

NEW

Models 6001-M and 6001-MSS:

Model 6001 is a heavier duty version of Model 601 and has 50% greater holding capacity. It has a more flexible mounting base to enable side-mounting the clamp.



page **4.3**

NEW

Models 95030, 95040, 95050, 95060:

Low profile plunger clamps

These new low-profile plunger clamps can be used where over-head clearance is a problem. The large holding capacities for these clamps are packaged in a small compact design.



page **4.20**

NEW

Models 6015-M and 6015-MR: Compact and robust

Model 6015-M is the smallest of the straight-line, machined-cast base clamps. Its compact size allows it to be used in confined areas and on small fixtures. Handles are red vinyl dipped for greater operator comfort.



page **4.8**

NEW

Models 685-S, 685-L: Square plunger clamps

Models 685-S and 685-L feature high strength steel construction and broached bodies. Model 685-S offers shorter plunger travel than Model 685-L. Can be mounted in any desired position.



page **4.21**

NEW

Model 603-MR: With additional safety lock

Patented design locks the release lever into the forged steel base to prevent accidental opening. The 603-MR is well adapted for use in confined areas because of its small package size and low height.



page **4.11**

Product group – straight-line action clamps

Application areas

Ideal for clamping during soldering, gluing, locking, assembling, drilling, testing, positioning and much more. The straight-line action clamp range are distinguished by their compact design many versions lock in both the extended and retracted positions. They can withstand relatively high stresses.

The essential product features

- The handle is easy to operate and moves the plunger of the clamp in and out along its axis
- Most versions lock in the extended and retracted positions
- Clamps can be mounted through drilled holes in the fixture, or using the flanged or straight mounting base

Model 604-MM in a robot-type welding fixture



	Model no.	Holding Capacity [N]	Category	Page
	6001-M	600	Standard	4.3
	601-M 601-O	400 400	Standard NEW! Standard	4.4
	602-MM 604-MM 624-MM	900 1.300 3.000	Threaded-body Threaded-body Threaded-body	4.5
	6004-MM	2.600	Threaded-body	4.6

	Model no.	Holding Capacity [N]	Category	Page
	6015-M	1.600	Standard	4.8
	6015-MR	1.600	Standard	4.9
	603-M 608-M	2.700 3.800	Standard NEW! Standard	4.10
	605-M	1.300	Standard	4.10

Product group – straight line action clamps

	Model no.	Holding Capacity [N]	Category	Page
	603-MR	2.700	Standard	4.11
	606-M	2.000	Standard	4.12
	607-M 607-SQM	3.600 3.600	Standard Standard	4.13
	609 609-B	1.300 1.300	NEW! Standard NEW! Standard	4.14
	610-M	3.600	Standard	4.15
	615	1.300	NEW! Standard	4.15
	614-M	5.000	Standard	4.16
	620-M	2.700	Standard	4.17

	Model no.	Holding Capacity [N]	Category	Page
	630-M 640-M	11.000 30.000	Standard Standard	4.18
	630-MR	11.000	Standard	4.18
	650-M	70.000	Standard	4.19
	95030 95040 95050 95060	2.500 4.900 7.400 17.600	Standard Standard Standard Standard	4.20
	685-L 685-S	15.600 15.600	Heavy-duty Heavy-duty	4.22
	670-1MBPLS 675-1MBPLS 690-1MBPLS 695-1MBPLS	6.700 6.700 15.100 15.100	Heavy-duty Heavy-duty NEW! Standard NEW! Standard	4.22
	SL3	600	NEW! Plastic	4.24

Standard straight-line action clamps

NEW

Application areas

Model 6001-M is a heavier duty version of Model 601 and has 50% greater holding capacity. It is manufactured from heavy gauge material and has a more flexible mounting base to enable side-mounting the clamp.

Product features

- Plunger with internal thread
- Rivets made of stainless steel
- Zinc plated and passivated
- Oil-resistant, vinyl dipped handle grip

Model 6001-M

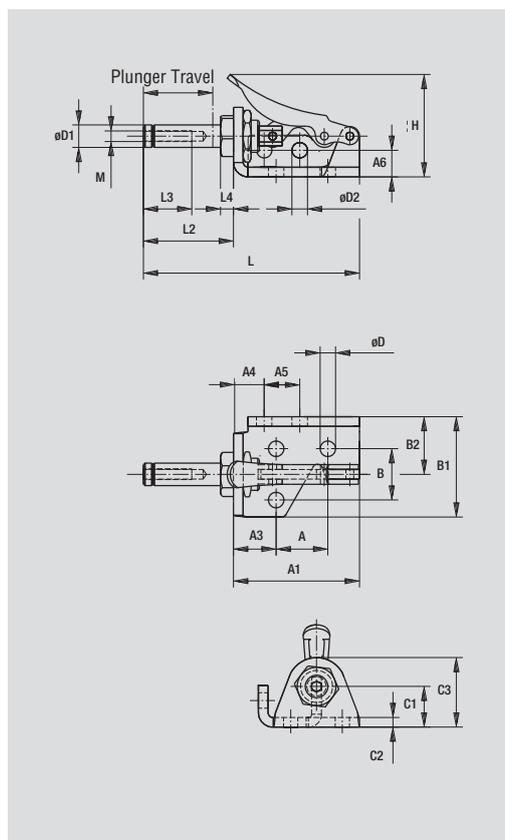
Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
6001-M	600	15,8	0,054	205208-M	M4

ALSO AVAILABLE

In Stainless Steel Model 6001-MSS Page 8.10

See accessories beginning on page 10.1

- Model locks in both the extended and retracted positions.



Model no.	A	A1	A3	A4	A5	A6	B	B1	B2	C1	C2	C3	ØD	ØD1	ØD2	H	L	L2	L3	L4	M
 6001-M	16,0	39,1	13,2	9,4	10,9	8,4	16,0	31,2	18,0	12,7	3,0	21,6	4,8	7,1	4,8	35,3	66,8	27,9	15,0	4,1	M4

Standard straight-line action clamps

Application areas

Ideal for all applications in which work is performed with holding capacities of up to 100 lbs., including gluing, soldering, assembling, drilling, testing, positioning and other processing operations.

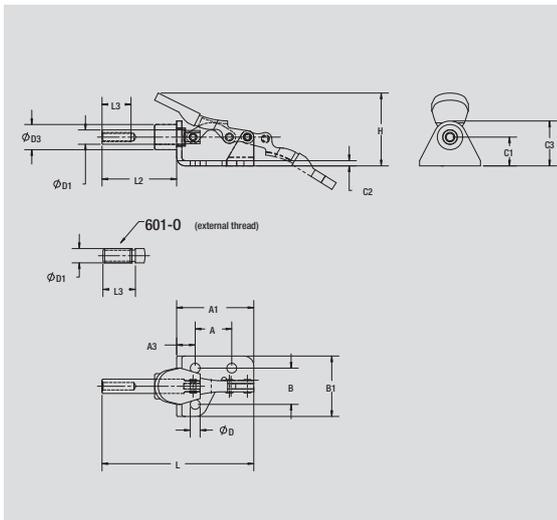
Product features

- Flanged mounting base
- Plunger with internal thread
- Rivets made of stainless steel
- Zinc plated
- Oil-resistant, vinyl dipped handle grip

Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.

Model 601-M, 601-O



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
601-M	400	16	0,04	205208-M	M4
601-O	400	16	0,04	–	1/4-20

ALSO AVAILABLE		
As Air/Hydraulic	Model 816-M	Page 12.18
In Stainless Steel	Model 601-OSS Model 601-SS	Page 8.9
See accessories beginning on page 10.1		

- Models lock in both the extended and retracted positions.



Model no.	A	A1	A3	B	B1	C1	C2	C3	ØD	ØD1	ØD3	H	L	L2	L3
601-M ▲	16,0	33,8	8,1	16,0	26,7	12,7	2,3	19,8	4,3	M4	11,2	32,3	66,3	32,5	12,7
601-O ▲	16,0	33,8	8,1	16,0	26,7	12,7	2,3	19,8	4,3	6,4	–	32,3	72,6	38,9	14,2

▲ Available upon request

Threaded-body straight-line action clamps

Application areas

Ideal for all applications in which work is performed with holding capacities of up to 700 lbs., including gluing, soldering, assembling, drilling, testing, positioning, also locking of containers and other processing operations.

This series is distinguished by its compact design. The single hole threaded mount permits rotation in any direction, allowing complete flexibility in the fixture.

Product features

- Threaded body for direct installation in mounting plates and fixtures
- Plunger with internal thread
- Rivets made of stainless steel
- Zinc plated
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip

Accessories

- This series is delivered with a mounting jam nut as standard. Adjustment spindles can be ordered as an accessory part.
- You will find the matching mounting plate in the table on of this page. Please specify the corresponding model number with your order.

