

Toggle Clamps

Steel / Stainless Steel, Operating Lever Horizontal, with Lock Mechanism, with Horizontal Mounting Base

SPECIFICATION

Types

- Type **ML**: Forked clamping arm, with two flanged washers
- Type **MLC**: Forked clamping arm, with two flanged washers and clamping screw GN 708.1
- Type **OL**: Solid clamping arm, 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 (Version in Steel)

Version in Steel

- Case-hardened Steel C10
- Zinc plated, blue passivated
- Bearing pins tempered
- Bearing rivets (for size 355 and up), case-hardened

All moving parts

Lubricated with special grease

Solid designed plastic handle

Red, oil resistant

Clamping screw GN 708.1, type A

Steel, zinc plated, blue passivated

Rubber thrust pad 85 Shore A

Version in Stainless Steel NI

Stainless steel AISI 304

All moving parts

Lubricated with special grease

Solid designed plastic handle

Red, oil resistant

Clamping screw GN 708.1, type A

Stainless steel AISI 304

Rubber thrust pad 85 Shore A

INFORMATION

Toggle clamps GN 820.3 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).

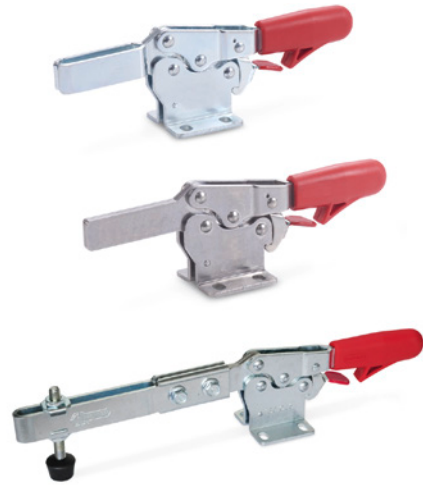
They work according to the toggle principle: lever and clamping bar move in the opposite direction. They require less space for the clamping action.

Toggle clamps in the with forked clamping arm, with two flanged washers (type ML) can accommodate an application specific clamping screw. A clamping screw with neoprene rubber tip is also included for type MLC.

Toggle clamps in the type OL 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) holders for clamping screws 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)

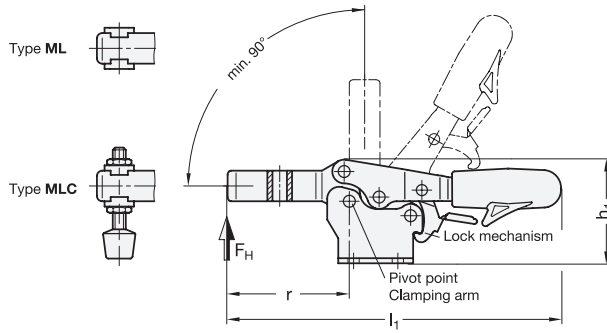


TECHNICAL INFORMATION

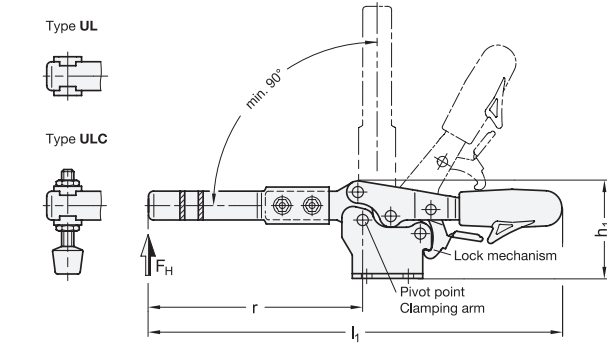
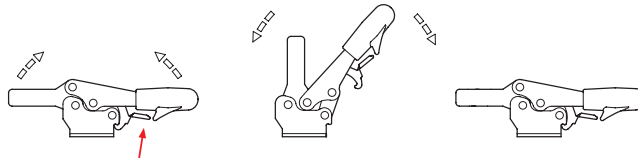
- Stainless Steel Characteristics (see page A26)

