screw GN 708.1 (see page 1625) (Version in Steel)

Version in Steel

- Case-hardened Steel C 10, zinc plated, blue passivated
- Bearing pins tempered
- Bearing rivets case-hardened

All moving parts lubricated with special grease

Hand grip

High quality, oil resistant, red plastic

Clamping screw GN 708.1, type A (see page 1625)

Steel, zinc plated

Rubber tip hardness 85 Shore A

Version in Stainless Steel NI

Stainless Steel AISI 304

All moving parts

lubricated with special grease

Hand grip

High quality, oil resistant, red plastic

Spindle assembly GN 708.1, type A (see page 1625)

Steel, zinc plated / Stainless Steel AISI 304

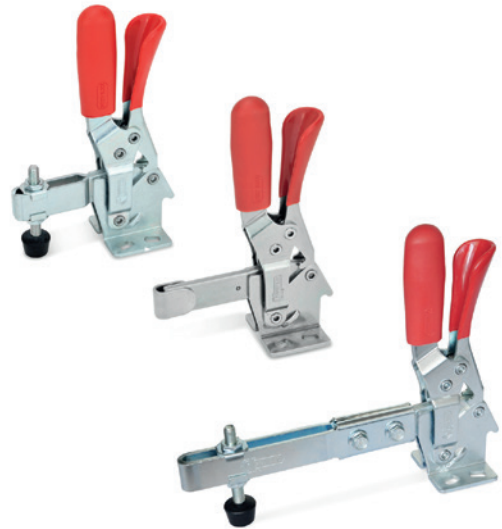
Rubber tip 85 Shore A

INFORMATION

GN 810.3 toggle clamps have a safety function whereby, during closing, a spring loaded safety hook latch ensures a secure locking connection. It prevents the inadvertent unlocking of the clamp due to vibrations or an accidental attempt of loosening / opening of the clamp. To open and release the clamp, pull up on the finger grip to disengage the safety hook latch mechanism (one hand operation). 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 AL) can accommodate an application specific clamping screw. A spindle assembly with neoprene rubber tip is also included for type CL. Type EL version can either be utilized by welding the clasp which can then accommodate an application specific hold-down fastener component, or by utilizing the bar in conjunction with the GN 809 (see page) clamp mounts to hold the work piece in place. Toggle clamps in the U-bar version with two flanged washers (type UL) can accommodate an application specific clamping screw. A clamping screw with neoprene rubber tip is also included for type ULC.

- General information for toggle clamps (see page 1560)

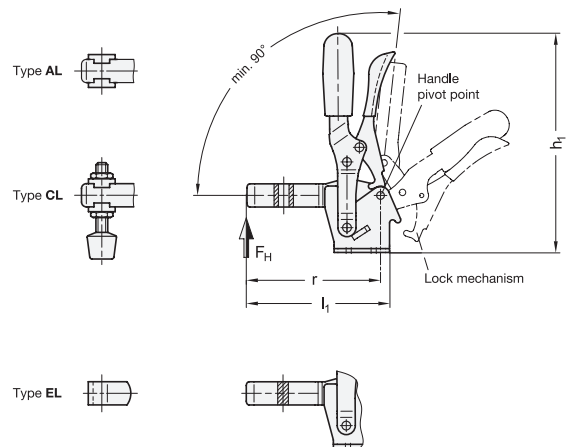


TECHNICAL INFORMATION

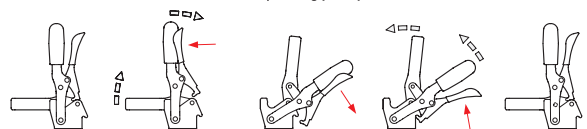
- Stainless Steel characteristics (see page A26)