Models 602-MM, 604-MM, 624-MM

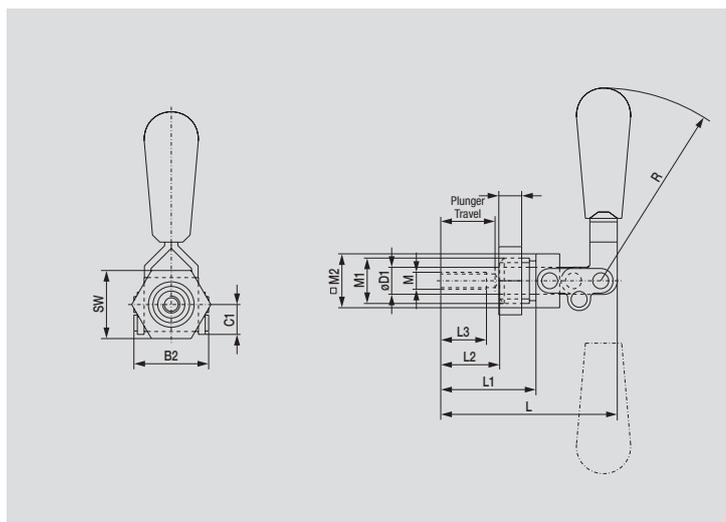
Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)	Mounting Plate Accessories	Mounting Nut Standard Equipment
602-MM	900	19	0,11	205203-M	M6	602106-M	602105-M
604-MM	1.300	38	0,28	205203-M	M8	604106-M	606104-M
624-MM	3.000	66	0,75	205203-M	M10	624106-M	624105-M

ALSO AVAILABLE

In Stainless Steel Model 602-SS, 604-MMSS Page 8.11
Model 624-SS Page 8.11

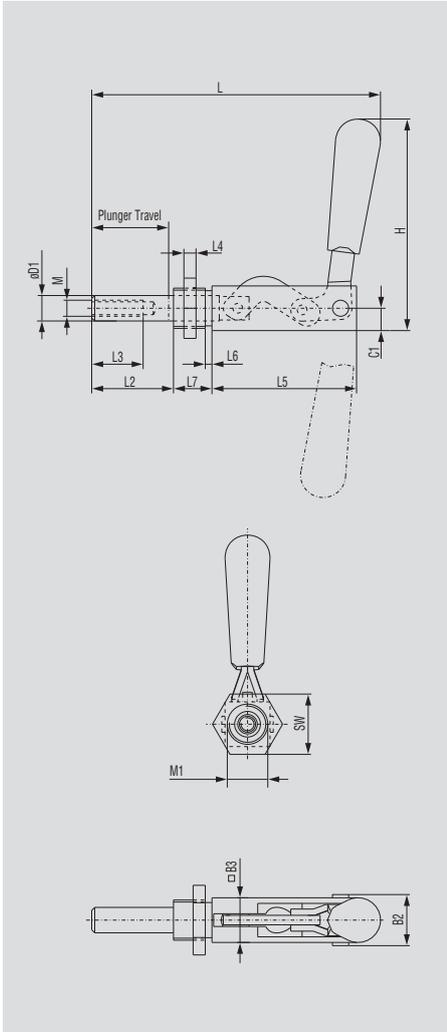
See accessories beginning on page 10.1

- Models lock in both the extended and retracted positions.

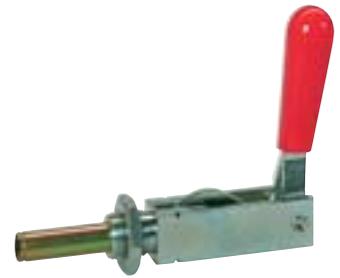


Model no.	B2	C1	ØD1	H	L	L1	L2	L3	L4	M1	M2	SW	M	R
 602-MM	26,2	11,9	9,4	78,2	61,7	33,3	24,9	16,0	6,1	M16x1.5	19,1	24,0	M6	68
 604-MM	33,0	15,0	11,2	104,9	108,0	55,4	46,7	25,4	6,1	M20x1.5	22,4	30,0	M8	92
 624-MM	46,0	20,6	15,7	138,4	169,7	91,9	82,8	31,8	6,1	M27x2	31,8	41,0	M10	125

Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)	Mounting Plate Accessories	Mounting Nut Standard Equipment
6004-MM	2.600	38	0,3	207203-M	M8	604106-M	606104-M



■ Models locks in both the extended and retracted positions.



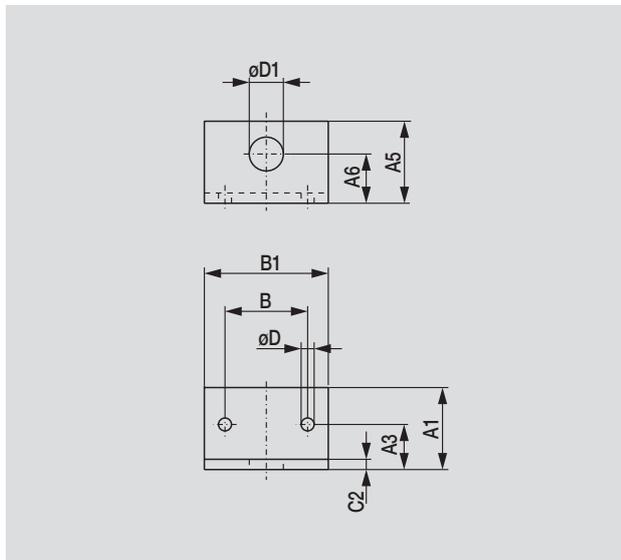
Model no.	B2	B3	C1	ØD1	H	L	L2	L3	L4	L5	L6	L7	M1	SW	M				
 6004-MM	25,4	22,4	11,2	12,7	106,9	140,2	40,4	25,4	6,1	71,4	3,6	19,1	M20x1,5	30,0	M8				

Mounting plate for series

602-MM, 604-MM, 624-MM, 6004-MM

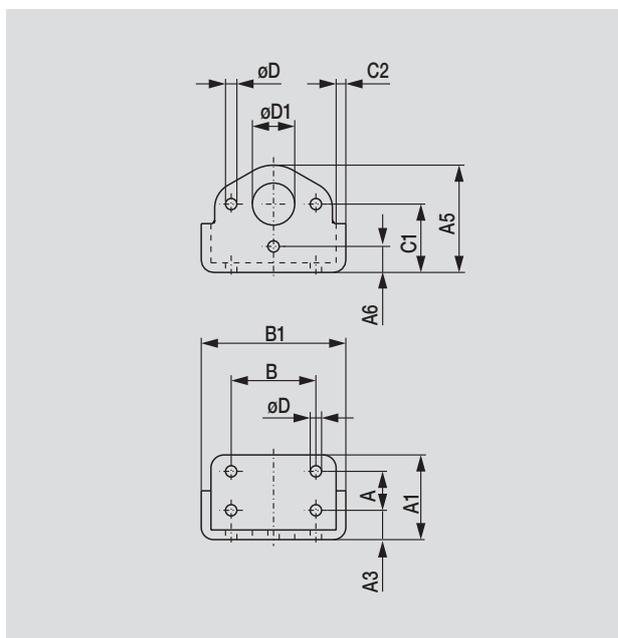
For model **602-MM**

Order no.: 602106-M



For model **604-MM, 6004-MM**

Order no.: 604106-M

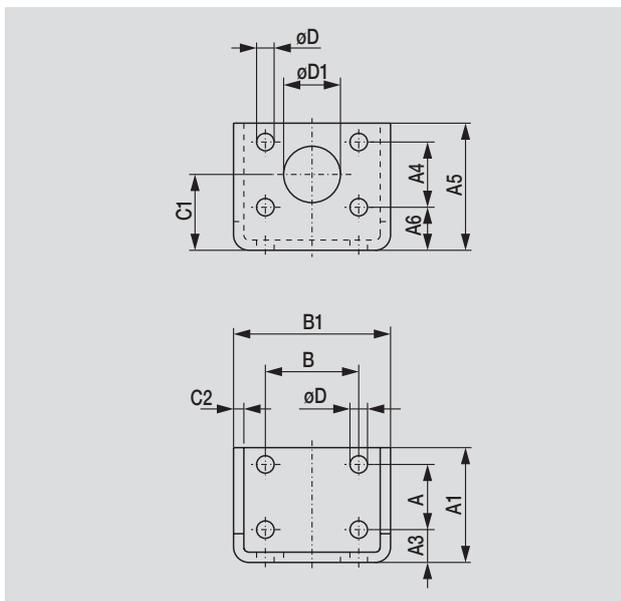


For model **624-MM**

Order no.: 624106-M

For model **624**

Order no.: 624108



Model no.	For Model	A	A1	A3	A4	A5	A6	B	B1	C1	C2	ØD	ØD1					
602106-M	602-MM	-	39,9	22,1	-	39,9	-	39,9	59,9	23,9	5,1	6,6	16,5					
604106-M	604-MM, 6004-MM	19,1	40,6	14,5	-	52,6	12,4	41,1	71,1	33,0	4,6	5,6	19,1					
624106-M	624-MM	32,0	55,9	16,0	32,0	62,0	21,1	45,0	76,2	37,1	5,1	8,4	27,4					

NEW

Standard straight-line action clamps

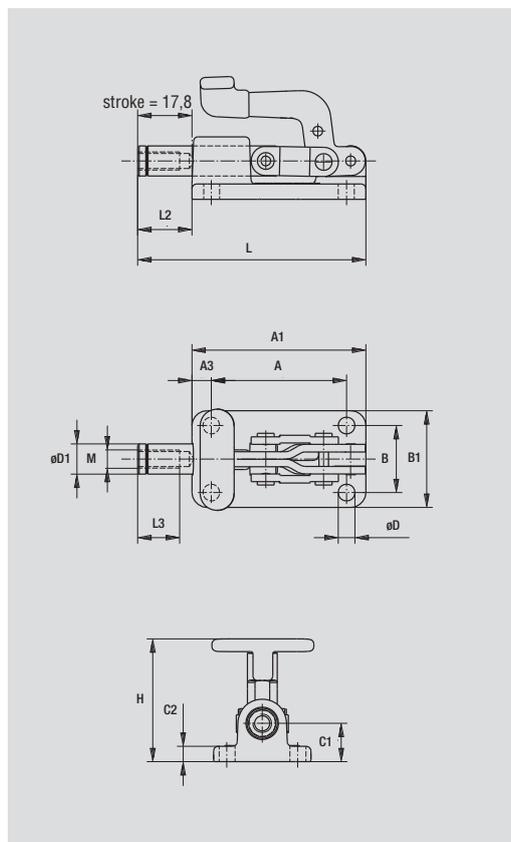
Application areas

Model 6015-M is the smallest of the straight-line, machined-cast base clamps. Its compact size allows it to be used in confined areas and on small fixtures. The plunger is threaded to accept any M6 clamping spindle. Handles are red vinyl dipped for greater operator comfort.

Product features

- Plunger with internal thread
- Rivets made of stainless steel
- Casted base, black-oxide finish
- Other parts zinc plated
- Oil-resistant, vinyl dipped handle grip

Model 6015-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
6015-M	1.600	17,8	0,15	205203-M	M6

ALSO AVAILABLE

As DE-STA-CO Model 6015-MR Page 4.9

Toggle-Lock Plus

As Stainless Steel Model 6015-MSS Page 8.12

See accessories beginning on page 10.1

- Model locks in both the extended and retracted positions.



Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
6015-M	44,5	57,2	6,4	22,1	32,0	12,7	5,1	5,6	9,9	40,4	75,2	18,0	19,1	M6

Standard straight-line action clamps



Application areas

Model 6015-MR is another new addition to our line of DE-STA-CO Toggle-Lock Plus clamps. Its compact size allows use in confined areas and on small fixtures where safety is a concern.

Product features

- Plunger with internal thread
- Rivets made of stainless steel
- Casted base, black-oxide finish
- Other parts zinc plated

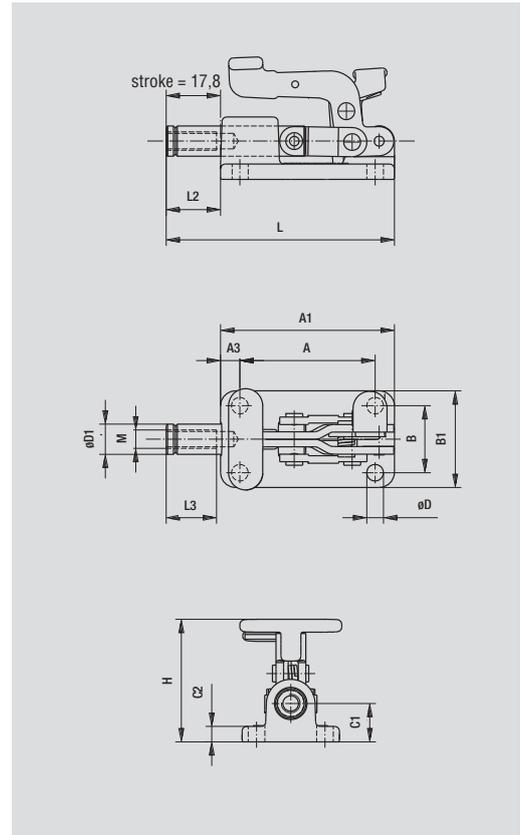
Model 6015-MR

Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
6015-MR	1.600	17,8	0,15	205203-M	M6

ALSO AVAILABLE

As Stainless Steel	Model 6015-MRSS	Page 8.12
See accessories beginning on page 10.1		

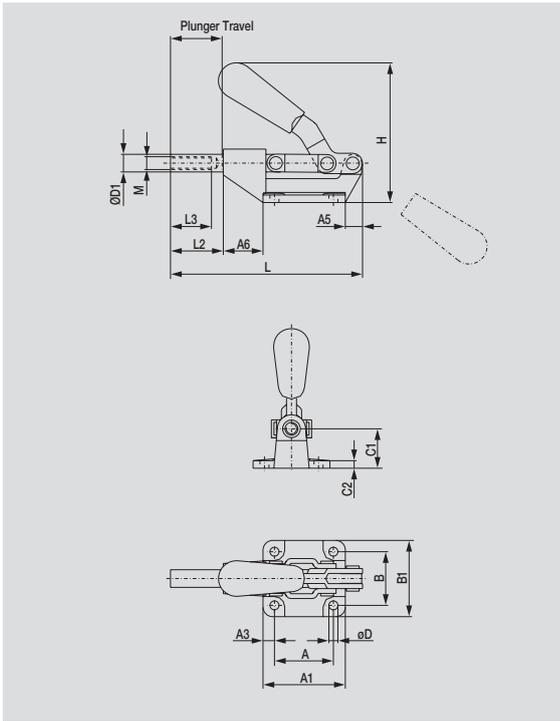
- Model locks in both the extended and retracted positions, but the release lever only engages in the extended position.



Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
6015-MR ▲	44,5	57,2	6,4	22,1	32,0	12,7	5,1	5,6	9,9	40,4	75,2	18,0	19,1	M6

▲ Available upon request

Models 603-M, 608



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
603-M	2.700	32	0,32	207203-M	M8
608-M	3.800	32	0,66	210203	M8

ALSO AVAILABLE		
As Air/Hydraulic	Model 803-ME	Page 12.17
As DE-STA-CO Toggle-Lock Plus	Model 603-MR	Page 4.11
As Stainless Steel	Model 603-SS	Page 8.11
See accessories beginning on page 10.1		

■ Models lock in both the extended and retracted positions.



Model 603-M

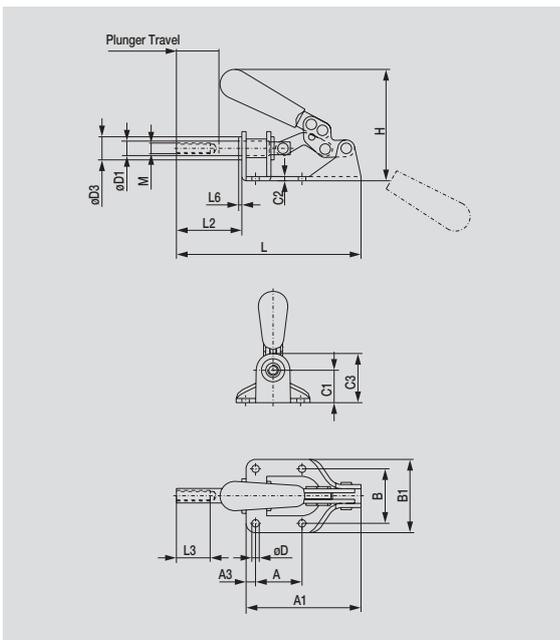


Model 608-M

Model no.	A	A1	A3	A5	A6	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
603-M	36,6	51,1	7,1	14,7	21,8	33,3	48,0	24,4	5,1	6,6	11,9	83,3	121,9	32,8	25,4	M8
608-M ▲	41,4	57,2	7,9	19,1	35,6	41,4	57,2	31,8	4,8	8,4	15,7	104,6	152,4	40,6	31,8	

▲ Available upon request

Model 605-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
605-M	1.300	32	0,31	207203-M	M8

■ Models lock in both the extended and retracted positions.



Model no.	A	A1	A3	B	B1	C1	C2	C3	ØD	ØD1	ØD3	H	L	L2	L3	L6	M
605-M	35,1	86,6	7,1	41,4	55,6	24,6	3,0	37,3	5,6	11,2	19,1	83,6	138,9	49,3	25,4	2,5	M8

Standard straight-line action clamps

NEW

Application areas

Patented DE-STA-CO Toggle-Lock Plus design locks the release lever into the forged steel base to prevent accidental opening. The 603-MR is well adapted for use in confined areas because of its small package size and low height. The ergonomic handle is slanted forward to provide an adequate grip and yet enhance the low silhouette. Clamp locks in both the extended and retracted positions while the release lever secures the clamp in the extended position only.

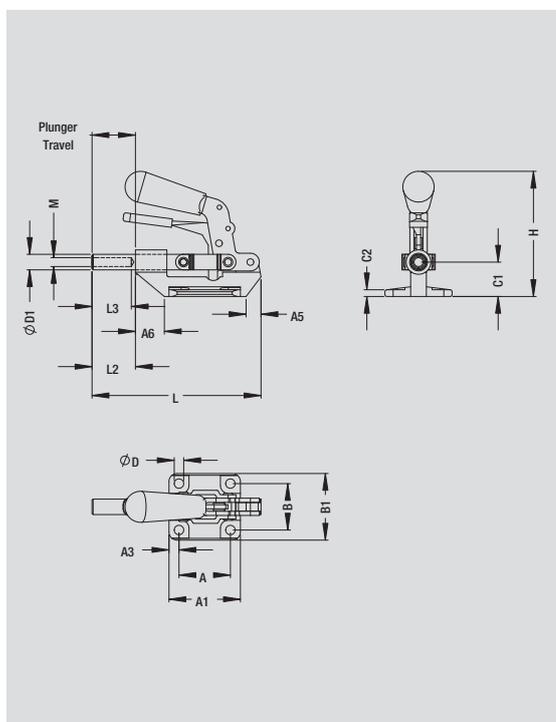
Product features

- Plunger with internal thread
- Rivets made of stainless steel
- Forged steel base, black-oxide finish
- Other parts zinc plated and passivated
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip

Model 603-MR

Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
603-MR	2.700	32	0,38	207203-M	M8

See additional adjustment spindles beginning on page 10.1



Model no.	A	A1	A3	A5	A6	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M				
603-MR	36,6	50,8	7,1	14,7	23,9	33,3	48,0	24,6	4,8	6,9	11,9	86,1	120,4	31,0	25,4	M8				

Application areas

Ideal for all applications in which work is performed with holding capacities of up to 450 lbs., including gluing, soldering, assembling, drilling, testing, positioning and other processing operations.

Due to the flexible design of the plunger and the variable method of rotating the handle position, complete flexibility in the fixture design is possible.

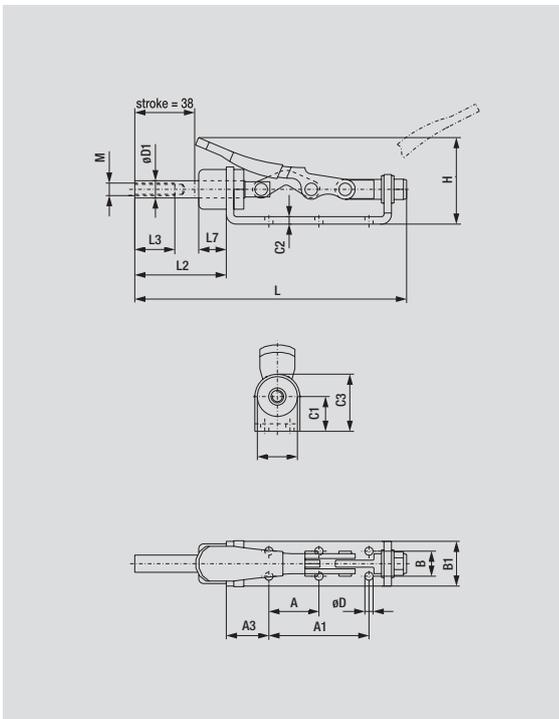
Product features

- Rivets made of stainless steel
- Zinc plated
- Oil-resistant, vinyl dipped handle grip

Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.

