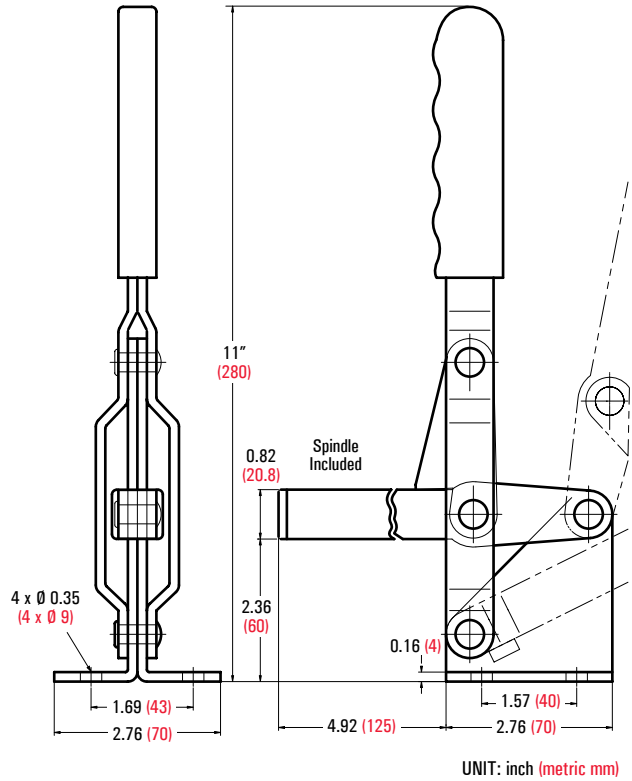


101-H

- Holding Capacity: 1,000 lbs. (450 kg)
- Weight: 2.69 lbs. (1,220 g)
- Bar opens 101°, Handle 63°
- Spindle Supplied: GH-SA-12300

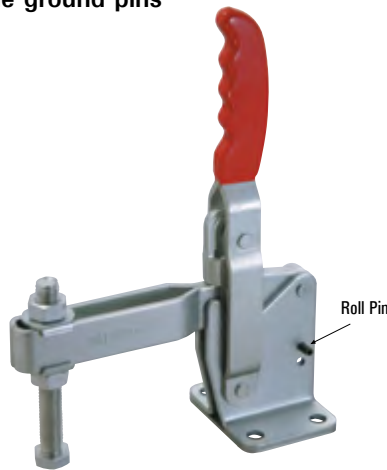


GH-101-H

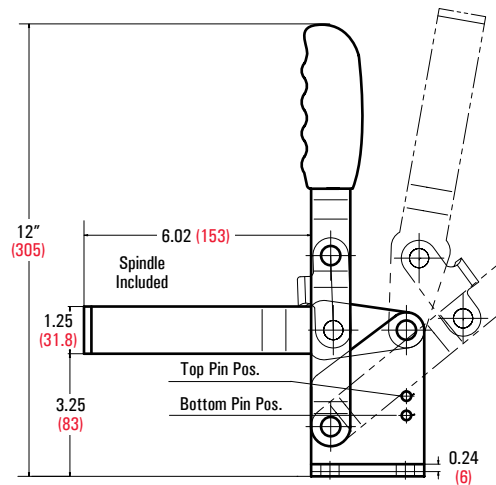
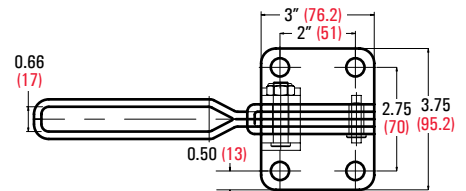


Series 101-J

- Cross Ref. : DE-STA-CO Series 267
- Holding Capacity: 1,200 lbs. (550 kg)
- Weight: 5.6 lbs. (2,540 g)
- Bar opens 100°, Handle 48° (with roll pin on top)
- Bar opens 140°, Handle 60° (with roll pin on bottom)
- Spindle Supplied: GH-SA-58500
- **Hardened bushings and removable ground pins**



GH-101-J



Model	Description
GH-101-J	U-Bar, Flanged Base
GH-101-JS	Solid Bar, Flanged Base

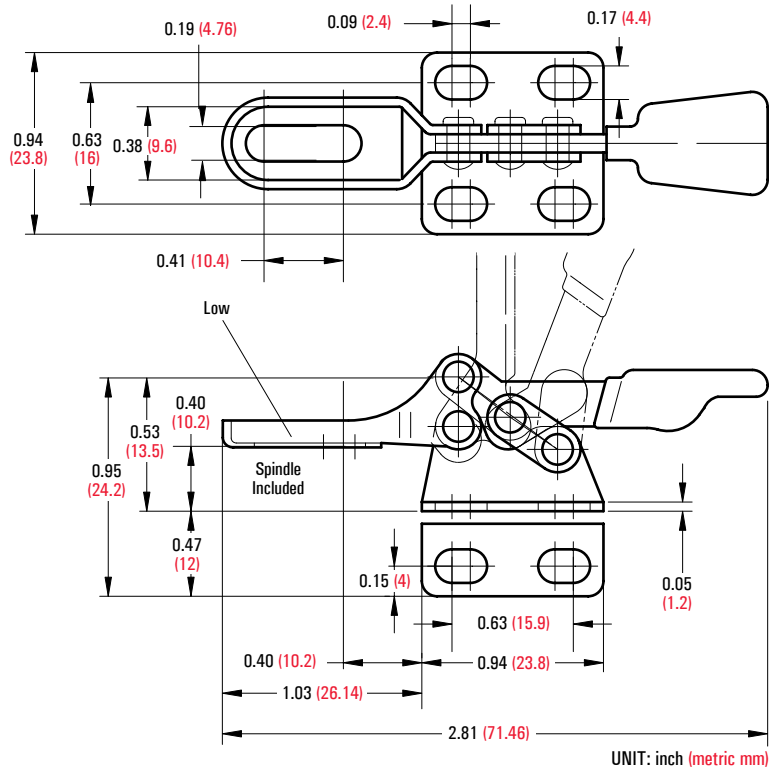
Series 22005

- Holding Capacity: 50 lbs. (22.7 kg)
- Weight: 0.06 lb. (25 g)
- Bar opens: 90°, Handle 60°
- Spindle Supplied: GH-SA-08034 (Nylon)



GH-22025

Model	Description
GH-22005	High Bar, Flanged Base
GH-22010	High Bar, Straight Base
GH-22025	Low Bar, Flanged Base
GH-22030	Low Bar, Straight Base



Series 201

- Cross Ref.: DE-STA-CO Series 205
- Holding Capacity: 60 lbs. (27 kg)
- Weight: 0.09 lb. (40 g)
- Bar opens: 90°, Handle 80°
- Spindle Supplied: GH-SA-08034 (Nylon)

This compact clamp is the most economical horizontal toggle clamp. Most suitable for holding down sheet metal or circuit boards. Many spindle bar and base combinations available.

