



# Catalogue

**It starts with a clamp.**



Dear customers,  
We are proud that we can present the current catalogue to you. We constantly innovate and develop new products that are fine-tuned to the last detail. We place the utmost emphasis on their functionality, selection of materials used and the overall design quality.

New types of toggle clamp  
RY-UP have been added.

Since its beginning, the company JC-Metal, s. r. o., has wanted to be a supplier of high-quality products that our customers can fully rely on. However, we are aware of the fact that production is not the only thing which matters. As a result, we are also particular about the professional level of customer care. Everything is done in a straightforward manner, professionally and responsibly. Customer satisfaction is our highest priority.



**Tatána Malá**  
company executive



## Main goals of the company JC-Metal, s. r. o.

### 1. Guaranteed quality standard

Thanks to the careful and conscientious work at all levels, we consistently maintain top quality.

### 2. Short delivery terms

Orders of stock items are dispatched within 24 hours.

### 3. Warranty

We guarantee compliance with the maximum quality throughout the production process. Any comments are dealt with seriously, immediately, and, if possible, even after the warranty period.

### 4. Expert consultancy

We employ people who understand their jobs perfectly. Our experts will be happy to deal with your problems quickly and reliably. Just call!

### 5. Individual development

Should it happen that our product range does not suit you, we will propose a special design of the product or a completely new design.

<b>2017</b>	.....	An important milestone - 20 years of existence opening new manufacturing hall in Vsetín - Bobrky, new visual identity.
<b>2016</b>	.....	Winning the award Distributor Roku 2016 (Distributor of the Year 2016) Bernd Siegmund GmbH. Winning the award Best marketing 2016 Bernd Siegmund GmbH.
<b>2015</b>	.....	Winning the award Distributor Roku 2015 (Distributor of the Year 2015) Bernd Siegmund GmbH. Obtaining a good place in the final ten of the competition Vodafone Firma Roku 2015 (Vodafone Company of the Year 2015) in the Zlín Region.
<b>2014</b>	.....	Winning the award Distributor Roku 2014 (Distributor of the Year 2014) Bernd Siegmund GmbH. Obtaining a good place in the final ten of the competition Vodafone Firma Roku 2014 (Vodafone Company of the Year 2014) in the Zlín Region.
<b>2011</b>	.....	Addition of structural designs of jigs and entire workstations, including the production of atypical positioning components, to the sale of Siegmund modular systems.
<b>2005</b>	.....	Start of the co-operation with the company Bernd Siegmund GmbH, consisting of the sale of modular systems for welding.
<b>2003</b>	.....	Further expansion of the product range with toggle clamps. Adding a new series of pneumatic clamps.
<b>2000</b>	.....	Adding heavy precise clamps intended for the automotive industry to our product range.
<b>1999</b>	.....	Change in the focus of the company - starting the production of the mechanical toggle clamps RY-UP.
<b>1997</b>	.....	Jan Cetl established a manufacturing plant supplying components for textile and machine tools.

## Clamp Type Series

The toggle clamps RY-UP are intended mainly for clamping in welding, assembly or gauging jigs. The advantage of the toggle clamps RY-UP consists of their precise design, with an emphasis on their durability. As a matter of course, each standard model includes a hardened bearing case in places of hinged mountings of lever-system movable parts and pivots made of materials resistant to high loads of clamping. Each type of clamp is treated with corrosion-protective galvanization and fitted with a plastic oil-resistant ergonomic handle of a bright yellow color. The handle securely helps distinguish the position of the clamping lever in the jig. The clamps can also be made in a stainless\*) design. An integral part of the whole product portfolio is accessories that further extend the application range of clamps.

The entire product range of the toggle clamps RY-UP, including both manual and pneumatic ones, vertical ones and horizontal ones, it offers a wide selection of types, which helps you find a solution for all your technical tasks.

Before browsing the catalogue, please pay attention to the following information, which will help you navigate the selection of the appropriate type and size of clamp.

1. To mark each clamp we have used a combination of numbers and letters indicating its type, size and design - as shown in the figure.

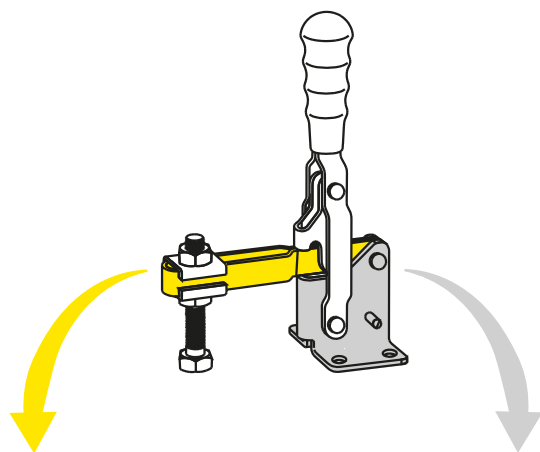
2. In the table of values, the limit clamping force is given in the column "maximum clamping force". At this force, irreversible damage to the weakest component of the clamp occurs. When opting for the size, please keep this information in mind.

3. Each ordered clamp includes a thrust bolt with mounting nuts and special washers. Only in the instance of the solid "M" design does the clamp come with a clamping bolt bush, which can be welded by jig operators according to their needs.

\*)please consult before ordering

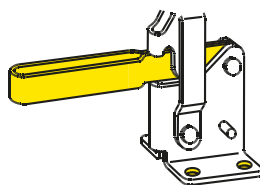
### Model 240 UZ

clamp type .....  
 clamp size .....  
 standard design "U" of the clamping lever .....  
 curved fastening leg .....



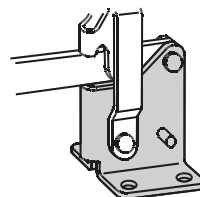
#### Type U

Standard design of clamping lever



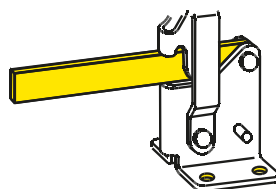
#### Type Z

Curved fastening leg



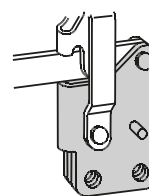
#### Type M

Solid design of clamping lever

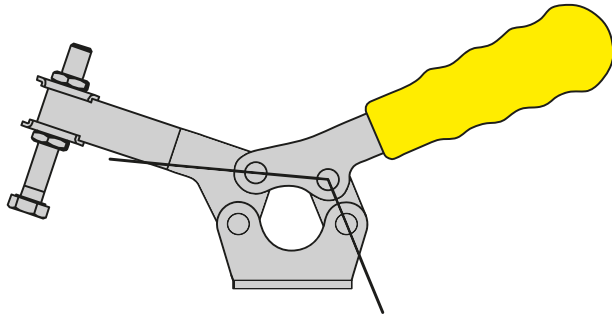


#### Type R

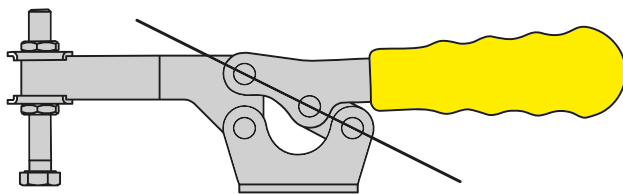
Straight fastening leg



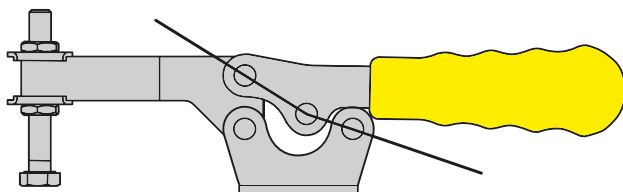
## Horizontal clamp clamping process



clamp in the open position



clamp in the zero position



clamp in position beyond the dead point

## Description

Each **JC-METAL** clamp works on the principle of an articulated mechanism, which means that high clamping forces can be achieved with a relatively low control force (exerted manually or pneumatically).

At the moment of clamping, when the lever mechanism exceeds the zero position, the clamp reaches the position beyond the dead point, where the clamp levers act in a self-locking manner: the material remains firmly clamped and the clamp is closed even when there is a drop of control force.

## Horizontal clamps

A standard clamping arm allows you to set the thrust bolt in two axes. With the solid design of lever, the bolt can be adjusted only in one axis.

Heat-treated thrust bolt with a nut and a washer.

Clamp components are made of high-quality steel sheet. They are galvanized.

Ergonomically-shaped oil-resistant plastic handle.

Heat-treated rivets and bushes (according to the type) are greased during installation to ensure a long service life.



## Vertical clamps

One-piece clamping arm to increase the stiffness of the clamp; the thrust bolt can be adjusted in 2 axes. With the solid design of lever, the bolt can be adjusted only in one axis.

Heat-treated thrust bolt with a nut and a washer.

Ergonomically-shaped oil-resistant plastic handle.

Heat-treated rivets and bushes (according to the type) are greased during installation to ensure a long service life.

Stop pin to limit the travel.

Clamp components are made of high-quality steel sheet. They are galvanized.



## Heavy precise design

Heat-treated clamping lever supplied in several designs.

Clamp made of carbonitrided material. They are supplied in several designs.

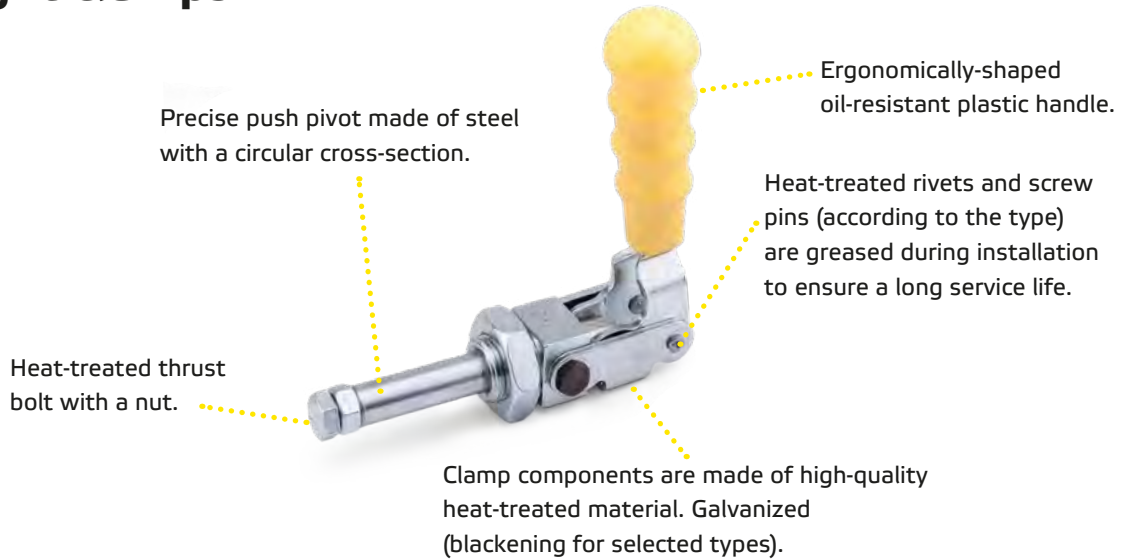
The stainless-steel control lever is heat treated.

Pivots, bolts and plugs are made of carbonitrided material.

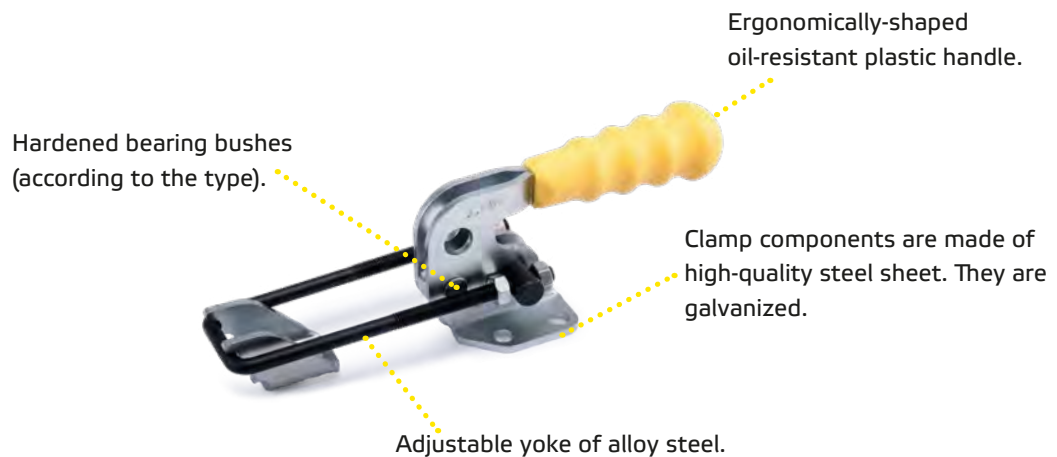
Clamp surface finish – blackened.



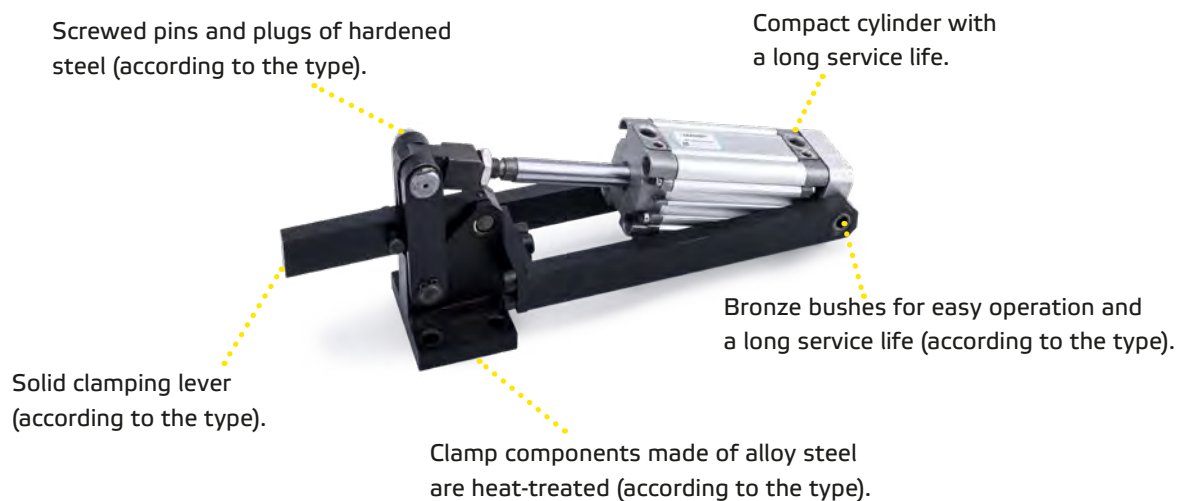
## Straight clamps



## Hook clamps












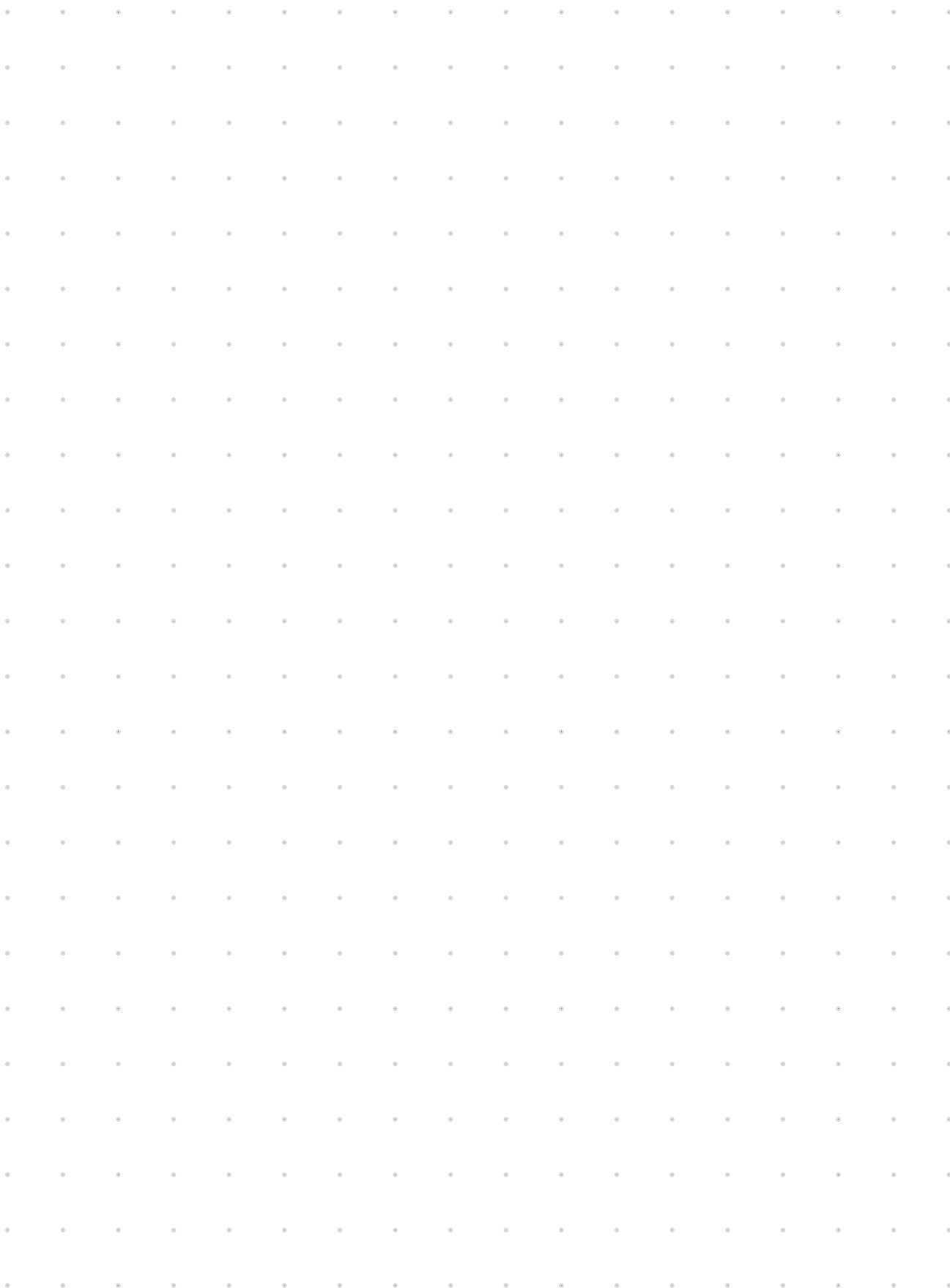
## Pneumatic clamps







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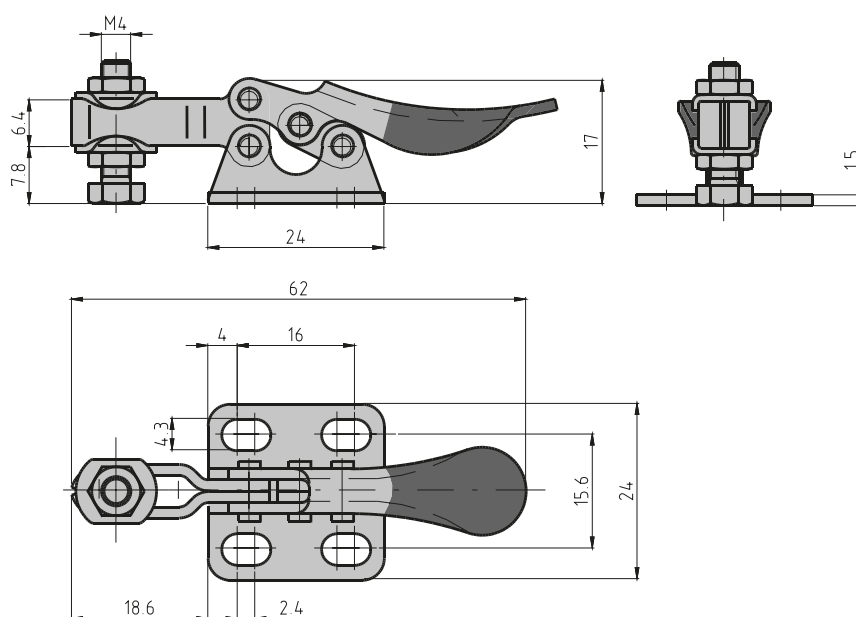




# 100 UZ

## Miniature design

The miniature clamp, type 100 UZ, can be applied wherever low clamping force is needed and where there are space limitations.



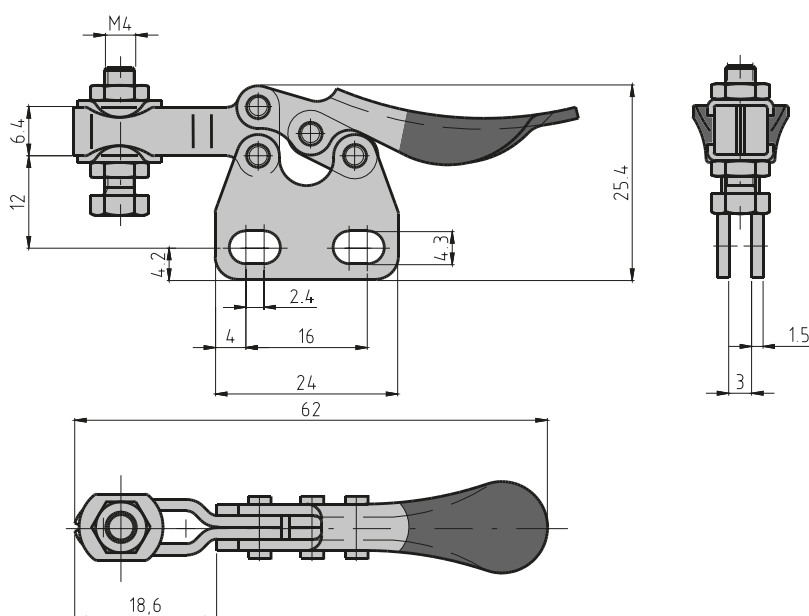
t (g)	Fmax (N)
25	250



# 100 UR

## Miniature design

The miniature clamp, type 100 UR, can be applied wherever low clamping force is needed and where there are space limitations.



m (g)	Fmax (N)
25	250

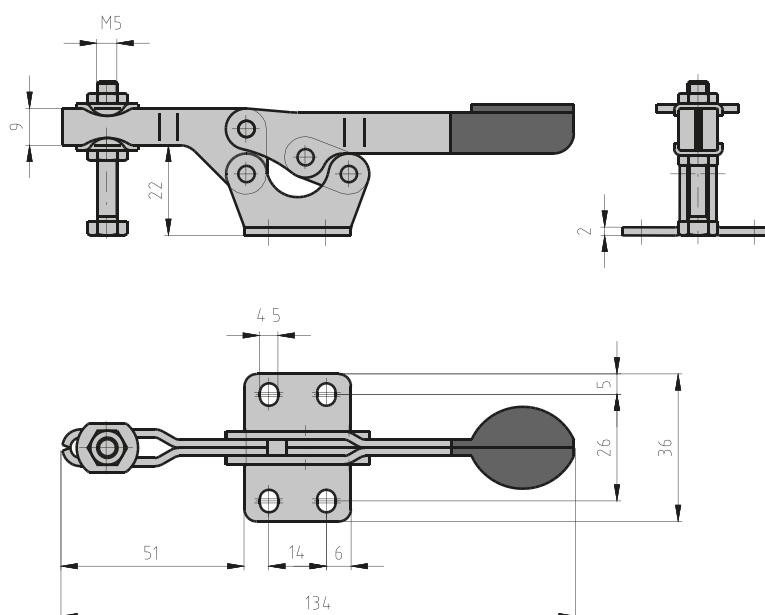


# 110 UZ



## Light design

The clamp 110 UZ features a horizontal structure and resulting low construction height. Its plastic-coated handle allows for easy handling in areas with a lack of space.



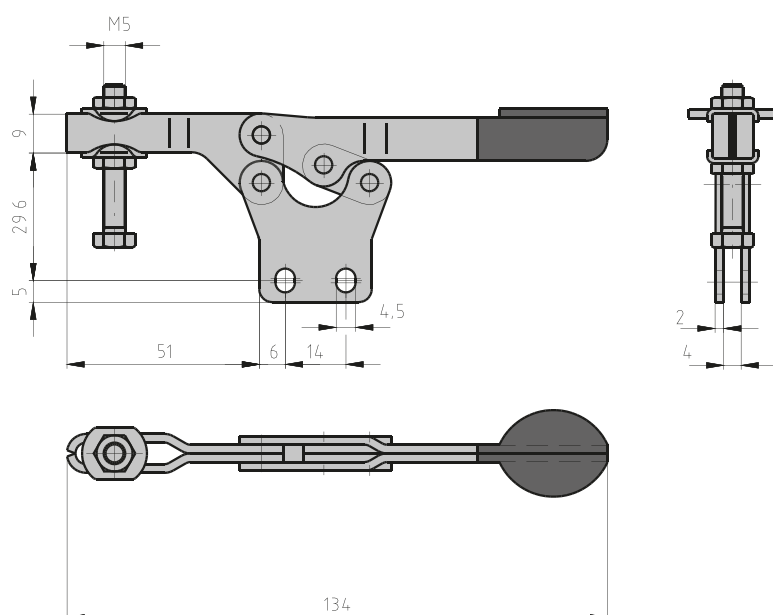
Opening angle	m (g)	Fmax (N)
95	90	1800



# 110 UR

## Light design

The clamp 110 UR features a horizontal structure and resulting low construction height. Its plastic-coated handle allows for easy handling in areas with a lack of space.