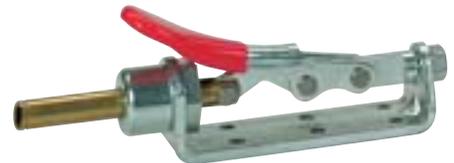
Model 606-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
606-M	2.200	38	0,31	207203-M	M8

See additional adjustment spindles beginning on page 10.1

- Handle and plunger can be rotated in radial direction for vertical or horizontal handle action.
- Models lock in only the extended position.



Model no.	A	A1	A3	B	B1	C1	C2	C3	ØD	ØD1	H	L	L2	L3	L7	M
606-M	31,8	63,5	27,2	16,0	28,7	22,4	4,8	36,8	5,1	11,2	61,5	170,7	57,4	25,4	17,5	M8

Standard straight-line action clamps

Application areas

Ideal for all applications in which work is performed with holding capacities of up to 800 lbs., including assembling, drilling, testing, positioning and other processing operations.

Product features

- Low-profile plunger
- Round or square plunger with internal thread
- Forged steel base, black-oxide finish
- Rivets made of stainless steel

- Zinc plated linkage
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip

Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.

Models 607-M, 607-SQM

Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
607-M	3.600	41	0,63	207203-M	M8
607-SQM	3.600	41	0,63	207203-M	M8

See additional adjustment spindles beginning on page 10.1

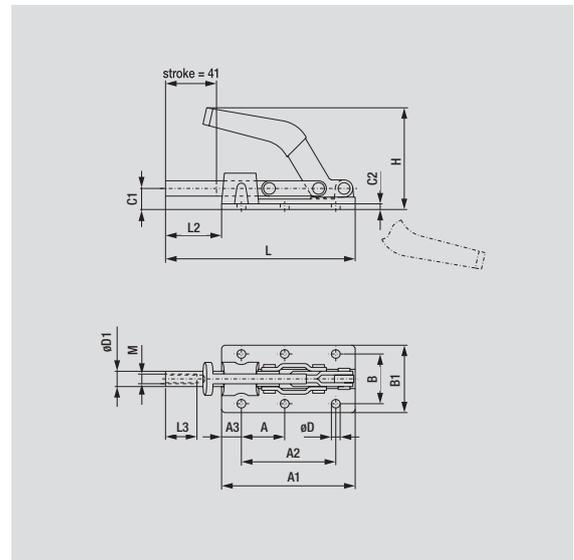
- Models lock in both the extended and retracted positions.



Model 607-M



Model 607-SQM



Feature 607-SQM

With square plunger for accurate locating



Model no.	A	A1	A2	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
607-M	35,1	108,0	76,5	16,0	41,4	55,9	17,5	5,1	7,1	13,0	89,4	152,9	44,7	25,4	M8
607-SQM	35,1	108,0	76,5	16,0	41,4	55,6	17,5	4,8	7,1	12,7	88,9	152,7	44,7	25,4	M8

Application areas

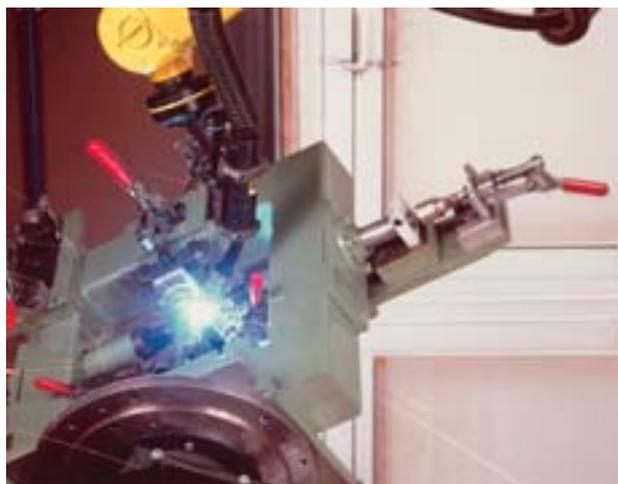
Ideal for all applications in which work is performed with holding capacities of up to 800 lbs., including assembling, drilling, testing, positioning and other processing operations.

Product features

- Rivets made of stainless steel
- Zinc plated linkage
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip
- Straight and flanged base

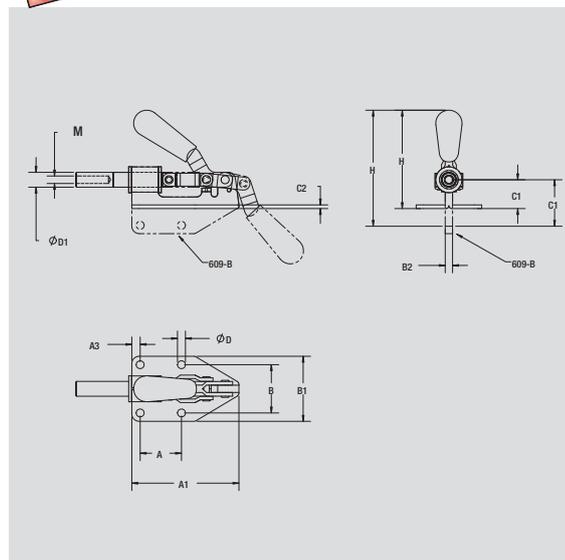
Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.



NEW

Models 609, 609-B



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
609	1.300	32	0,46	207203-M	5/16-18
609-B	1.300	32	0,46	207203-M	5/16-18

See additional adjustment spindles beginning on page 10.1

- Models lock in both the extended and retracted positions.



Model 609



Model 609-B

Model no.	A	A1	A3	B	B1	B2	C1	C2	ØD	ØD1	H								
609 ▲	35,1	90,9	7,1	41,1	55,6	—	24,6	3,0	6,9	12,7	80,5								
609-B ▲	35,1	90,9	7,1	41,1	55,6	23,6	24,6	3,0	6,9	12,7	101,9								

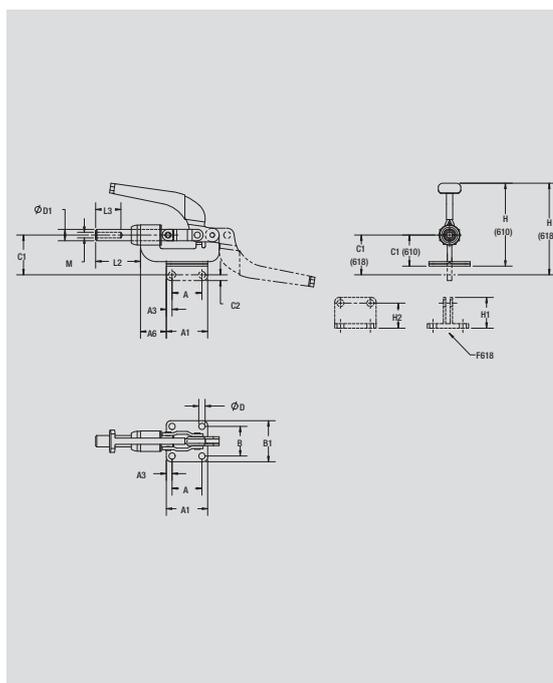
▲ Available upon request

Model 610-M

Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
610-M	3.600	41	0,68	210203-M	M10

See additional adjustment spindles beginning on page 10.1

- Models lock in both the extended and retracted positions.



Model no.	A	A1	A3	A6	B	B1	C1	C2	ØD	ØD1	H	H1	H2	L	L2	L3	M
 610-M	41,1	57,2	7,9	35,8	41,1	57,2	43,2	6,4	8,6	15,7	112,0	-	-	170,7	62,0	31,8	M10

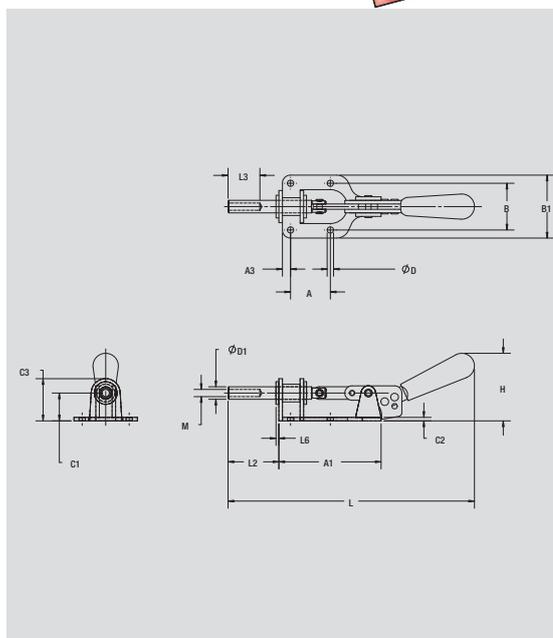
Model 615

NEW

Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
615	1.300	25	0,36	207203-M	5/16-18

See additional adjustment spindles beginning on page 10.1

- Model locks only in the extended position.



Model no.	A	A1	A3	B	B1	C1	C2	C3	ØD	ØD1	H	L	L2	L3	L6
615 ▲	35,1	89,7	7,1	41,4	55,6	24,6	3,0	37,3	5,6	11,2	58,2	216,7	44,5	25,4	2,5

▲ Available upon request

High precision, threaded-body straight-line action clamps

Application areas

Ideal for all applications in which highly precise clamping is required with holding capacities of up to 1,200 lbs., including assembling, drilling, testing, positioning, locking of containers and other processing operations.

This series is distinguished by its compact design. The single hole threaded mount permits rotation in any direction, allowing complete flexibility in the fixture.