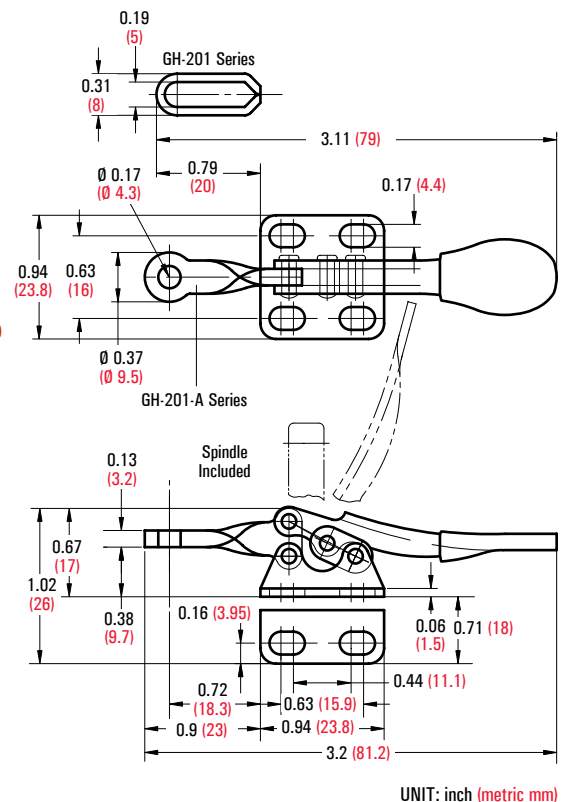


GH-201



GH-201-A

Model	Description
GH-201	U-Bar, Flanged Base
GH-201-SS	Stainless Steel Model of GH-201
GH-201-I	U-Bar, Straight Base
GH-201-L	U-Bar, Left Hand Flanged Base
GH-201-R	U-Bar, Right Hand Flanged Base
GH-201-A	Fixed Bar, Flanged Base
GH-201-ASS	Stainless Steel Model of GH-201-A
GH-201-AI	Fixed Bar, Straight Base
GH-201-AL	Fixed Bar, Left Hand Flanged Base
GH-201-AR	Fixed Bar, Right Hand Flanged Base

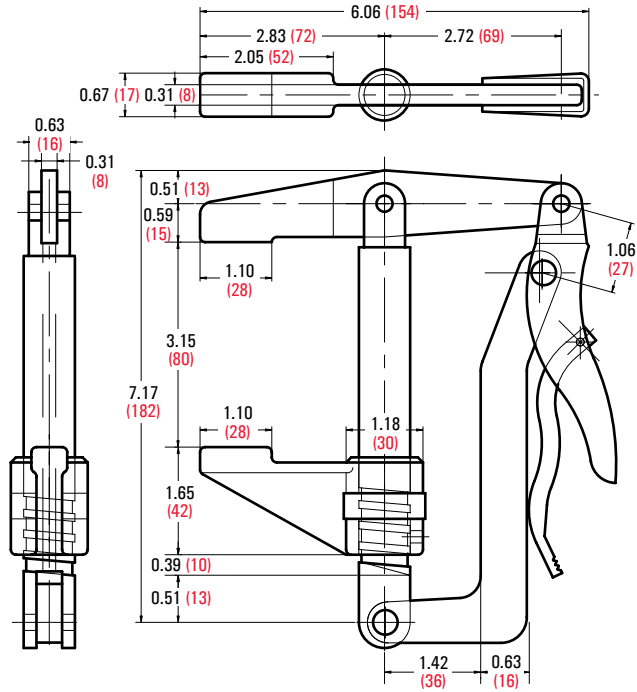


80070

- Holding Capacity: 440 lbs. (200 kg)
- Weight: 2.2 lbs. (1 kg)
- Screw stroke: 3.35" (85 mm)



GH-80070



UNIT: inch (metric mm)

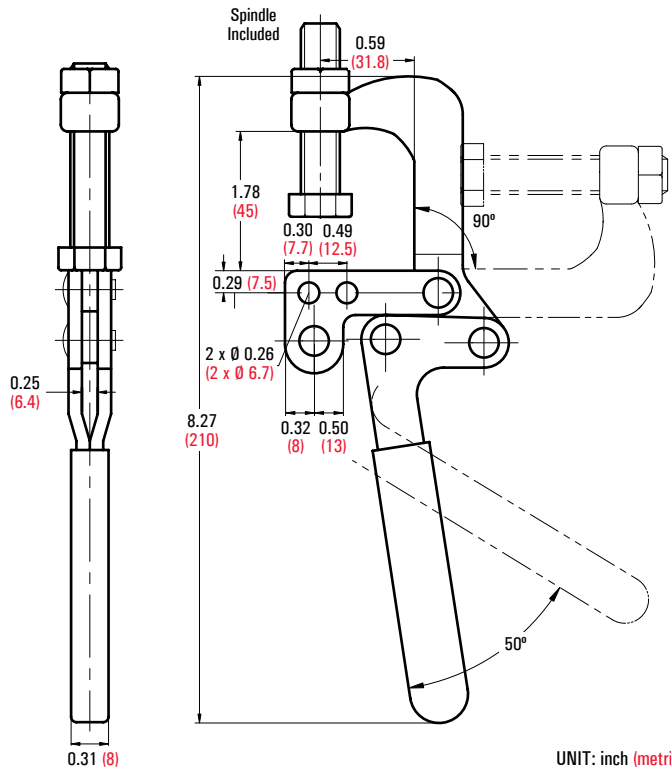
80325 & 80325-SS

- Cross Ref.: DE-STA-CO Model 325 & 325-SS
- Holding Capacity: 750 lbs. (340 kg)
- Weight: 1.10 lbs. (500 g)
- Handle Opens: 50°
- Jaw Opens: 90°
- Spindle Supplied
- **Stainless Steel Model GH-80325-SS available**

The bottom jaw is designed to be welded to container or cover. The forged jaw swings 90° for easy job loading. 1/2-13 Hex spindle supplied.