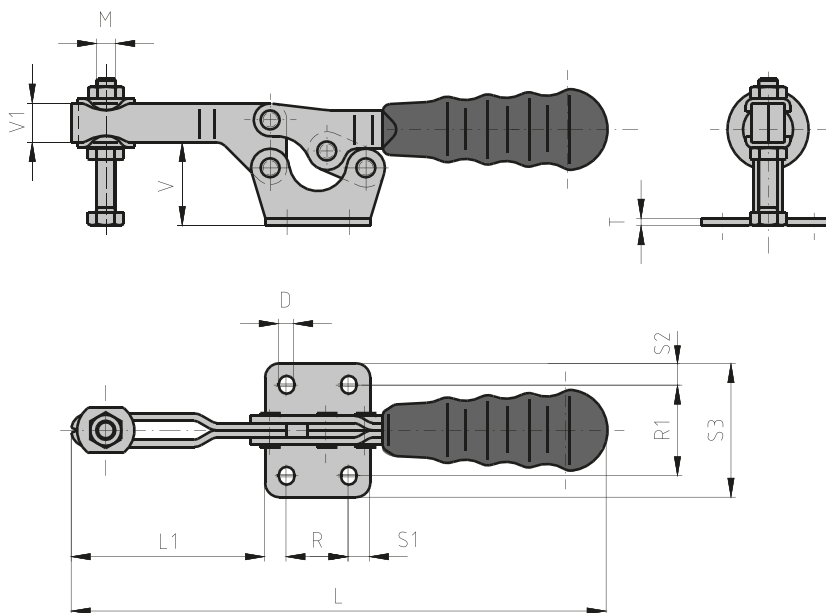
Opening angle	m (g)	Fmax (N)
95	90	1800

# 120 - 150 UZ



## Light to medium-heavy design

The clamp series 120 UZ - 150 UZ features a horizontal structure and resulting low construction height. Apart from the type 120, hardened bearing bushes are used in the clamps. In addition, hardened rivets are used for each type.



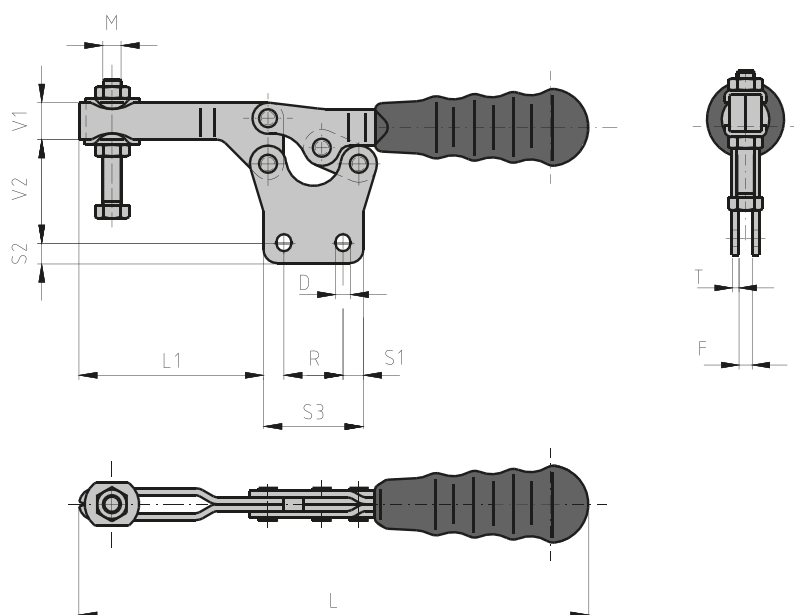
TYPE	L	L1	S1	S2	S3	D	T	M	R	R1	V	V1	Opening angle	m (g)	Fmax (N)
120 UZ	190	62.5	6.5	6.4	36	6.4	3	6	25	23	29	13	90	350	2300
130 UZ	224	81	9	9	56	6.5	3	8	26	38	35	16	90	500	2800
140 UZ	260	105.5	8	8	57	8.4	4	10	41.2	41	40	20	90	750	3500
150 UZ	305	128	10	10	72	8.6	5	12	44	52	53	26	90	950	5000



## 120 - 150 UR

### Light to medium-heavy design

The clamp series 120 UR - 150 UR features a horizontal structure and resulting low construction height. Apart from the type 120, hardened bearing bushes are used in the clamps. In addition, hardened rivets are used for each type.



TYPE	L	L1	S1	S2	S3	D	T	M	R	V1	V2	F	Opening angle	m (g)	Fmax (N)
120 UR	190	62.5	6.5	6.4	38	6.4	3	6	25	13	33	6	90	350	2300
130 UR	224	81	9	9	44	6.5	3	8	26	16	46.7	6	90	500	2800
140 UR	260	105.5	8	8	57	8.4	4	10	41.2	20	49	8	90	750	3500
150 UR	305	128	10	10	64	8.6	5	12	44	26	64	10	90	950	5000

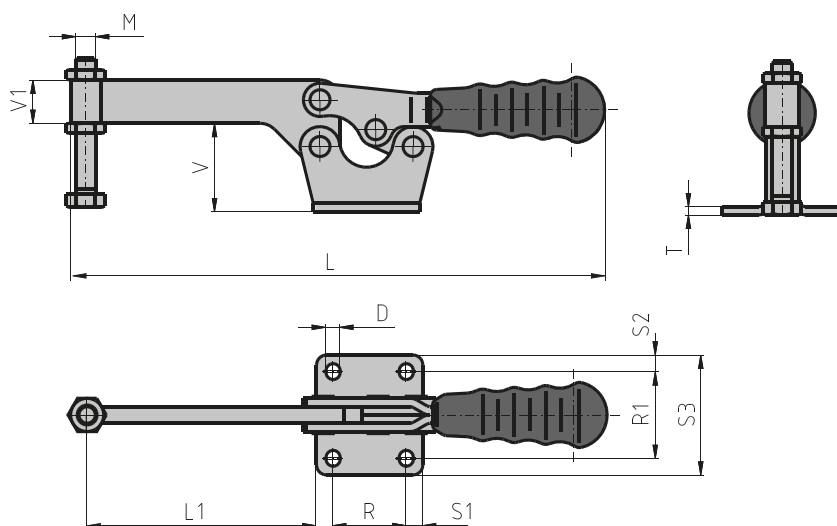
# 120 - 150 MZ



## Light to medium-heavy design

The clamp series 120 MZ - 150 MZ features a horizontal structure and resulting low construction height. Apart from the type 120, hardened bearing bushes are used in the clamps. In addition, hardened rivets are used for each type. This type of clamp is supplied with a solid clamping lever and a bush for the clamping bolt.

The bush for the clamping bolt is included in the delivery - free, non-welded.



TYPE	L	L1	S1	S2	S3	D	T	M	R	R1	V	V1	Opening angle	m (g)	Fmax (N)
120 MZ	200	69	6.5	6.4	38	6.4	3	6	25	23	29	13	95	350	2300
130 MZ	238.5	88.5	9	9	44	6.5	3	8	26	38	35	16	95	500	2800
140 MZ	275.5	111.5	8	8	57	8.4	4	10	41.2	41	42	20	95	750	3500
150 MZ	320	137	10	10	64	8.6	5	12	44	52	53	26	95	950	5000

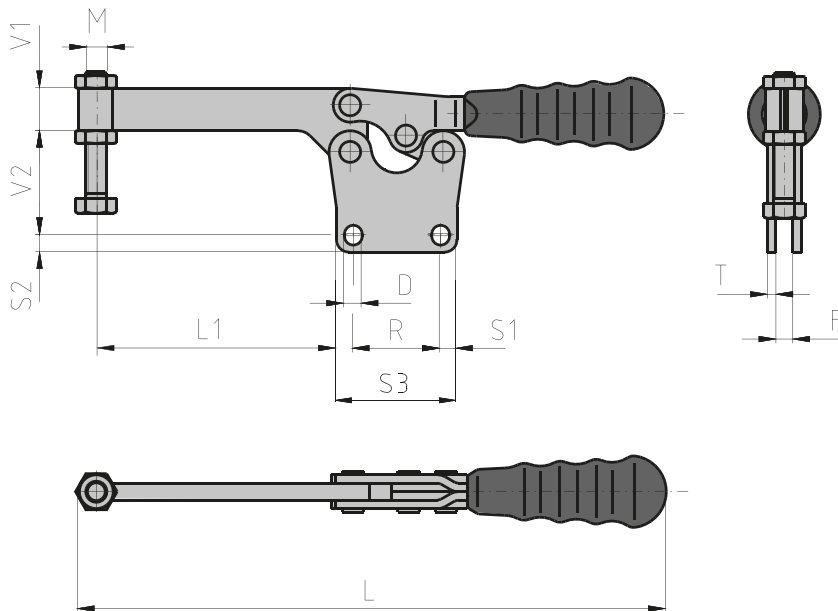


## 120 - 150 MR

### Light to medium-heavy design

The clamp series 120 MR - 150 MR features a horizontal structure and resulting low construction height. Apart from the type 120, hardened bearing bushes are used in the clamps. In addition, hardened rivets are used for each type. This type of clamp is supplied with a solid clamping lever and a bush for the clamping bolt.

The bush for the clamping bolt is included in the delivery - free, non-welded.



TYPE	L	L1	S1	S2	S3	D	T	M	R	V1	V2	F	Opening angle	m (g)	Fmax (N)
120 MR	200	69	6.5	6.4	38	6.4	3	6	25	13	33	6	95	350	2300
130 MR	238.5	88.5	9	9	44	6.5	3	8	26	16	46.7	6	95	500	2800
140 MR	275.5	111.5	8	8	57	8.4	4	10	41.2	20	51	8	95	750	3500
150 MR	320	137	10	10	64	8.6	5	12	44	26	64	10	95	950	5000

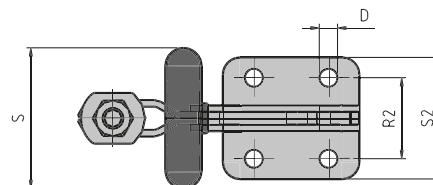
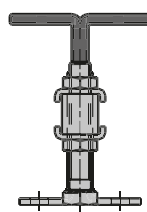
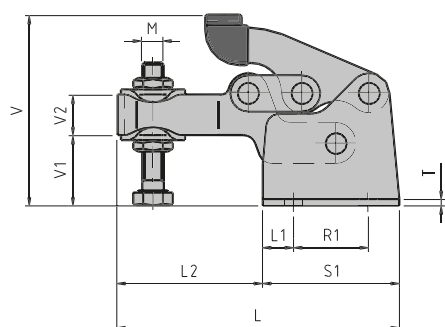




# 105 - 109

## Light to medium-heavy design

A compact design of clamps allows for use in confined areas. The handle and the clamping lever move in the same direction. Despite the small structural size, the clamping force is relatively high. These clamps are used in jigs for drilling, bonding, brazing, assembling, etc.



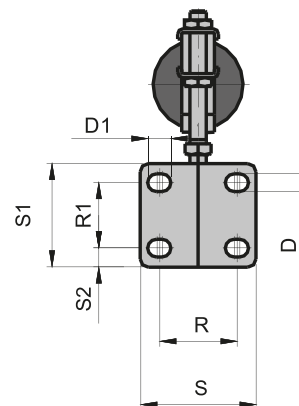
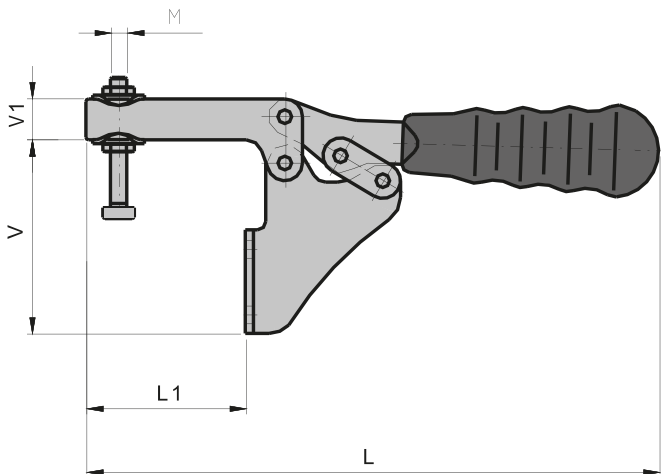
TYPE	L1	L2	L	V1	V2	V	S1	S2	R1	R2	D	T	M	Opening angle	m (g)	Fmax (N)
105	6.5	30	56.5	13	8	34	26.5	26	13.5	16	4.5	2	5	92	60	650
107	10.5	46	90	22	13	61	44	43	23	26	6.5	3	6	92	220	1500
109	14.5	68	132	33	19	90	64	57	35	38	8.5	3	10	90	630	3400



## 121 - 141

### Light to medium-heavy design

Special clamps of this series are equipped with a curved fastening web allowing for installation from the front of the jig.



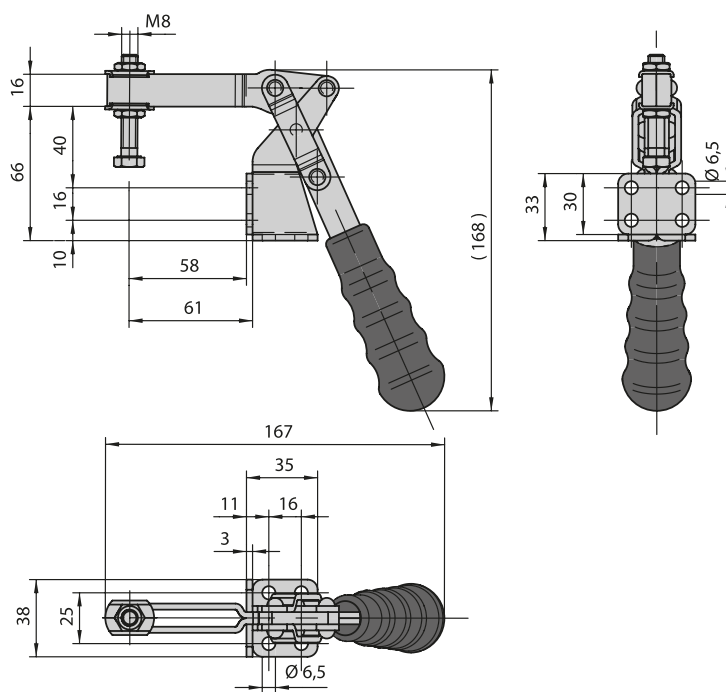
TYPE	L	L1	V	V1	M	S	S1	S2	R	R1	D	D1	Opening angle	m (g)	Fmax (N)
121	186	52	73	13	6	37	32	6	25.5	20	5.6	6.6	90	245	1200
131	210	58.5	71	15	8	42.5	38	7	28.5	24	6.5	8.5	90	390	2500
141	267	93	102	20	10	52	52	10	32	32	8.5	10.5	90	730	3000



# 132 U

## Light to medium-heavy design

The clamp can be fixed from two sides. Wide opening angle.



Opening angle	m (g)	Fmax (N)
185	450	1700

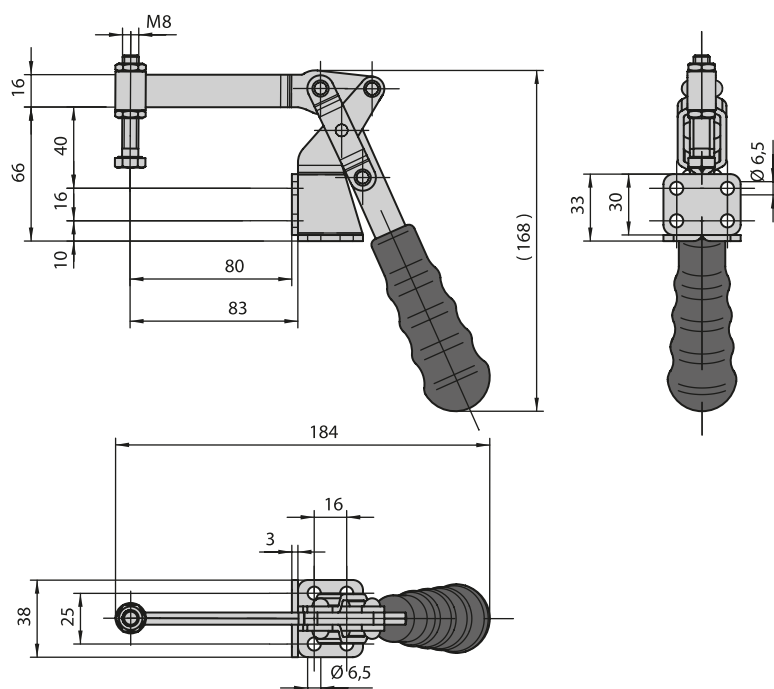


# 132 M

## Light to medium-heavy design

The clamp can be fixed from two sides. Wide opening angle.

A bush for the clamping bolt is included in the delivery - free, non-welded.



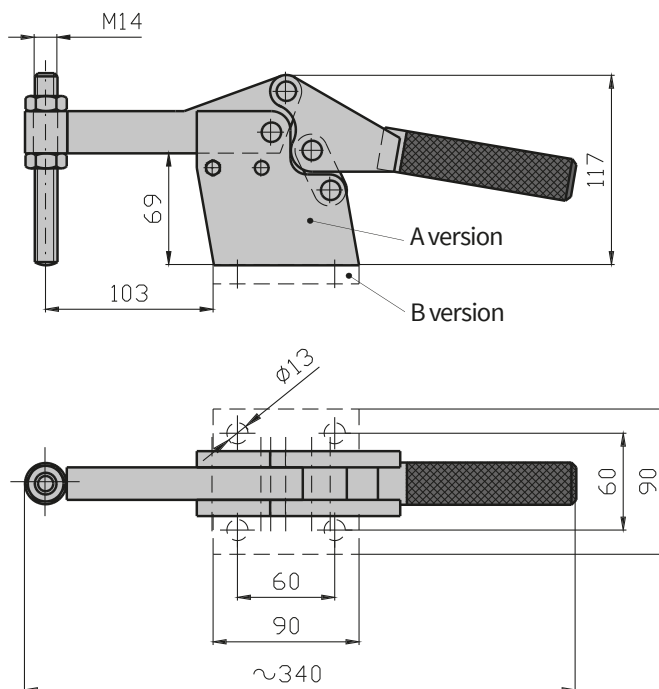
Opening angle	m (g)	Fmax (N)
185	450	1700

# 160 M



## Heavy design

Clamp for heavy-duty clamping. It can be used wherever a high clamping force is required or where harsh treatment cannot be avoided. The clamp is supplied in two designs, A and B.



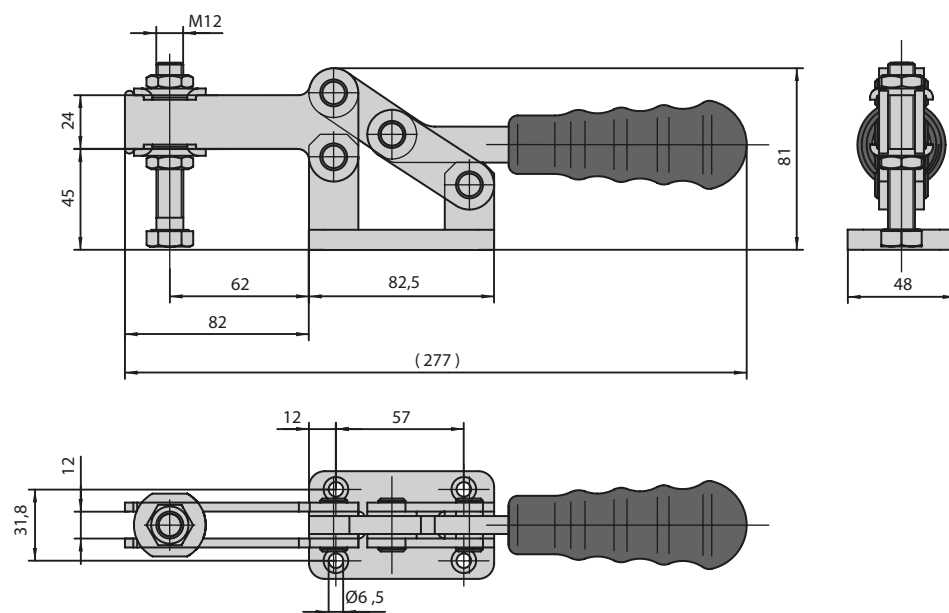
Opening angle	Surface finish	F <sub>max</sub> (kN)	m (g)
92	Blackened	16	3600



# 161

## Heavy design

Clamp for heavy-duty clamping. It can be used wherever a high clamping force is required or where harsh treatment cannot be avoided.



Opening angle	F <sub>max</sub> (N)	Weight (kg)
95°	5000	1



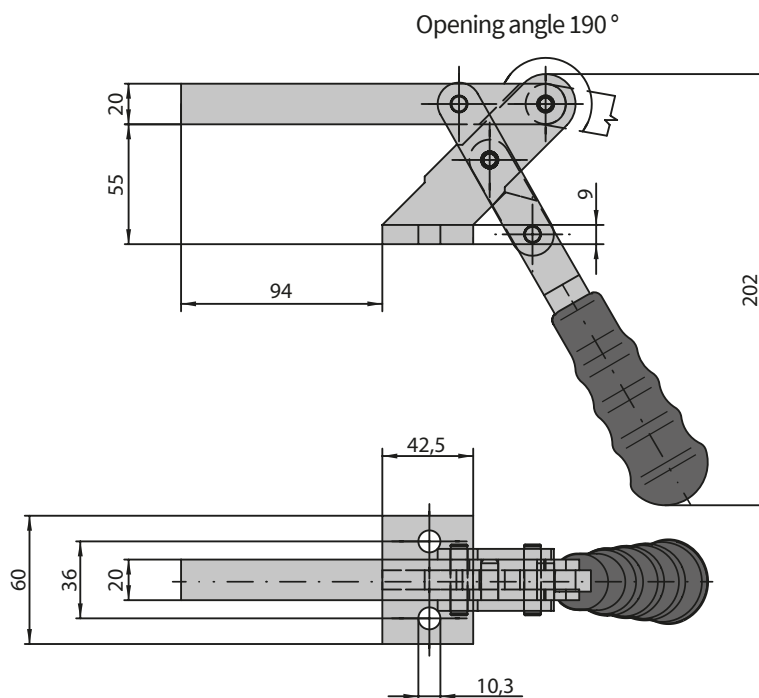
## 180



## Heavy design

Clamp for heavy-duty clamping. It can be used wherever a high clamping force is required or where harsh treatment cannot be prevented. The advantage of the clamp consists of a wide opening angle and a variety of fixation. Its clamping lever can be shortened, welded or threaded for clamping elements.

Clamp rivets are hardened. The clamp features a surface finish of Fe-Zn. On request, a black design is also available.



m (g)	F <sub>max</sub> (N)
1140	4500

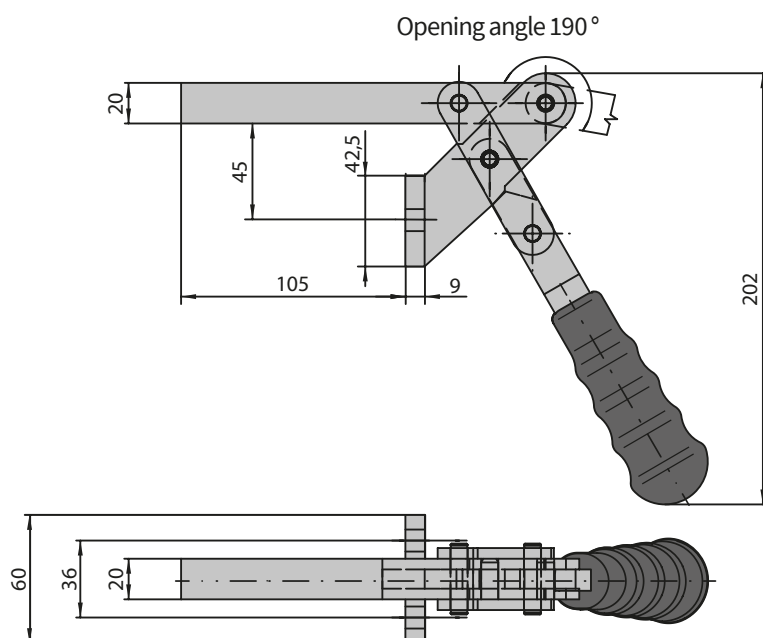


# 181

## Heavy design

This clamp can be used wherever a high clamping force is required or where harsh treatment cannot be avoided. Its advantages include a wide opening angle and a variation of fixation. Its clamping lever can be shortened, welded or equipped with threads for clamping elements.

Clamp rivets are hardened. The clamp features a surface finish of Fe-Zn. On request, a black design is also available.



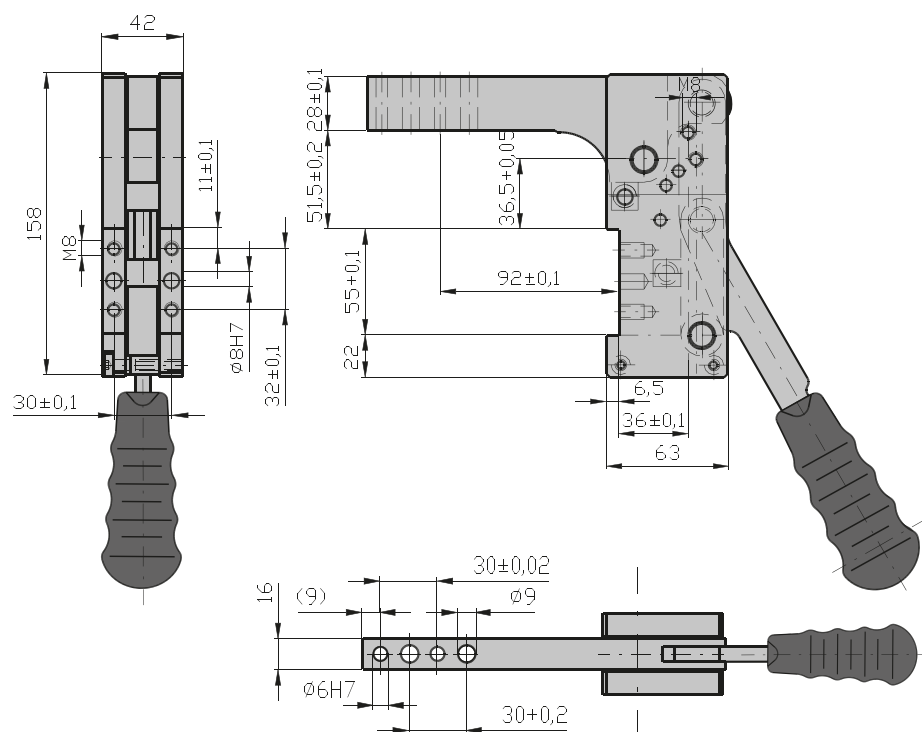
m (g)	Fmax (N)
1140	4500



# 185

## Heavy precise design

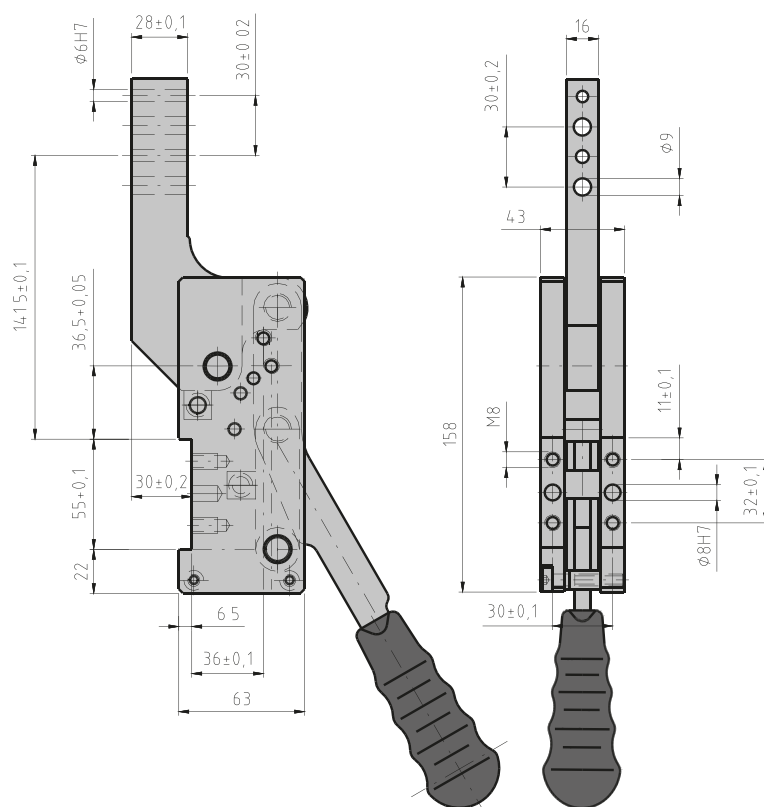
Open design, self-locking, clamping arm with openings for the installation of formative elements, installation from the front, interchangeability with pneumatic clamps manufactured by the companies Tünkers, Destaco and similar.