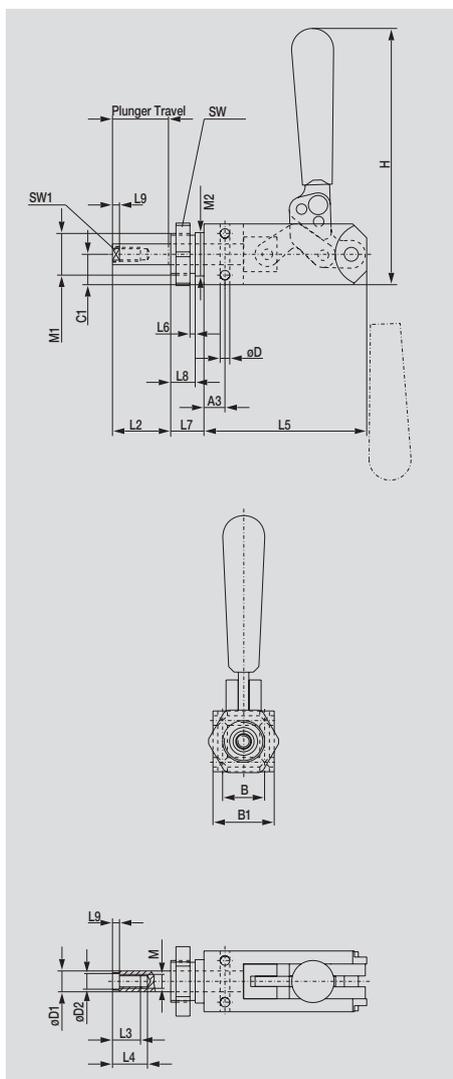
Product features

- Precision model
- Hardened and polished plunger
- Front-side external threads for direct installation in sheet-metal plates and fixtures
- Plunger with internal thread
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip

Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.

Model 614-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)	Mounting Nut Standard Equipment
614-M	5.000	32	0,82	207203-M	M8	614-1-10

- Model locks in both the extended and retracted positions.
- Torsion resistant plunger
- High precision model
- Ideal for positioning
- Internal pre-stop



Model no.	A3	B	B1	C1	ØD	ØD1	ØD2	H	L2	L3	L4	L5	L6	L7	L8	L9	M1	M2	SW	SW1	M
614-M	11,9	23,9	35,1	17,5	5,6	11,9	8,9	160,0	32,8	16,0	20,1	93,0	3,0	19,1	14,0	4,1	M24x1.5	24,9	36,0	9,0	M8

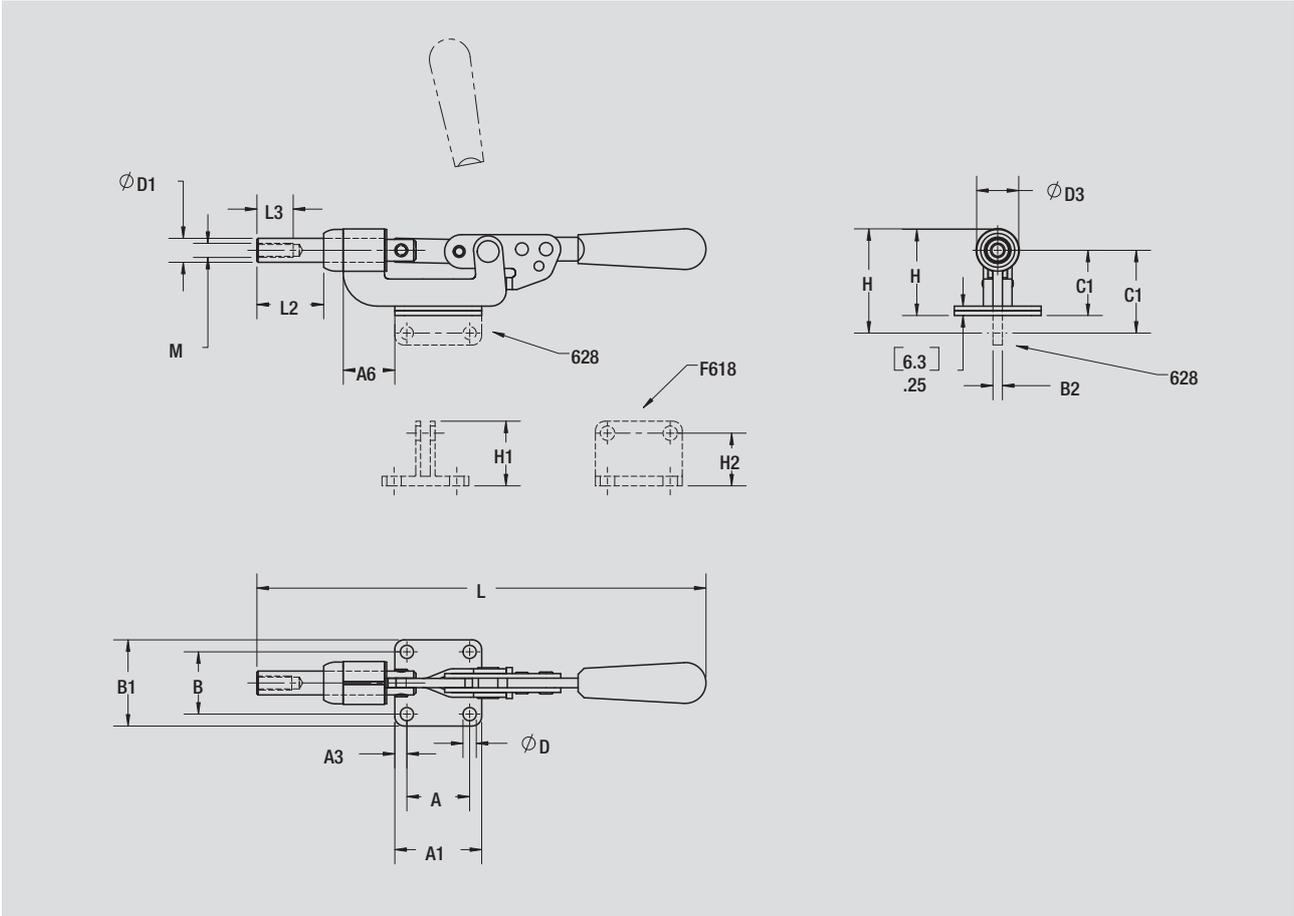
Model 620-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
620-M	2.700	28	0,68	210203-M	M10

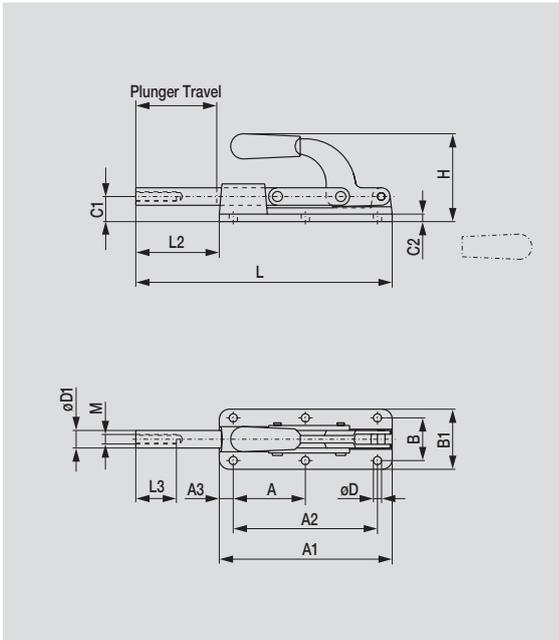
See additional adjustment spindles beginning on page 10.1

■ Models lock only in the extended position.



Model no.	A	A1	A3	A6	B	B1	C1	C2	ØD	ØD1	ØD3	H	L	L2	L3	M				
620-M	41,4	57,2	7,9	33,8	41,4	57,2	43,2	6,4	8,6	15,7	27,7	57,4	295,7	44,2	25,4	M10				

Models 630-M, 640-M



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
630-M	11.000	51	0,9	210203-M	M10
640-M	30.000	101,5	3,2	220203-M	M12

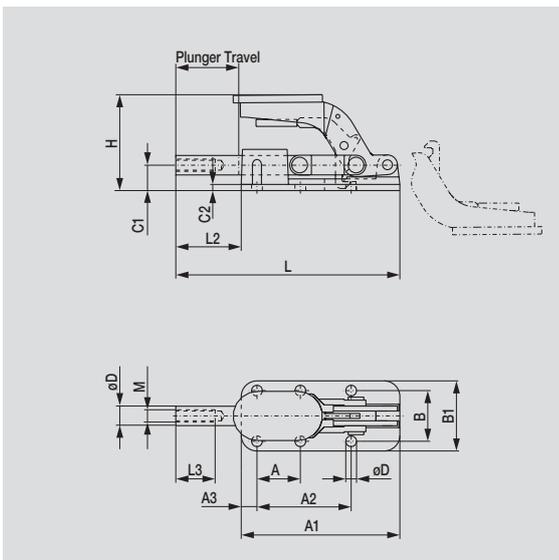
ALSO AVAILABLE		
As Air/Hydraulic	Model 830-ME	Page 12.21
In DE-STA-CO Toggle-Lock Plus	Model 630-MR	Page 4.18
See accessories beginning on page 10.1		

■ Models lock in both the extended and retracted positions.



Model no.	A	A1	A2	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
630-M	35,1	128	75,9	12,7	41,1	57,9	20,6	4,1	8,6	16,0	87,6	152,9	49,8	31,8	M10
640-M	90,4	216,7	180,8	17,5	54,1	76,2	31,8	9,7	10,4	22,1	109,2	321,3	104,6	50,8	M12

Models 630-MR



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
630-MR	11.000	51	0,95	210203-M	M10

- DE-STA-CO Toggle-Lock Plus version of models 630-M
- Plunger with internal thread
- Cast base, black-oxide finish



Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
630-MR	35,1	127,8	76,2	12,7	41,4	57,2	20,6	8,6	15,7	77,5	179,3	51,6	31,8	M10

Standard straight-line action clamps

Application areas

Ideal for all applications in which work is performed with holding capacities of up to 16,000 lbs., including assembling, drilling, testing, positioning and other processing operations.