GH-80325



UNIT: inch (metric mm)

These fast acting air clamps use standard toggle clamps as the basic platform. 1/8 NPT port is standard. Maximum air pressure allowed in the cylinder is 140 PSI.



Specifications

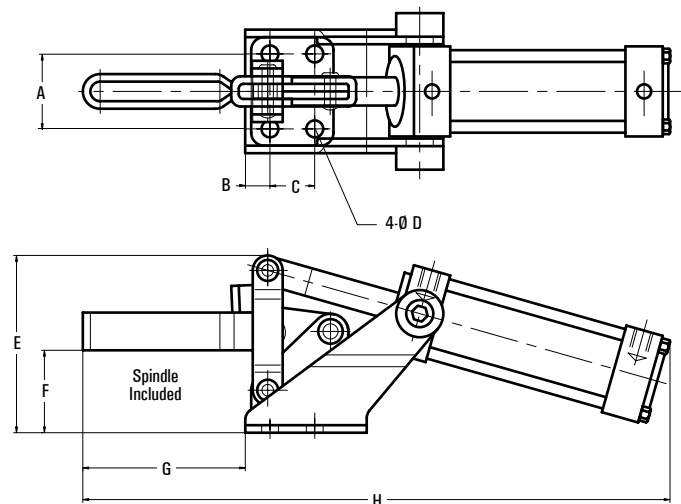
Model	Basic Model	Holding Capacity	Spindle Supplied	Bar Opens	Cylinder Bore	Cylinder Stroke
GH-10101-A	GH-101-A	150 lbs. (68 kg)	GH-FC-10138	82°	0.78 (20)	1.24 in. ² (31.4 mm ²)
GH-12050-A	GH-12050	200 lbs. (90 kg)	GH-FC-14134	95°	1.18 (30)	2.78 in. ² (70.7 mm ²)
GH-12130-A	GH-12130	350 lbs. (160 kg)	GH-FC-56212	92°	1.18 (30)	2.78 in. ² (70.7 mm ²)
GH-12132-A	GH-12132	350 lbs. (160 kg)	GH-FC-56212	92°	1.18 (30)	2.78 in. ² (70.7 mm ²)
GH-12265-A	GH-12265	600 lbs. (272 kg)	GH-FC-38312	95°	1.57 (40)	4.94 in. ² (125.6 mm ²)
GH-12275-A	GH-12275	600 lbs. (272 kg)	GH-FC-38312	95°	1.57 (40)	4.94 in. ² (125.6 mm ²)
GH-10247-A	GH-10247	800 lbs. (364 kg)	GH-FC-12300	95°	2 (50)	7.73 in. ² (196.3 mm ²)
GH-10249-A	GH-10249	800 lbs. (364 kg)	GH-FC-12300	95°	2 (50)	7.73 in. ² (196.3 mm ²)
GH-20820-A	GH-20820	350 lbs. (160 kg)	GH-FC-56212	90°	1.18 (30)	2.78 in. ² (31.4 mm ²)

UNIT: inch (metric mm)

Dimensions

Model	A	B	C	Ø D	E	F	G	H
GH-10101-A	0.94 (23.8)	0.20 (4.8)	0.63 (15.9)	0.13 (4.4)	1.60 (40.7)	0.69 (17.5)	0.94 (24)	6.63 (168.5)
GH-12050-A	1.06 (27)	0.25 (6.3)	0.50 (12.7)	0.20 (5.2)	2.19 (55.7)	1.06 (27)	1.38 (35)	7.28 (185)
GH-12130-A	1.26 (32)	0.39 (10)	0.75 (19)	0.28 (7.1)	2.97 (75.4)	1.33 (33.8)	2.68 (68)	9.31 (236.5)
GH-12132-A	1.26 (32)	0.39 (10)	0.75 (19)	0.28 (7.1)	2.97 (75.4)	1.35 (34.2)	3.47 (88.2)	10.24 (260)
GH-12265-A	1.78 (45.2)	0.37 (9.5)	1.25 (31.8)	0.33 (8.3)	3.69 (93.7)	1.75 (44.2)	3.47 (88.2)	15.43 (392)
GH-12275-A	1.78 (45.2)	0.37 (9.5)	1.25 (31.8)	0.33 (8.3)	3.69 (93.7)	1.75 (44.2)	3.47 (88.2)	11.89 (302)
GH-10247-A	1.78 (45.2)	0.74 (19)	1.25 (31.8)	0.33 (8.3)	4.33 (110)	2.18 (55.3)	4.52 (114.8)	16.02 (407)
GH-10249-A	1.78 (45.2)	0.74 (19)	1.25 (31.8)	0.33 (8.3)	4.33 (110)	2.18 (55.3)	4.52 (114.8)	16.02 (407)
GH-20820-A	0.98 (25)	0.65 (17)	0.63 (16)	0.28 (7)	7.68 (195)	2.75 (70)	2.36 (60)	6.50 (165)

UNIT: inch (metric mm)






Toggle Clamps

Side Push-Pull Free Mounting Direction / Horizontal (Flange Base)