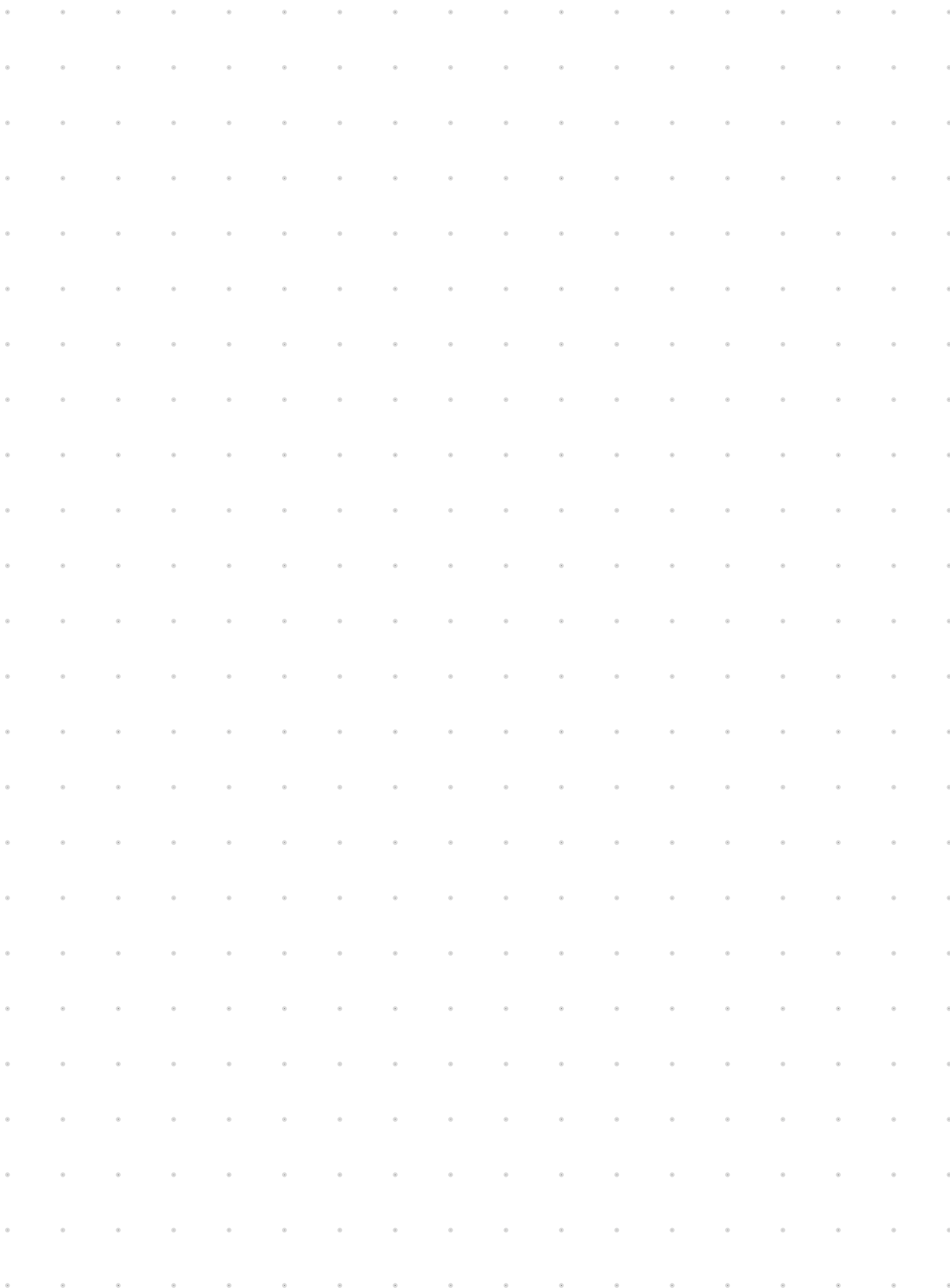
m (g)	Fmax (kN)
3100	16



Open design, self-locking, clamping arm with openings for the installation of formative elements, installation from the front, interchangeability with pneumatic clamps manufactured by the companies Tünkers, Destaco and similar.



m (g)	F <sub>max</sub> (kN)
3100	16







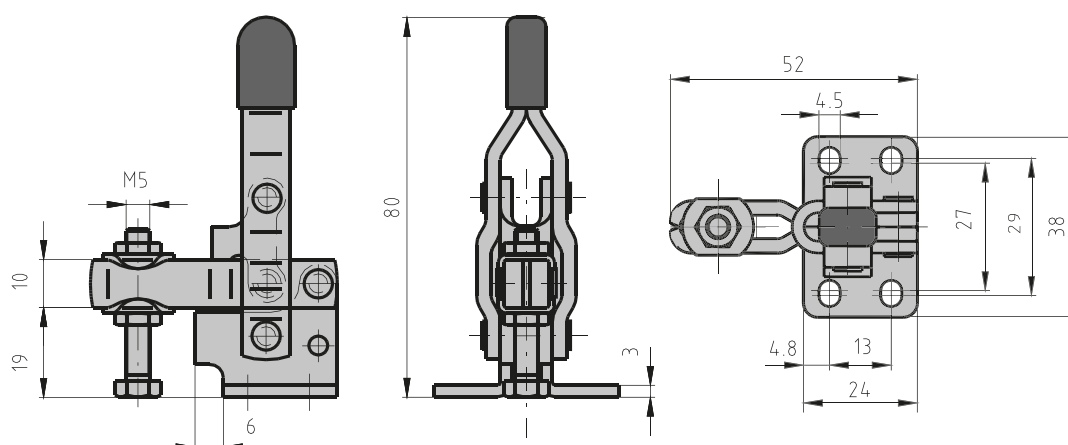




## 200 UZ

### Miniature design

The miniature clamp, type 200 UZ, can be applied wherever low clamping force is needed and where there are space limitations.



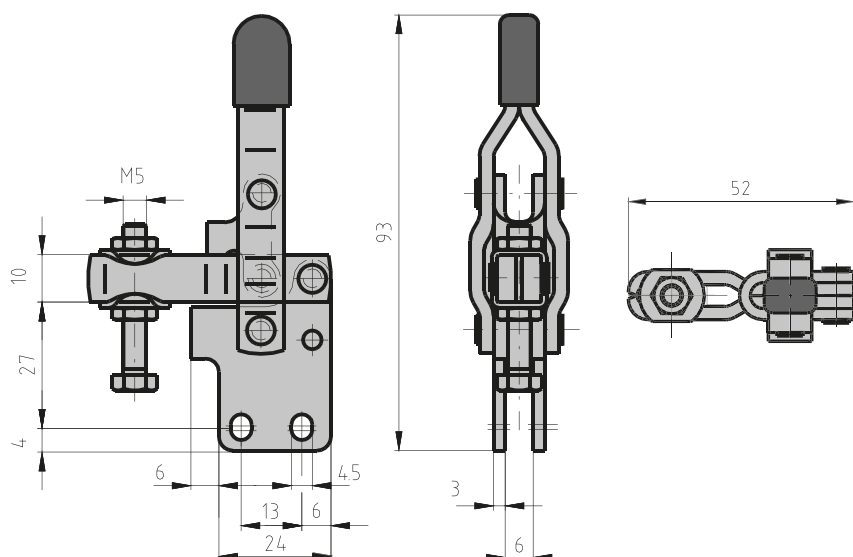
m (g)	F <sub>max</sub> (N)
55	250



## 200 UR

### Miniature design

The miniature clamp, type 200 UR, can be applied wherever low clamping force is needed and where there are space limitations.



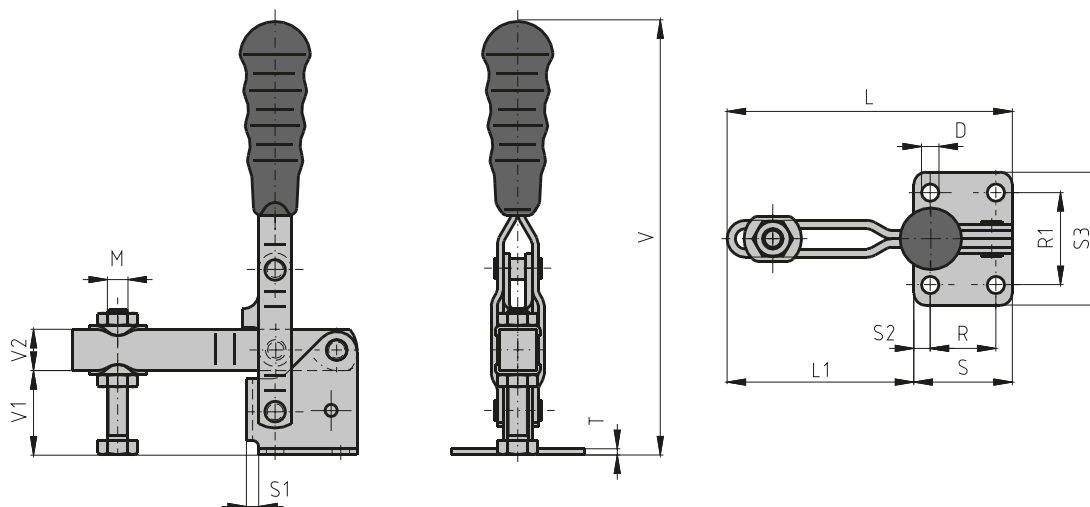
m (g)	F <sub>max</sub> (N)
55	250



## 210 - 260 UZ

### Light to medium-heavy design

The handle of this clamp series is in the vertical position when closed. Apart from the types 210 and 220, they are all equipped with hardened bearing bushes. In addition, hardened rivets are used for each type.



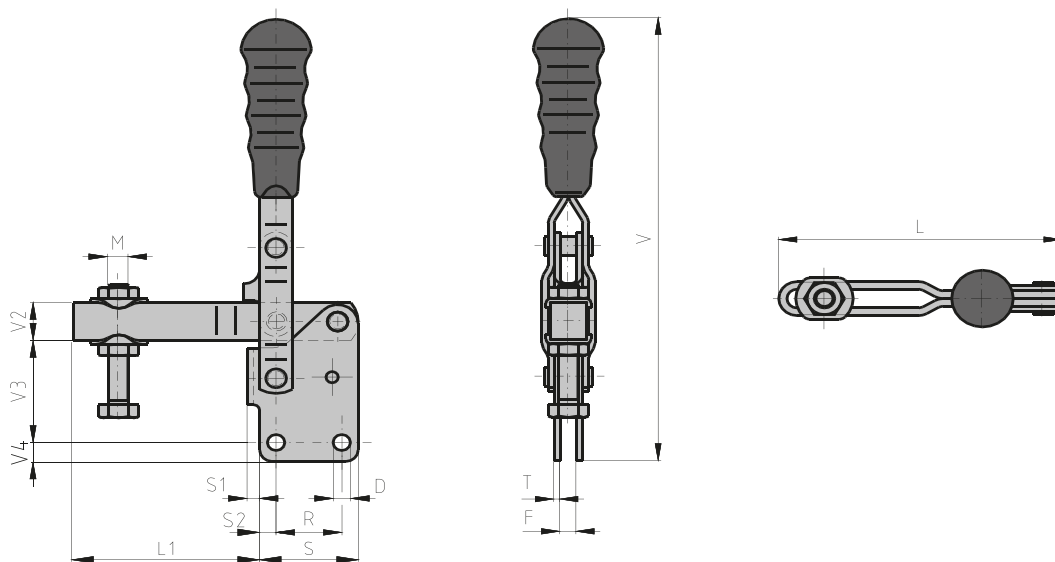
TYPE	L	L1	S	S1	S2	S3	D	T	M	R	V	V1	V2	R1	Opening angle	m (g)	Fmax (N)
210 UZ	52	28	24	6	4.8	38	4.5	2.5	5	13	143	20	10	28	100	175	700
220 UZ	80	54.3	25.5	4.5	6.2	40	4.5	3	6	13	146	24	10	30	110	185	1000
230 UZ	100	65	35	6	8	45	6.5	3	8	19	177	30	16	32	110	360	1800
240 UZ	140	92	48	6	8	65	8.5	3	10	32	211	41	20	45	105	655	2200
250 UZ	170	106.5	62	10	8	70	8.5	4	12	46	260	52	25	52	105	910	3500
260 UZ	210	140	72	11	11	92	10.5	4	12	50	305	81.5	25	72	105	1055	5000



## 210 - 260 UR

### Light to medium-heavy design

The handle of this clamp series is in the vertical position when closed. Apart from the types 210 and 220, they are all equipped with hardened bearing bushes. In addition, hardened rivets are used for each type.



TYPE	L	L1	S	S1	S2	D	T	M	R	V	V2	V3	V4	F	Opening angle	m (g)	Fmax (N)
210 UR	52	28	24	6	4.8	4.5	2.5	5	13	156	10	26	5	6	100	175	700
220 UR	80	54.3	25.5	4.5	6.2	4.5	3	6	13	164	10	31	5	6	110	185	1000
230 UR	100	65	35	6	8	6.5	3	8	19	190	16	37.5	6.5	6	110	360	1800
240 UR	140	92	48	6	8	8.5	3	10	32	234	20	54	10	8	105	655	2200
250 UR	170	106.5	62	10	8	8.5	4	12	46	283	25	67	9	8	105	910	3500
260 UR	210	138	72	11	11	10.5	4	12	50	341	25	106.5	10	8	105	1055	5000

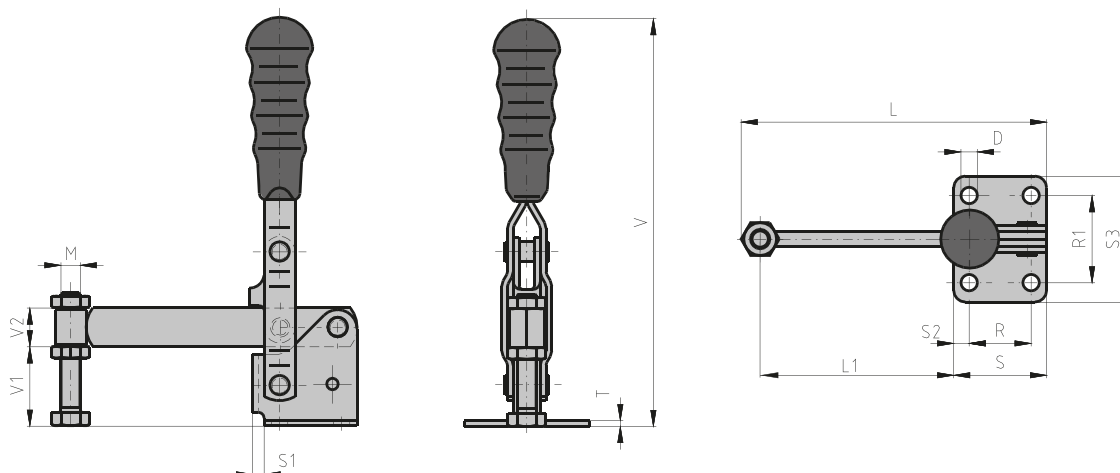


## 210 - 260 MZ

### Light to medium-heavy design

The handle of this clamp series is in the vertical position when closed. Apart from the types 210 and 220, they are all equipped with hardened bearing bushes. In addition, hardened rivets are used for each type. This type of clamp is supplied with a solid clamping lever and a bush for the clamping bolt.

The bush for the clamping bolt is included in the delivery - free, non-welded.



TYPE	L	L1	S	S1	S2	S3	D	T	M	R	V	V1	V2	R1	Opening angle	m (g)	Fmax (N)
210 MZ	64	34.5	24	6	4.8	38	4.5	2.5	5	13	143	20	10	28	100	175	700
220 MZ	91.5	60.3	25.5	4.5	6.2	40	4.5	3	6	13	146	24	10	30	110	185	1000
230 MZ	114	71.6	35	6	8	45	6.5	3	8	19	177	30	16	32	110	360	1800
240 MZ	155	99	48	6	8	65	8.5	3	10	32	211	41	20	45	105	655	2200
250 MZ	188	106.5	62	10	8	70	8.5	4	12	46	260	52	25	52	105	910	3500
260 MZ	232	149	72	11	11	92	10.5	4	12	50	305	81.5	25	72	105	1055	5000

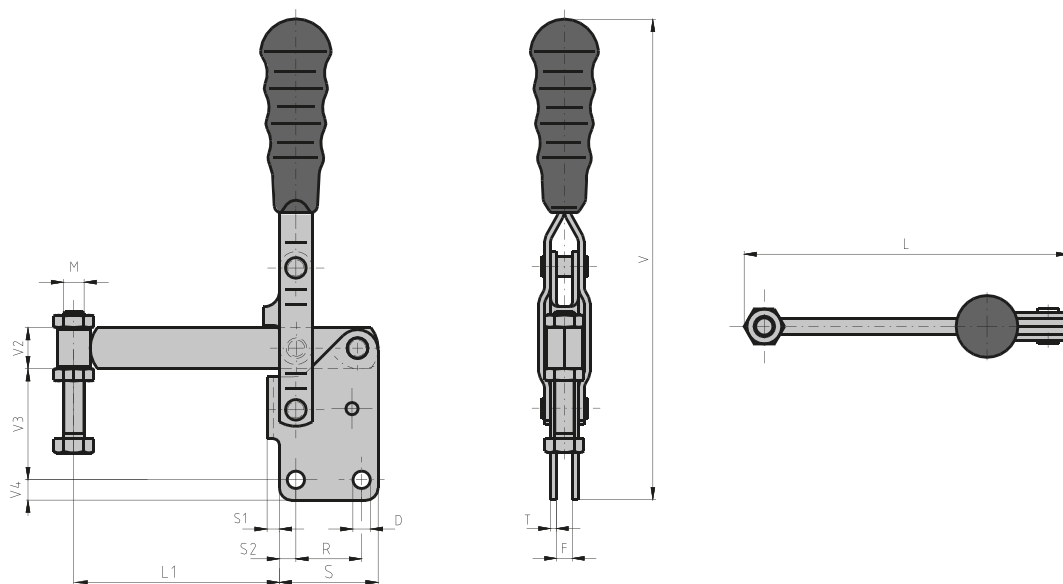


## 210 - 260 MR

### Light to medium-heavy design

The handle of this clamp series is in the vertical position when closed. Apart from the types 210 and 220, they are all equipped with hardened bearing bushes. In addition, hardened rivets are used for each type. This type of clamp is supplied with a solid clamping lever and a bush for the clamping bolt.

The bush for the clamping bolt is included in the delivery - free, non-welded.



TYPE	L	L1	S	S1	S2	D	T	M	R	V	V2	V3	V4	F	Opening angle	m (g)	Fmax (N)
210 MR	64	34.5	24	6	4.8	4.5	2.5	5	13	156	10	26	5	6	100	175	700
220 MR	91.5	60.3	25.5	4.5	6.2	4.5	3	6	13	164	10	31	5	6	110	185	1000
230 MR	114	71.6	35	6	8	6.5	3	8	19	190	16	37.5	6.5	6	110	360	1800
240 MR	155	99	48	6	8	8.5	3	10	32	234	20	54	10	8	105	655	2200
250 MR	188	106.5	62	10	8	8.5	4	12	46	283	25	67	9	8	105	910	3500
260 MR	232	149	72	11	11	10.5	4	12	50	341	25	106.5	10	8	105	1055	5000

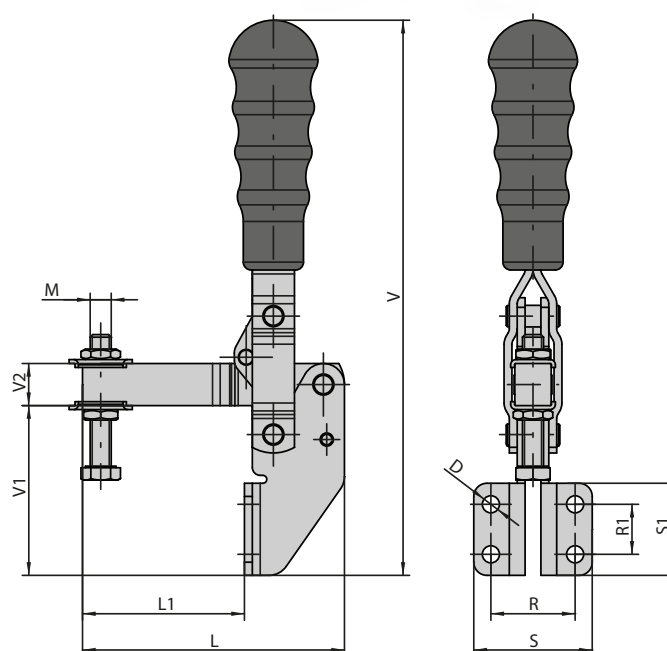




## 221 - 241

### Light to medium-heavy design

The clamps of this range are based on the types 220, 230 and 240. The handle of these clamps is in the vertical position when they are closed. All types have hardened rivets, and the types 231 and 241 also have hardened bearing bushings. The curved fixing web allows mounting from the front of the jigs.



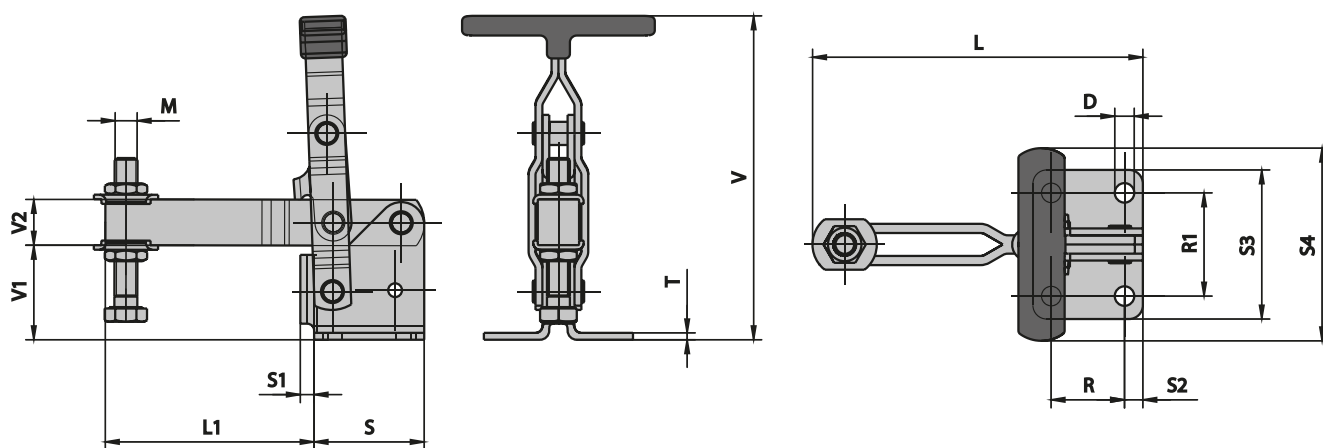
TYPE	L	L1	S	S1	D	M	R	R1	V	V1	V2	Opening angle	m (g)	Fmax (N)
221	80	54	40	25,5	4,5	6	30	13	176	51	10	110	200	1000
231	99,5	61,5	45	35	6,5	8	32	19	211	64,5	16	110	400	1800
241	139	85	65	48	8,5	10	45	32	259	88	20	105	710	2200



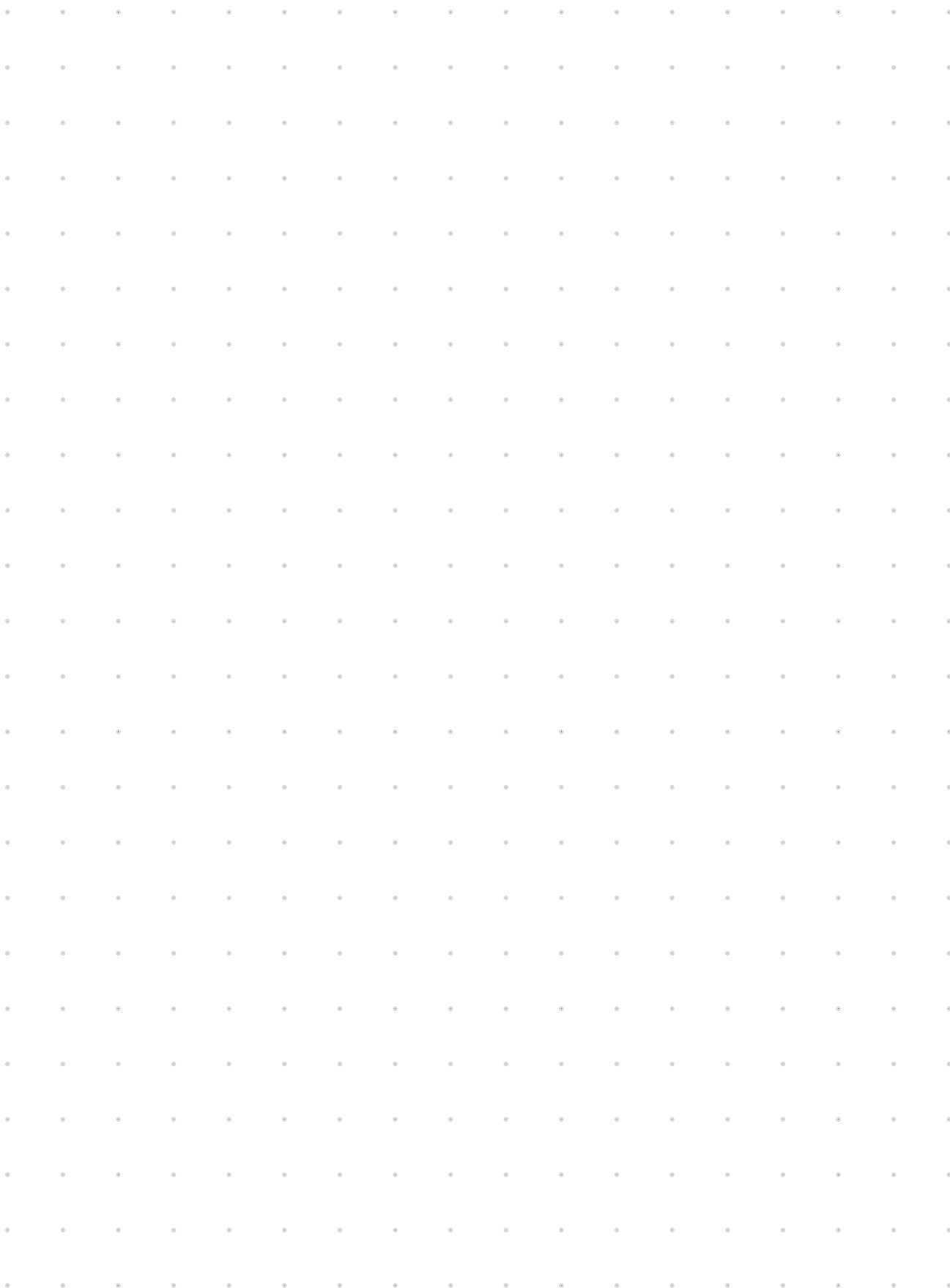
## 230 - 240 UZT

### Light to medium-heavy design

The handle of this clamp series is in the vertical position when closed. The clamp series 230 UZT - 240 UZT features a reduced construction height. Hardened bearing bushes and hardened rivets are used in the clamps.