ACCESSORY

- Clamping Screws (see page)
- Holders for Clamping Screws GN 801 (for Type ML and UL) (see page 1629)
- Holders for Clamping Screws GN 809 (for Type OL) (see page 1630)
- Clamping Arm Extenders GN 809.1 (for Type OL) (see page)
- Clamping Arm Extenders GN 801.1 (for Type ML and UL) (see page)
- Clamping Arm Extenders GN 801.2 (for Type ML and UL) (see page)



Operating principle



Operating principle

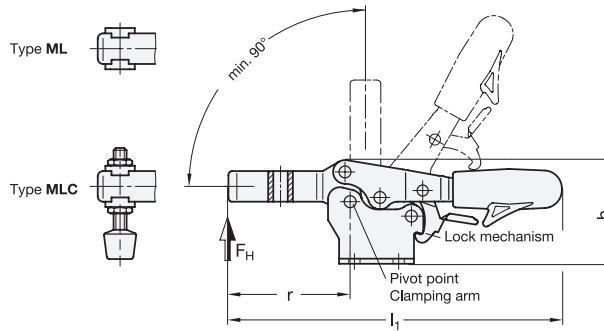
GN 820.3

Description	Size	F _H in N	a	b ₁	b ₂	b ₃	d ₁	d ₂	h ₁ ≈ h ₂	h ₃	h ₄	h ₅ max.	l ₁ ≈ l ₂ ≈ l ₃	l ₄	l ₅	m ₁	m ₂	m ₃	r	s	s ₁	s ₂	w	Δ				
GN 820.3-75-ML	75	900	20	28	26	5.3	M 5	4.5	37	20	11	-	118	67	40	-	-	-	13.5	16	19	42.5	-	2	-	95		
GN 820.3-130-ML	130	1000	32	36	40	6.3	M 6	5.6	51	30.5	16	-	172	92.5	54	-	-	-	26	22.4	28.4	62.5	-	2.5	-	200		
GN 820.3-230-ML	230	1700	37	44	44	8.5	M 8	6.6	61.5	36.5	18	-	196	109	64.5	-	-	-	26	26	31.5	71.5	-	3	-	320		
GN 820.3-355-ML	355	1800	58	60	58	10.5	M 10	8.6	83	50	22	-	270	160	98.5	-	-	-	41	38.8	43	109	-	3.5	-	730		
GN 820.3-455-ML	455	3200	65	70	65	12.5	M 12	8.7	99	60	26	-	305	184	116	-	-	-	41.5	40	43	126	-	4	-	1200		
GN 820.3-75-MLC	75	900	20	28	26	5.3	M 5	4.5	37	20	11	19	5	118	67	40	-	-	45	13.5	16	19	42.5	-	2	15	100	
GN 820.3-130-MLC	130	1000	32	36	40	6.3	M 6	5.6	51	30.5	16	25.5	14	172	92.5	54	-	-	55	26	22.4	28.4	62.5	-	2.5	17.5	230	
GN 820.3-230-MLC	230	1700	37	44	44	8.5	M 8	6.6	61.5	36.5	18	30	12.5	196	109	64.5	-	-	68	26	26	31.5	71.5	-	3	20	380	
GN 820.3-355-MLC	355	1800	58	60	58	10.5	M 10	8.6	83	50	22	37	21.5	270	160	98.5	-	-	77	41	38.8	43	109	-	3.5	19	800	
GN 820.3-455-MLC	455	3200	65	70	65	12.5	M 12	8.7	99	60	26	43	27.5	305	184	116	-	-	100	41.5	40	43	126	-	4	33	1330	
GN 820.3-75-OL	75	900	-	28	26	-	M 5	4.5	37	20	11	-	-	118	67	-	-	-	49.5	-	13.5	16	19	42.5	-	2	4	200
GN 820.3-130-OL	130	1000	-	36	40	-	M 6	5.6	51	30.5	16	-	-	172	92.5	-	-	-	65	-	26	22.4	28.4	62.5	-	2.5	5	200
GN 820.3-230-OL	230	1700	-	44	44	-	M 8	6.6	61.5	36.5	18	-	-	196	109	-	-	-	79	-	26	26	31.5	71.5	-	3	6	330
GN 820.3-355-OL	355	1800	-	60	58	-	M 10	8.6	83	50	22	-	-	270	160	-	-	-	116	-	41	38.8	43	109	-	3.5	7	750
GN 820.3-455-OL	455	3200	-	70	65	-	M 12	8.7	99	60	26	-	-	305	184	-	-	-	136	-	41.5	40	43	126	-	4	10	1220
GN 820.3-130-UL	130	600	67.5	36	40	6.3	M 6	5.6	51	30.5	16	-	-	250	171	133	-	-	-	26	22.4	28.4	141	2.5	-	-	-	295
GN 820.3-230-UL	230	1100	71.5	44	44	8.2	M 8	6.6	61.5	36.5	18	-	-	283	196	152.5	-	-	-	26	26	31.5	158.5	3	-	-	-	485
GN 820.3-130-ULC	130	600	67.5	36	40	6.3	M 6	5.6	51	30.5	16	25.5	14	250	171	133	55	-	-	26	22.4	28.4	141	2.5	-	-	17.5	311
GN 820.3-230-ULC	230	1100	71.5	44	44	8.2	M 8	6.6	61.5	36.5	18	30	12.5	283	196	152.5	68	-	-	26	26	31.5	158.5	3	-	-	20	519