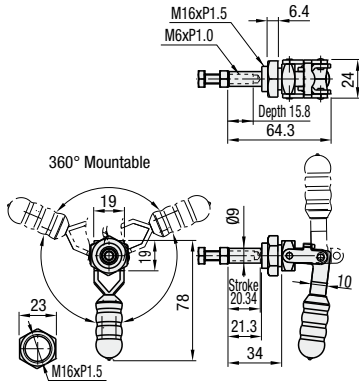
Toggle Clamps

Hold Down, Vertical Handle (Flange Base)

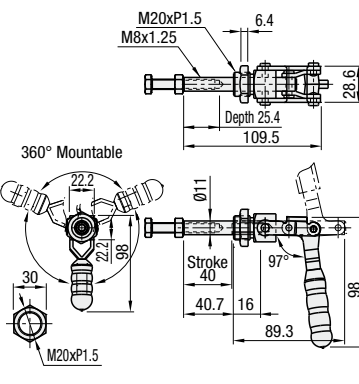
1N=0.101972kgf

Side Push-Pull Free Mounting Direction		Part Number	MC02-1	MC02-S1	Side Push-Pull Free Mounting Direction		Part Number	MC02-2	MC02-S2	Side Push-Pull Free Mounting Direction		Part Number	MC02-3
 (Clamped) RoHS	Body Material	SS400	SUS304	Shaft Material: SUS416 Pin: SUS410	 (Clamped) RoHS	Body Material	SS400	SUS304	Shaft Material: SUS416 Pin: SUS410	 (Clamped) RoHS	Body Material	SS400	SS400
	Surface Treatment	Trivalent Chromate	-	Trivalent Chromate		Trivalent Chromate							
	Stroke (mm)	20.34	40	40									
	Tightening Force (N)	900	1470	3138									
	Handle Open-Close Angle	180°	180°	180°									
	Weight (g)	120	280	750									
	Accessory	Steel Bolt	Stainless Steel Bolt	Steel Bolt		Stainless Steel Bolt	Steel Bolt						
	Unit Price												

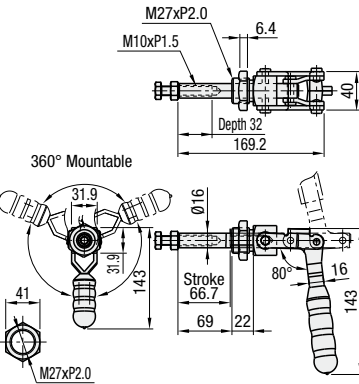
MC02-1
MC02-S1 (Stainless Steel)



MC02-2
MC02-S2 (Stainless Steel)



MC02-3

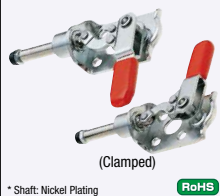


Horizontal (Flange Base)



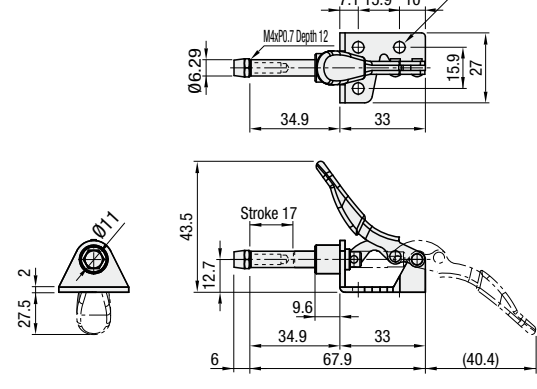
Part Number	MC03-1	MC03-S1
Body Material	SS400	SUS304
Surface Treatment	* Trivalent Chromate	-
Stroke (mm)	17	
Tightening Force (N)	450	
Handle Open-Close Angle	190°	
Weight (g)	50	
Accessory	Bolt with Rubber Material: NBR Hardness: Shore A70	* Stainless Steel Bolt
Unit Price		

Horizontal (Flange Base)

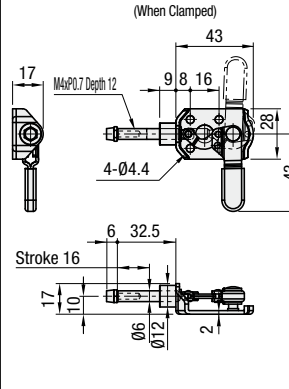


Part Number	MC03-2	MC03-3
Body Material	SS400	SS400
Surface Treatment	* Trivalent Chromate	-
Stroke (mm)	16	16
Tightening Force (N)	500	500
Handle Open-Close Angle	180°	180°
Weight (g)	65	65
Accessory	Bolt with Rubber Material: NBR Hardness: Shore A70	Bolt with Rubber Material: NBR Hardness: Shore A70
Unit Price		

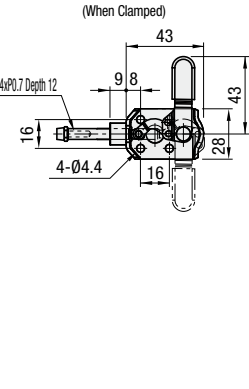
MC03-1
MC03-S1 (Stainless Steel)



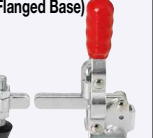


MC03-2
(Right Turn)

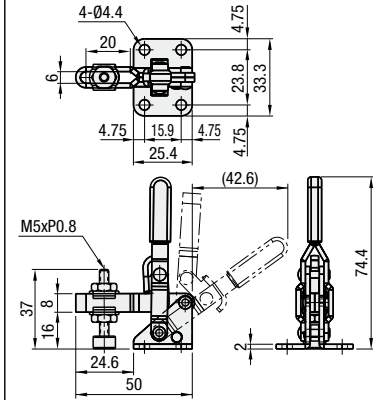


MC03-3
(Left Turn)

