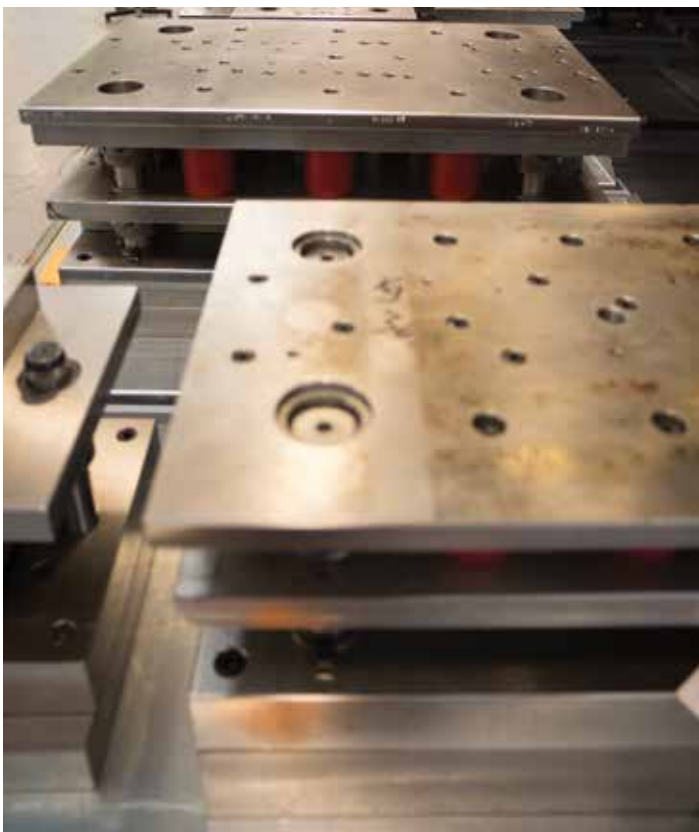
SPEEDY BLOCK®

TOGGLE CLAMPS

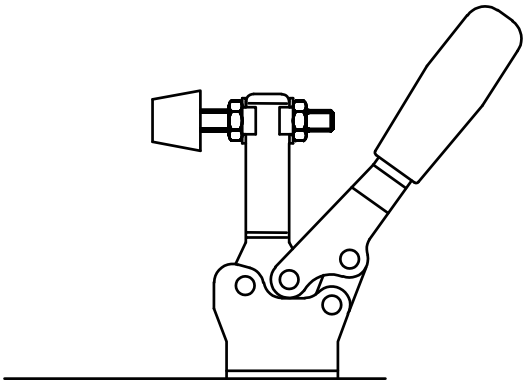
CATALOGUE 1/2021


SPEEDY BLOCK

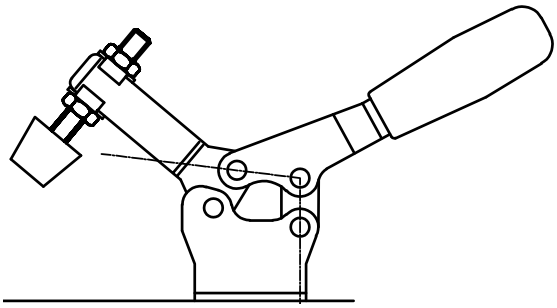

Hänel LEAN-LIFT



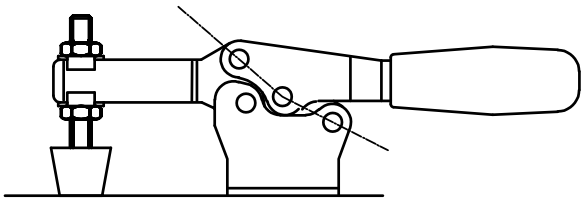
FEATURES



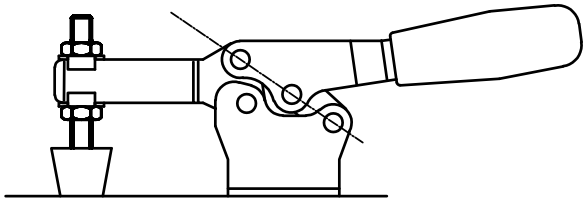
(fig.1)



(fig. 2)



(fig. 3)



(fig. 4)

Using the toggle principle, the quick clamping tools have decisive advantages:

•The clamping lever is opened so as to completely clear the work surface, so that the work piece can be extracted from and/or placed in the equipment without difficulty **(fig.1)**.

• A small shift of the control lever is sufficient to bring the control lever to the work piece. The placement of three pivots **(fig.2)** clearly shows that the force exerted by the clamping lever is transmitted to the control lever.

• In the **fig.3** position, when the three pivots are aligned the maximum Fs clamping force is obtained (dead centre of the lever). The intensity of the Fs force exerted on the clamp depends on the:

1) Force exerted on the control lever.

2) Position of the pressure screw on the clamping lever. Since it is not possible to determine the strength of the operator in manual, the tables indicate the Fs clamping force for pneumatic clamps only. In the maximum strength position **(fig.3)**, the clamping balance is unstable since opposing forces acting on the clamping lever can disengage the clamp.

• If in the clamping position, the dead centre of the lever exceeds a certain limit **(fig.4)**, the clamping lever stops with a fixed stop and, thus obtains secure and irreversible clamping.

The strength that the clamp can receive in the closed position without permanent deformation is called Fh holding force. This is a feature variable for each clamp and depends on the size (sizes and geometry) of each clamp. The tables show the respective maximum Fh retaining force of the clamp including the safety factor. All forces are shown in daN.(decaNewton)=10 N (Newton)=1Kg. weight.

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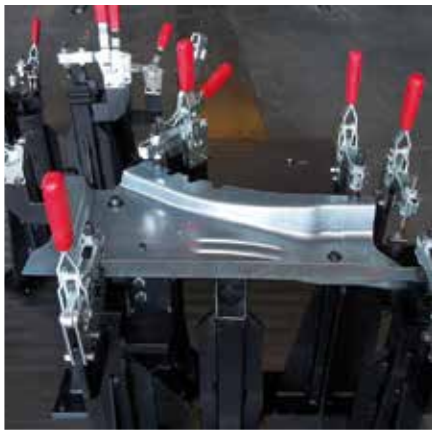
AISI 304/316 STAINLESS STEEL INDEX

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =









VERTICAL SERIES

The clamping and control levers move in the same direction. When clamping is obtained, the control lever is in the vertical position. The light version of the series presented in this catalogue has a retaining force between 75 and 875 daN, while the heavy-duty version has a retaining force between 1000 and 3000 daN. The heavy-duty version is used when highly intense resistant forces are used, for example when closing jigs for foams, polyurethanes, etc. The clamps of this series are built to be easily disassembled for reworking of the individual elements depending on the requirements of use.

PERFORMANCE

FOR THE LIGHT SERIES: Components in case-hardening sheet steel. Hardened and tempered supporting pivots. Supporting bushes (for sizes from 130 daN and over) hardened by cementation and ground. The clamping lever is shorn and reinforced in the points of maximum stress. In the closing movement, it is guided laterally to ensure greater stability against possible transverse stresses. Finishing of the series: galvanized.

FOR THE HEAVY-DUTY SERIES: The pivots and supporting bushes are made of tempered and ground steel. The other parts are made of weldable steel. Finishing of the series: phosphated.
The red handles are made of polyurethane and are resistant to oils, solvents and other chemical agents.

In order to prevent accidental openings, caused by vibrations, some tools of this series are provided with a device called, "safety device", suitable for maintaining the clamp in a closed position. This device is also able to lock the tool in open position (Pat.Pend.)

VERTICAL SERIES WITH FOLDED BASE

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

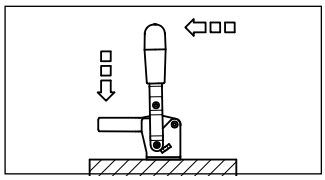
Supporting bushes:
Hardened and ground steel
(for sizes ≥130)

Handles:
Red polyurethane;
resistant to oils, grease and other chemical agents.

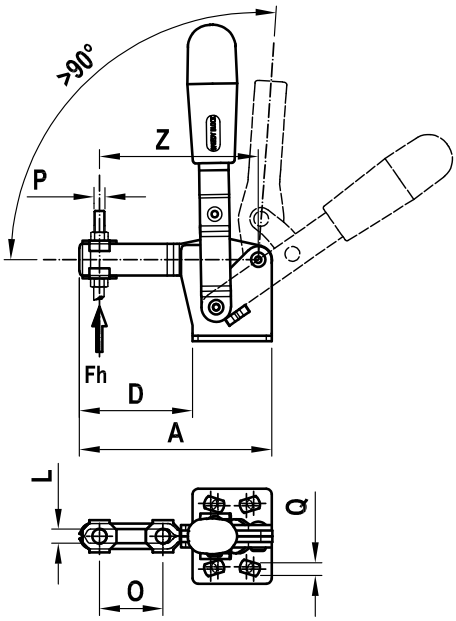
Performance:
Form A and **form AX** with open clamping lever and two flanged washers.
Form E and **form EX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

Spindles:
To be ordered separately
(see Accessories on page 87).

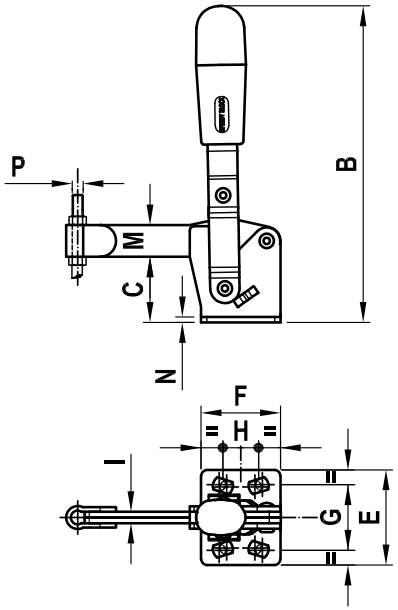
Characteristics and applications:
During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses.
These tools are designed to prevent the operator's fingers from being crushed by the levers when opening.
A special grease is placed between two contacting surfaces during assembly.
This pneumatic actuated series is found on page 75.