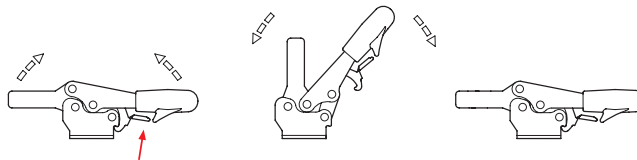




Toggle, power and hook clamps 14



Operating principle



GN 820.3-NI

Description	Size	F _H in N	a ≈	b ₁	b ₂	b ₃	d ₁	d ₂	h ₁ ≈	h ₂	h ₃	h ₄	h ₅ max	l ₁ ≈	l ₂ ≈	l ₃ ≈	l ₄ max	l ₅	m ₁	m ₂	m ₃	r	s ₁	s ₂	w	△
GN 820.3-75-ML-NI	75	900	20	28	26	5.3	M 5	4.5	37	20	11			118	67	40			13.5	16	19	42.5	2	-	-	90
GN 820.3-130-ML-NI	130	1000	32	36	40	6.3	M 6	5.6	51	30.5	16			172	92.5	54			26	22.4	28.4	62.5	2.5	-	-	200
GN 820.3-230-ML-NI	230	1700	37	44	44	8.5	M 8	6.6	61.5	36.5	18			196	109	64.5			26	26	31.5	71.5	3	-	-	320
GN 820.3-75-MLC-NI	75	900	20	28	26	5.3	M 5	4.5	37	20	11	19	5	118	67	40		45	13.5	16	19	42.5	2	-	15	100
GN 820.3-130-MLC-NI	130	1000	32	36	40	6.3	M 6	5.6	51	30.5	16	25.5	14	172	92.5	54		55	26	22.4	28.4	62.5	2.5	-	17.5	200
GN 820.3-230-MLC-NI	230	1700	37	44	44	8.5	M 8	6.6	61.5	36.5	18	30	12.5	196	109	64.5		68	26	26	31.5	71.5	3	-	20	350
GN 820.3-75-OL-NI	75	900	28	26		M 5	4.5	37	20	11				118	67	49.5		13.5	16	19	42.5	2	4	-	90	
GN 820.3-130-OL-NI	130	1000	36	40		M 6	5.6	51	30.5	16				172	92.5	65		26	22.4	28.4	62.5	2.5	5	-	200	
GN 820.3-230-OL-NI	230	1700	44	44		M 8	6.6	61.5	36.5	18				196	109	79		26	26	31.5	71.5	3	6	-	330	