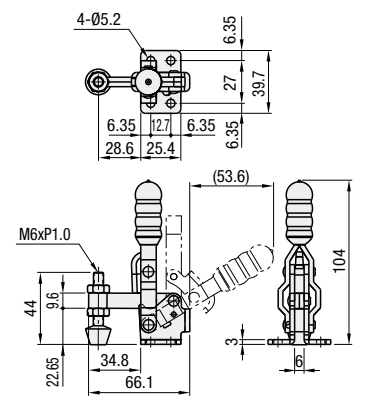


Hold Down, Vertical Handle (Flange Base)		Part Number	MC04-1	MC04-S1	Hold Down, Vertical Handle (Flange Base)		Part Number	MC04-2	MC04-S2	Hold Down, Vertical Handle, Welded Tip (Flanged Base)		Part Number	MC04-5
 (Clamped) RoHS	Body Material	SS400	SUS304	SUS304	 (Clamped) RoHS	Body Material	SS400	SUS304	SUS304	 (Clamped) RoHS	Body Material	SS400	SS400
	Surface Treatment	Trivalent Chromate	-	-		Trivalent Chromate	Trivalent Chromate						
	Tightening Force (N)	441	882	2270									
	Weight (g)	60	170	340									
	Arm Open-Close Angle	100°	95°	100°									
	Handle Open-Close Angle	56°	60°	56°									
	Accessory	Bolt with Rubber Material: NBR Hardness: Shore A70	* Stainless Steel Bolt	Bolt with Rubber Material: NBR Hardness: Shore A70		* Stainless Steel Bolt	Bolt with Rubber Material: NBR Hardness: Shore A70						
	Unit Price												

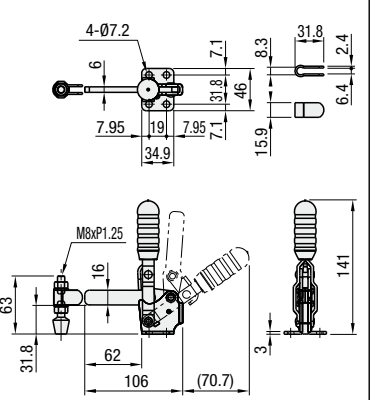
MC04-1
MC04-S1 (Stainless Steel)



MC04-2
MC04-S2 (Stainless Steel)



MC04-5

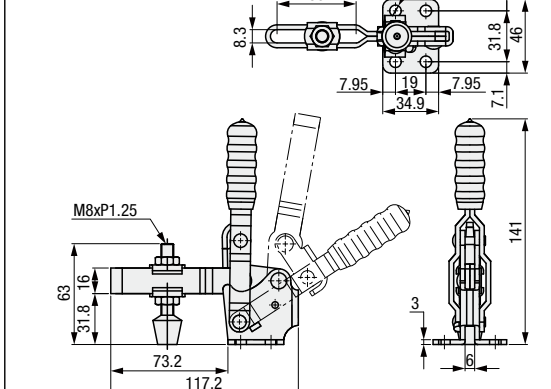


Hold Down, Vertical Handle (Flange Base)



Part Number	MC04-3	MC04-S3
Body Material	SS400	SUS304
Surface Treatment	Trivalent Chromate	-
Tightening Force (N)	2205	
Weight (g)	355	
Arm Open-Close Angle	100°	
Handle Open-Close Angle	56°	
Accessory	Bolt with Rubber Material: NBR Hardness: Shore A70	* Stainless Steel Bolt
Unit Price		

MC04-3
MC04-S3 (Stainless Steel)

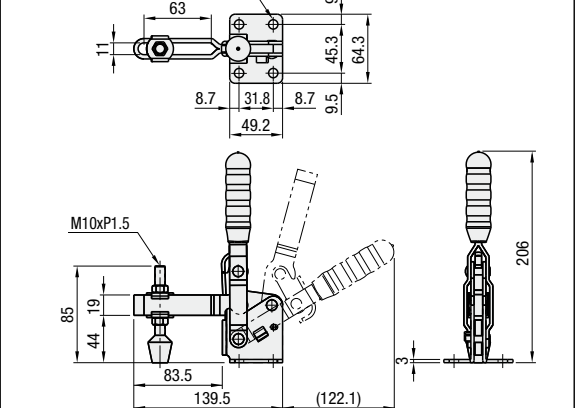


Hold Down, Vertical Handle (Flange Base)

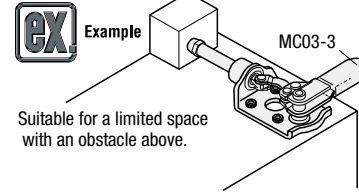


Part Number	MC04-4
Body Material	SS400
Surface Treatment	Trivalent Chromate
Tightening Force (N)	3332
Weight (g)	635
Arm Open-Close Angle	112°
Handle Open-Close Angle	61°
Accessory	Bolt with Rubber Material: NBR Hardness: Shore A70
Unit Price	

MC04-4

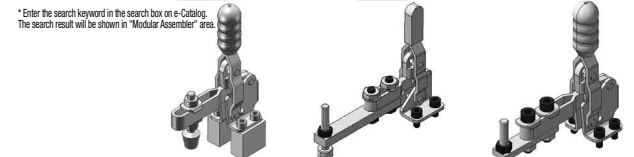


Ordering Example **Part Number** MC02-1



Ordering Example **Part Number** MC04-1

Combination of these app. examples can be selected on our website. Selection Procedure Details **P87**
e-Catalog Search Keyword
#MA93 Search #MA521 Search #MA523 Search



Toggle Clamps

Side Push (Flange Base) / Smooth Stroke (Flange Base)

Toggle Clamps

Welding Clamps (Flange Base, Straight Base)

■ Features: MC07-14, MC07-15 and MC07-16 can be used for welding and machining fixtures.