FORM A

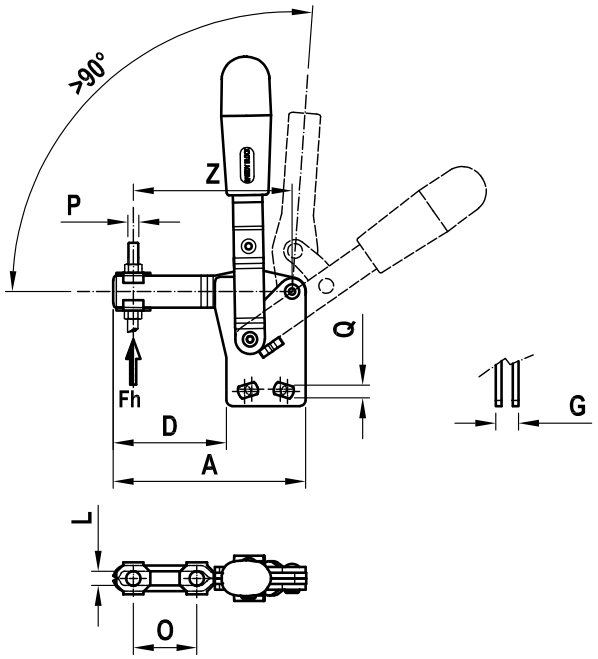


FORM E

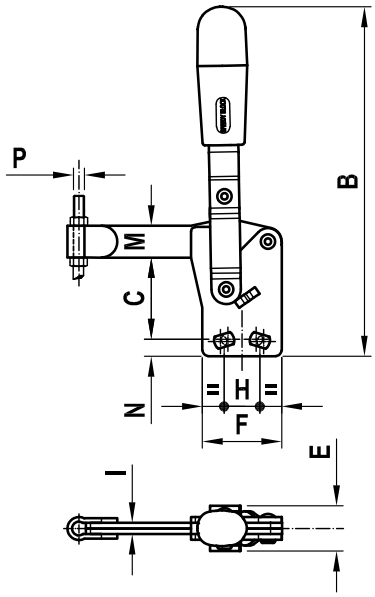


Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA520	75/A	**AS095**	75/AX	66,5	98	20,5	37,5	34	29	24	15÷16		5,2	11	2	20	M5	4,5	56	75	98
AA524	75/E	**AS105**	75/EX	67	98	20,5	38	34	29	24	15÷16	4		11	2		M5	4,5		75	100
AA530	130/A	**AS150**	130/AX	85	142	28	50	42	35	27÷29	12,5÷19		6,2	16	2,5	28	M6	5,6	71	105	230
AA534	130/E	**AS160**	130/EX	86	142	28	51	42	35	27÷29	12,5÷19	5		16	2,5		M6	5,6		105	235
AA540	230/A	**AS180**	230/AX	110,5	168	33,5	67,5	45	43	32	18÷21		8,5	18	3	40	M8	6,7	94	200	380
AA544	230/E	**AS190**	230/EX	112	168	33,5	69	45	43	32	18÷21	6		18	3		M8	6,7		200	390
AA550	330/A			129	195	43	79	65	50	45÷46	29÷32		10,5	22	3,5	43	M10	8,5	108	240	604
AA554	330/E			130,5	195	43	80,5	65	50	45÷46	29÷32	7		22	3,5		M10	8,5		240	604
AA560	430/A			164	247	55,5	106	65	58	45	32		12,5	26	4	64	M12	8,5	138	280	1100
AA564	430/E			166	247	55,5	108	65	58	45	32	10		26	4		M12	8,5		280	1100
AA570	530/A			223	303	84,5	143	95	80	70	50÷51		12,5	32	7	90	M12	12,5	195	450	2110
AA574	530/E			225	303	84,5	145	95	80	70	50÷51	10		32	7		M12	12,5	450	450	2110

FORM B



FORM F



VERTICAL SERIES WITH STRAIGHT BASE

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

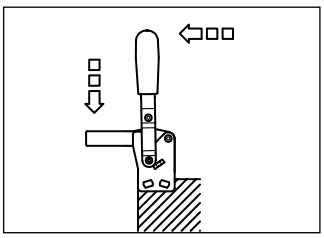
Supporting bushes:
Hardened and ground steel (for sizes ≥130)

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
Form B and **form BX** with open clamping lever and two flanged washers.
Form F and **form FX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

Spindles:
To be ordered separately (see Accessories on page 87).

Features and applications:
During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses.
These tools are designed to prevent the operator's fingers from being crushed by the levers when opening.
A special grease is placed between two contacting surfaces during assembly.



Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA522	75/B	**AS100**	75/BX	66,5	109,5	27	37,5	16	29	8	15÷16		5,2	11	5	20	M5	4,5	56	75	98
AA526	75/F	**AS110**	75/FX	67	109,5	27	38	16	29	8	15÷16	4		11	5		M5	4,5		75	100
AA532	130/B	**AS155**	130/BX	85	156	35	50	20	35	10	12,5÷19		6,2	16	6,5	28	M6	5,6	71	105	230
AA536	130/F	**AS165**	130/FX	86	156	35	51	20	35	10	12,5÷19	5		16	6,5		M6	5,6		105	235
AA542	230/B	**AS185**	230/BX	110,5	183	41,5	67,5	23	43	12	18÷21		8,5	18	6,5	40	M8	6,7	94	200	380
AA546	230/F	**AS195**	230/FX	112	183	41,5	69	23	43	12	18÷21	6		18	6,5		M8	6,7		200	390
AA552	330/B			129	218	56,5	79	25	50	14	29÷32		10,5	22	9,5	43	M10	8,5	108	240	620
AA556	330/F			130,5	218	56,5	80,5	25	50	14	29÷32	7		22	9,5		M10	8,5		240	620
AA562	430/B			164	267,5	67,5	106	34	58	18	32		12,5	26	10	64	M12	8,5	138	280	1110
AA566	430/F			166	267,5	67,5	108	34	58	18	32	10		26	10		M12	8,5		280	1110
AA572	530/B			223	337	105	146	34	77	18	50÷51		12,5	32	12,5	90	M12	12,5	195	450	1920
AA576	530/F			225	337	105	148	34	77	18	50÷51	10		32	12,5		M12	12,5		450	1920

VERTICAL SERIES WITH FOLDED BASE AND ANTI-RELEASE LEVER

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

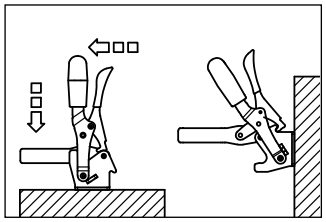
Supporting bushes:
Hardened and ground steel.

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
Form AL and **form ALX** with open clamping lever and two flanged washers.
Form EL and **form ELX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

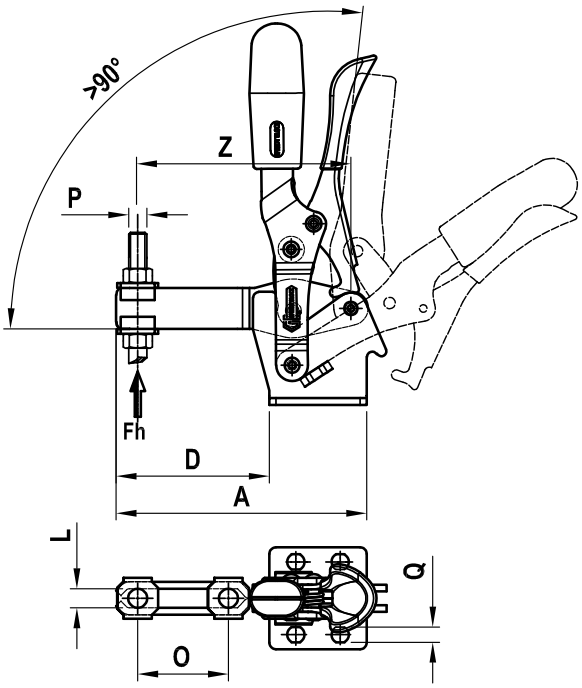
Spindles:
To be ordered separately
(see Accessories on page 87).

Features and applications:
The main feature of this series is the special anti-release lever with the purpose of avoiding any accidental openings caused by vibrations; and to block the tool in the open position; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.



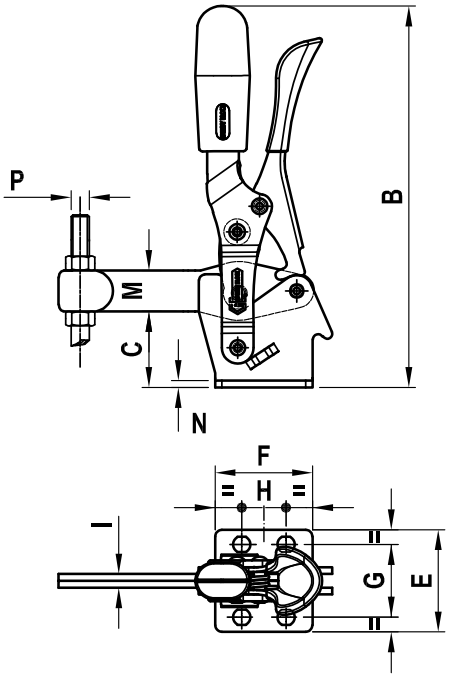
FORM AL

PATENTED



FORM EL

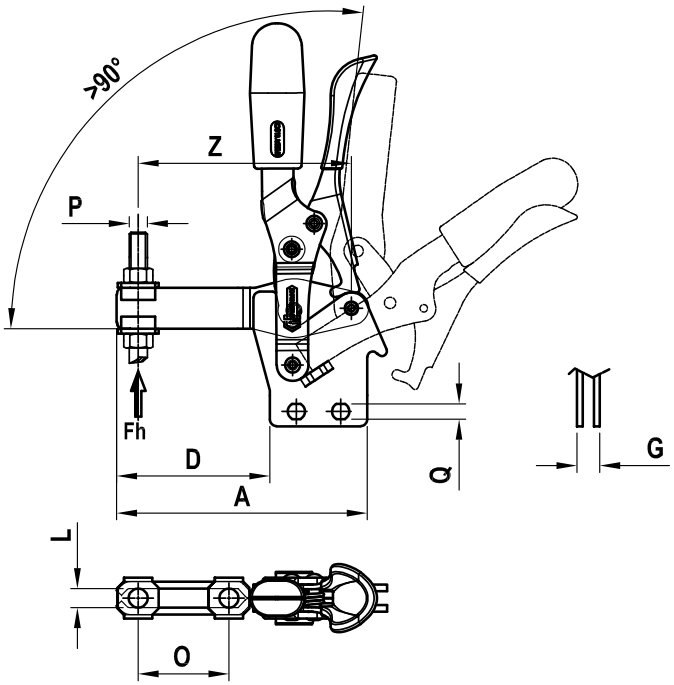
PATENTED



Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA582	130/AL	**AS200**	130/ALX	85	142	28	50	42	35	27÷29	12,5÷19		6,2	16	2,5	28	M6	5,6	71	105	275
AA586	130/EL	**AS204**	130/ELX	86	142	28	51	42	35	27÷29	12,5÷19	5		16	2,5		M6	5,6		105	280
AA590	230/AL	**AS210**	230/ALX	110,5	168	33,5	67,5	45	43	32	18÷21		8,5	18	3	40	M8	6,7	94	200	380
AA594	230/EL	**AS214**	230/ELX	112	168	33,5	69	45	43	32	18÷21	6		18	3		M8	6,7		200	390