TYPE	L	L1	S	S1	S2	S3	S4	T	M	R	V	V1	V2	R1	Opening angle	m (g)	F (max)
230 UZT	100	65	35	6	8	45	76	3	8	19	106	30	16	32	110	360	1800
240 UZT	140	92	48	6	8	65	84	3	10	32	141	41	20	45	105	655	2200









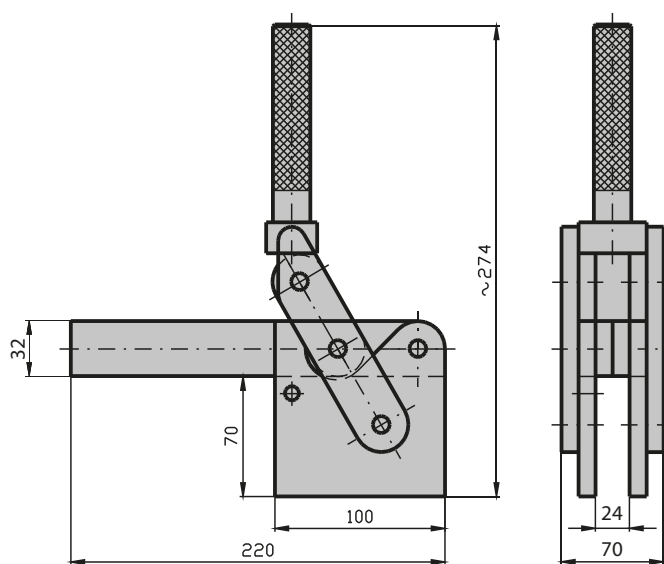


## 270 M

### Heavy design

Suitable for demanding clamping of pieces in welding, machining and wherever a high clamping force is required.

The delivery also includes a clamping bolt with a welded bush.



Opening angle	Surface finish	F <sub>max</sub> (kN)	m (g)
192	Blackened	29	2600

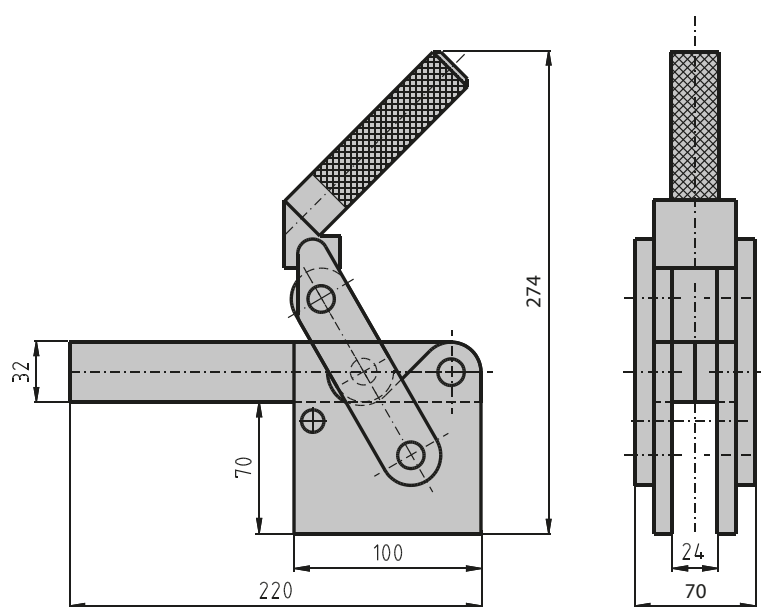


## 270 M-A

### Special heavy design

It is based on the clamp 270 M. The 270 M-A clamp handle is turned through  $45^\circ$  compared to the type 270 M, so its total construction height is reduced. It is suitable for demanding clamping of pieces in welding, machining and wherever a high clamping force is required.

The delivery also includes a clamping bolt with a welded bush.



Opening angle	Surface finish	F <sub>max</sub> (kN)	m (g)
192	Blackened	29	2600

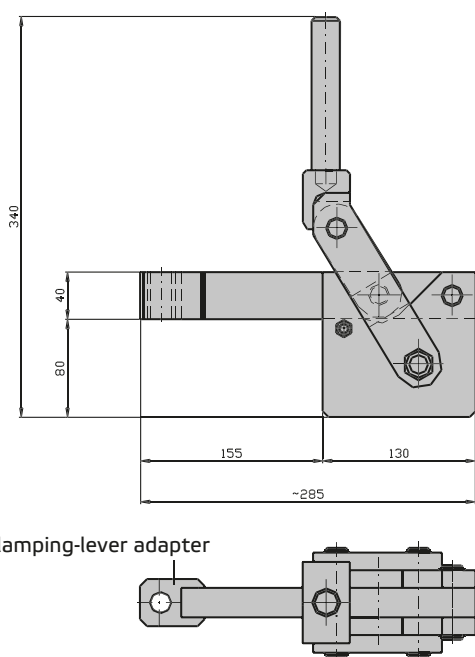




# 275

## Heavy precise design - for extremely demanding clamping

Suitable for demanding clamping of pieces in welding, machining and wherever a high clamping force is required. Option to choose between two clamping-lever adapters.



### Options of the clamping-lever adapters



Adapter with the bolt Tr 24x5



Adapter with the bolt M20

Surface finish	Fmax (kN)
Blackened	29

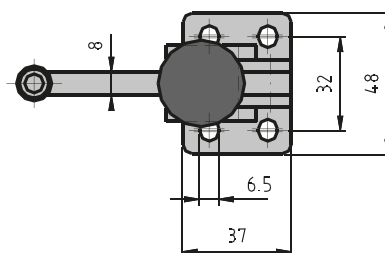
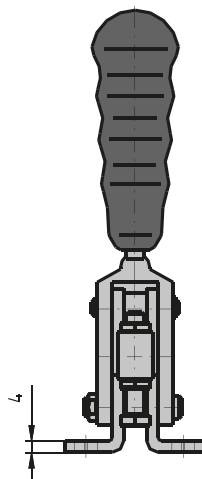
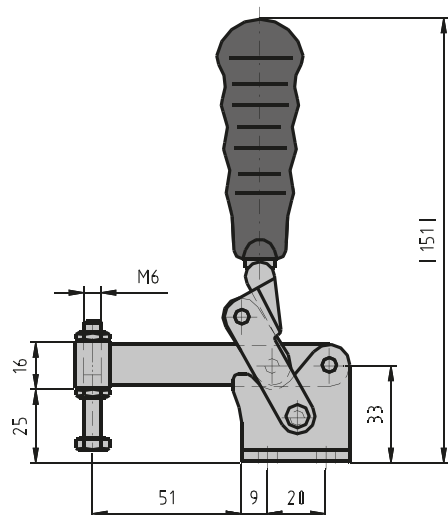


279

### Special heavy design

It is a clamp with a long service life. Despite the small structural size, the clamping force is relatively high. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamp components are all blackened.

The bush for the clamping bolt is included in the delivery - free, non-welded.



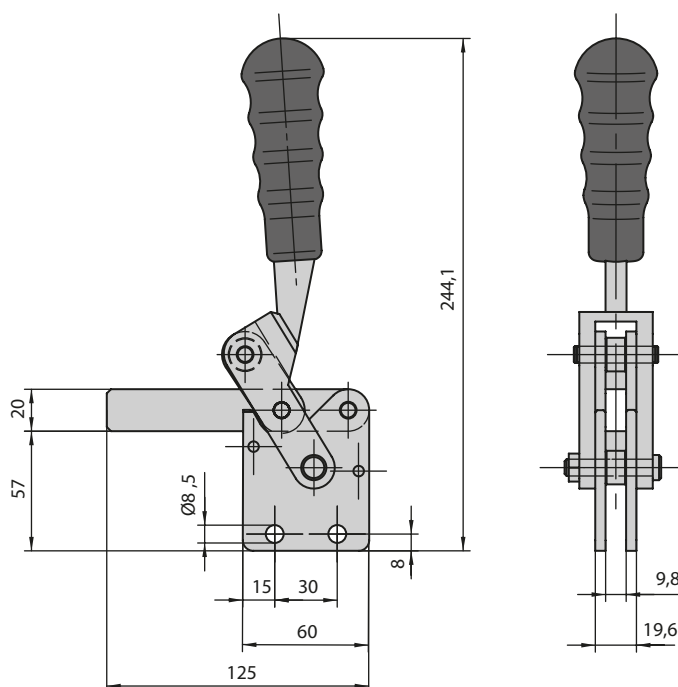
Opening angle	F <sub>max</sub> (N)	m (g)
120	2500	320



# 280

## Heavy precise design

This is a clamp with a high clamping force and a long service life. The handle weldment is made of stainless steel, heat treated to 800-1000, MPA. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamp components are all blackened. The clamp design allows for limitation of the clamping-arm play and the adjustment of the entire clamp.



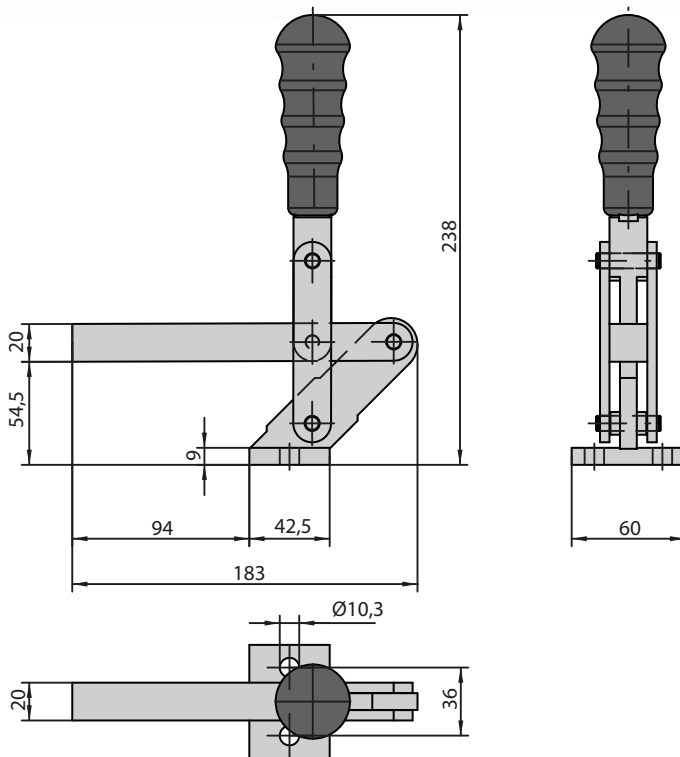
Opening angle	Fmax (N)	m (g)
130	7000	approx. 1000



## 285

### Heavy precise design

Clamps for heavy-duty clamping. Used wherever high clamping force is required or where it is not possible to avoid rough treatment. The advantage of the clamp is the wide opening angle and variety of fixing. The clamping lever can be shortened, welded or threaded for clamping elements.

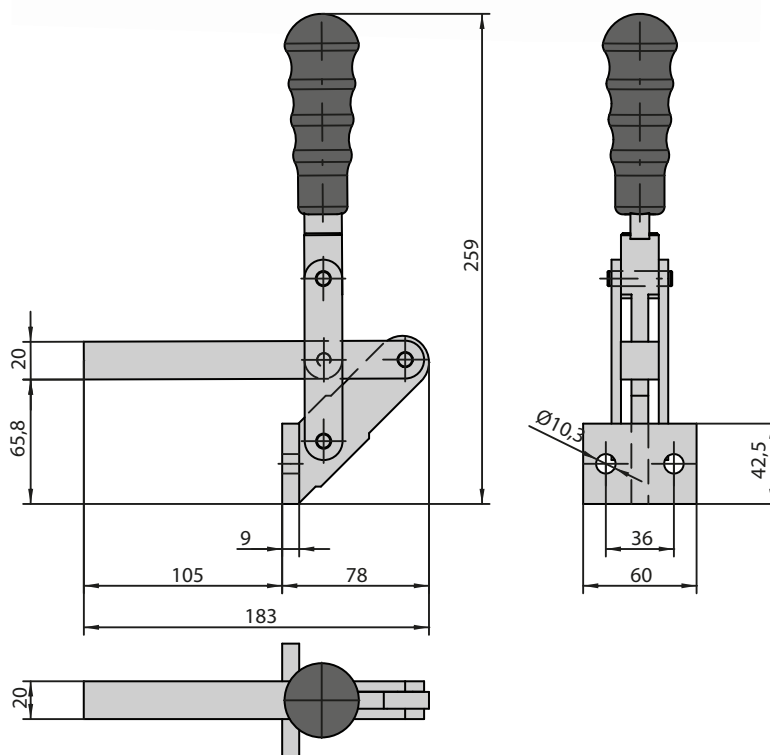


Opening angle	m (g)	Fmax (N)
180	1350	4500

## 286

## Heavy precise design

Clamps for heavy-duty clamping. Used wherever high clamping force is required or where it is not possible to avoid rough treatment. The advantage of the clamp is the wide opening angle and variety of fixing. The clamping lever can be shortened, welded or threaded for clamping elements.



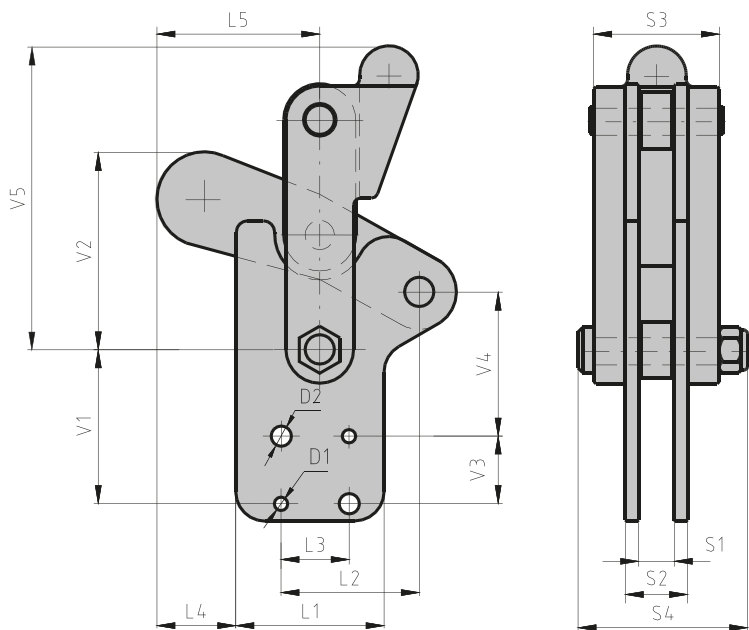
Opening angle	m (g)	F <sub>max</sub> (N)
180	1350	4500



## 291- 296 RO

### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control-lever weldment is made of stainless steel, heat treated to 800-1000, MPA. The control levers of the types 291 and 293 are made of cast steel. The clamp webs, draw-ropes and pivots are made of carbonitrided material and hardened to 48 HRC. The clamps are all blackened. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry.



TYPE	L1	L2 / 0.05	L3	L4	L5	V1	V2	V3	V4 / 0.05	V5	S1 / 0.05	S2	S3	D1 / H7	D2	Opening angle	m (g)	Fmax (kN)
291 RO	28.5	24	15	14.5	28.5	28.3	28	15	22.8	52	6.8	12.8	21	4	5.5	200	300	2.5
293 RO	45	37	24	13	37.5	40.5	51	19	37	90	9.8	20	33	6	9	200	1100	7
295 RO	53	52	30	31	57.5	55.5	71.5	30	46	110	11.8	22	40	6	9	200	1900	12
296 RO	66	61	30	35	72	68.5	91	30	64	135	15.8	27.6	55.5	6	9	200	2900	24

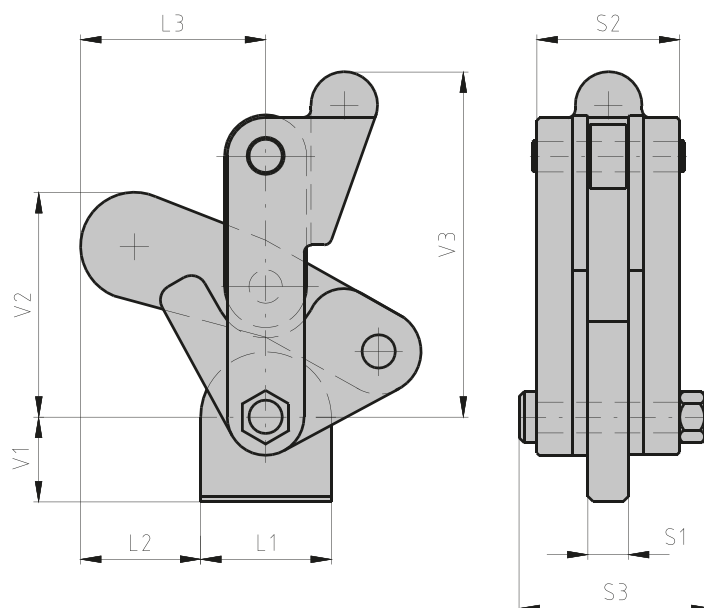




## 291 - 296 M

### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control-lever weldment is made of stainless steel, heat treated to 800-1000, MPA. The control levers of the types 291 and 293 are made of cast steel. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamps are all blackened. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry.

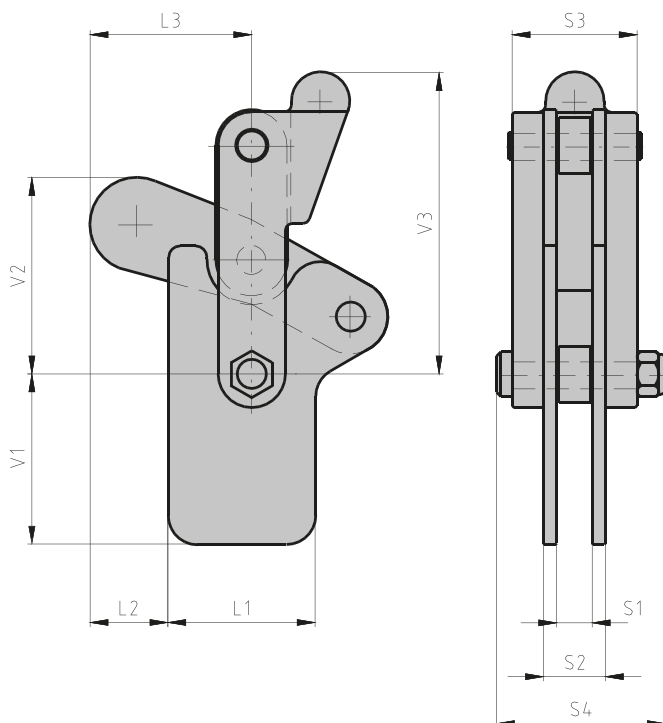


TYPE	L1	L2	L3	V1	V2	V3	S1 / 0.05	S2	S3	Opening angle	m (g)	F <sub>max</sub> (kN)
291 M	19	18.7	28.5	20	28	52	6.8	21	30	200	300	2.5
293 M	29	21.5	37.5	20	54	90	9.8	33	44	200	1100	7
295 M	35	40	57.5	28	71.5	110	11.8	40	55	200	1900	12
296 M	51	46.9	72	33	87.6	135	15.8	55.5	75	200	2900	24



### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control-lever weldment is made of stainless steel, heat treated to 800-1000, MPA. The control levers of the types 291 and 293 are made of cast steel. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamps are all blackened. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry.



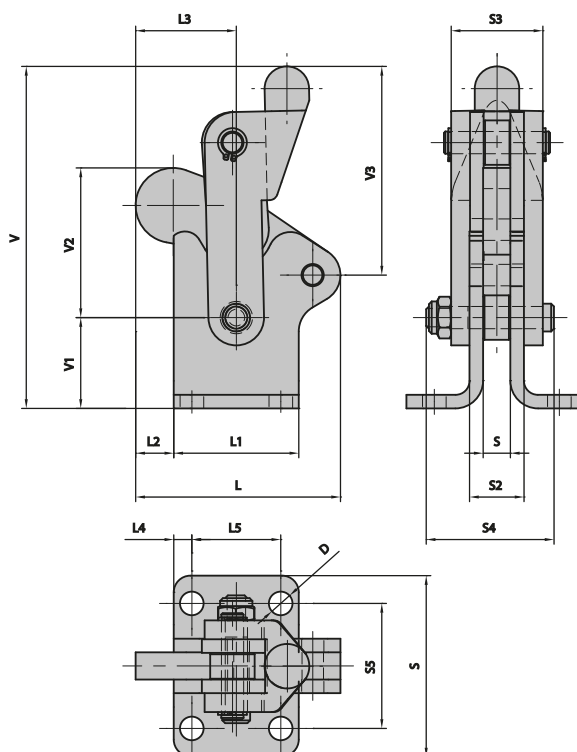
TYPE	L1	L2	L3	V1	V2	V3	S1 / 0.05	S2	S3	S4	Opening angle	m (g)	Fmax (kN)
291 R	28.5	14.5	28.5	33.5	28	52	6.8	12.8	21	30	200	300	2.5
293 R	45	13	37.5	50	51	90	9.8	20	33	44	200	1100	7
295 R	53	31	57.5	63.5	71.5	110	11.8	22	40	55	200	1900	12
296 R	66	35	72	76	91	135	15.8	27.6	55.5	75	200	2900	24



## 291- 293 Z

### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control lever is made of cast steel. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamps are blackened. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry. The connection spacings of the clamp 291 Z correspond to the clamp 230 UZ, 293 Z correspond to 240 UZ.



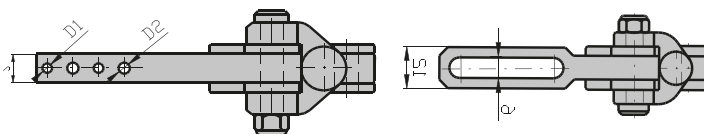
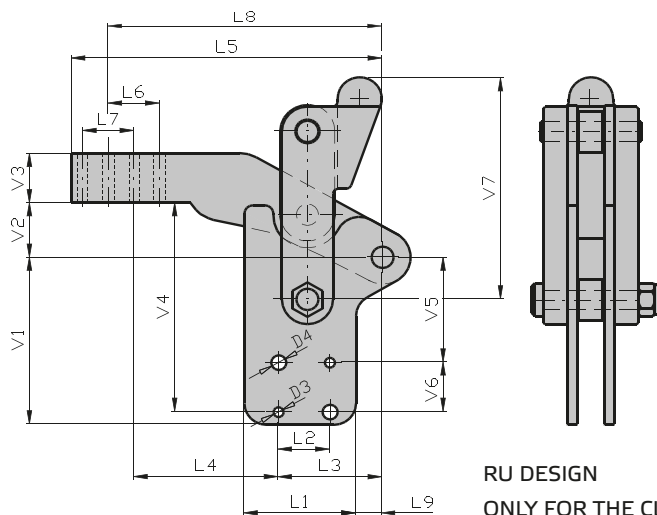
TYPE	L	L1	L2	L3	L4	L5	V	V1	V2	V3	S	S1	S2	S3	S4	S5	D	Opening angle	m (g)	Fmax (kN)
291 Z	51	28.5	14.5	28.5	4.5	19	71	21.6	28	49.4	45	6.8	12.8	21	30	32	4.5	200	300	2.5
293 Z	74	45	13	37.5	6.5	32	123	32.7	51	90	65	9.8	20	33	44	45	8.5	200	1100	7



## 291 - 296 RORS-A

### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control-lever weldment is made of stainless steel, heat treated to 800-1000, MPA. The lever of the type 291 is made of cast steel. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamp includes a long solid lever with opening for the installation of formative elements. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry.