1N=0.101972kgf

Side Push (Flange Base)



(Clamped)

* Shaft: Nickel Plating

Part Number	MC07-14
Material	Main Body / Attaching Portion: S45C
Surface Treatment	Chemical Conversion Coating
Stroke (mm)	43
Tightening Force (N)	3000
Weight (g)	1600
Handle Open-Close Angle	115°
Accessory	Steel Bolt
Unit Price	

Side Push (Flange Base)

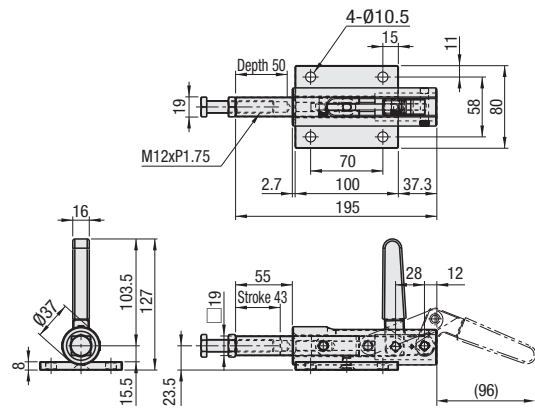


(Clamped)

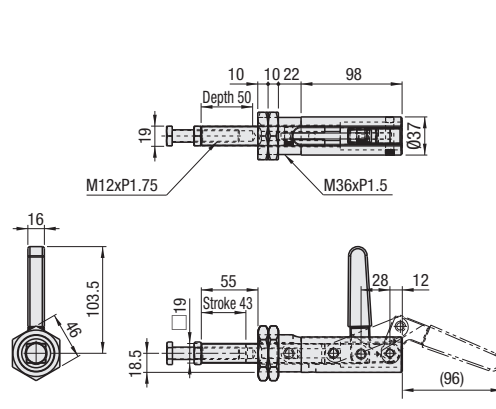
* Shaft: Nickel Plating

Part Number	MC07-15
Material	Main Body / Attaching Portion: S45C
Surface Treatment	Chemical Conversion Coating
Stroke (mm)	43
Tightening Force (N)	3000
Weight (g)	1280
Handle Open-Close Angle	115°
Accessory	Steel Bolt
Unit Price	

MC07-14



MC07-15



Side Push (Flange Base)



(Clamped)

* Shaft: Nickel Plating

Part Number	MC07-16
Material	Main Body: SS400 / Attaching Portion: FC2450
Surface Treatment	Main Body: Trivalent Chromate / Attaching Portion: Chemical Conversion Coating
Stroke (mm)	76
Tightening Force (N)	16000
Weight (g)	4360
Handle Open-Close Angle	180°
Accessory	Steel Bolt, Tube
Unit Price	

Smooth Stroke (Flange Base)



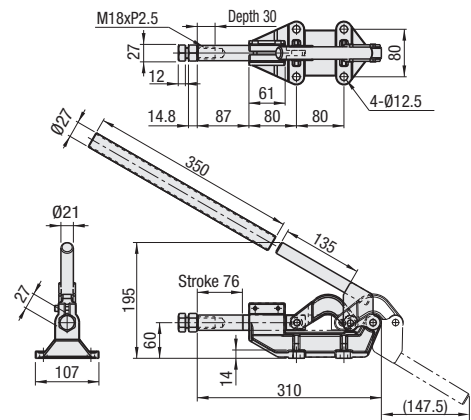
(Clamped)

* Shaft: Nickel Plating

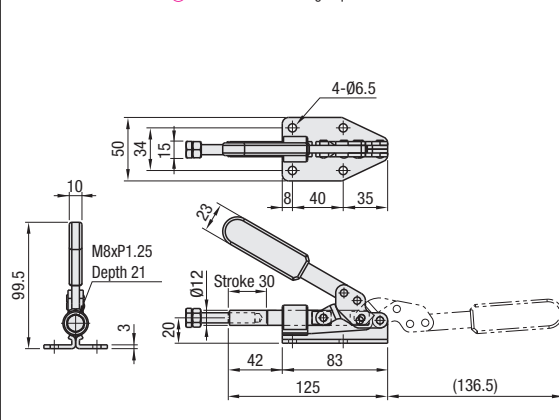
Part Number	MC08-1
Body Material	SS400
Surface Treatment	* Trivalent Chromate
Oil Free Bushing	MDZB12-20: 1 pc.
Stroke (mm)	30
Tightening Force (N)	1960
Handle Open-Close Angle	140°
Weight (g)	380
Accessory	Steel Bolt
Unit Price	

☛ Built-in Oil Free Bushing requires no lubrication.

MC07-16

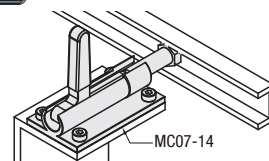


MC08-1



Ordering Example	Part Number
	MC07-14 MC08-1

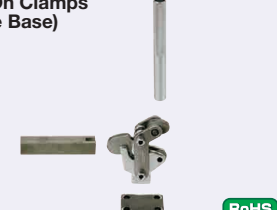
ex Example



■ Features: MC09-2S is Straight Base Type of Welding Clamp MC09-2.

1N=0.101972kgf

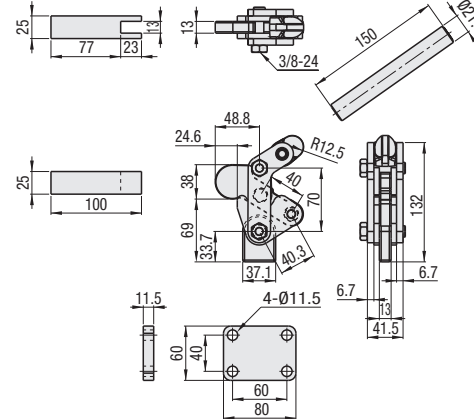
Weld-On Clamps (Flange Base)



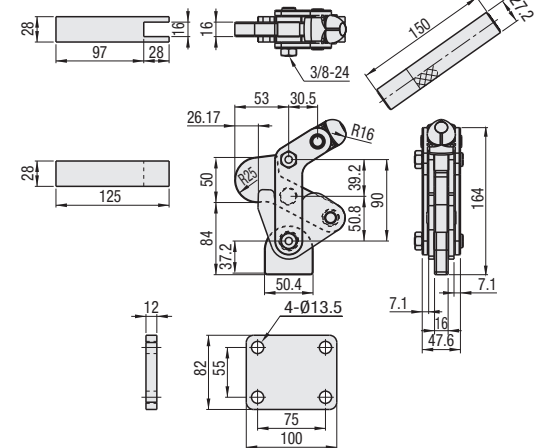
RoHS

Part Number	MC09-1	MC09-2	MC09-3
Body Material	SS400 (with Hardened Bushing)		
Weight (g)	845	2130	4100
Tightening Force (N)	1960	4900	9800
Handle Movement Angle	122°	122°	128°
Arm Movement Angle	196°	191°	197°