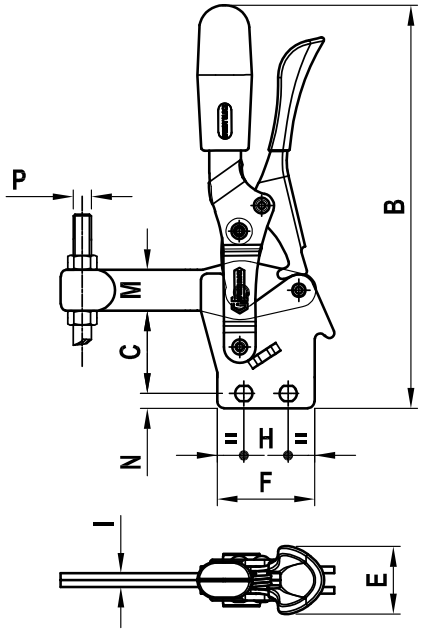
FORM
BL

PATENTED



FORM
FL

PATENTED



VERTICAL SERIES WITH STRAIGHT BASE AND ANTI-RELEASE LEVER

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

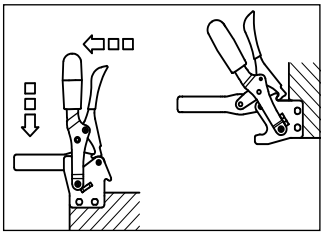
Supporting bushes:
Hardened and ground steel.

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
Form BL and **form BLX** with open clamping lever and two flanged washers.
Form FL and **form FLX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

Spindles:
To be ordered separately
(see Accessories on page 87).

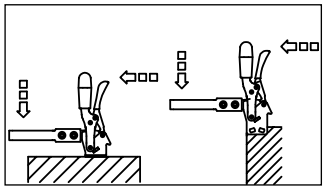
Features and applications:
The main feature of this series is the special anti-release lever with the purpose of avoiding any accidental openings caused by vibrations; and to block the tool in the open position; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.



Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA584	130/BL	**AS202**	130/BLX	85	156	35-36	50	25,5	35	10	12,5÷19		6,2	16	6,5÷7,5	28	M6	5,6	71	105	275
AA588	130/FL	**AS206**	130/FLX	86	156	35-36	51	25,5	35	10	12,5÷19	5		16	6,5÷7,5		M6	5,6		105	280
AA592	230/BL	**AS212**	230/BLX	110,5	183	41,5	67,5	30	43	12	18÷21		8,5	18	6,5	40	M8	6,7	94	200	380
AA596	230/FL	**AS216**	230/FLX	112	183	41,5	69	30	43	12	18÷21	6		18	6,5		M8	6,7		200	390

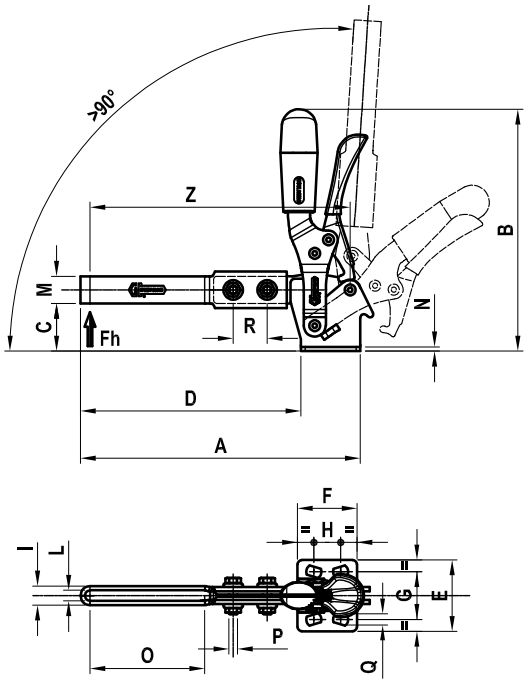
VERTICAL SERIES WITH ANTI-RELEASE LEVER AND EXTENDED CLAMPING LEVER

Material:
Galvanized steel
Riveted pivots:
Galvanized steel
Supporting bushes:
Hardened and ground steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form ELS with extended clamping lever and folded base.
Form FLS with extended clamping lever and straight base.
Spindles:
To be ordered separately
(see Accessories on page 87).
Extensions:
The models are supplied with AP6 and AP8 extension as per the drawing and with two flanged washers
(see Accessories on page 90).
Features and applications:
The main features of this series are the special anti-release lever and the special extension of the locking arm to facilitate the specific use in control templates; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses.
A special grease is placed between two contacting surfaces during assembly.



FORM ELS

PATENTED



FORM FLS

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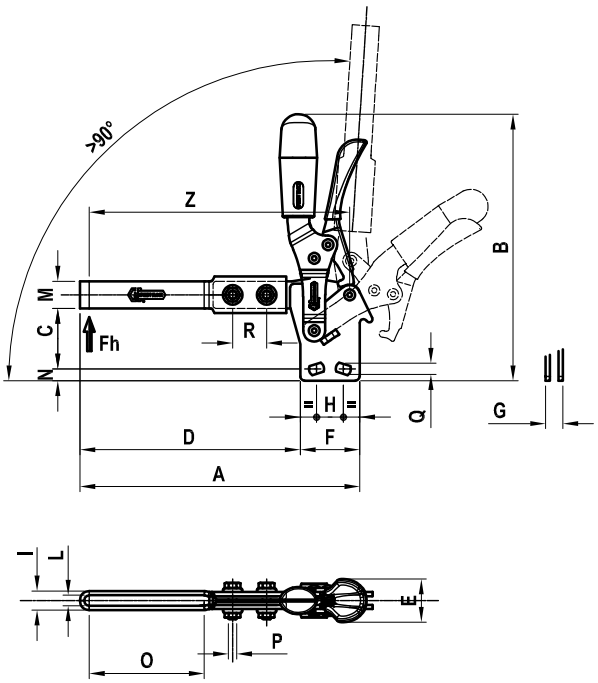
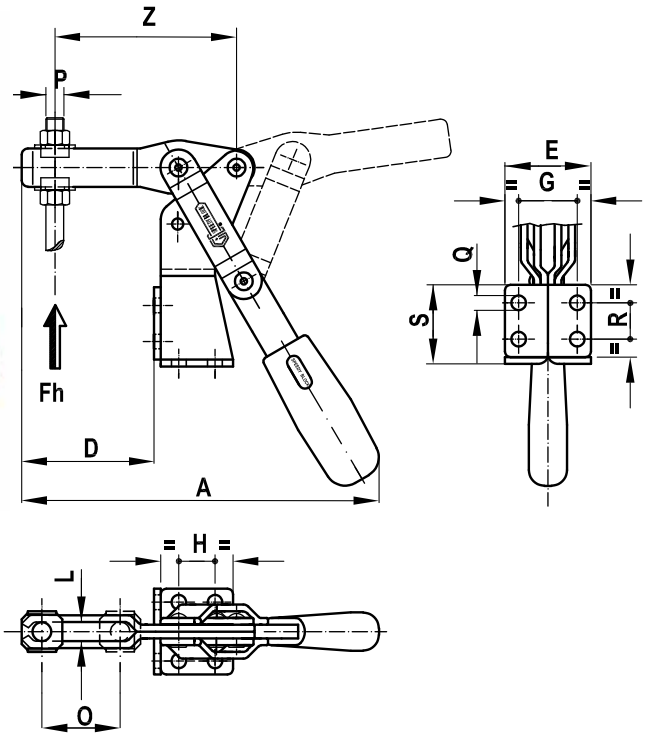
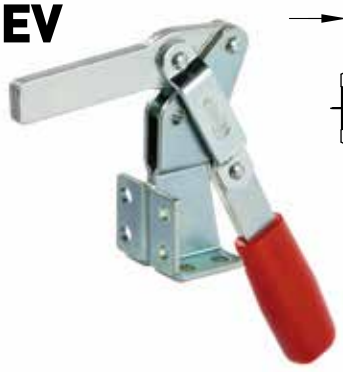