TYPE	L1	L2	L3 / +0.05	L4	L5	L6 / +0.1	L7 / +0.02	L8 / +0.3	L9	V1	V2	V3	V4	V5 / +0.05	V6 / +0.02	V7
291	28.5	15	24	40	84	15	15	71.5	1.9	43	22	15	40	22.8	15	52
295	53	30	52	70	160	30	30	122	10.5	85	22	30	98	46	30	110
296	66	30	61	85	182.5	30	30	146	15.5	101.5	33	30	127	64	30	135

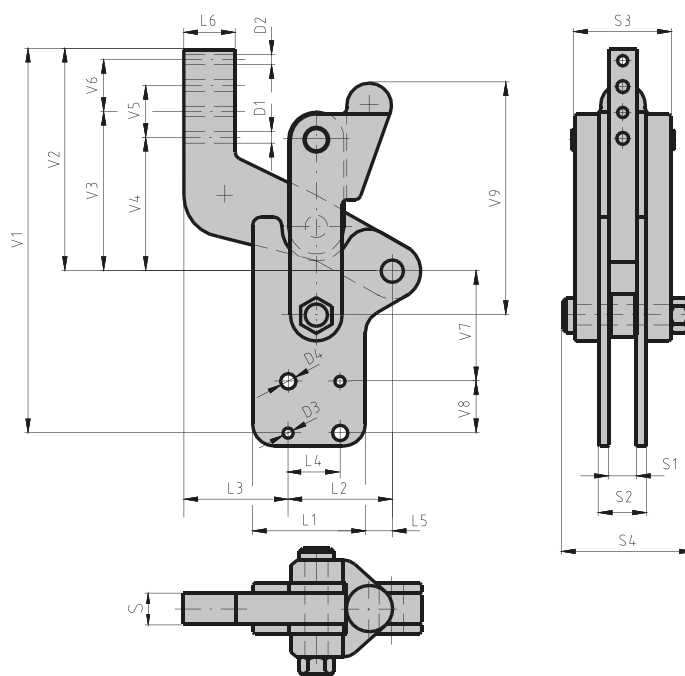
TYPE	S1 / +0.05	S2	S3	S4	D1 / H7	D2	D3 / H7	D4	S	Opening angle	m (g)	Fmax (kN)
291	6.8	12.8	21	30	4	5.5	4	5.5	15	200	300	2.5
295	11.8	22	40	55	6	7	6	9	15	200	1900	12
296	15.8	27.6	55.5	75	6	7	6	9	15	200	2900	24



## 291 - 296 RORS-B

### Heavy precise design

This is a clamp with a high clamping force and a long service life. The control-lever weldment is made of stainless steel, heat treated to 800-1000, MPA. The lever of the type 291 is made of cast steel. The clamp webs, draw-rods and pivots are made of carbonitrided material and hardened to 48 HRC. The clamps are all blackened. The clamp includes a long solid lever with opening for the installation of formative elements. The main application is for heavy-duty jigs for cutting or welding, for example in the automotive industry.



TYPE	L1	L2 / +/-0.05	L3	L4	L5	L6	V1	V2	V3 / +/-0.3	V4	V5 / +/-0.1	V6 / +/-0.02	V7 / +/-0.05	V8	V9
291	28.5	24	24	15	1.9	15	96.3	58.5	37.3	29.8	15	15	22.8	15	52
295	53	52	45	30	10.5	30	195.5	119.3	82	67	30	30	46	30	110
296	66	61	60	30	15.5	30	222	128	92	77	30	30	64	30	135

TYPE	S	S1 / +/-0.05	S2	S3	S4	D1 / H7	D2	D3 / H7	D4	Opening angle	m (g)	Fmax (kN)
291	15	6.8	12.8	21	30	4	5.5	4	5.5	200	300	2.5
295	15	11.8	22	40	55	6	7	6	9	200	1900	12
296	15	15.8	27.6	55.5	75	6	7	6	9	200	2900	24

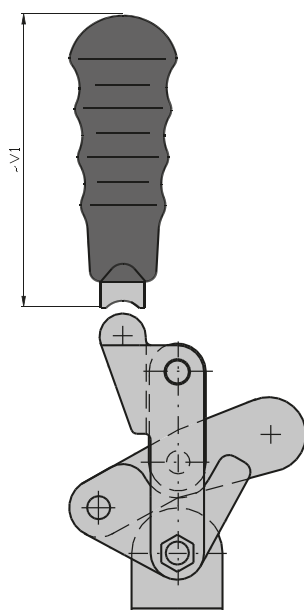
## Accessories

### Accessories for the clamp type: 291, 293, 295, 296

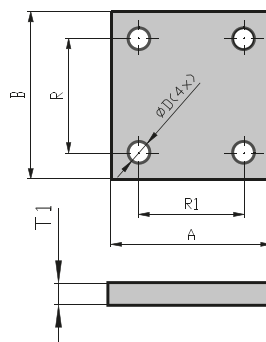
The vertical clamps of the heavy design, type 291-296, can be easily and quickly equipped with these accessories: a handle, a base plate and a clamping arm. These components can be welded in any position as required.



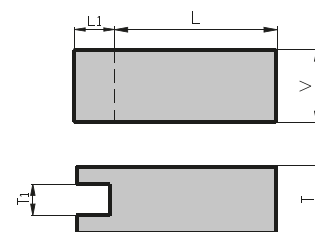
**Handle**



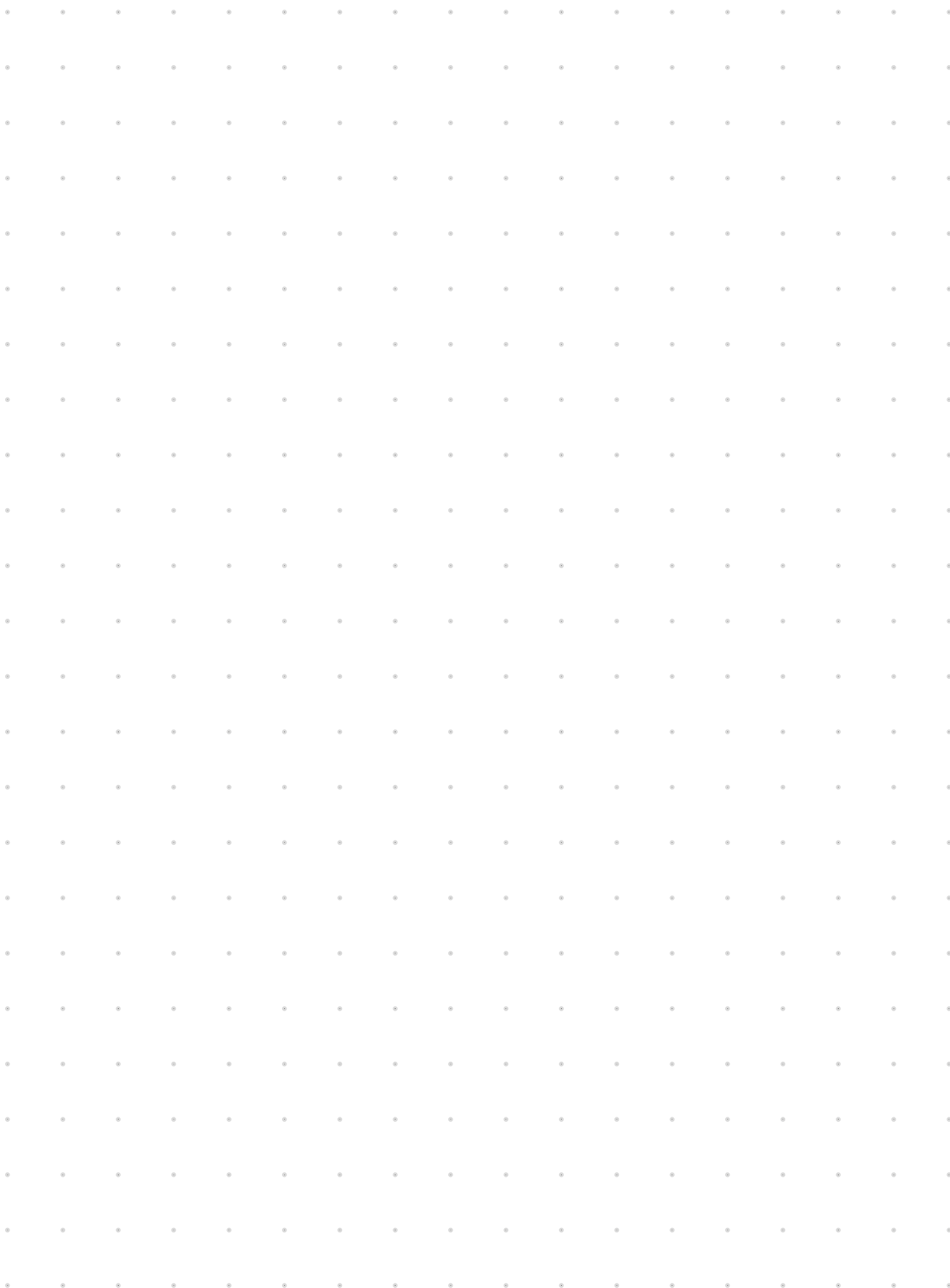
**Baseplate**



**Clamping arm**



Accessories	Baseplate						Handle		Clamping arm					Ord. No.
TYPE	A	B	R	R1	$\phi D$	T1	Profile	V1	V	T	T1	L	L1	
291	40	50	35	25	6.3	8								291020
							10x6	90						291021
									15	15	7	40	10	291022
293	40	50	35	25	6.3	8								291020
							16x6	120						293021
									25	20	10	50	8	293022
295	60	50	30	40	8.3	8								295020
							20x10	150						295021
									30	25	12	60	12	295022
296	70	65	45	50	8.3	8								296020
							20x10	180						296021
									35	30	16	75	15	296022





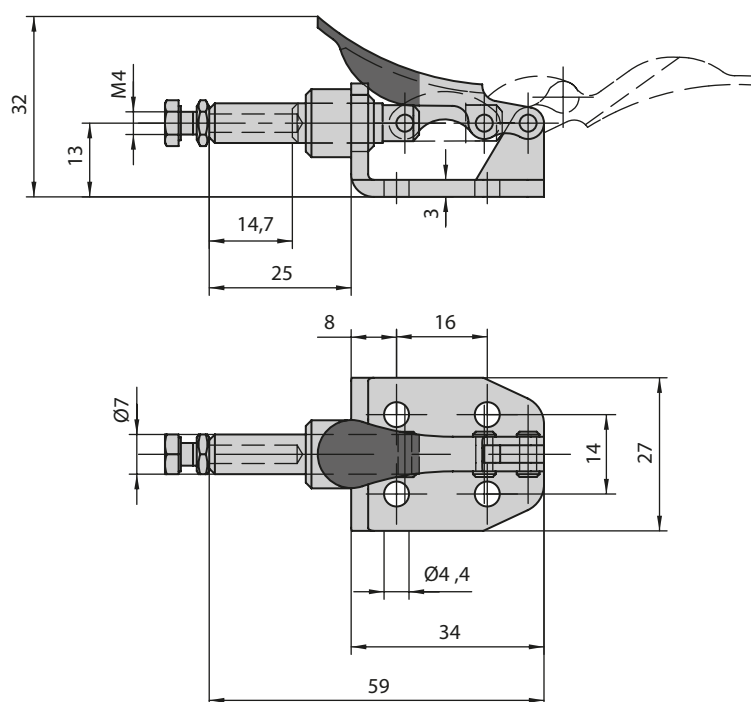




# 300

## Miniature design

The clamp 300 is suitable for use wherever a low clamping force is required and in confined spaces.



m (g)	F <sub>max</sub> (N)
40	250





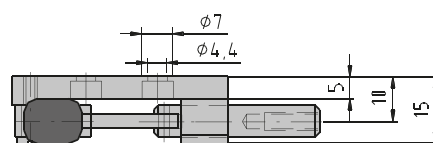
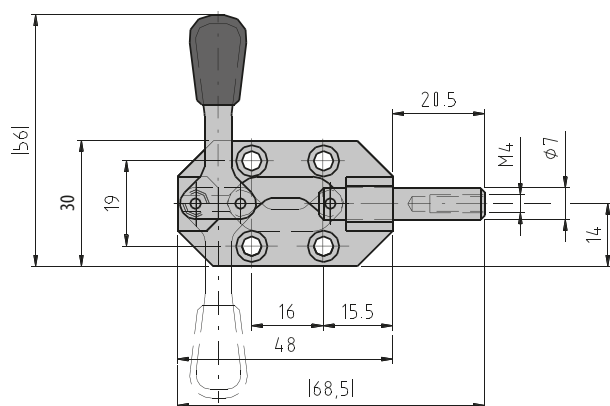
## 305

### Miniature design

The clamp 305 is suitable for use wherever a low clamping force is required and in confined spaces.



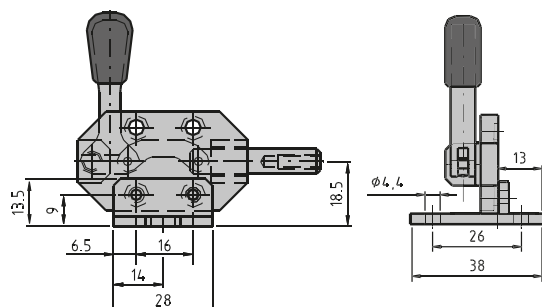
m (g)	Fmax (N)
180	400



- allows for installation of the handle from the right or the left

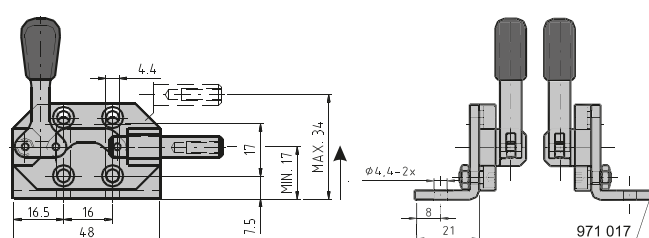
### Clamp 305 with an adapter - 971 016

- allows for clamp adjustment in the vertical position



### Clamp 305 with an adapter - 971 017

- allows for height adjustment of the clamp

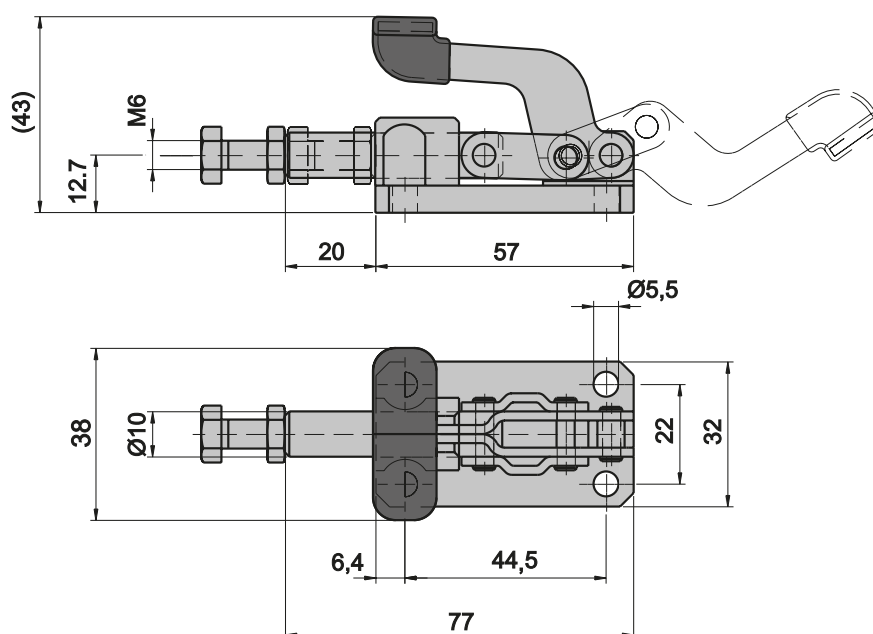




# 307

## Light design

The clamp 307 is supplied as shown.  
The advantage consists of a relatively high clamping force with small constructional dimensions.



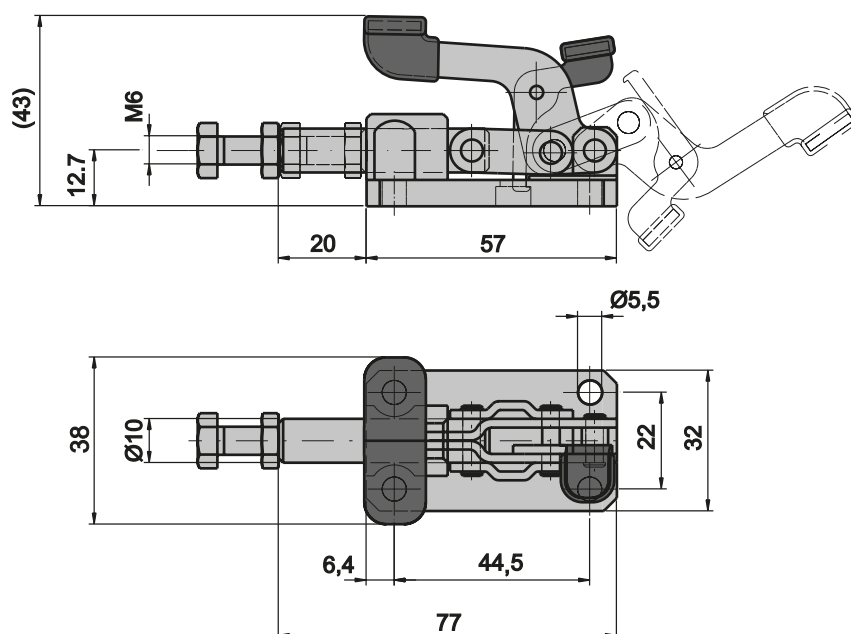
Stroke	m (g)	Fmax (N)
18	160	2000



## 307 Z

### Light design

The clamp 307 Z is supplied as shown. The advantage consists of a relatively high clamping force with small constructional dimensions. In contrast with the type 307, the clamp is equipped with a stop to lock the mechanism in the closed position.



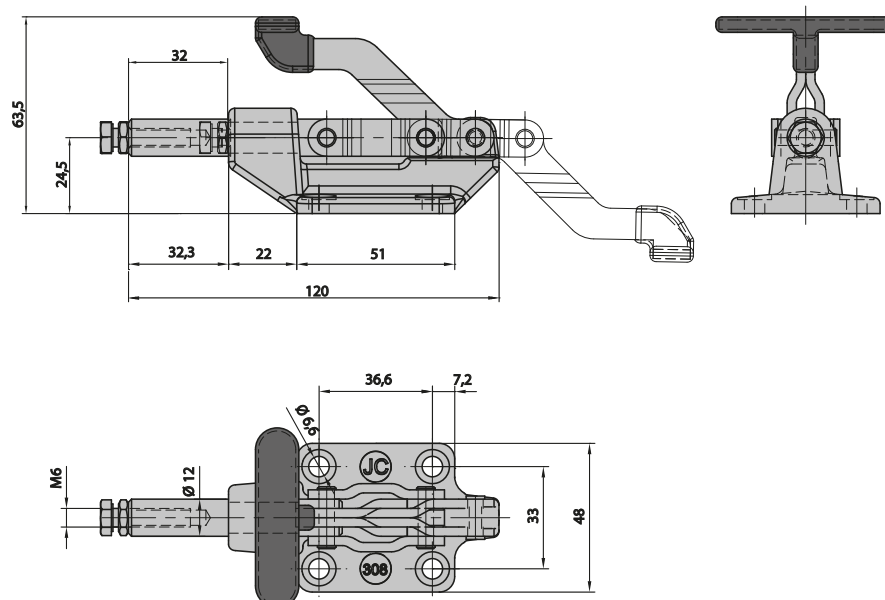
Stroke	m (g)	F <sub>max</sub> (N)
18	160	2000



# 308

## Light to medium-heavy design

The clamp is supplied as shown. The clamp mechanism is designed as a pull-push mechanism, i.e. it can work at two dead points - both the closed one and the open one. It is suitable for use in assembly, test and welding jigs.



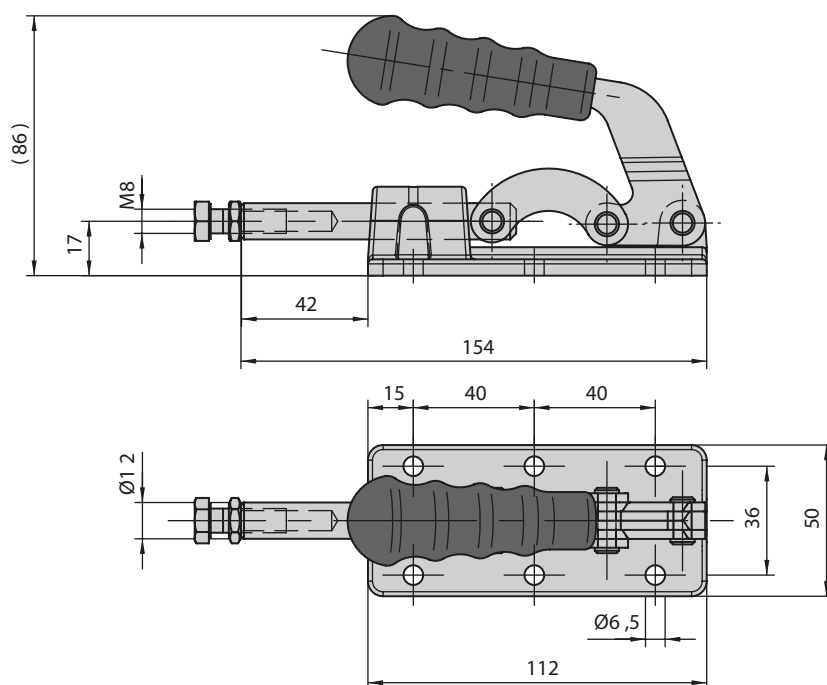
Stroke	m (g)	Fmax (N)
32	380	2600



## 310

### Medium-heavy to heavy design

The 310-type clamps are made as shown. Their handles and piston move in the same direction when being handled. The solid cast baseplate of the clamps permits the exercising of a high clamping force. Clamp draw-rods and lever are heat-treated to ensure a long service life.



Stroke	m (g)	F <sub>max</sub> (N)
42	750	3800

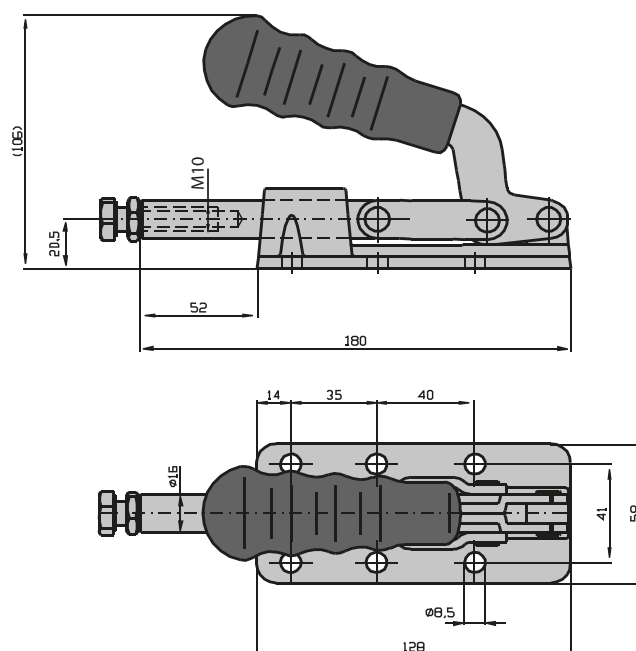




## 320

### Medium-heavy to heavy design

The 320-type clamps are made as shown. Their handles and piston move in the same direction when being handled. The solid cast baseplate of the clamps permits the exercising of a high clamping force. This clamp is designed as a pull-push clamp, i.e. it is locked both in the closed and in the open positions. The hardened bushes and heat-treated draw-rods ensure a long service life.



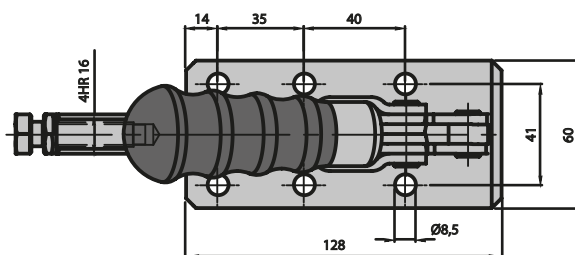
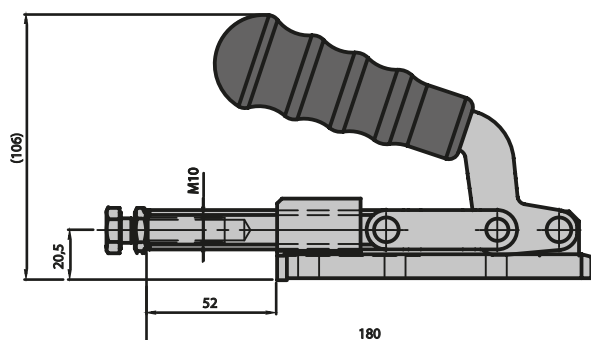
Stroke	m (g)	Fmax (N)
52	1000	10 000



## 321

### Medium-heavy to heavy design

The 321-type clamps are made as shown. Their handles and piston move in the same direction when being handled. The solid welded baseplate of the clamps permits the exercising of a high clamping force. The piston 4HR provides protection against turning. This clamp is designed as a pull-push clamp, i.e. it is locked both in the closed and in the open positions. The hardened bushes and heat-treated draw-rods ensure a long service life.