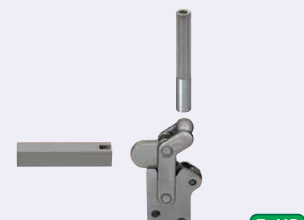
MC09-2



MC09-3



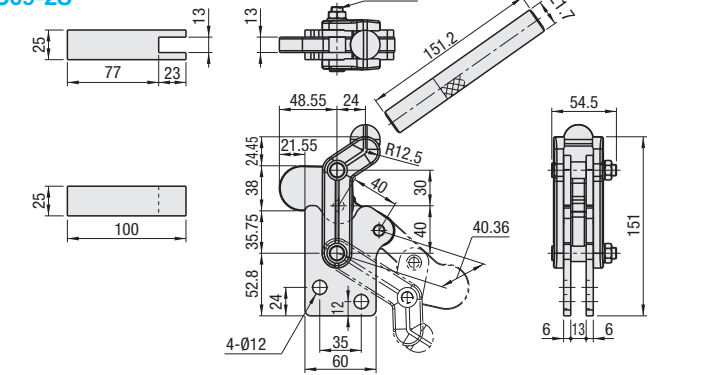
Weld-On Clamps (Straight Base)



RoHS

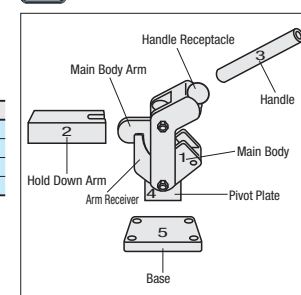
Part Number	MC09-2S
Body Material	SS400 (with Hardened Bushing)
Weight (g)	2500
Tightening Force (N)	5000
Handle Movement Angle	122°
Arm Movement Angle	191°

MC09-2S



Ordering Example	Part Number
	MC09-1 MC09-2S

ex How to Use Welding Clamps for Various Applications



Weld-On Clamps are composed of 4 parts shown to the left; handle, main body, base and arm.

- Determine the mounting position of the main body.
- Determine the length of the control arm, then connect to the body arm by welding.
- Given space from the fixture for clamp mounting, determine the height of the handle, and weld the handle and the body handle receiver.
- Determine the angle between the main body and the supporting plate, and weld them together.
- Determine how to mount a clamp on to the fixture. If the base is used, weld the base and the supporting plate together.

Assemble a Weld-On clamp as described above.

- Welding Clamps can be flexibly assembled depending on different working situations, thus can be used in wide range of applications.
- Heat treatment (hardness 60HRC) ensures abrasion-resistant assembly of the pin constituting the supporting point, and the surrounding bushing. The clamps are best for fixtures that require frequent use or accuracy.

Part Number	Unit Price
MC09-1	
MC09-2	
MC09-3	
MC09-2S	

Tips for Clamps

Components for Toggle Clamps

Two-Pronged Clamp Arms, Clamp Arm Extension Kits, Clamp Brackets

Features: Bolts for Toggle Clamps. In addition to the standard type, we offer a variety of types of bolts that are highly capable of resisting abrasion, or buffering impacts from a workpiece.

Tips (Standard)

(NBR)

RoHS

Type	Tip		Bolt	
	Material	Hardness	Material	Surface Treatment
MC4-15	NBR	Shore A70	Steel	Trivalent Chromate
MCS4-32	NBR	Shore A70	Stainless Steel	-

Part Number	M-ℓ (Thread Effective Length)	L (O.A.L)	t1	t2	d	d1	Unit Price
MC4-15	4-15	25	2	8	8	12	
MC4-32	4-32	42	2	8	8	12	
MC5-27	5-27	38	4	7	11.3	13.5	
MC5-69	5-69	80	4	7	11.3	13.5	
MC6-37	6-37	51	2	12	10	16	
MC6-62	6-62	76	2	12	10	16	
MC6-87	6-87	101	2	12	10	16	
MC8-45	8-44.5	63	3.5	15	12.5	19	
MC8-75	8-74.5	93	3.5	15	12.5	19	
MC8-105	8-104.5	123	3.5	15	12.5	19	
MC10-59	10-59	85	6	20	16	24	
MC12-66	12-66	100	9	25	22	32	

Part Number	M-ℓ (Thread Effective Length)	L (O.A.L)	t1	t2	d	d1	Unit Price
MCS4-15	4-15	25	2	8	8	12	
MCS4-32	4-32	42	2	8	8	12	
MCS6-37	6-37	51	2	12	10	16	
MCS8-45	8-44.5	63	3.5	15	12.5	19	

Tips (Standard)

(Urethane)

RoHS

Type	Tip		Bolt	
	Material	Hardness	Material	Surface Treatment
TGUB	Urethane*	Shore A90	Steel	Trivalent Chromate

* Excellent in abrasion resistance compared to NBR.
* Gate marks from casting remain in urethane portion. (No adverse effect on actual use)

Part Number	M-ℓ	L	t1	t2	d	d1	Unit Price
TGUB 4-13	4-13	23	2	8	8	12	
TGUB 4-32	4-32	42	2	8	8	12	
TGUB 6-37	6-37	51	2	12	10	16	
TGUB 6-87	6-87	101	2	12	10	16	
TGUB 8-49	8-49	67	5	13	12	19	
TGUB 8-105	8-105	123	5	13	12	19	

Tips (Universal)

RoHS

Part Number	Tip		Bolt	
	Material	Surface Treatment	Material	Surface Treatment
TGAR	SUM24	Black Oxide	SUM24	Black Oxide
STGAR	SUS304	-	SUS304	-

Part Number	M-ℓ	L	D	D1	d	Unit Price
TGAR 4-13	4-13	23	13	7	2.2	
TGAR 4-32	4-32	42	13	7	2.2	
TGAR 6-37	6-37	51	16	9	3.2	
TGAR 8-49	8-49	67	16	11	5.2	

Tips (Rubber Bolt with Springs)