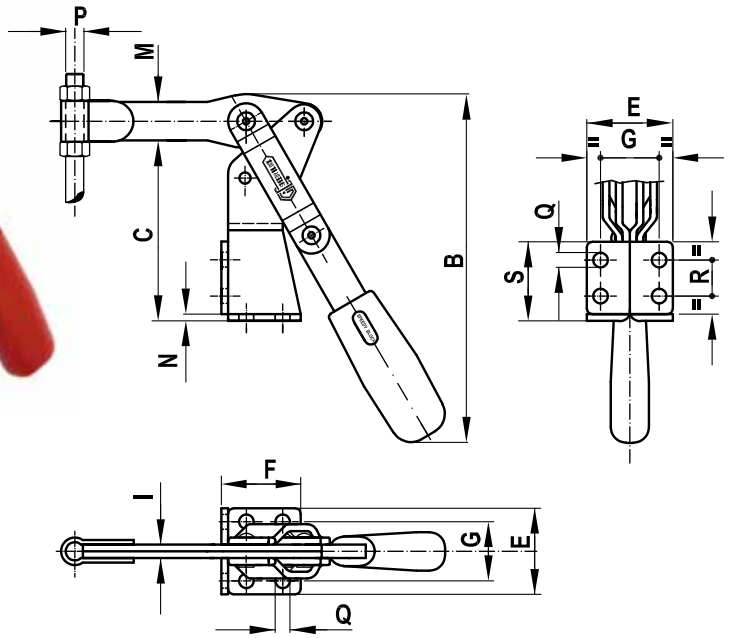
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	Z	Fh daN)	gr.
AA587	130/ELS	164	142	28	129	42	35	27÷29	12,5÷19	11,3	6,3	16	2,5	67,5	M6	5,6	20	152	50	375
AA589	130/FLS	164	156	35÷36	129	25,5	35	10	12,5÷19	11,3	6,3	16	6,5÷7,5	67,5	M6	5,6	20	152	50	375
AA595	230/ELS	198	168	33,5	155	45	43	32	19,5	14,2	8,2	18	3	71,5	M8	6,7	26	182	100	545
AA597	230/FLS	198	183	41,5	155	30	43	12	19,5	14,2	8,2	18	6,5	71,5	M8	6,7	26	182	100	545

FORM
AV



FORM
EV

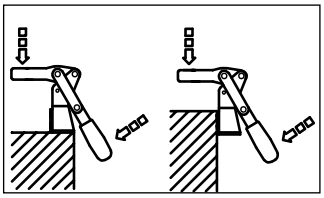




VERTICAL SERIES WITH FOLDED AND FRONT BASE

Material:
Galvanized steel
Riveted pivots:
Galvanized steel
Supporting bushes:
Hardened and ground steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form AV with open clamping lever and two flanged washers.
Form EV with full clamping lever and bolt retainers to be welded in the desired position and angle.
Spindles:
To be ordered separately
(see Accessories on page 87).

A special grease is placed between two contacting surfaces during assembly.
This series is pneumatically actuated it is found on page 76-77.

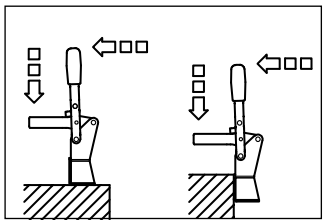


Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	Z	Fh (daN)	gr.
AA220	200/AV	157	154	76	58,5	38	35	26	16		8,5	17	3	34	M8	6,5	16	32	86	120	430
AA225	200/EV	159	154	76	60,5	38	35	26	16	6		17	3		M8	6,5	16	32		120	430
AA320	300/AV	193	198	108	76	48	48	30	28		10,4	20	3	42	M10	8,5	30	51	110	190	800
AA325	300/EV	195	198	108	78	48	48	30	28	8		20	3		M10	8,5	30	51		190	800

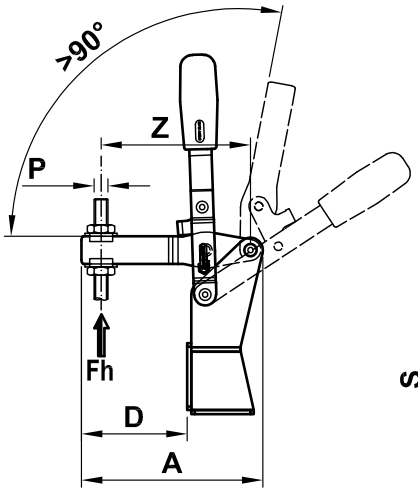
VERTICAL SERIES WITH STRAIGHT AND FRONT BASE

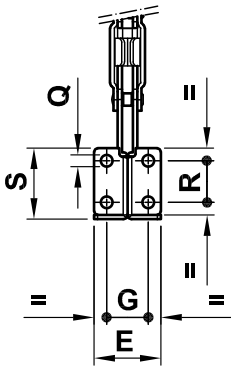
Material:
Galvanized steel
Riveted pivots:
Galvanized steel
Supporting bushes:
Hardened and ground steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form AVF with open clamping lever and two flanged washers.
Form EVF with full clamping lever and bolt retainers to be welded in the desired position and angle.
Spindles:
To be ordered separately (see Accessories on page 87).

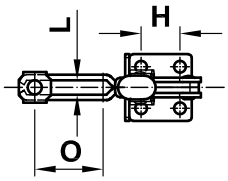
A special grease is placed between two contacting surfaces during assembly.
This pneumatic actuated series is found on page 78-791.



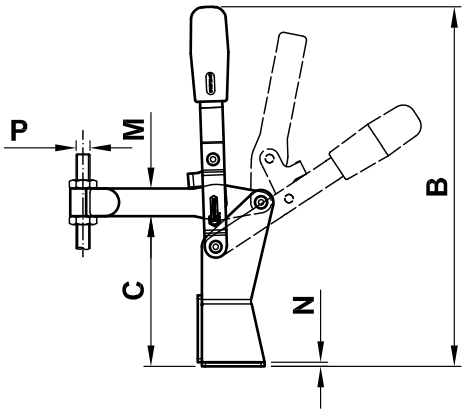
FORM AVF

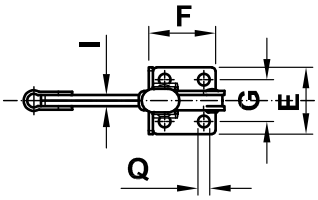






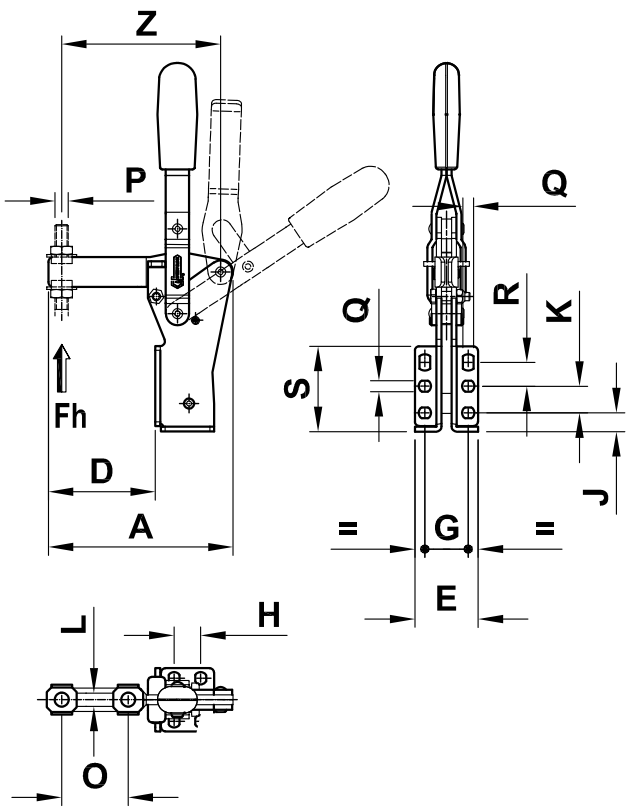
FORM EVF





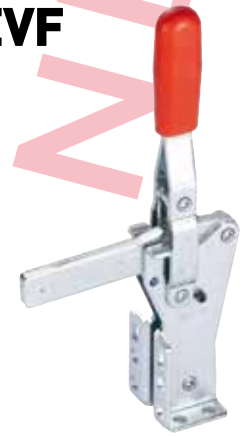
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	Z	Fh (daN)	gr.
AA221	200/AVF	103	203	77	59	38	35	26	16		8,5	17	3	36	M8	6,5	16	32	86	160	390
AA226	200/EVF	105	203	77	61	38	35	26	16	6		17	3		M8	6,5	16	32		160	400
AA321	300/AVF	130	258	108	76	48	48	30	28		10,3	20	3	50	M10	8,5	30	48	110	240	680
AA326	300/EVF	132	258	108	77,5	48	48	30	28	8		20	3		M10	8,5	30	48		240	690

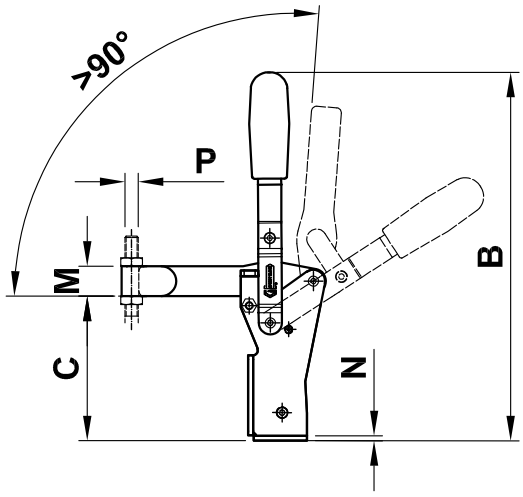
FORM AVF

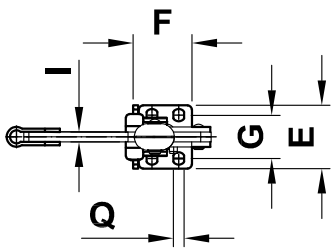


NEW

FORM EVF



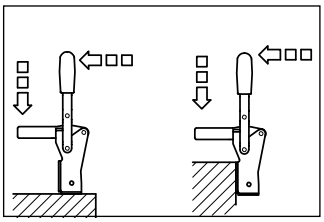




VERTICAL SERIES WITH STRAIGHT AND FRONT BASE

Material:
Galvanized steel
Riveted pivots:
Galvanized steel
Supporting bushes:
Hardened and ground steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form AVF with open clamping lever and two flanged washers.
Form EVF with full clamping lever and bolt retainers to be welded in the desired position and angle.
Spindles:
To be ordered separately (see Accessories on page 87).

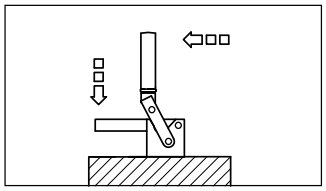
A special grease is placed between two contacting surfaces during assembly. This pneumatic actuated series is found on page 79.