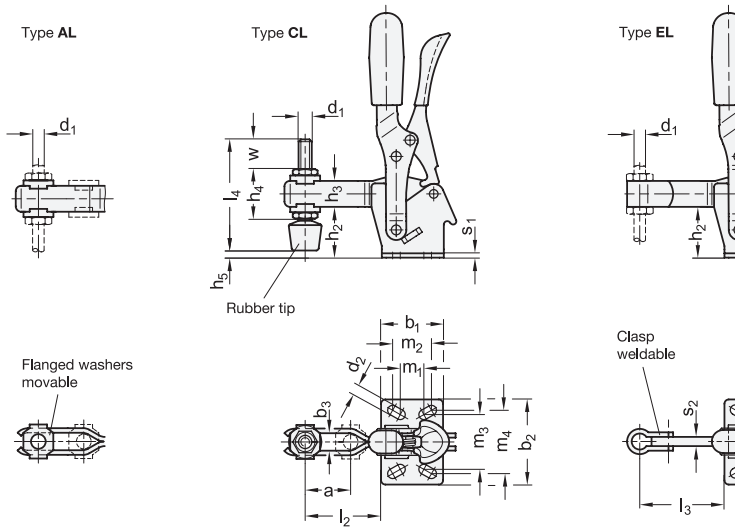
ACCESSORY

- Spindle assemblies (see page 1623)
- Clamping screws (see page)
- Holders for clamping screws GN 801 (for type AL) (see page 1629)
- Holders for clamping screws GN 809 (for type EL) (see page 1630)
- Clamping arm extenders GN 801.1 (for type AL) (see page)
- Clamping arm extenders GN 801.2 (for type EL) (see page)
- Clamping arm extenders GN 809.1 (for type EL) (see page)



Operating principle





GN 810.3

Description	Size	Fh in N	a ≈	b1	b2	b3	d1	d2 ≈	h1 ≈	h2	h3	h4	h5	h5 max.	l1 ≈	l2 ≈	l3	l3 max.	l4	m1	m2	m3	m4	r ≈	s	s1	s2	w	⚖
GN 810.3-130-AL	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	-	85	42	-	54	55	12.5	19	27	29	79.5	-	2.5	5	17.5	268
GN 810.3-130-CL	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	-	85	42	-	54	55	12.5	19	27	29	79.5	-	2.5	5	17.5	284
GN 810.3-130-EL	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	-	86	42	-	54	55	12.5	19	27	29	79.5	-	2.5	5	17.5	271
GN 810.3-130-UL	130	500	67.5	35	42	6.3	M 6	5.5	142	28	16	25.5	-	11.3	164	121	55	-	-	12.5	19	27	29	158	2.5	-	-	17.5	375
GN 810.3-130-ULC	130	500	67.5	35	42	6.3	M 6	5.5	142	28	16	25.5	-	11.3	164	121	55	-	-	12.5	19	27	29	158	2.5	-	-	17.5	391
GN 810.3-230-AL	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	-	110.5	58	-	73	68	18	21	32	32	104	-	3	6	20	444
GN 810.3-230-CL	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	-	110.5	58	-	73	68	18	21	32	32	104	-	3	6	20	478
GN 810.3-230-EL	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	-	112	58	-	73	68	18	21	32	32	104	-	3	6	20	454
GN 810.3-230-UL	230	1000	71.5	43	45	8.2	M 8	6.5	168	33.5	18	30	-	9.5	198	145.5	68	-	-	19.5	19.5	32	32	191	3	-	-	20	545
GN 810.3-230-ULC	230	1000	71.5	43	45	8.2	M 8	6.5	168	33.5	18	30	-	9.5	198	145.5	68	-	-	19.5	19.5	32	32	191	3	-	-	20	579

GN 810.3-NI

STAINLESS STEEL

Description	Size	Fh in N	a ≈	b1	b2	b3	d1	d2 ≈	h1 ≈	h2	h3	h4	h5	l1 ≈	l2 ≈	l3 max.	l4	m1	m2	m3	m4	r ≈	s1	s2	w	⚖
GN 810.3-130-AL-NI	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	85	42	54	55	12.5	19	27	29	79.5	2.5	5	17.5	268
GN 810.3-130-CL-NI	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	85	42	54	55	12.5	19	27	29	79.5	2.5	5	17.5	284
GN 810.3-130-EL-NI	130	1050	28	35	42	6.2	M 6	5.5	142	28	16	25.5	11.3	86	42	54	55	12.5	19	27	29	79.5	2.5	5	17.5	271
GN 810.3-230-AL-NI	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	110.5	58	73	68	18	21	32	32	104	3	6	20	444
GN 810.3-230-CL-NI	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	110.5	58	73	68	18	21	32	32	104	3	6	20	478
GN 810.3-230-EL-NI	230	2000	40	43	45	8.5	M 8	6.5	168	33.5	18	30	9.5	112	58	73	68	18	21	32	32	104	3	6	20	454