RoHS

Part Number	Tip		Bolt		Spring
	Material	Hardness	Material	Surface Treatment	Material
TGSP	NBR (Nitrile Rubber)	Shore A70	SS400	Black Oxide	SUS304-WPB
STGSP	NBR (Nitrile Rubber)	Shore A70	SUSXM-7	-	SUS304-WPB

Part Number	Max. Stroke	Load N (kgf)	Unit Price
TGSP STGSP	4	30 (3)	

Tips (Rubber Bolt with Spring and Resin Pad)

RoHS

Part Number	Pad		Bolt		Spring
	Material	Material	Surface Treatment	Material	Material
TGSPM	Polycetal (White)	S45C	Black Oxide	SUS304-WPB	

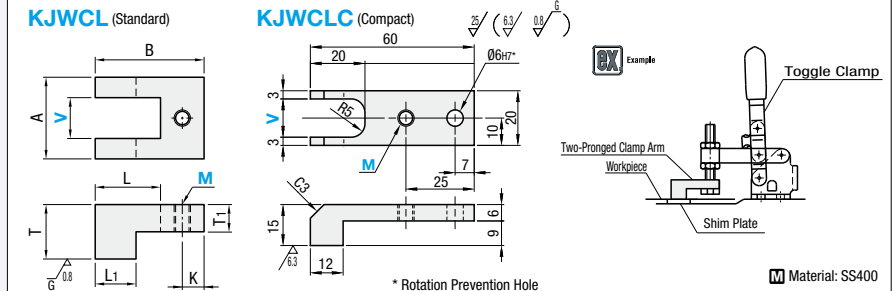
Part Number	M	S (Stroke)	min. Load (N)	max. Load (N)	Unit Price
TGSPM 4	4	3	19.4	29.1	
TGSPM 6	6	4	21.8	30.5	
TGSPM 8	8	8	18.8	32.4	

M	L	L1	T	D	d
4	34.5	20	2	12	5.6
6	50	30	4	13	7.2
8	60	30	5	14	7.8

Ordering Example Part Number MC4-32 MCS6-37

Two-Pronged Clamp Arms

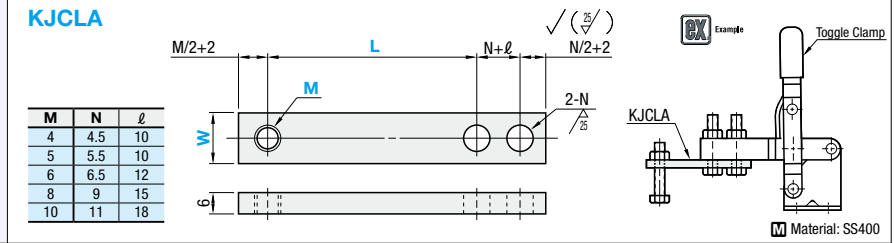
RoHS



Part Number	Type	V	M Selection	A	B	L	L1	K	T	T1	Unit Price
KJWCL	10	4	6	20	30	18	10	6	15	7	
	15	6	8	30	40	24	15	8	20	10	
	20	8	10	40	50	30	20	10	25	12	
KJWCLC	14	4	6	8	(Described in the Drawing)						

Clamp Arm Extension Kits

RoHS

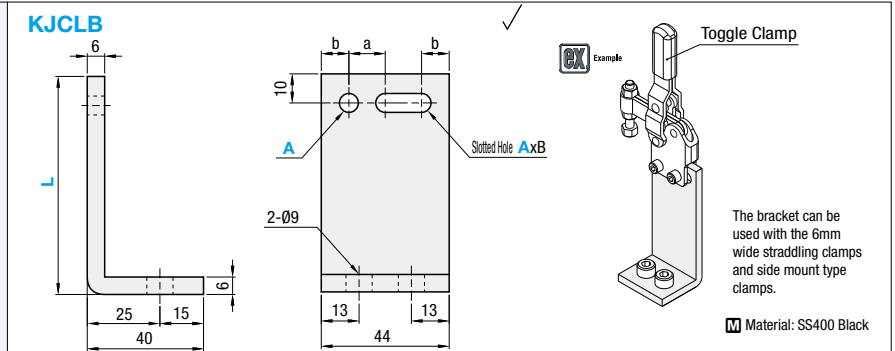


Part Number	Type	W	L Selection						M Selection					Unit Price					
			10'	20	30	40	50	60	4	5	6	L10	L20	L30	L40	L50	L60		
KJCLA	10	16	10'	20	30	40	50	60	4	5	6	-	-	-	-	-	-		
									8	10	-	-	-	-	-	-	-		

* M6, 8 or 10 is not selectable for L10. (due to an interference with the holes or the mounted bolt nuts)

Clamp Brackets

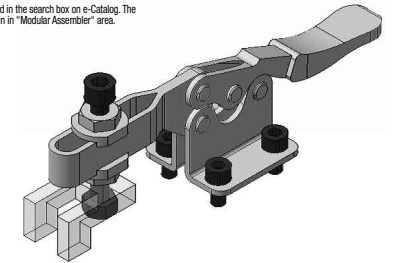
RoHS



Part Number	Type	No.	L Selection					Hole Dia.		Hole Pitch		Unit Price				
			50	75	100	125	150	A Selection	B	a	b	L50	L75	L100	L125	L150
KJCLB	6	6	50	75	100	125	150	6.5	19	13.5	9	480	550	660	750	860
								8.5	21	12.5	9.5					

Ordering Example Part Number - L - M - A
 KJWCLC14 - L60 - M6 - A6.5
 KJCLA10 - L60 - M6 - A6.5
 KJCLB6 - L100

Example Combination of these app. examples can be selected on our website. Selection Procedure Details #P87
 e-Catalog Search Keyword #MA551 Search
 *Enter the search keyword in the search box on e-Catalog. The search result will be shown in "Modular Assembler" area.



Alterations Part Number - L - M - A - (STC) KJCLA10 - L60 - M6 - STC Express Service is not available.

Alterations	Code	Spec.
Additional Surface Treatment	STC	Adds black oxide surface treatment.