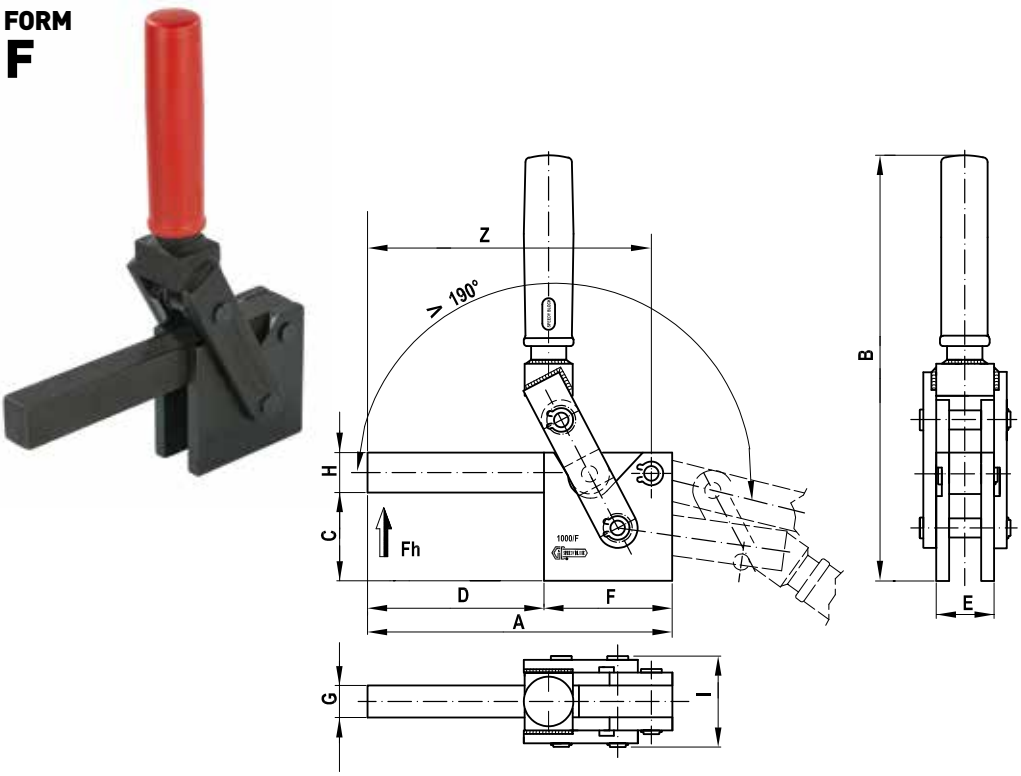
Code	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Z	Fh (daN)	gr.
AA090	75/AVF	67	120	43	35,5	34	22	24	12,5		10	12,5	5,2	11	2	20	M5	4,5		30	56	75	130
AA092	75/EVF	67,5	120	43	36,5	34	22	24	12,5	4	10	12,5		11	2		M5	4,5		30		75	130
AA142	130/AVF	85	184	70	43	42	28	27	12,5		16	12,5	6,2	16	2,5	28	M6	5,6	12,5	49	71	110	300
AA144	130/EVF	86	184	70	44	42	28	27	12,5	5	16	12,5		16	2,5		M6	5,6	12,5	49		110	300
AA223	230/AVF	111	222	87	64	38	32	26	16		11	16	8,5	18	3	40	M8	6,5	14,25	51	94	220	500
AA228	230/EVF	112	222	87	65	38	32	26	16	6	11	16		18	3		M8	6,5	14,25	51		220	500
AA322	330/AVF	129	259	108	71	48	45	30	28		19	30	10,5	22	3,5	45	M10	8,5	20	79	110	260	800
AA328	330/EVF	131	259	108	73	48	45	30	28	7	19	30		22	3,5		M10	8,5	20	79		260	800

HEAVY-DUTY VERTICAL SERIES

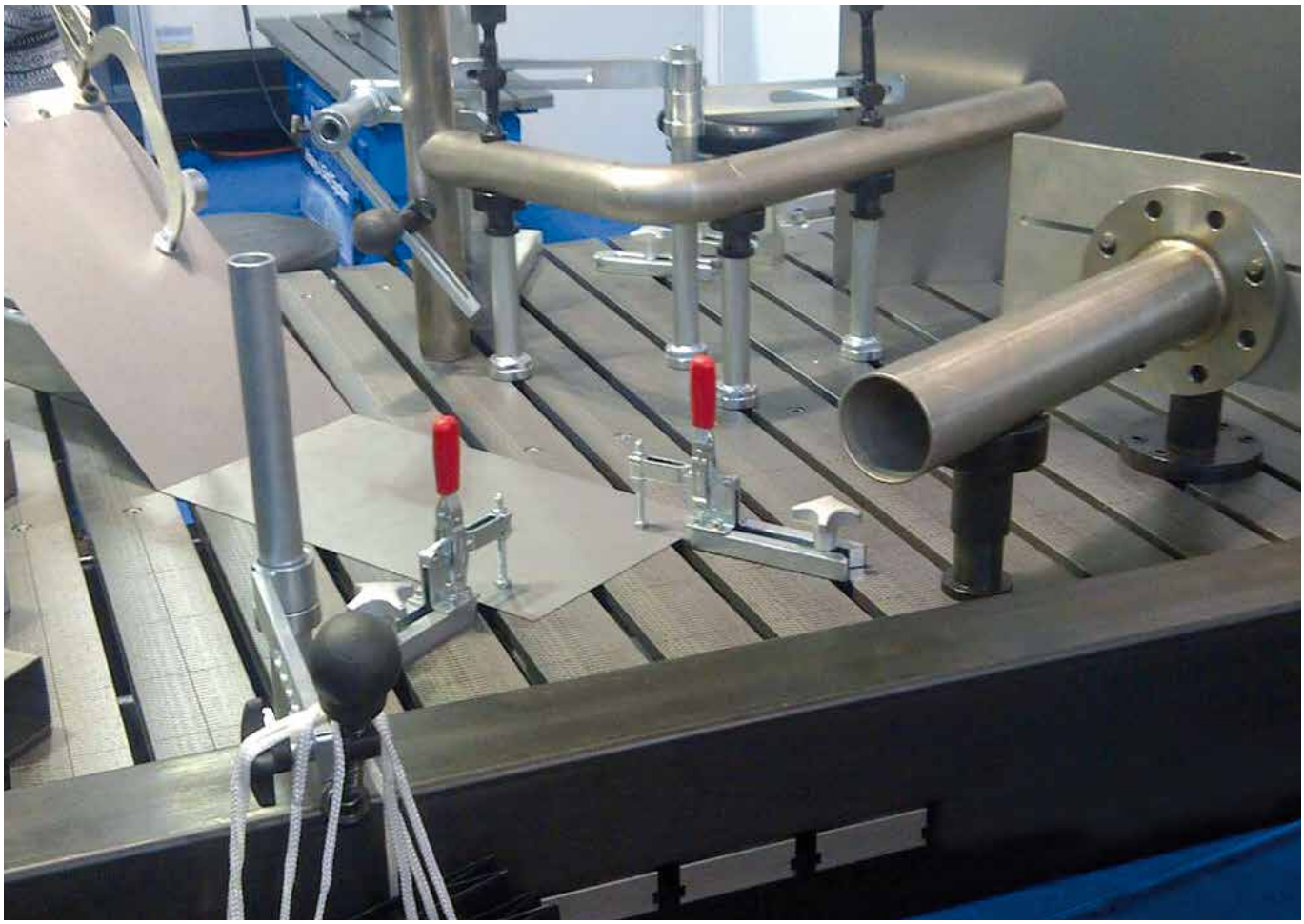
Material:
Weldable phosphated steel.
Pivots:
Hardened and ground steel.
Supporting bushes:
Hardened and ground steel.
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Features and applications:
Series generally used for heavy-duty applications requiring requiring higher resistant forces. The clamps of this series are built to be easily disassembled for reworking of the individual elements depending on the requirements of use.



FORM F



Code	Description	A	B	C	D	E	F	G	H	I	Z	Fh (daN)	gr.
AA900	1000/F	190	265	55	110	36	80	20	25	57,5	176	1000	2400
AA905	2000/F	220	295	65	120	36	100	20	35	57,5	200	2000	3600
AA910	3000/F	250	320	80	140	45	110	25	40	71	228	3000	5700




5000 T

LONG LIFE SERIES

REINFORCED LONG LIFE SERIES: the hot forged parts, as well as hardened and ground pivots and bushings, make this series suitable for heavy duty loads and a long operating life.

TOGGLE MECHANISM: the accessories such as clamping arm and control lever can be welded according to applications for use.

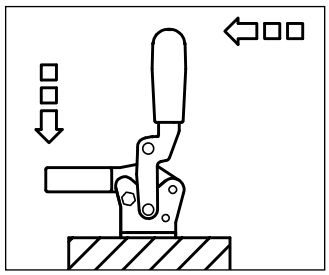
PECULIARITIES AND ADVANTAGES: • The clamping and control levers are forged. • All pivots are hardened and ground and flow into similar bushings. • Red, ergonomic and oil resistant handles. • The clamping arm guide is adjustable.

APPLICATIONS: For uses in medium and heavy duty clamping works, on welding jigs, carpentry works, moulds and generally when high clamping forces are needed and when there is strong repetitiveness of movements.

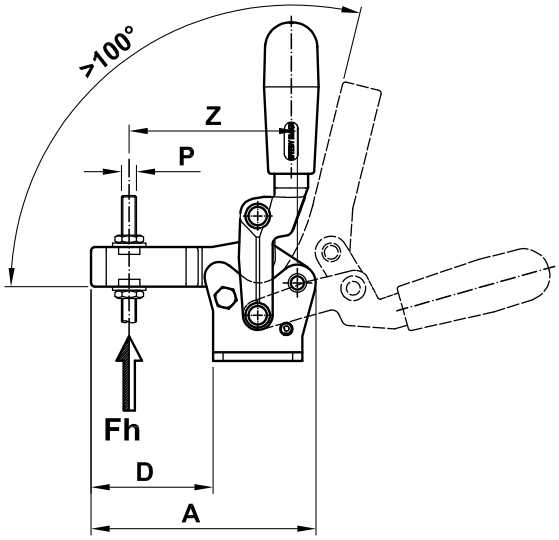
TOGGLE MECHANISM: Same peculiarities and applications as the previous vertical reinforced series. The design of these mechanisms is more versatile, being possible to weld the different parts and accessories and make up your clamp to better meet the requirements for all types of clamping needs.