Product features

- Flanged base
- Plunger with internal thread
- Forged base, black-oxide finish
- Rivets made of stainless steel
- Zinc plated

Accessories

- Straight-line action clamps are normally delivered without adjustment spindles. Recommendations are provided.
- Whenever required, the spindle can be purchased as an accessory part.

Model 650-M

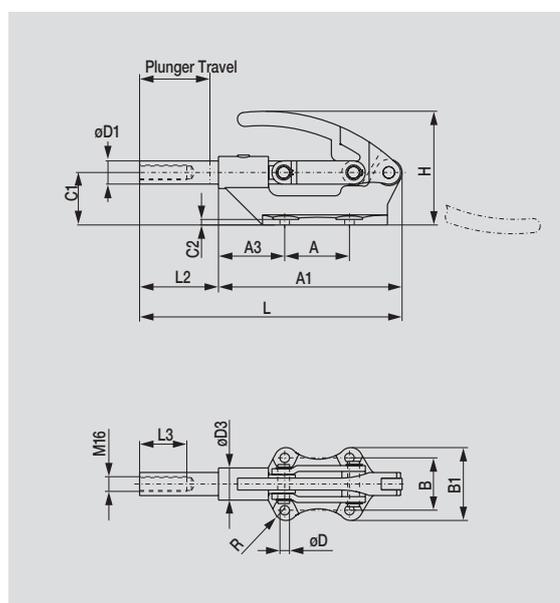
Model no.	Holding Capacity [N]	Plunger Travel [mm]	 [kg]	 Recommendation (not supplied)	Plunger Thread (M)
650-M	70.000	76	2,5	250203-M	M16

ALSO AVAILABLE

As Air/Hydraulic Model 850-ME Page 12.22

See accessories beginning on page 10.1

- Models lock in both the extended and retracted positions.



Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	ØD3	H	L	L2	L3	R	M
650-M	69,9	198,4	73,2	57,2	82,6	57,2	6,4	10,4	25,1	35,1	122,9	283,5	85,1	50,8	12,7	M16

NEW

Standard straight-line action clamps, low profile version

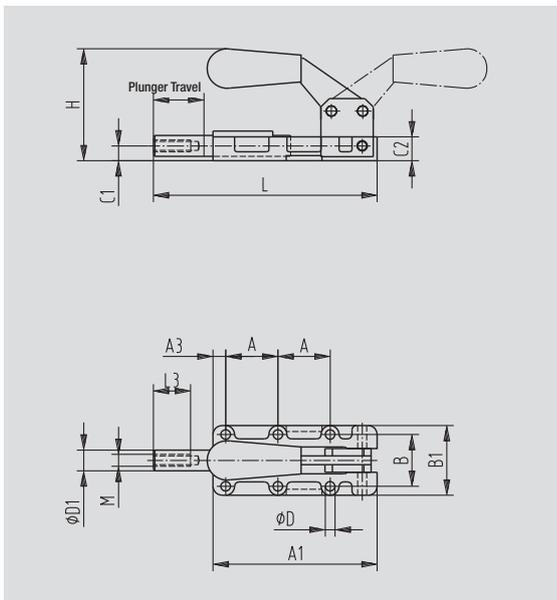
Application areas

These new low-profile plunger clamps can be used where overhead clearance is a problem. The large holding capacities for these clamps are packaged in a small compact design. Equipped with an ergonomic handle grip for added operator comfort. Supplied with a metric plunger. Compact, low profile design allows for use in areas where overhead clearance is a problem. Handle is easily disassembled and reassembled in the reverse position allowing more flexibility.

Product features

- Handle with removable dowel pin
- Clamp base cast steel, black-oxide finish
- Other parts zinc plated and passivated
- Oil-resistant, ergonomically shaped DE-STA-CO handle grip

Models 95030, 95040, 95050, 95060



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
95030	2.500	24,9	0,36	205203-M	M6
95040	4.900	38,1	0,72	207203-M	M8
95050	7.400	50	0,95	220203-M	M12
95060	17.600	60	2,9	220203-M	M12

See additional adjustment spindles beginning on page 10.1

- Models lock in both the extended and retracted positions.



Model 95020



Model 95060

Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	H	L	L3	M						
95030	24,9	78,5	5,1	24,9	35,6	7,6	12,2	5,6	9,9	59,9	105,9	20,1	M6						
95040	35,1	110,5	8,6	35,1	50,8	9,9	18,3	6,6	14,0	71,9	149,1	24,9	M8						
95050	45,0	140,7	10,2	45,0	66,0	14,0	23,9	6,6	19,1	85,6	190,0	39,9	M12						
95060	55,1	170,9	10,2	55,1	75,7	16,0	27,4	10,4	22,1	102,4	232,9	39,9	M12						

Straight-line action clamps in heavy duty version



Application areas

The newest offering in DE-STA-CO's heavy-duty plunger clamp line, Models 685-S and 685-L feature high strength steel. Model 685-S offers shorter plunger travel than Model 685-L.

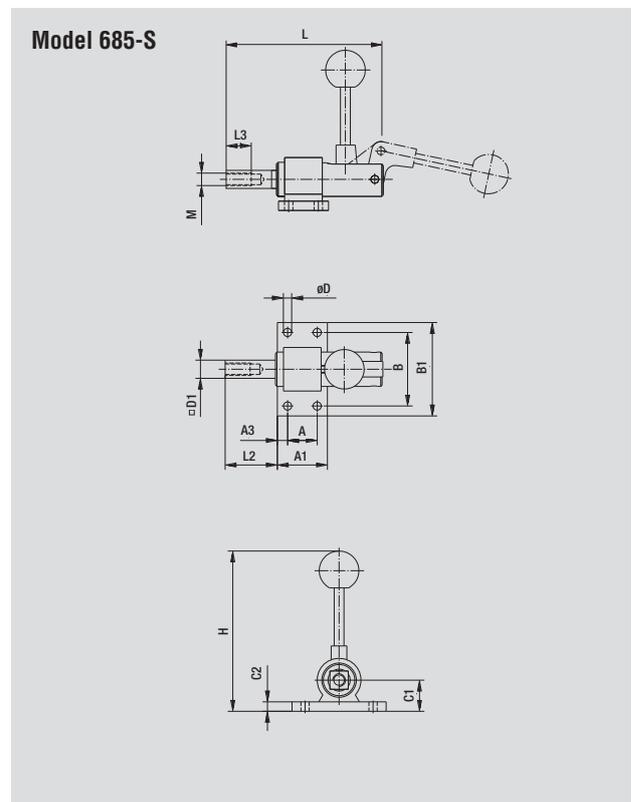
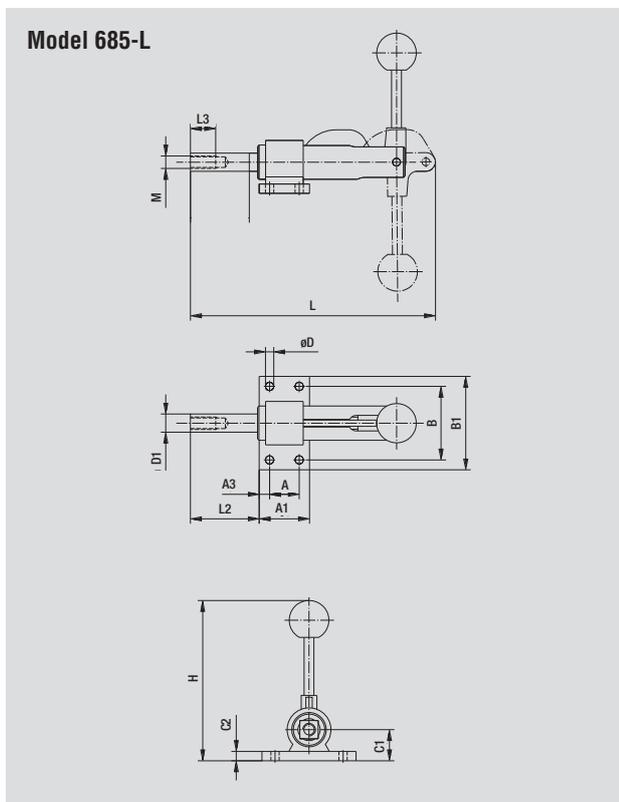


Can be mounted in any desired position by using pre-drilled mounting holes or welding in place. Designed for mid-range applications. Base is supplied loose and may be welded at desired angle. The square plunger has a threaded hole at the end for spindles or fixture details. The plunger locks in the extended position only for Model 685-S, but locks in both the extended and retracted position for Model 685-L. Metric Plunger available with M12 internal thread.

Product features

- Parts made of high strength steel
- Oil-resistant, ergonomically shaped handle ball

Model 685-S, 685-L



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]	Recommendation (not supplied)	Plunger Thread (M)
685-L	15.600	59,5	1,68	220203-M	M12
685-S	15.600	45	1,68	220203-M	M12

See additional adjustment spindles beginning on page 10.1

Model no.	A	A1	A3	B	B1	C1	C2	ØD	ØD1	H	L	L2	L3	M
685-L ▲	30,0	50,8	10,4	74,9	95,3	31,8	9,7	8,4	19,1	162,6	217,9	62,0	31,5	M12
685-S ▲	30,0	50,8	10,4	74,9	95,3	31,8	9,7	8,4	19,1	162,1	158,8	49,5	31,5	M12

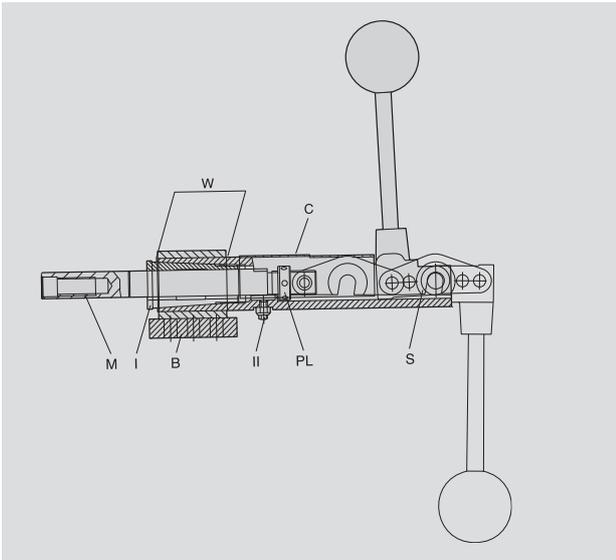
▲ Available upon request

Application areas

The unique feature of these clamps is the collet-type bushing that can be adjusted to eliminate plunger end movement after long repeated use. The plunger also has a flat which prevents lateral movement and allows offset piloting and holding. The plunger is drilled and tapped for threaded spindles or custom fixturing.