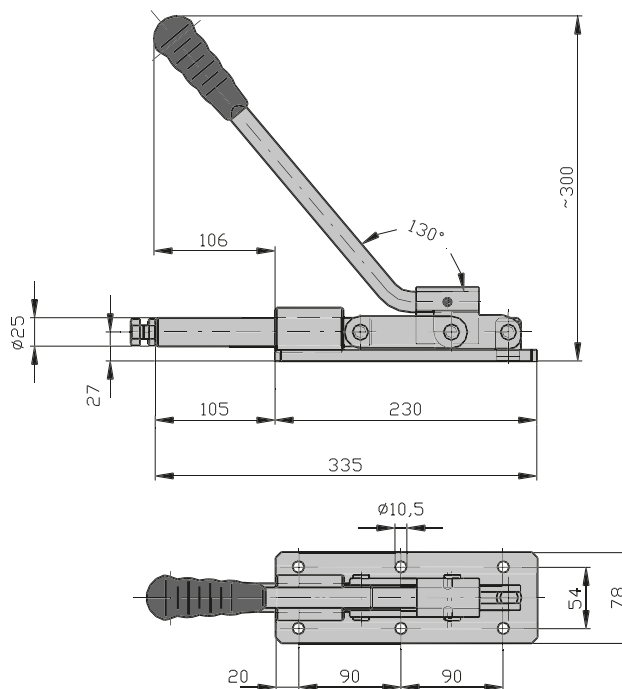
Stroke	m (g)	F <sub>max</sub> (N)
52	1000	10000



## 330

### Special heavy design

The 330-type clamps are made as shown. Their handles and piston move in the same direction when being handled. The solid welded baseplate of the clamps permits the exercising of a high clamping force. Clamp draw-rods and the rear pivot are heat-treated to ensure a long service life. It is used wherever a high clamping force must be exerted.



Stroke	m (g)	Fmax (N)
100	4400	30 000



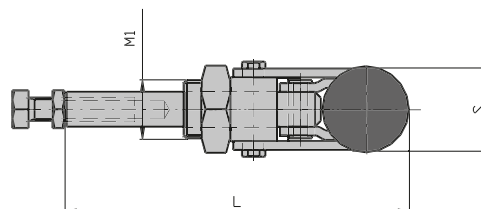
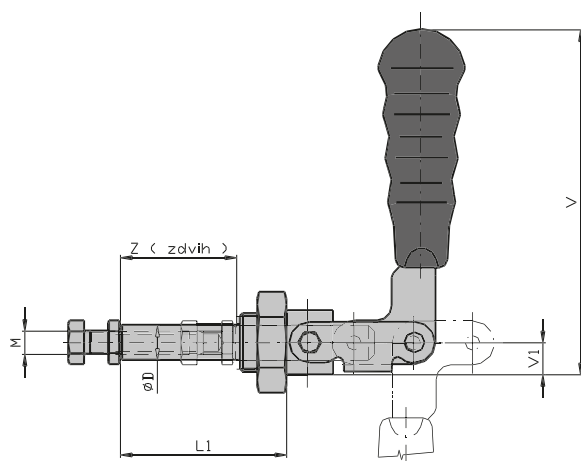
## 340 - 360

### Light to medium-heavy design

The clamping mechanism of these clamps is freely adjustable around the longitudinal axis and it is designed as a pull-push system, i.e. it can work at both dead points - both the closed and the open ones. Heat-treated levers ensure a long service life.

By default, these clamps are supplied without a clamping body.

At special request they can be supplied with the clamping body "type A" or "Type B" (see p. 78).



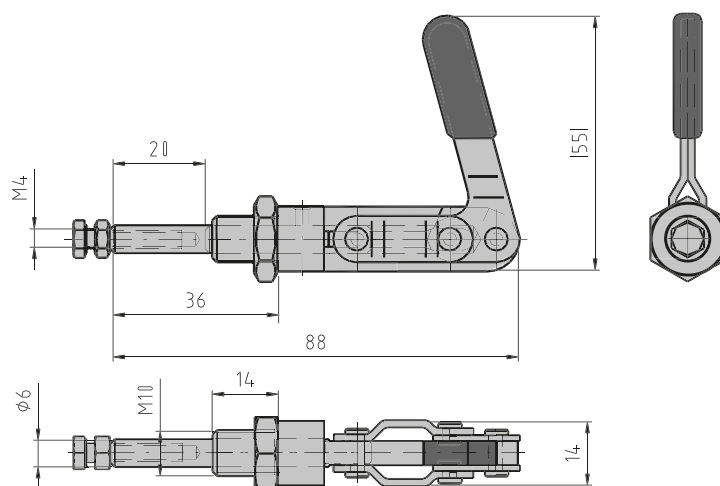
Type	L	L1	V	V1	M	M1	ø D	S	Z	m (g)	Fmax (N)
340	80	36	125	11.5	6	M16 x 1.5	10	26	21	140	1000
350	118	57	119	11	8	M20 x 1.5	12	28	40	330	2500
360	178	93	164	15.8	12	M24 x 1.5	16	38.5	67	1200	4000

## 345



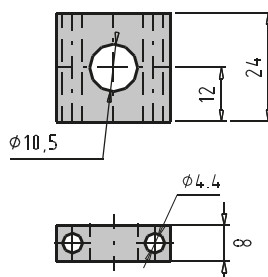
### Miniature design - with an extended piston guide

This is a special design of straight clamp with an extended clamping-piston guide. Thanks to their design, these clamps can be installed in any position. Heat-treated levers and draw-rods ensure a long service life of the clamps. This clamp is also suitable for use wherever only a low clamping force is required.

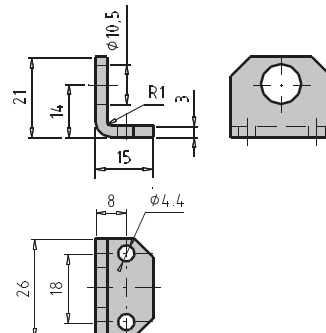


By default, these clamps are supplied without a clamping body. At special request they can be supplied with the clamping body -971 009 or with the clamping body "L" 971 018.

971 009



971 018



Stroke	m (g)	Fmax (N)
20	70	400



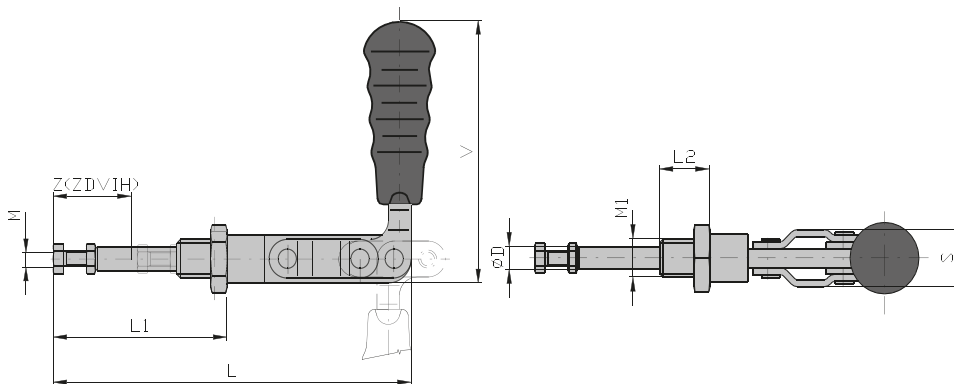
## 355 - 375

### Light to medium-heavy design with an extended piston guide

These are clamps with an extended clamping-piston guide. Their robust milled body allows for perfect guiding of the clamping rod; together with their hardened levers, draw-rods and rivets, this positively influences the total service life of the clamp. The pivot of the control lever in the clamp body is lined with a hardened bush. The clamping mechanism is freely adjustable around the longitudinal axis and it is designed as a pull-push system, i.e. it can work at both dead points - both the closed and the open ones.

By default, these clamps are supplied without a clamping body.

At special request they can be supplied with the clamping body "type A" or "Type B" (see p. 78).



Type	L	L1	L2	V	M	M1	ø D	S	Z	m (g)	Fmax (N)
355	168	65	22	115	6	16	10	24	36	400	1500
365	201	89	25	147	8	20 x 1.5	12	30	40	550	3300
375	225	100	30	155	12	24 x 2	16	32	50	750	5000

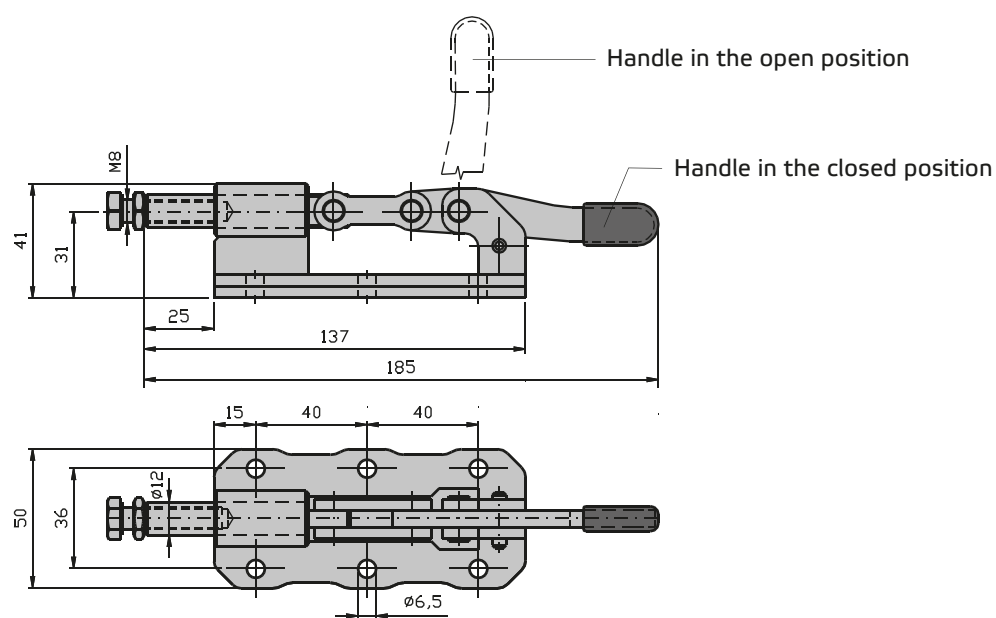




## 315

## Light design

Special design for special clamping situations. The handle and the piston move in opposite directions.



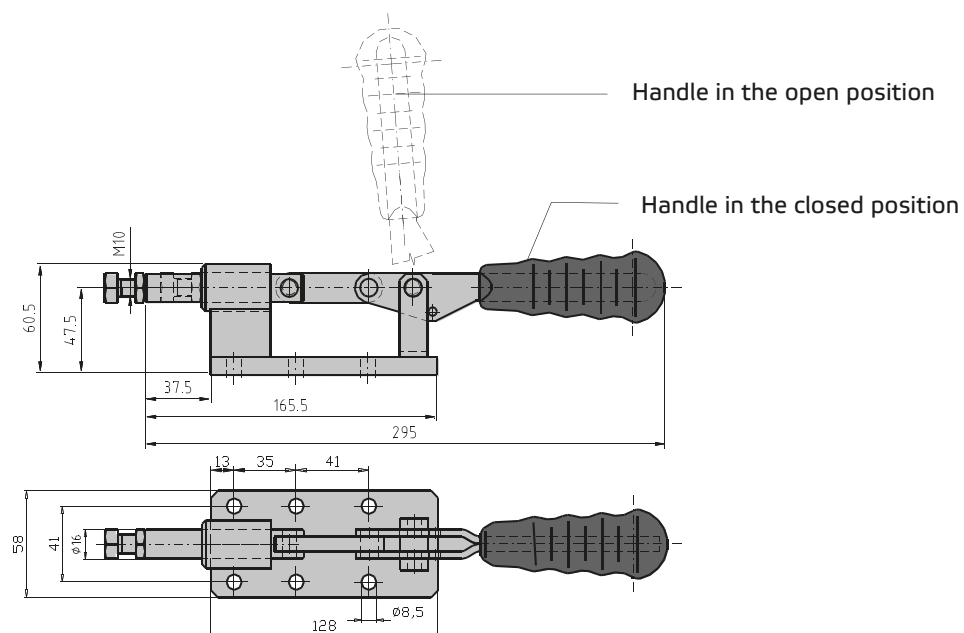
Stroke	m (g)	F <sub>max</sub> (N)
23	550	2600



## 325

### Medium-heavy to heavy design

Special design for special clamping situations. The handle and the piston move in opposite directions.



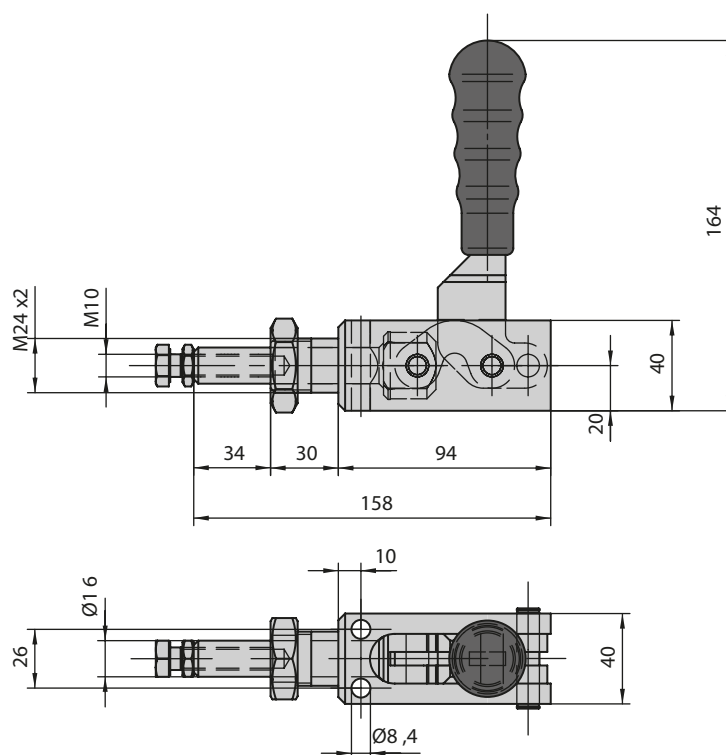
Stroke	m (g)	F <sub>max</sub> (N)
33	1500	10000



# 380

## Light to medium-heavy design

This clamp type allows for axial installation using the thread M24x2, or installation on the surface using the openings with a diameter of 8.4. The clamping mechanism is designed as a pull-push mechanism, i.e. it can work at both the dead points - both the closed one and the open one. Each component is made of heat-treated material. The piston is secured against turning. The clamp is suitable for assembly and control master jigs.



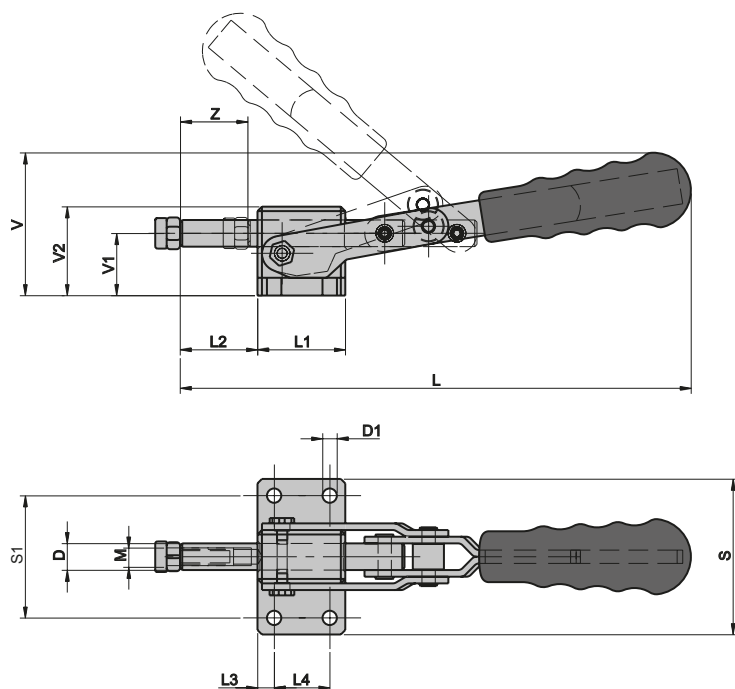
Stroke	m (g)	Fmax (N)
32	820	5000



## 381 - 382

### Light design

Special design for special clamping situations. The handle and the piston move in opposite directions. The clamps of this series feature a reduced design of the base body, thus low requirements for the space to fix the clamp, without reducing the clamping force applied on the workpiece.



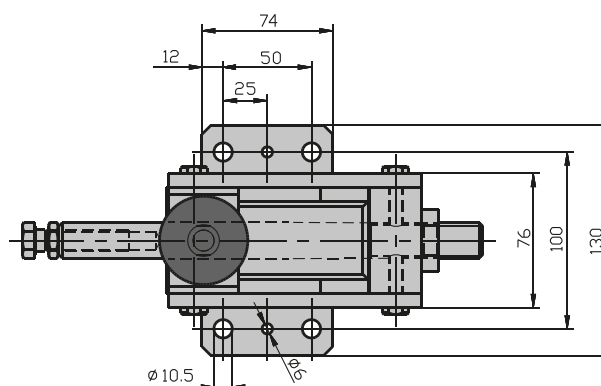
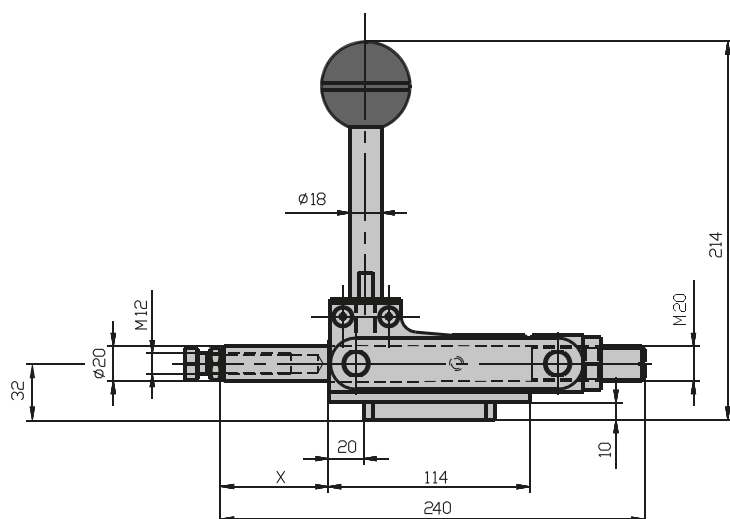
Type	L	L1	L2	L3	L4	V	V1	V2	S	S1	M	D	D1	Z	m (g)	Fmax (N)
381	194	29,5	34	6	17,5	63	23	33	50	40	6	10	5,5	30	330	3000
382	230	40	34,5	7,5	25	65	28	40	70	55	8	12	6,5	32,5	800	8900



# 390

## Special heavy design

Their handles and piston move in the same direction when being handled. Using the thread M20, you can adjust the protrusion of the "X" piston in a range from 10 to 86 mm. It is used wherever a high clamping force must be exerted.



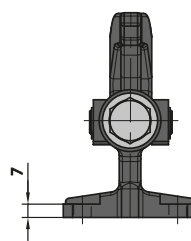
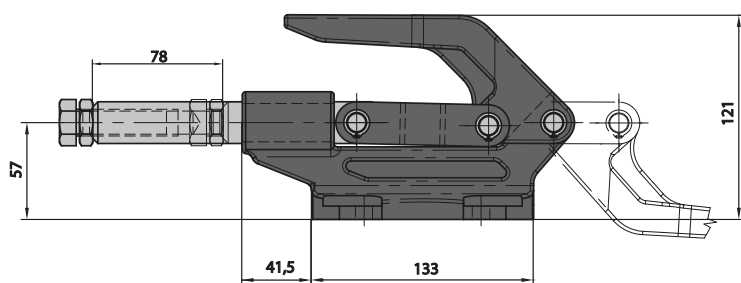
Stroke	m (g)	Fmax (N)
54	4300	30 000



## 395

### Heavy design

The clamps 395 are supplied as shown. Their solid cast body and control lever permit the exertion of a high clamping force. As a result, the clamps are suitable for heavy-duty applications, such as on assembly and welding jigs. The clamp mechanism is designed as a pull-push mechanism, i.e. it can work at both the dead points - both the closed one and the open one.



Stroke	m (g)	Fmax (N)
78	3200	70 000

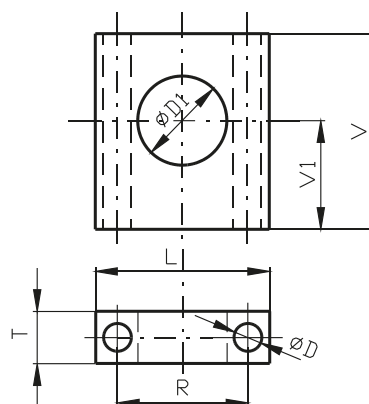


## Accessories

### Clamping bodies

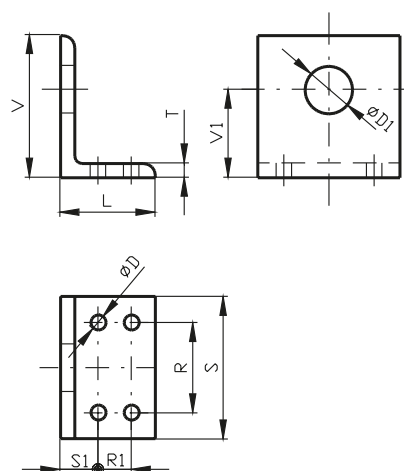
For the clamp types: 340, 350, 355,  
365, 375

type A - material: steel / blackened or galvanized



TYPE A	Ord. No.	L	V	V1	R	D	D1	T	For the clamps
	971 010	40	32	16	25	6.4	16.5	12	340, 355
	971 011	40	45	25	30	6.4	20.5	12	350, 365
	971 012	60	40	23	40	8.4	24.5	20	360, 375

type B - material: steel / painted



TYPE B	Ord. No.	L	V	V1	R	R1	D	D1	T	S	S1	For the clamps
	971 013	25	40	24	40		6.4	16.5	5	60	15	340, 355
	971 014	40	60	37	38	14	6.4	20.5	6	60	16	350, 365
	971 015	40	60	37	38	14	6.4	24.5	6	60	16	360, 375









## 410 - 430

### Design with a double yoke

Hook clamps with a double yoke feature a high clamping force. Their use is highly diverse. They can be used, for example, in the foundry industry as a closing or a tightening mechanism. These clamps also allow for clamping at a right angle.

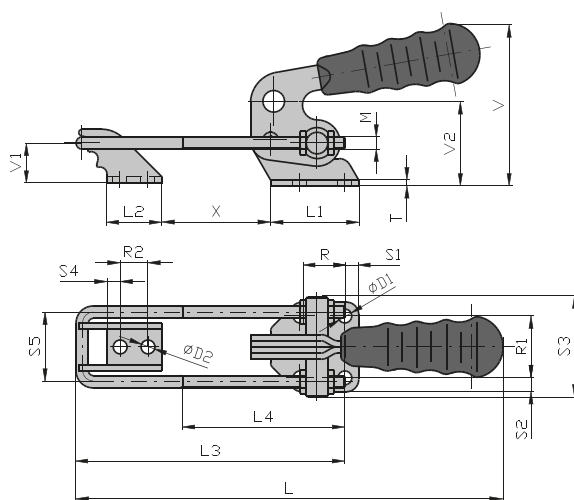
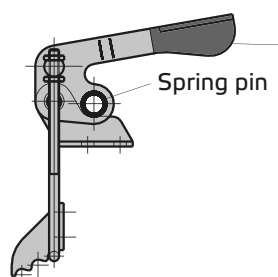


Figure of clamping at right angle



The 410 design features a plastic-coated handle.

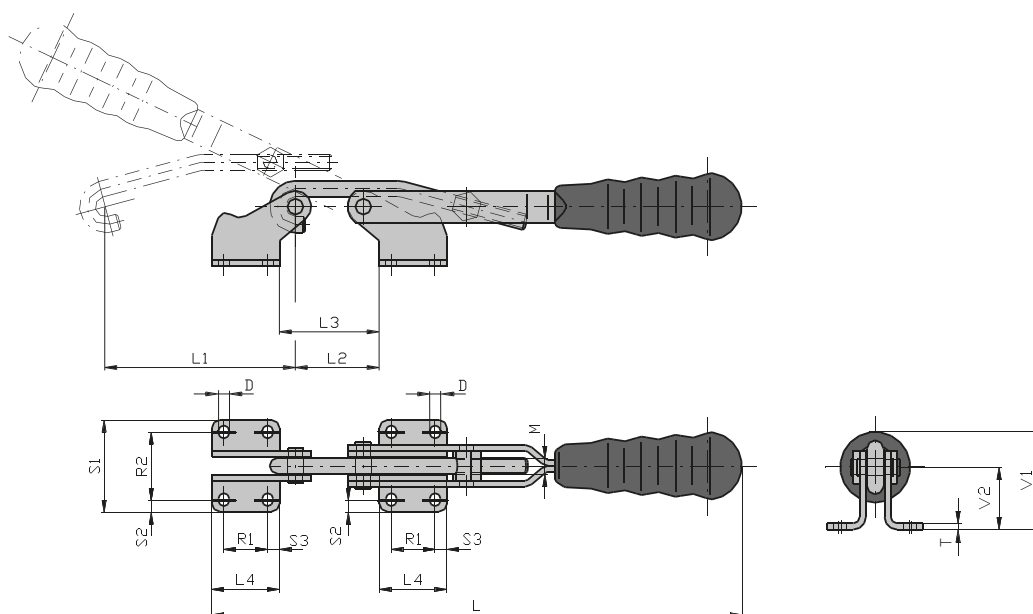
TYPE	L	L1	L2	L3	L4	S1	S2	S3	S4	S5	D1	D2	T	M	V	V1	V2	R	R1	R2	X	m (g)	Fmax (N)
410	137	30	20	88	50	5	5	32	5	22	5	5	2	5	53	18	32	13	18	9	0-34	100	1500
420	219	42	32	120	65	8	10	48	6	31	6.5	6.2	3	6	60	20	40	19	29	14	25-72	400	3000
430	251	57	36	157	80	9	9	45	8.5	45	9	9	4	8	105	26	55	29	40	18	0-60	1100	7000



## 415 - 435

### Design with a simple clamping hook.

Hook clamps with a simple design of clamping hook are used as light devices with low spatial requirements. They can be applied as a closing or tightening mechanism. They can be used, for example, in mold closing.