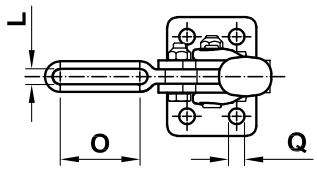
REINFORCED VERTICAL SERIES WITH FOLDED BASE

Material:
Phosphated steel.
Pivots:
Hardened and ground steel.
Supporting bushes:
Hardened and ground steel.
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form A with open clamping lever and two flanged washers.
Form E with eyelet clamping lever to insert the spindle.
Spindles:
To be ordered separately
(see Accessories on page 87).
Features and applications:
The clamping levers and control levers are forged; the guide of the clamping lever is adjustable.
This series is usually used for medium and heavy duty clamping works, on welding jigs, carpentry works, moulds and generally when high clamping forces are needed and when there is strong repetitiveness of movements.

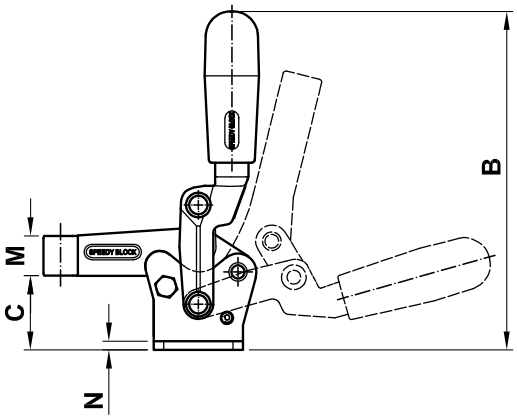


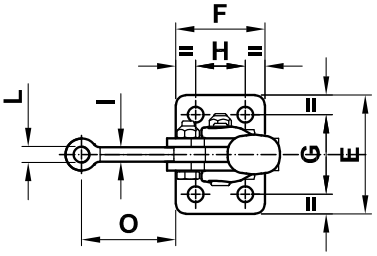
FORM LLA





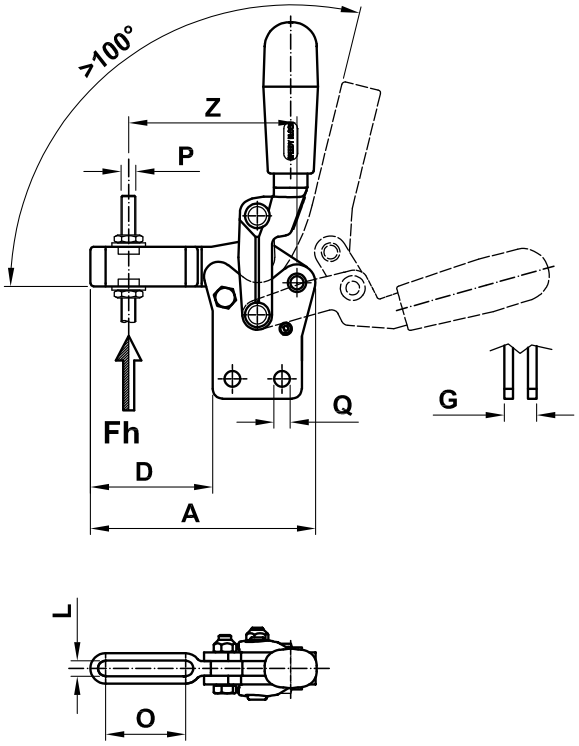
FORM LLE



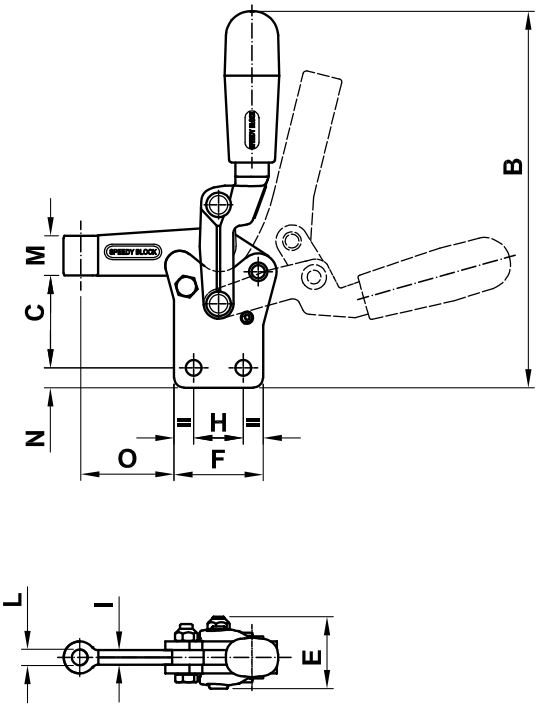


Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA600	LLA01	91	136,5	30	49	48	36	32	20		6,3	16	3,5	32	M6	6,5	77	220	330
AA610	LLE01	86	136,5	30	44	48	36	32	20	6	6,5	16	3,5	38	M6	6,5		220	325
AA630	LLA02	129,5	215	50	64	65	54	45	30		10,3	24	5	34	M10	8,5	107	440	1200
AA640	LLE02	129,5	215	50	64	65	54	45	30	10	10,5	24	5	54,5	M10	8,5		440	1200
AA660	LLE03	161	280	67	74	75	75	55	55	12	12,5	30	6	62	M12	10,5		850	1200
AA680	LLE04	203	330	76,5	96	100	90	65	65	16	16,5	35	8	80	M16	12,5		1540	4510

FORM LLB

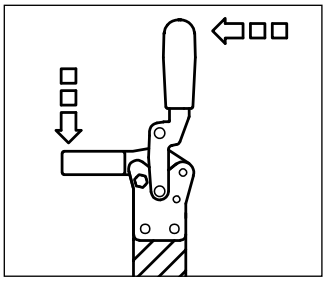


FORM LLF



REINFORCED VERTICAL SERIES WITH STRAIGHT BASE

Material:
Phosphated steel.
Pivots:
Hardened and ground steel.
Supporting bushes:
Hardened and ground steel.
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form B with open clamping lever and two flanged washers.
Form F with eyelet clamping lever to insert the spindle.
Spindles:
To be ordered separately
(see Accessories on page 87).
Features and applications:
The clamping levers and control levers are forged; the guide of the clamping lever is adjustable.
This series is usually used for medium and heavy duty clamping works, on welding jigs, carpentry works, moulds and generally when high clamping forces are needed and when there is strong repetitiveness of movements.

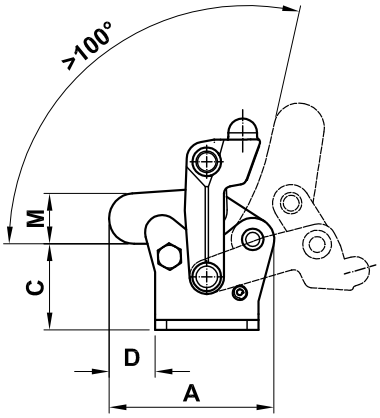


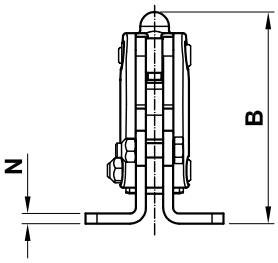
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AA605	LLB01	91	152	37,5	49	29	36	13	20		6,3	16	8	32	M6	6,5	77	220	330
AA615	LLF01	86	152	37,5	44	29	36	13	20	6	6,5	16	8	38	M6	6,5		220	325
AA635	LLB02	129,5	235	59,5	64	42	54	20	30		10,3	24	10	34	M10	8,5	107	440	1200
AA645	LLF02	129,5	235	59,5	64	42	54	20	30	10	10,5	24	10	54,5	M10	8,5		440	1200
AA665	LLF03	161	301	78	74	52	75	24	55	12	12,5	30	10	62	M12	10,5		850	1200
AA685	LLF04	203	330	88,5	96	68	90	32	65	16	16,5	35	17,5	80	M16	12,5		1540	4510

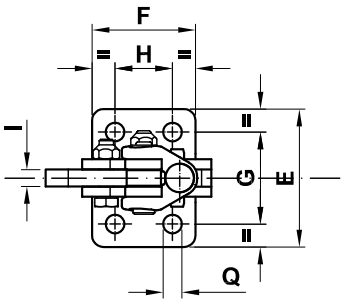
TOGGLE MECHANISMS WITH FOLDED BASE AND STRAIGHT BASE

Material:
Phosphated steel.
Pivots: Hardened and ground steel.
Supporting bushes:
Hardened and ground steel.
Accessories:
To be ordered separately (see Accessories on page 26).
Features and applications:
The clamping and control levers are forged; for uses in medium and heavy duty clamping works, on welding jigs, carpentry works, moulds and generally when high clamping forces are needed and when there is strong repetitiveness of movements.
The design of these mechanisms is more versatile, as it is possible to weld the different parts and accessories and make up your clamp to better meet your requirements.