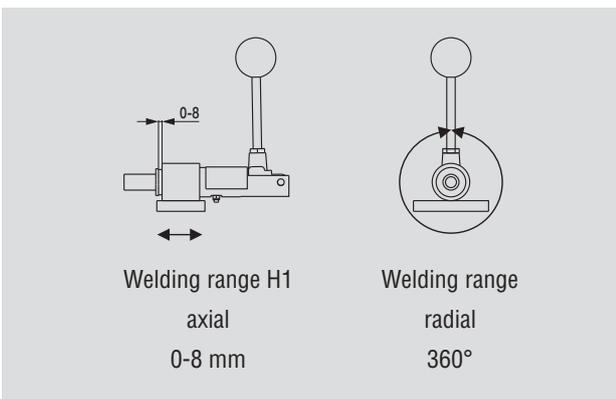
The adjustable pre-load nut (PL) can be used to lock the clamp against itself when not under pressure and therefore prevent opening when mounted vertically. The spring hold-open device (S) prevents the clamp from accidentally closing.

The mounting base (B) is supplied disassembled with the four models, to enable welding the base and the main assembly in any handle position.



Symbols

- B** Mounting Base
- C** Cover Plate
- M** Metric Version
- PL** Pre-Load Lock
- S** Spring Hold-open Device
- W** Welding Range
- I** Adjustable Plunger Bushing
- II** Plunger Locating Screw



Before welding, adjust the main assembly on the mounting base in axial and radial directions.

Series 675 and 695 (shorter stroke) reach the over-center position only when clamping. Series 670 and 690 (longer stroke) lock in both the extended and retracted position.

Product features

- Precision clamps for high production
- For high accurate repeatability
- Adjustable, collet-type bushing minimizes plunger end movement
- Pre-load nut and spring hold open devices are optional



Model 670-1MBPLS

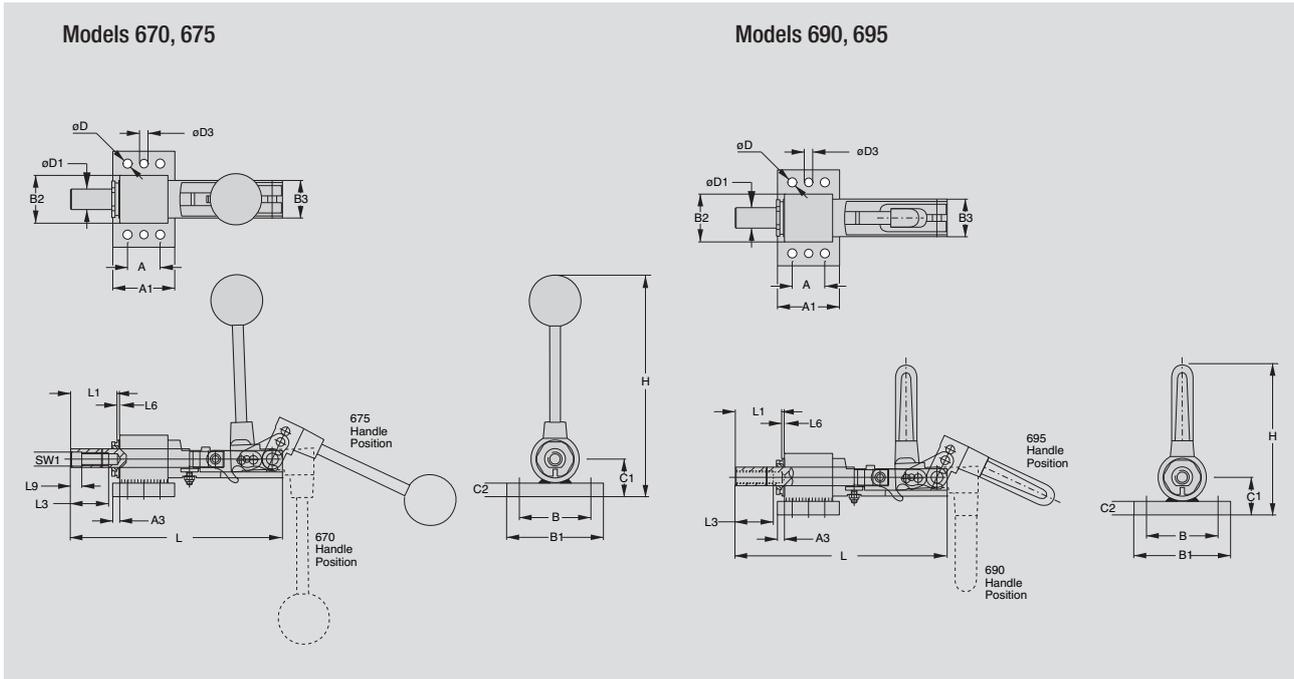


Model 675-1MBPLS



Model 690-1MBPLS

Models 670, 675, 690, 695



Model no.	Holding Capacity [N]	Weight [kg]	Plunger Travel [mm]	Plunger Thread	Longe Stroke	Short Stroke	Mounting Base	Pre-load Lock	Hold-open Device	Plunger Collet Brushing	Plunger Locating Screw	Application	
												Push	Pull
670-1MBPLS	6.700	1,9	57	M12 x 1.75	■		■	■	■	■	■	■	■
675-1MBPLS	6.700	1,7	28	M12 x 1.75		■	■	■	■	■	■	■	■
690-1MBPLS	14.000	3,8	76	M16 x 2	■		■	■	■	■	■	■	■
690-1MBPLS	14.000	3,6	38	M16 x 2		■	■	■	■	■	■	■	■

Model no.	A	A1	A3	B	B1	B2	B3	C1	C2	ØD	ØD1	ØD3	H	L	L1	L3	L6	L9	SW1	M
670-1MBPLS ▲	30,0	57,2	6,4	66,0	88,9	44,5	35,1	34,9	12,7	8,4	19,1	7,8	203,3	267,5	75,5	35,0	0-8	10,3	13H7	M12
675-1MBPLS ▲	30,0	57,2	6,4	66,0	88,9	44,5	35,1	34,9	12,7	8,4	19,1	7,8	203,3	195,4	44,5	35,0	0-8	10,3	13H7	M12
690-1MBPLS ▲	50,0	76,2	9,7	82,0	101,6	-	44,5	41,3	12,7	10,5	25,4	9,8	161,6	338,2	85,9	25,0	0-8	-	-	
695-1MBPLS ▲	50,0	76,2	9,7	82,0	101,6	-	44,5	41,3	12,7	10,5	25,4	9,8	161,6	239,6	47,8	25,0	0-8	-	-	

▲ Available upon request

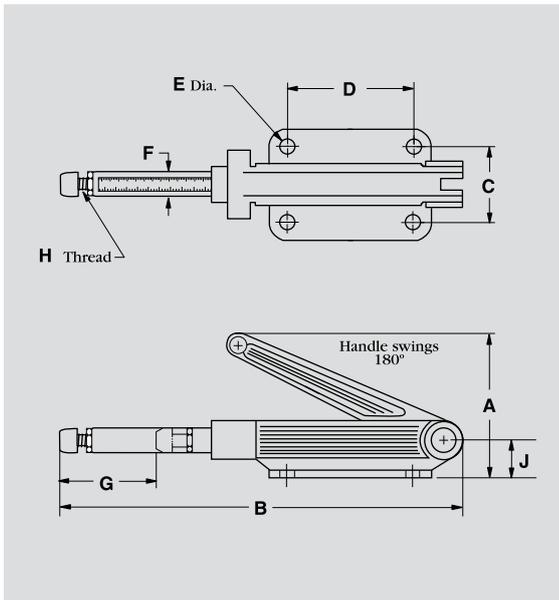
NEW

Application areas

Straight-Line clamps for gluing and fixturing. Toggle action locks the plunger in the extended position only. Reinforced polymer spindle assembly with removable neoprene tip is included, or you can fit customized ends to the threaded plunger.

Product features

- Non-sparking
- Useful in medical and food processing industries
- Locking toggle action, push clamping
- Spindle assembly included
- Constructed of reinforced polymers combining high strength and lightweight features
- Electrically non-conductive
- Resistant to acids, gases, chemicals and elevated temperatures



Model no.	Holding Capacity [N]	Plunger Travel [mm]	[kg]		Plunger Thread (M)
SL3	150	50	0,25	Supplied	1/4-20

See additional adjustment spindles beginning on page 10.1



Model SL3

Model no.	A	B	C	D	E	F	G (travel)	H	J										
SL3 ▲	73,2	190,0	38,1	63,5	7,1	11,9	50,0	1/4-20	19,1										

▲ Available upon request

Straight line clamps, RAM LOCK system



Application areas

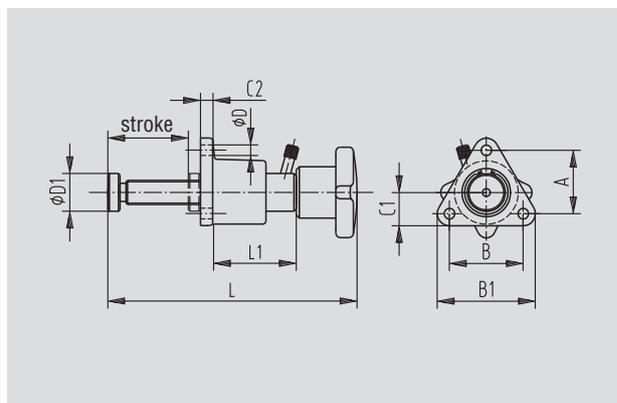
These new quick-acting Ram Lock clamps are ideal for bridging of different workpiece thicknesses and can be front or base mounted. Each version offers high holding forces and is available in three different maximum stroke lengths. The clamp's unique design allows "fine" clamping force adjustments once the locking lever is activated.