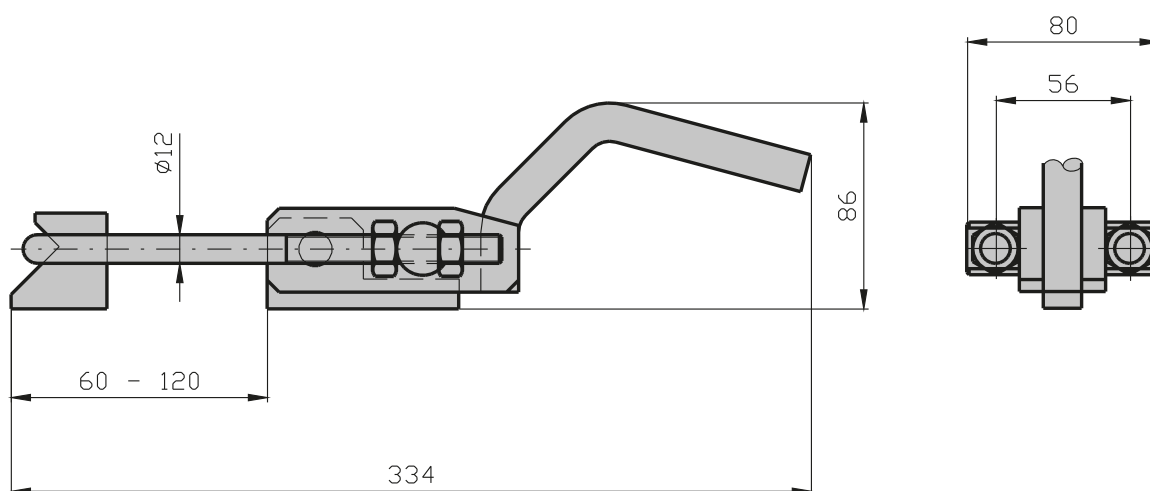
TYPE	L	L1	L2	L3	L4	S1	S2	S3	D	T	M	R1	R2	V1	V2	m (g)	F <sub>max</sub> (N)
415	208	62	45	51	25	35	5	5	4.2	2	6	16	26	37	23	100	1500
425	256	83	60	68	34	46	6	6	5.5	3	8	22	34	46	30	350	2500
435	385	124	80	101	50	73	9	9	8.4	5	12	32	55	69	45	1000	4200



# 440

## Heavy design

Hook clamp designed for the applications where a high clamping force must be exerted.



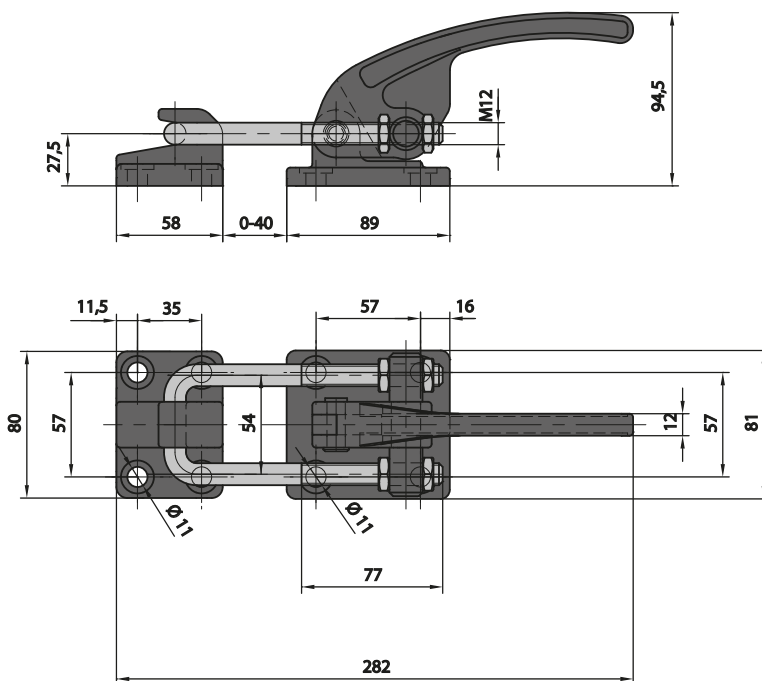
Surface finish	m (g)	F <sub>max</sub> (kN)
Fe / Zn	2600	42



## 450

### Heavy design

Heavy design of the hook clamp with a double yoke, a solid cast body, a counterpart and a control lever, which is suitable for use wherever a high clamping force must be exerted.



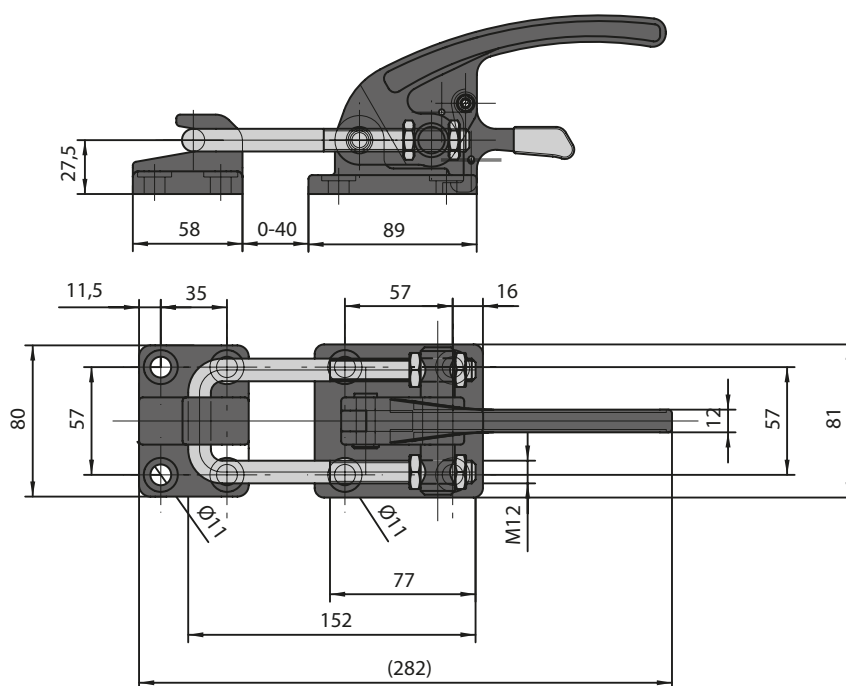
m (g)	Fmax (N)
2200	33 000



# 450 Z

## Heavy design

The clamp is based on the type 450 and its size corresponds to this type. It is fitted with a stop to lock the mechanism in the closed position.

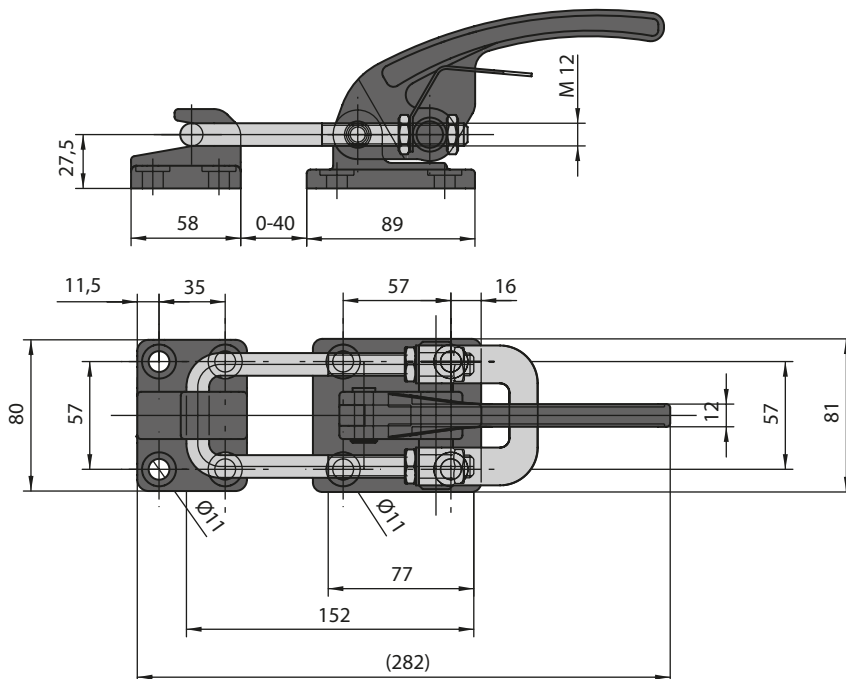


m (g)	F <sub>max</sub> (N)
2200	33 000





The clamp is based on the type 450 and its size corresponds to it. It is fitted with an arm allowing for single-handed operation.



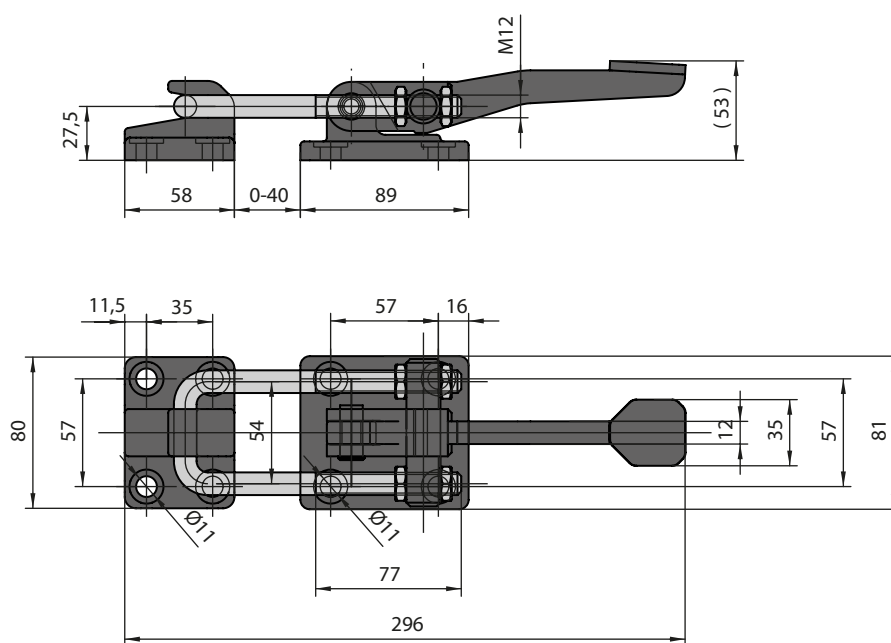
m (g)	F <sub>max</sub> (N)
2200	33 000



# 451

## Heavy design

Heavy design of the hook clamp based on the type 450 with a double yoke, a solid cast body, a counterpart and a control lever with a reduced height, which is suitable for use wherever a high clamping force must be exerted and in confined spaces.



m (g)	F <sub>max</sub> (N)
2200	33 000



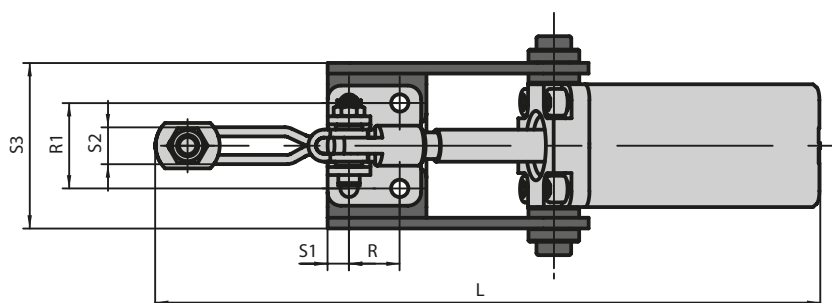
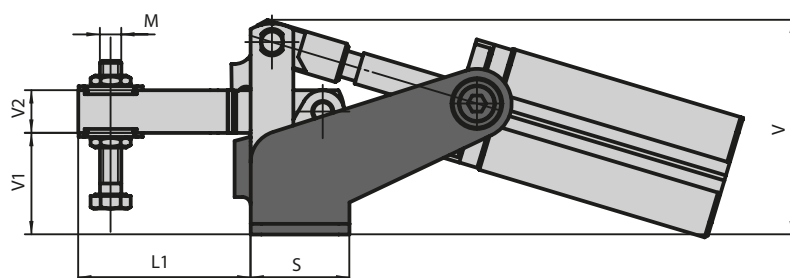
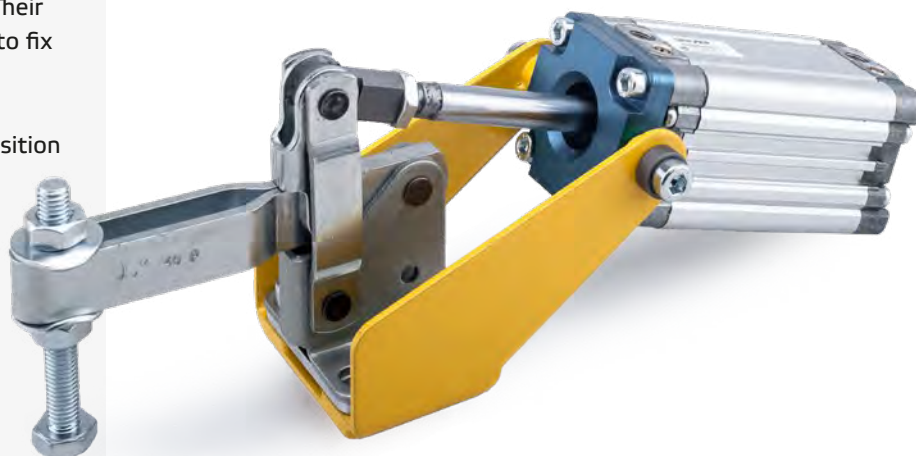


## 220 - 240 P

### Light to medium-heavy design

It is based on the manually-operated clamps 220, 230 and 240 UZ. Their basic dimensions and spacings to fix clamps are preserved.

At special request, magnetic position sensors can be delivered.



TYPE	Parameters of cylinder	Thread	Opening angle	Fmax (N)
220 P	ø 25 mm, stroke 30 mm	M5	95°	1000
230 P	ø 32 mm, stroke 42 mm	G1/8	95°	1800
240 P	ø 40 mm, stroke 70 mm	G1/8	95°	2200

TYPE	L	L1	S	S1	S2	S3	R	R1	V	V1	V2	M	m (g)
220 P	201	54.3	26.5	6.2	12	52	13	30	61	30	10	6	600
230 P	245	64.5	37	8	14	62	19	32	80	38	16	8	1100
240 P	324	91	52	11	18	76	32	45	104	47	20	10	1650



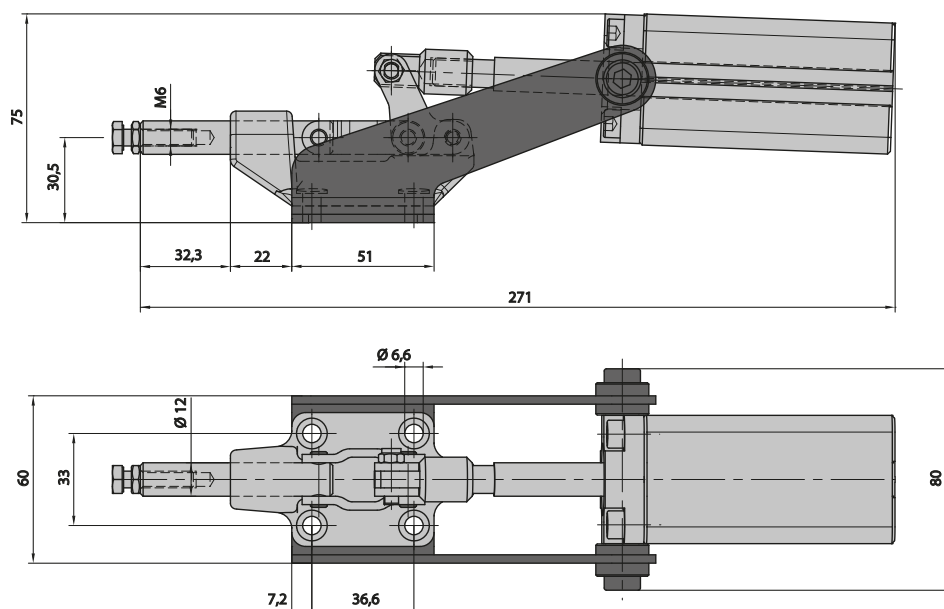


## 308 P

### Light to medium-heavy design

It is based on the manually-operated clamp 308. Its basic dimensions and spacings to fix the clamp are preserved.

At special request, magnetic position sensors can be delivered.



Stroke	Parameters of cylinder	Thread	m (g)	Fmax (N)
20	ø 32 mm, stroke 46 mm	G1/8	1200	2600

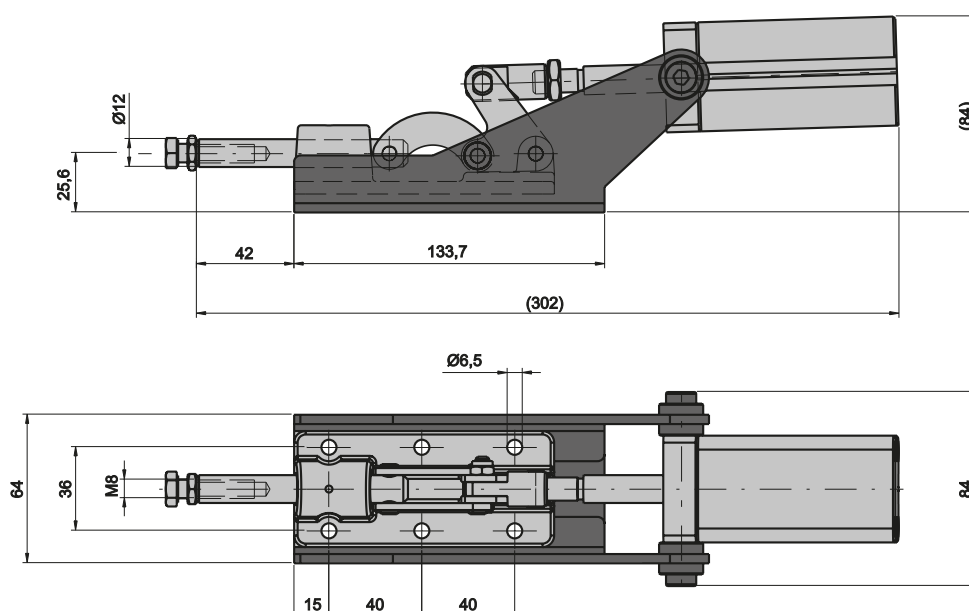


# 310 P

## Light to medium-heavy design

It is based on the manually-operated clamp 310. Its basic dimensions and spacings to fix the clamp are preserved.

At special request, magnetic position sensors can be delivered.



Stroke	Parameters of cylinder	Thread	m (g)	Fmax (N)
27	$\varnothing$ 32 mm, stroke 52 mm	G1/8	1800	3800

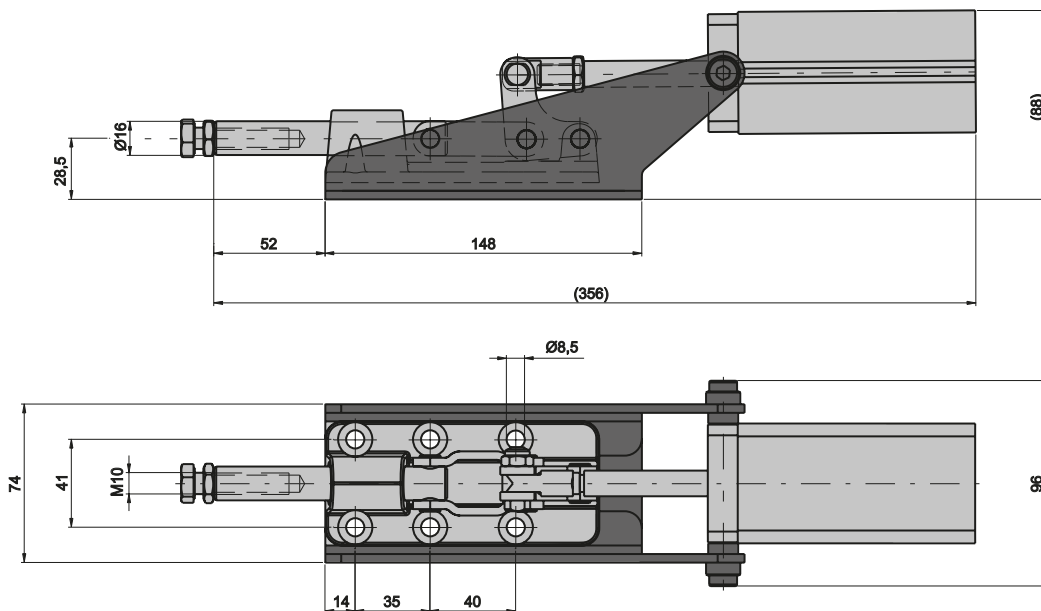


## 320 P

### Medium-heavy to heavy design

It is based on the manually-operated clamp 320. Its basic dimensions and spacings to fix the clamp are preserved.

At special request, magnetic position sensors can be delivered.



Stroke	Parameters of cylinder	Thread	m (g)	Fmax (N)
32	$\varnothing$ 40 mm, stroke 64 mm	G1/8	2400	10 000



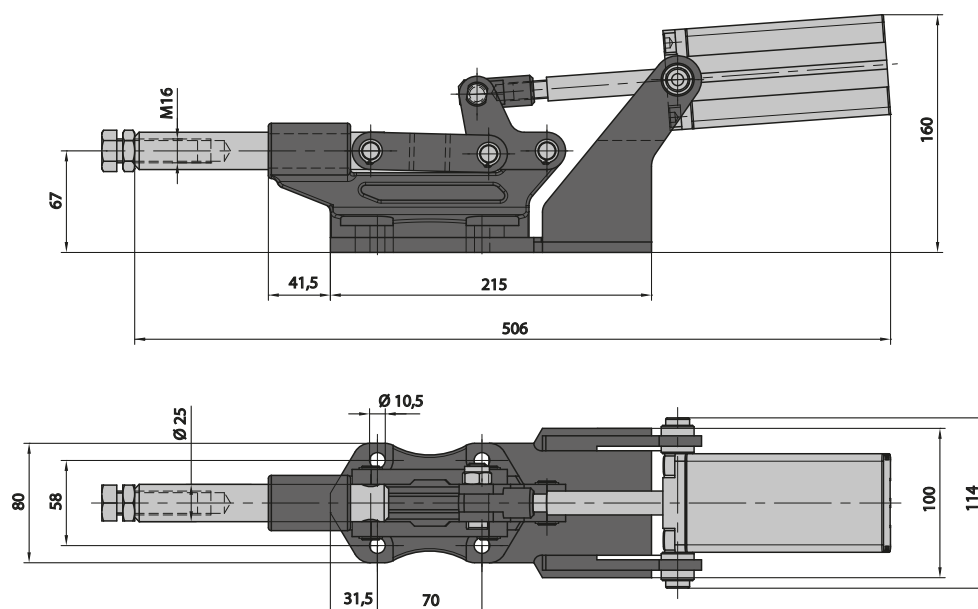


## 395 P

### Heavy design

Clamp for heavy-duty clamping. It is applicable wherever a high clamping force must be achieved. It is based on the manually-operated clamp 395. Its basic dimensions and spacings for fixing are preserved.

At special request, magnetic position sensors can be delivered.



Stroke	Parameters of cylinder	Thread	m (g)	Fmax (N)
27	ø 50 mm, stroke 88 mm	G1/8	6400	70 000

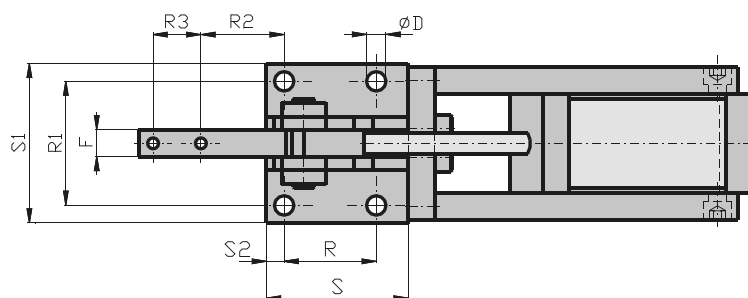
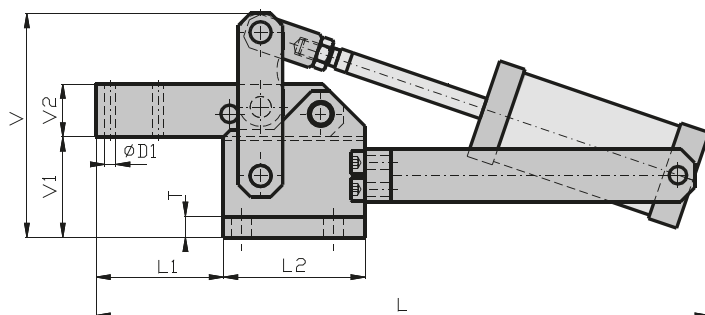


## 740 -750

**Solid design with horizontal mounting of cylinder.**

These vertical clamps are made in an engineering quality, and they are suitable for installation in flow-line facilities and special machines. Heat-treated components and bronze bushes increase the service life of the clamps.

At special request, magnetic position sensors can be delivered.



TYPE	Parameters of cylinder	Thread	m (g)	Fmax (N)
<b>740</b>	ø 32 mm, stroke 60 mm	G1/8	2900	2500
<b>750</b>	ø 40 mm, stroke 80 mm	G1/8	4400	3700

TYPE	L	L1	L2	V	V1	V2	R	R1	R2	R3	S1	S2	D	D1	T	F
<b>740</b>	297	55	48	100	47	20	32	45	-	-	65	8	8.5	-	10	10
<b>750</b>	360	72	80	127	57	30	32	70	37	27	90	10	11	6.2	6.2	12

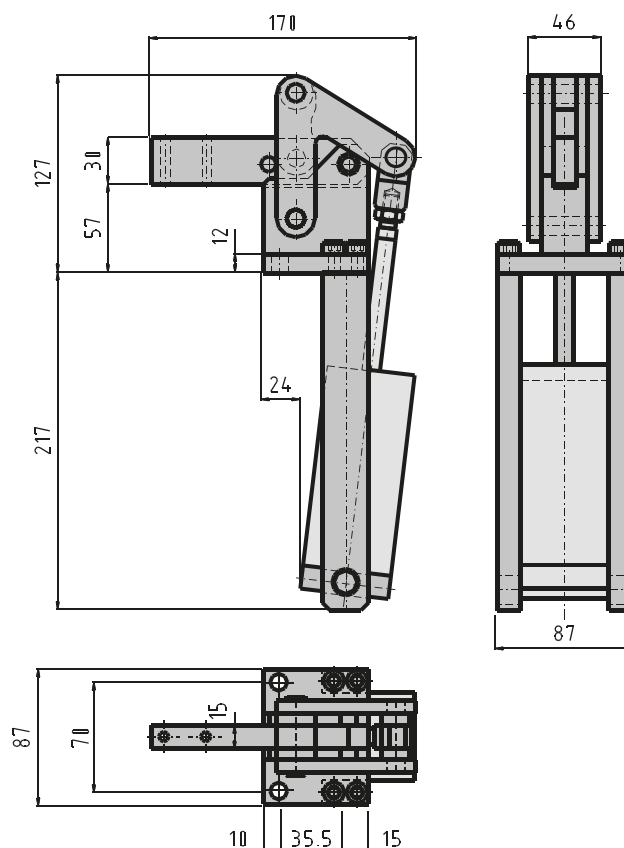


# 751

## Solid design with vertical mounting of cylinder.

These vertical clamps are made in an engineering quality, and they are suitable for installation in flow-line facilities and special machines. Heat-treated components and bronze bushes increase the service life of the clamps.