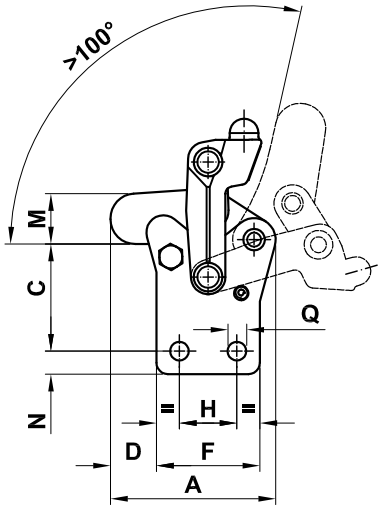
FORM LSC

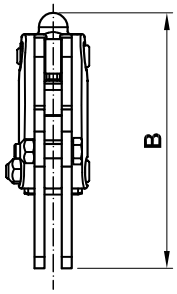


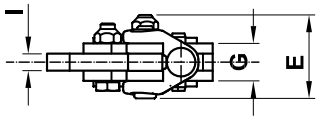


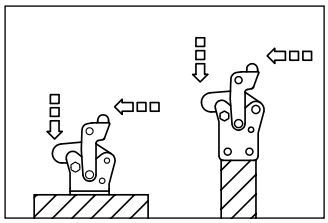


FORM LSG





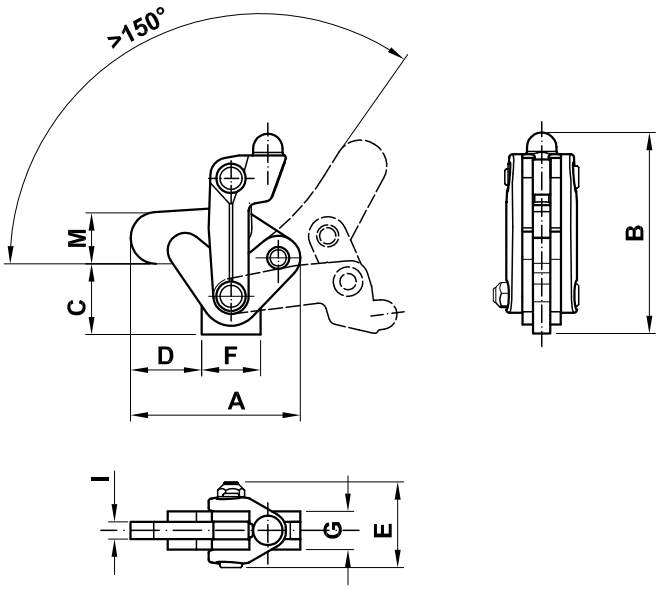


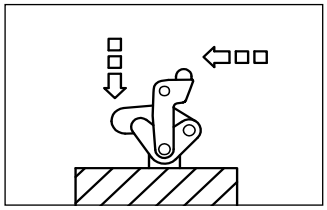


Code	Desciption	A	B	C	D	E	F	G	H	I	M	N	Q	Fh (daN)	gr.
AA700	LSC01	57,5	71	30	16	48	36	32	20	6	17,5	3,5	6,5	220	256
AA725	LSC02	85,5	121	50	20	65	54	45	30	10	28	5	8,5	440	967
AA750	LSC03	115	158	67	28	75	75	55	55	12	35	6	10,5	850	1900
AA775	LSC04	147,5	193	76,5	40,5	100	90	65	65	16	40,5	8	12,5	1540	3980

Code	Desciption	A	B	C	D	E	F	G	H	I	M	N	Q	Fh (daN)	gr.
AA705	LSG01	57,5	86	37,5	16	29	36	13	20	6	17,5	8	6,5	220	256
AA730	LSG02	85,5	140,5	59,5	20	42,5	54	20	30	10	28	10	8,5	440	967
AA755	LSG03	115	180	78	28	52	75	24	55	12	35	10	10,5	850	1900
AA780	LSG04	147,5	222	88,5	40,5	68	90	32	65	16	40,5	17,5	12,5	1540	3980

FORM
LSH





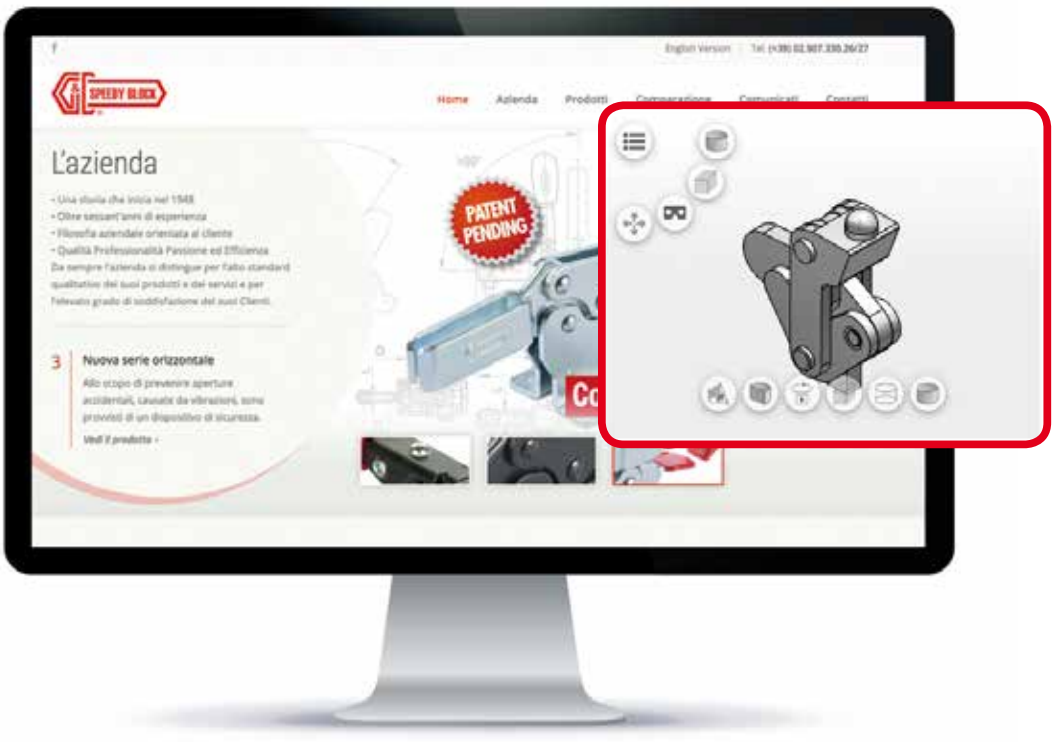
TOGGLE MECHANISM WITH SWINGING BASE

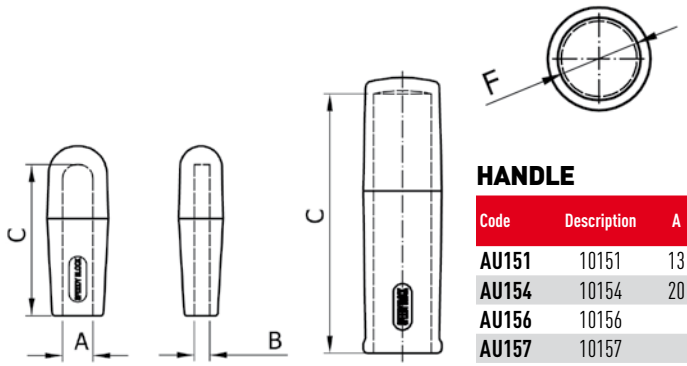
Material:
Phosphated steel.
Pivots: Hardened and ground steel.
Supporting bushes:
Hardened and ground steel.
Accessories:
To be ordered separately (see Accessories on page 26).
Features and applications:
The clamping and control levers are forged; for uses in medium and heavy duty clamping works, on welding jigs, carpentry works, moulds and generally when high clamping forces are needed and when there is strong repetitiveness of movements.
The design of these mechanisms is more versatile, as it is possible to weld the different parts and accessories and make up your clamp to better meet your requirements.

Code	Desciption	A	B	C	D	E	F	G	I	M	Fh (daN)	gr.
AA710	LSH01	57,5	68	24	24	29	20	13	6	17,5	220	268
AA735	LSH02	85,5	113	42	32	42	30	20	10	28	440	820
AA760	LSH03	115	148	57	40,5	52	50	24	12	35	850	1600
AA785	LSH04	147,5	183	66,5	55,5	68	60	32	16	40,5	1540	3450

Per avere maggiori informazioni tecniche e scaricare i disegni tecnici in formato 2D-3D visita il sito

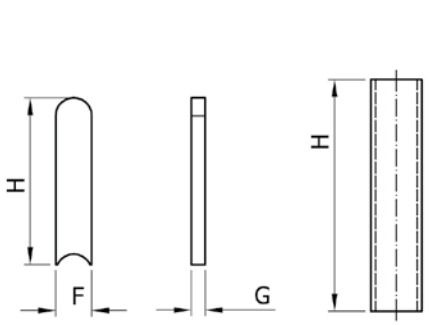
www.speedyblock.com





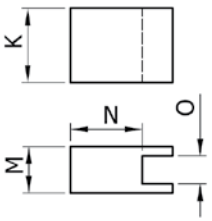
HANDLE

Code	Description	A	B	C	F	gr.
AU151	10151	13	5	55		12
AU154	10154	20	8	77		34
AU156	10156			112	22	50
AU157	10157			112	25	50



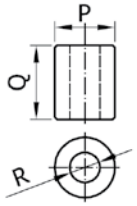
CONTROL LEVER

Code	Description	F	G	H	gr.
AU250	LC01	13	5	63	31
AU255	LC02	20	8	90	108
AU260	LC03	22		122	122
AU265	LC04	25		138	175



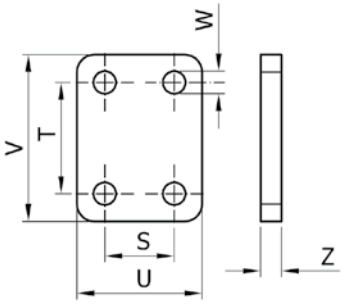
CLAMPING LEVER

Code	Description	K	M	N	O	gr.
AU230	LS01	16	10	15,5	6	23
AU235	LS02	24	15	24	10	75,5
AU240	LS03	30	20	22,1	12	130
AU245	LS04	35	25	23,5	16,2	160