To operate:

1. Slide spindle bar forward to contact the workpiece.
2. Turn the locking lever clockwise to engage the locking mechanism.
3. Turn knob handle to "fine" adjust the clamping force.
4. After operation is finished, turn the locking lever counter-clockwise to disengage locking mechanism.

Models FRF-12, FRF-16, FRF-20, FRL-12, FRL-16, FRL-20

Model no.	Holding capacity [N]	Stroke [mm]	[kg]	Thread pitch
FRL-12	24.500	0-86	0,5	2
FRL-16	49.000	0-135	0,7	3
FRF-12	24.500	0-86	0,5	2
FRF-16	49.000	0-135	0,7	3



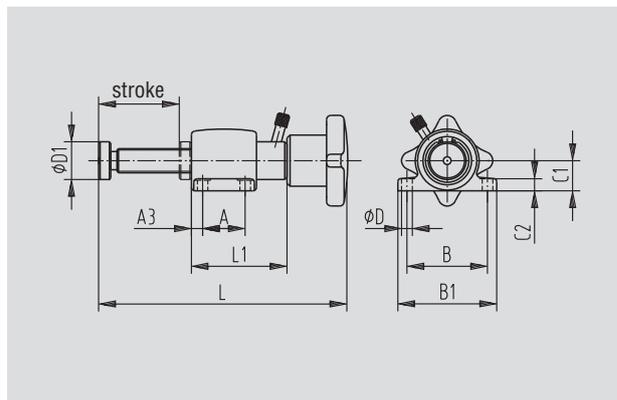
Series FRF



Series FRL



Series FRF



Series FRL

Model no.	A	A3	B	B1	C1	C2	øD	øD1	L	L1
FRL-12 ▲	20	6	45	55	16,5	5,6	5,5	19	161	34
FRL-16 ▲	28	5,9	53	64,8	20	8	7	25	238	51
FRF-12 ▲	33		38,1	50	17	5,6	5,5	19	161	34
FRF-16 ▲	42		50	64,5	22	8	7,1	25	238	51

▲ Available upon request

F0 Series

Type of Mounting:

- Foot mount

Type of Actuation:

- Hand wheel or hand lever(one-handed operation)
- Locking lever and Plunger(two-handed operation)



page **5.3**

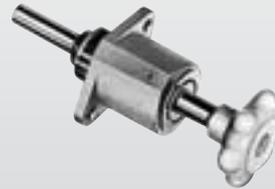
FL Series

Type of Mounting:

- Flange mount

Type of Actuation:

- Locking lever or hand wheel(one-handed operation)
- Locking lever and Plunger(two-handed operation)



page **5.3**

G Series

Type of Mounting:

- Through hole mount

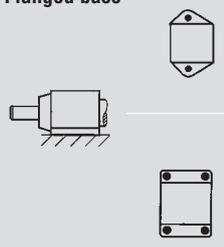
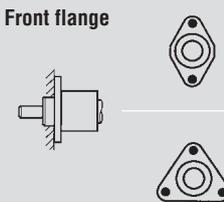
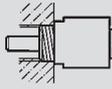
Type of Actuation:

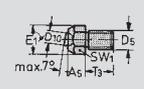
- Locking lever and Plunger(two-handed operation)
- Hand wheel or hand lever(one-handed operation)

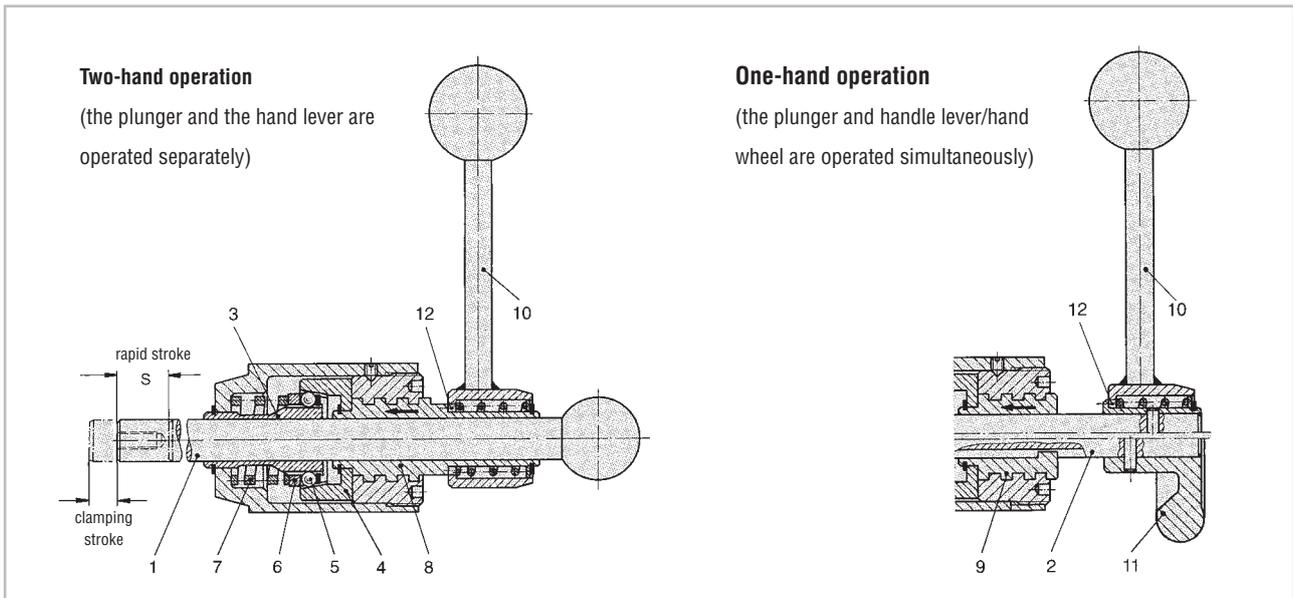


page **5.3**

Variable stroke straight-line action clamps

	Model no..	Holding Capacity [N]	Page
Flanged base 	FO-082/40	1.500	5.3
	FO-120/--	3.000	
FO-121/45	3.000		
FO-122/45	3.000		
Front flange 	FO-160/--	9.000	5.3
	FO-161/60	9.000	
	FO-162/60	9.000	
	FO-220/--	18.000	
	FO-221/80	18.000	
Threaded mount 	G-082/40	1.500	5.3
	G-120/--	3.000	
	G-121/45	3.000	5.3
	G-122/45	3.000	

	Model no.	Holding Capacity [N]	Page
Plunger 	12/100		5.4
	12/200		
	12/300		
	16/100		
	16/200		
	16/300		
	22/100		
	22/200		
22/300			
Swivel thrust pad 	K508		5.5
	K612		
	K816		
	K1222		
	F-160	18.000	5.7



DE-STA-CO's variable stroke straight-line clamps are used in applications where workpiece thicknesses and workpiece tolerances vary. These clamps are suitable for clamping between ribs and hollow spaces difficult to reach.

Compact design and different types of operation allow for application of the straight-line clamps in fixtures for mass production as well as for single part production.

Mounting types

- Foot base (FO Series)
- Flange mount (FL Series)
- Through hole mount (G Series)

Type of operation

- Two hand operation
The hand lever (10) and the plunger (1) are separate. The hand lever is connected to the clamping mechanism. The plunger can be removed from the clamp
- One-hand operation
The hand lever (10) or the hand wheel (11) and the plunger (2) are linked. The plunger is retained within the clamp.

Clamping operation

The plunger (1) or (2) which is guided within the clamp body contacts the workpiece. By rotating the hand lever (10) or the hand wheel (11) clock-wise the clamping stroke, S1 is engaged and the plunger is tightly gripped by the slotted clamping sleeve (3).

Operating principle

The hand lever's (10) clock-wise rotation causes the threaded sleeve (8) and the conical sleeve (4) to which it is connected to move in the direction of the arrow shown in the drawing. The conical sleeve produces a force-locking connection between the slotted clamping sleeve (3) and the plunger by means of the ball bearings (5) located at the clamping sleeve's perimeter.

Due to the force-locking connection, the plunger rotates and produces the clamping stroke S1. The plunger's rotation may be compensated for by means of a swivel hold-down piece. The

clamping strokes S1 specified in this catalog were measured with no opposing forces present while measurements were taken. When clamping this product against a workpiece, the clamping stroke S1 is reduced by the force-locking connection between the plunger and the workpiece. The straight-action clamp is unlocked by turning the hand lever or the hand wheel counter-clockwise. This method is used for both the one-hand and the two-hand operation types. This counter-clockwise rotation makes the conical sleeve (4) and the threaded sleeve (8) or (9) move backward. The pressure spring (7) pushes back the relieved ball bearings (5) via the pressure ring (6).

The force-locking connection between the slotted clamping sleeve and the plunger can be moved freely again. Straight-line clamps which are two-hand operated can also be applied to PULL actions when the plunger is inserted in the clamp's housing in the opposite direction. On the one hand operated clamp, the rotation inducing the clamping stroke S1 is directly transmitted from the plunger (2) or the hand wheel to the threaded sleeve (9) via a groovespring connection. The clamping and unclamping operations are executed in the same way as described before.

Handling

To change the position of the handle while in the clamped or the unclamped position, pull the hand lever off its spline (12) and set it in the desired position.

Important

- The holding forces specified in the catalog refer to the maximum load exerted on the clamp by counter-forces. For details concerning the clamping force FS exerted on the workpiece by the clamp and depending on the operation force FB (manual force), please see the chart on the next page.

The clamping force is proportional to the operation force. **The achieved clamping force must not exceed the maximum holding force.**

- As the straight-line clamps, with the exception of the F-160 model, are designed only for axial load, we recommend to use an additional radial support for the plunger in the event of side load.