At special request, magnetic position sensors can be delivered.



Parameters of cylinder	Thread	m (g)	Fmax (N)
ø 40 mm, stroke 85 mm	G1/8	4400	3700

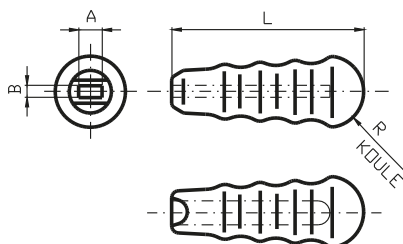






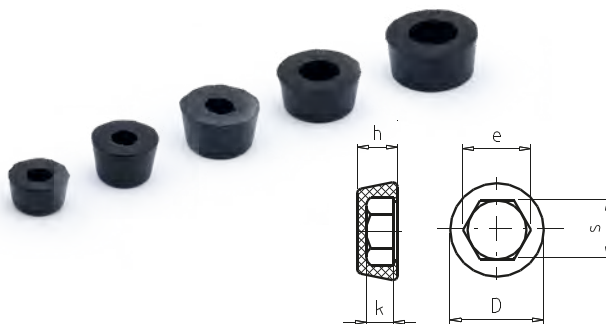
At special request, the following components can be supplied:

### Plastic handles



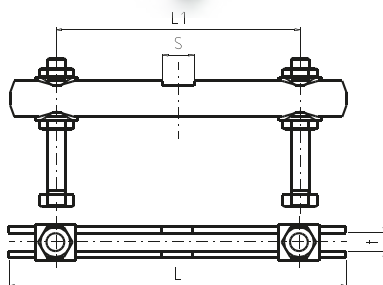
Ord. No.	L	R	A	B
940 002	82	15	10	6
940 003	94	17	16	6
940 004	105	20	16	8
940 005	105	20	20	10

### Rubber prop



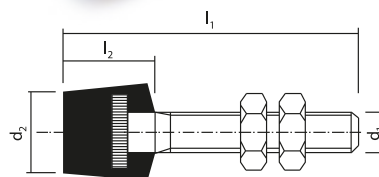
Ord. No.	for M	s	e	D	h
960 001	5	8	9.2	15	8.5
960 002	6	10	11.5	17	9
960 003	8	13	15	20	11
960 004	10	16	18.5	26	12
960 005	12	18	21.6	29	13

### Cross yoke



Ord. No.	S	L1	l	t	for the clamp
995 001	15	30-115	150	8	230
995 002	16	30-115	150	8	130
995 003	18	50-150	180	10	240, 140
995 004	20	50-150	180	12	250, 260
995 005	22	50-150	180	12	150

### Clamping bolt with a vulcanized head

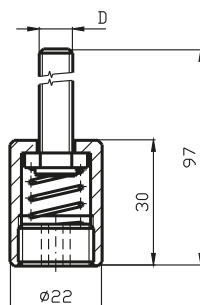


Ord. No.	d1	l1	d2	l2	kg
910 000	M4	35	8	9	0.006
910 001	M5	42	10	11	0.009
910 002	M6	55	13	12	0.016
910 003	M8	72	16	18	0.033
910 004	M10	95	20	21	0.064
910 005	M12	120	24	25	0.13

## Spring adapter

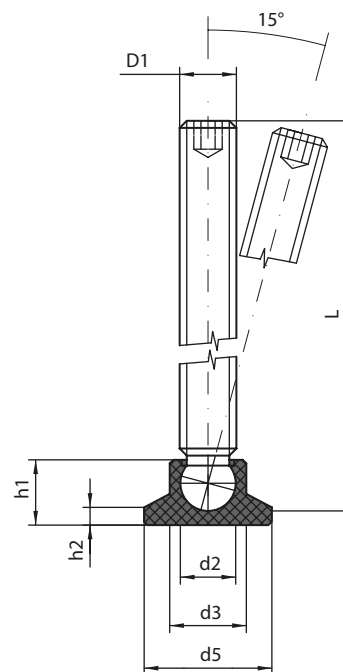


The adapter is intended to be used in the mechanical toggle clamps RY-UP instead of the clamping bolt. The spring inside the adapter compensates for the tolerance differences of the parts subject to clamping. Each component is made of steel. Their surfaces are protected with blackening and galvanizing.



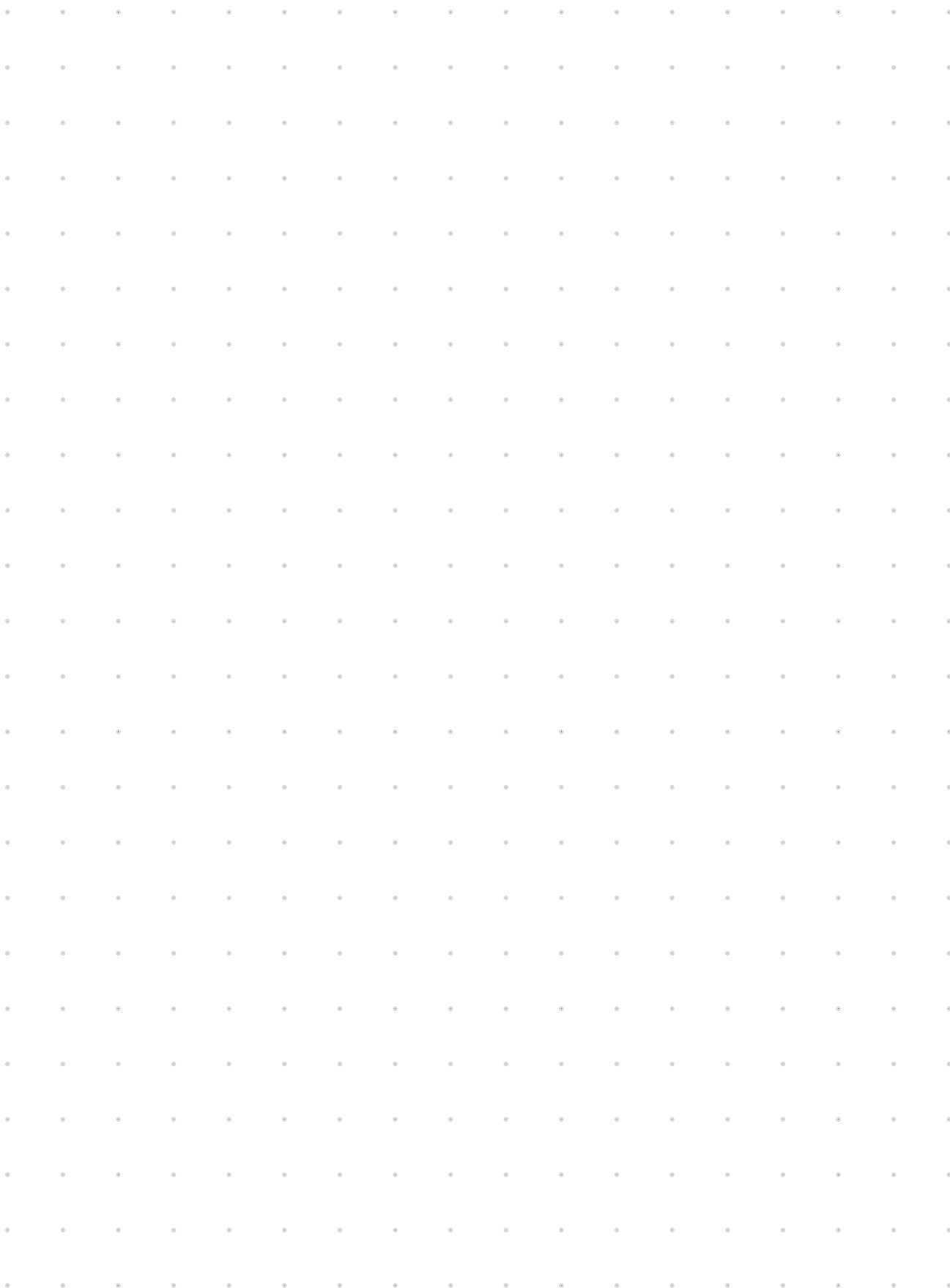
Ord. No.	D	F (N)
701	M10	300
702	M8	300

## Clamping bolt with a polyamide swivel head



- Used for clamping of workpieces with angular faces.
- Its plastic head prevents damage to the clamped part.

Ord. No.	d2	d3	d5	h1	h2	D1	L
971 001	6.1	8.6	15	7.6	2.5	M8	63
971 002	7.8	10.8	18	9.2	2.5	M10	80
971 003	9.4	12.8	21	10	3	M12	100



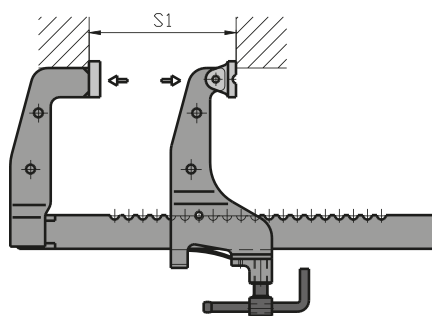
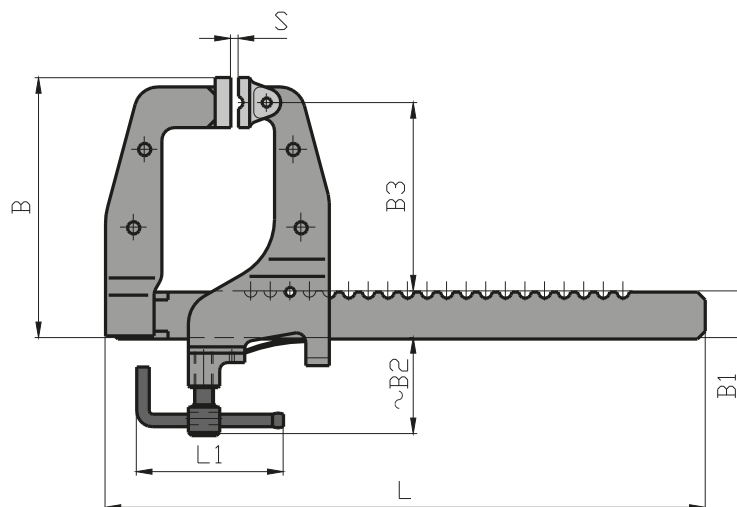






## 510 - 530

These grippers allow for clamping of pieces with a high force using a lever-mechanism controlled by a hardened bolt. The 510-clamp bodies with moving arms are cast from cast steel and heat-treated accordingly. The 520- and 530-clamp bodies are made of the material C45. The moving arms are made of cast steel. The arms can be fitted in two positions, as clamping or stretching arms.

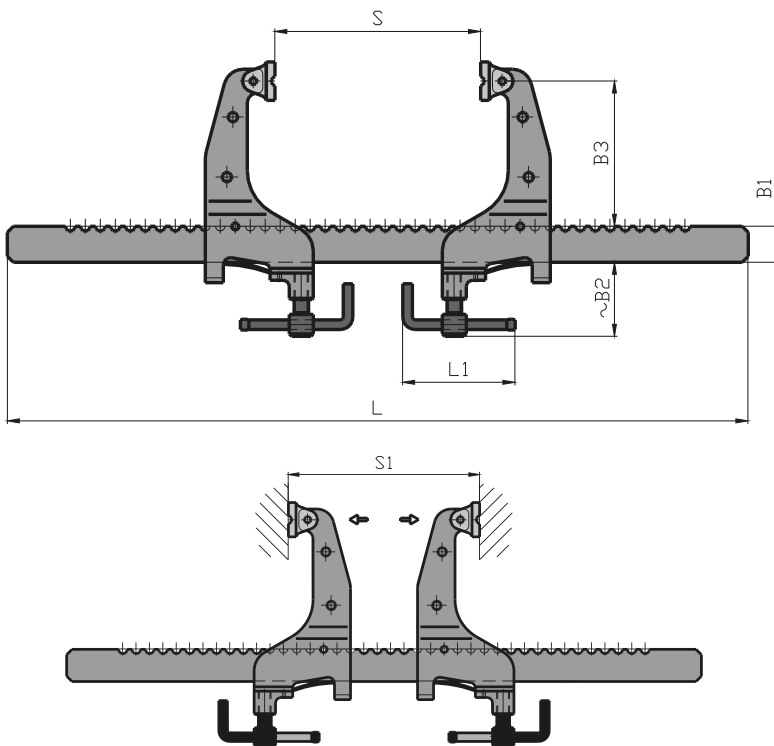


Surface treatment: Powder paint

Type	L	L1	B	B1	B2	B3	S (MAX)	S1 (MAX)	S1 (MIN)	Fmax (N)
510	380	80	165	32	62	121	227	291	55	3000
520	650	80	165	32	62	121	497	561	55	3000
530	915	80	165	32	62	121	762	826	55	3000



These grippers allow for clamping of pieces with a high force using a lever-mechanism controlled by a hardened bolt. The 550- and 560-clamp bodies are made of the material C45. The moving arms are made of cast steel. The arms can be fitted in two positions, as clamping or stretching arms.



Surface treatment: Powder paint

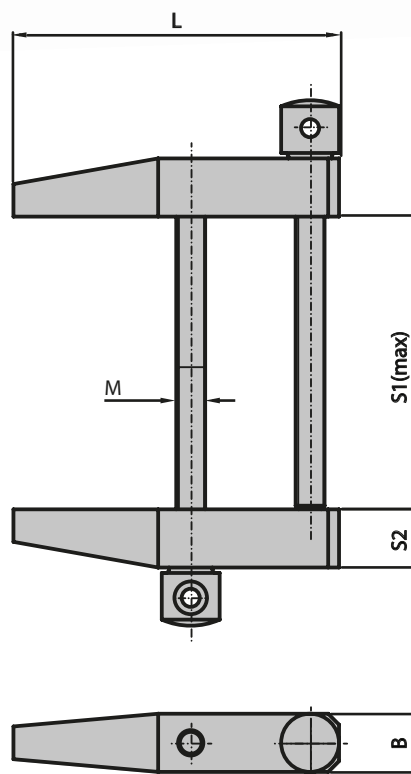
Type	L	L1	B1	B2	B3	S (MAX)	S (MIN)	S1 (MAX)	S1 (MIN)	Fmax (N)
550	560	80	32	62	121	414	64	546	105	3000
560	710	80	32	62	121	564	64	696	105	3000



## 501 - 503

### Parallel screw gripper

Parallel settings using two threaded bolts.



Type	L	S1 (max)	S2	M	B	Weight
501	60	50	12	6	12	0.16
502	90	80	16	8	16	0.4
503	120	90	20	10	20	0.8



**siegmund®**



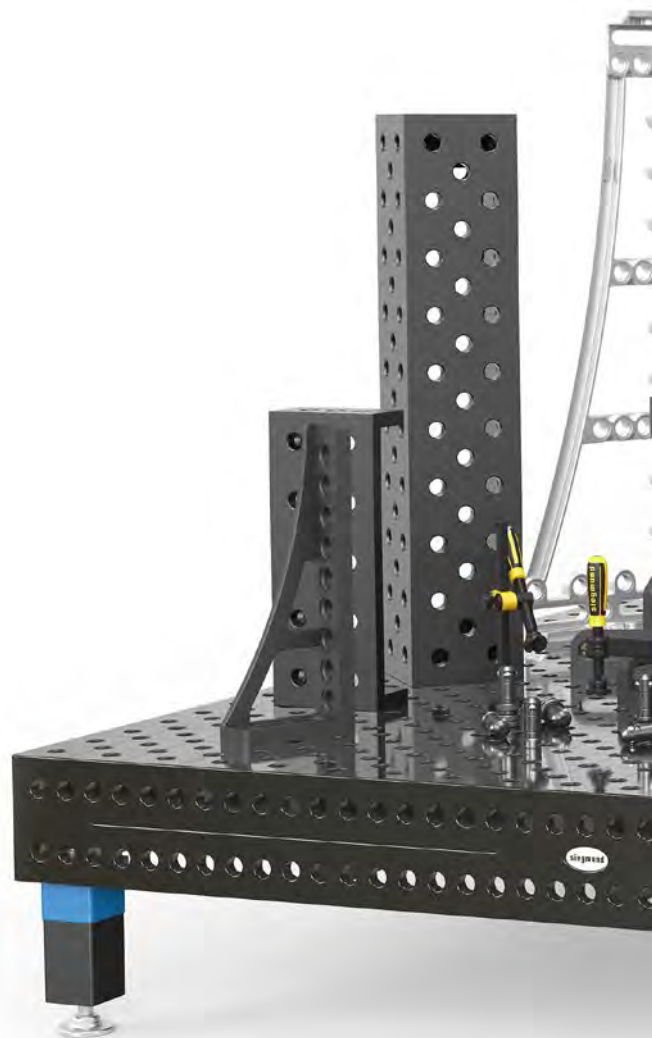
### Clamping systems for welding Siegmund - sophisticated and flexible modular systems

Thanks to the sophisticated and flexible modular Siegmund system, based on the combination of a grid of system holes and an extensive set of compatible clamping components, you can perform even the most complex applications with minimum time spent on assembling the jig. A high-quality table is the core for each jig. The Siegmund clamping systems offer a variety of table sizes, leg designs and materials, from which you can choose the right table to suit your wishes and requirements perfectly.

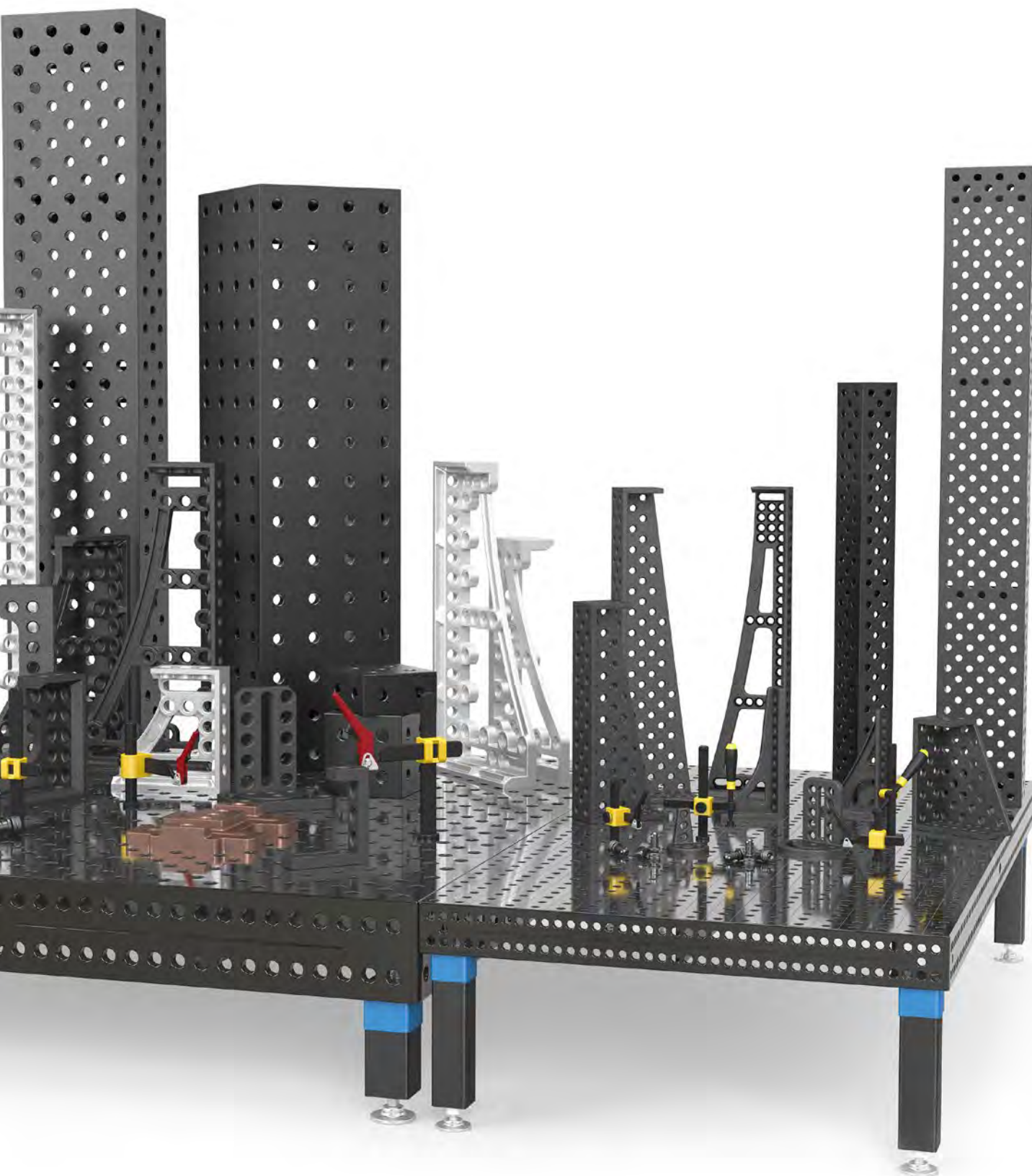
The Siegmund modular systems are made in three size series, with holes 16 mm (System 16), with holes 22 mm (System 22) and with holes 28 mm (System 28). The large number of commonly manufactured size variants of tables in all size ranges, together with a number of leg designs and various material designs, allows you to choose from almost 10000 design variants, without any need to manufacture special sizes.

Since 2009, the Siegmund welding tables have been plasma-nitrided, which increases their surface hardness. As a result they are more resistant to wear and tear and corrosion. Some other clamping components are also processed using this thermochemical method.

**Request the catalogue Welding and Clamping Systems Siegmund.**

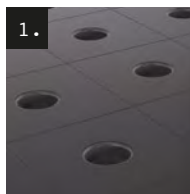


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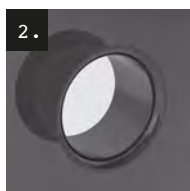


# SYSTEM 16



## 1. MATERIAL

Special tool steel, plasma-nitrided, max. hardness **750 Vickers**, approx. 11.5-13 mm



## 2. SYSTEM HOLES Ø 16

- The hardened surface protects the holes from deformation caused by handling the clamps.
- Radius R2 from the outside of the system holes:**
  - It reduces the risk of damage to the table, accessories Sigmund and customer's components.
  - For easier introduction of pivots and other accessories.
  - Even lower adhesion of welding beads on the edges of the holes.
  - Less damage to the holes edges when moving heavy pieces.
  - Large chamfer from the bottom of the holes for the optimum clamping force of pivots.



## 3. SOPHISTICATED RADIUS

- 3-mm radius on horizontal edges of the worktop reduce the risk of damage to the table and accessories.
- 6-mm radius on vertical edges lower the risk of injury.



## 4. RIBS

Ribs on the bottom of the table for optimum stability and precision.



## 5. TABLE SIDE

- Height 100 mm
- An extended grid of holes offers the possibility of gripping in a spacing of 25 mm



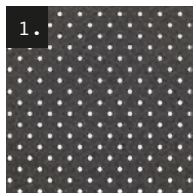
## 6. LEGS

For your safety: Solid leg webs for low deformation at high loads.

- Tube 70x70 mm.
- Leg web Ø 70 mm (one piece)

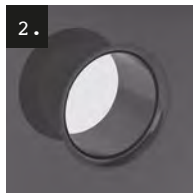


# SYSTEM 22



## 1. MATERIAL

Steel S355J2+N, plasma-nitrided, max. hardness 550 Vickers force 17 - 19 mm



## 2. SYSTEM HOLES Ø 22

Radius R2 from the outside of the system holes



## 3. SOPHISTICATED RADIUS

- 3-mm radius on horizontal edges of the worktop reduce the risk of damage to the table and accessories.
- 6-mm radius on vertical edges lower the risk of injury.



## 4. RIBS

Ribs on the bottom of the table for optimum stability and precision.



## 5. TABLE SIDE

- Height 150 mm
- An extended grid of holes offers the possibility of gripping in a spacing of 50 mm



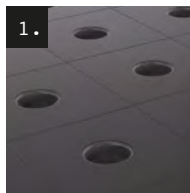
## 6. LEGS

For your safety: Solid leg webs for low deformation at high loads.

- Tube 80x80 mm
- Leg web Ø 80 mm (one piece)

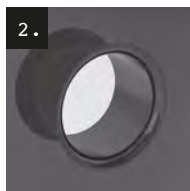


# SYSTEM 28



## 1. MATERIAL

Special tool steel, plasma-nitrided, max. hardness **750-850 Vickers**, approx. 24.5-27 mm



## 2. SYSTEM HOLES Ø 28

**The radius R3 from the outside of the system holes:**

- It reduces the risk of damage to the table, accessories Sigmund and customer's components.
- For easier introduction of pivots and other accessories.
- Even lower adhesion of welding beads on the edges of the holes.
- Less damage to the hole edges when moving heavy pieces.
- Large chamfer from the bottom of the holes for the optimum clamping force of pivots.



## 3. SOPHISTICATED RADIUS

- 3-mm radius on horizontal edges of the worktop reduce the risk of damage to the table and accessories.
- 6-mm radii on vertical edges lower the risk of injury.



## 4. RIBS

- Ribs at a distance of 500-600 mm
- Higher ribs



## 5. TABLE SIDE

- Height 200 mm
- An extended grid of holes offers the possibility of gripping in a spacing of 50 mm



## 6. LEGS

For your safety: Solid leg webs for low deformation at high loads.

- Tube 90x90 mm
- Leg web Ø 90 mm (one piece)







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