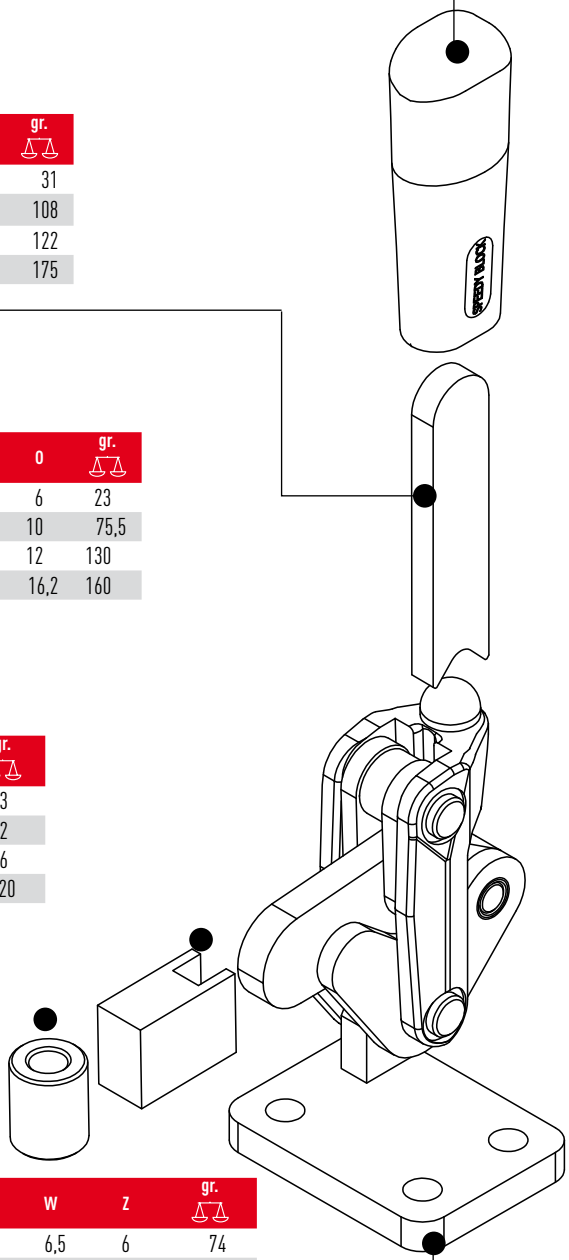
SLEEVE

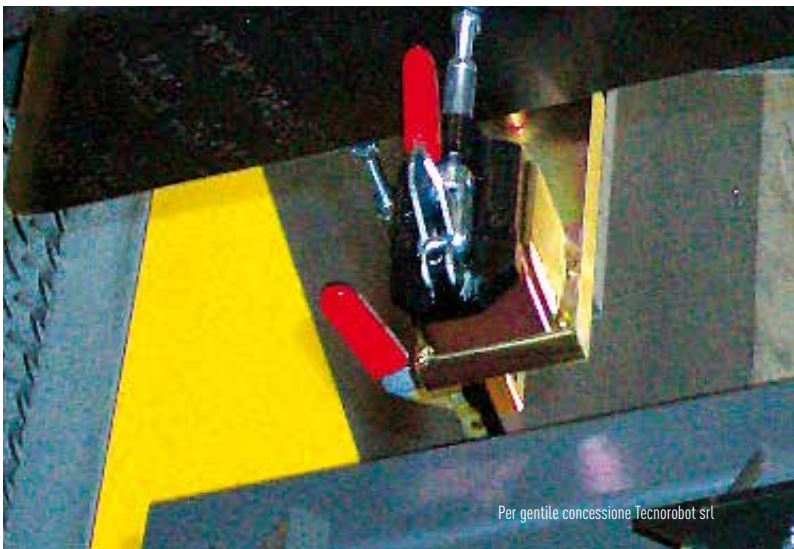
Code	Description	P	Q	R	gr.
AU280	LM01	13	16	6,5	13
AU285	LM02	20	24	10,5	42
AU290	LM03	24	30	12,5	76
AU295	LM04	32	35	16,5	120



BASE

Code	Description	S	T	U	V	W	Z	gr.
AU300	PB01	20	32	36	48	6,5	6	74
AU305	PB02	30	45	54	65	8,5	8	205
AU310	PB03	55	55	75	75	10,5	10	400
AU315	PB04	65	65	90	100	12,5	10	570





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HORIZONTAL SERIES

The control and clamping levers move in opposite directions. When clamping is obtained, the control lever is in the horizontal position. Available with clamping forces between 40 and 620 daN.

PERFORMANCE

Parts made of case-hardening sheet steel. Hardened and tempered supporting pivots. Supporting bushes (for sizes from 350 daN and over) undergo case-hardening and grinding. Finish: Galvanized. The shape of the tool ensures a safe distance between the clamping and control lever that prevents the operator's fingers from getting stuck during the opening of the tool.

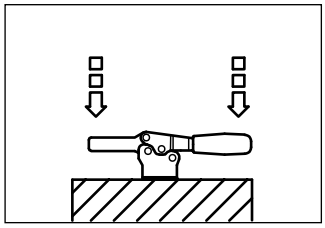
The clamping lever is guided in the locked position for additional stability any sideways movement.

In order to prevent accidental openings, caused by vibrations, some tools of this series are provided with a device called "safety device", suitable for maintaining the clamp in a closed position.

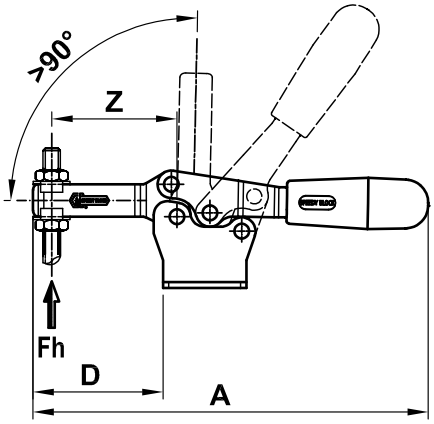
HORIZONTAL SERIES WITH FOLDED BASE

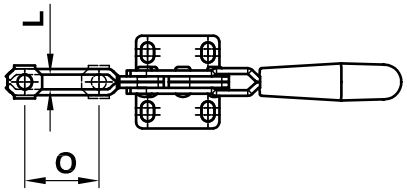
Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**
Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**
Supporting bushes:
Hardened and ground steel (for sizes ≥ 355).
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form M and **form MX** with open clamping lever and two flanged washers.
Form O and **form OX** with full clamping lever and bolt retainers to be welded in the desired position and angle.
Spindles: To be ordered separately (see Accessories on page 87).
Features and applications:
The main feature of this series is the low profile of the tool; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.

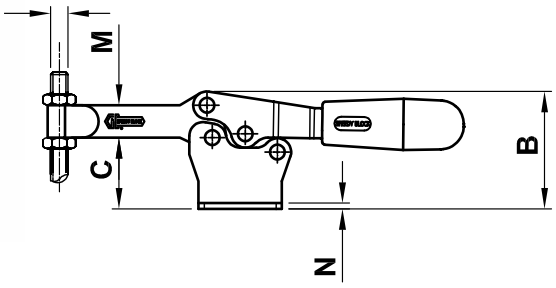


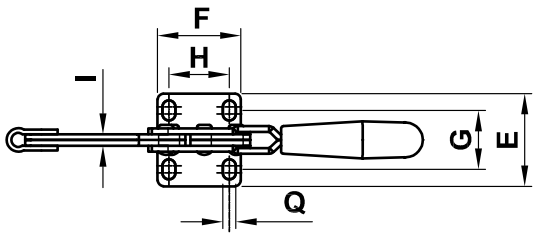
FORM M





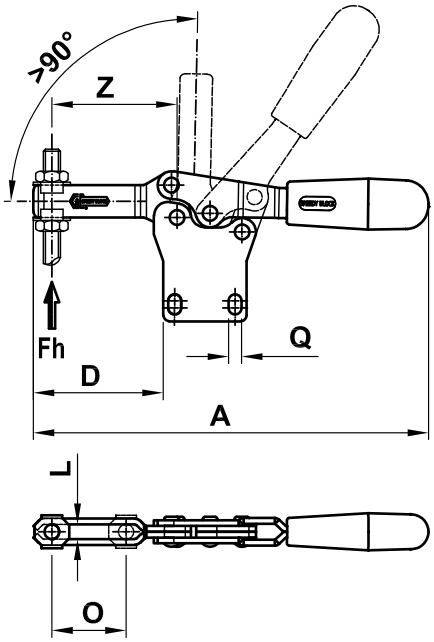
FORM O



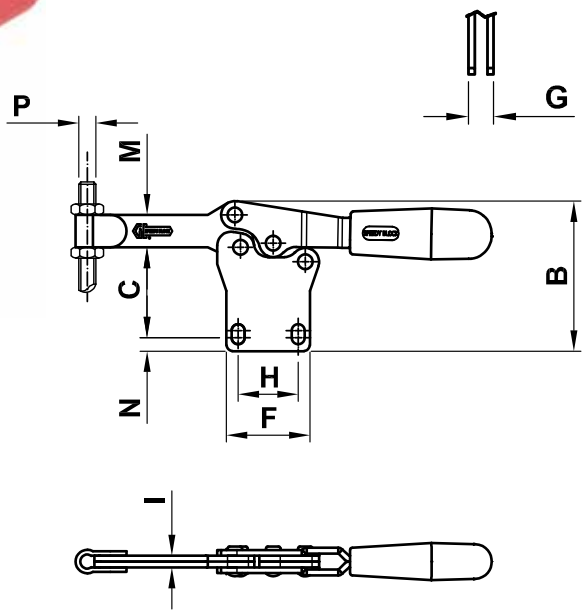


Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AD025	25/M	**DS025**	25/MX	68	23	12	19	24,5	24	16	15		4,2	7	1,2	10	M4	4,3	21	40	25
AD075	75/M	**DS075**	75/MX	118	37	20	39	26	28	16÷19	13,5		5,3	11	2	20	M5	4,5	36	90	88
AD085	75/O	**DS085**	75/OX	118,5	37	20	39,5	26	28	16÷19	13,5	4		11	2		M5	4,5		90	88
AD135	130/M	**DS135**	130/MX	171,5	51	30,5	56,5	40	36	22,4÷28,4	26		6,3	16	2,5	32	M6	5,6	55	100	200
AD145	130/O	**DS145**	130/OX	172	51	30,5	57	40	36	22,4÷28,4	26	5		16	2,5		M6	5,6		100	200
AD270	230/M	**DS270**	230/MX	196	61,5	36,5	65	44	44	26÷31,5	26		8,5	18	3	37	M8	6,6	62	170	330
AD280	230/O	**DS280**	230/OX	196,5	61,5	36,5	66	44	44	26÷31,5	26	6		18	3		M8	6,6		170	340
AD370	355/M			270	83	50	100	58	60	38,8÷43	41		10,5	22	3,5	58	M10	8,6	98	180	700
AD380	355/O			270	83	50	101	58	60	38,8÷43	41	7		22	3,5		M10	8,6		180	720
AD470	455/M			305	99	60	113	65	70	40÷43	41,5		12,5	26	4	65	M12	8,7	113	320	1200
AD480	455/O			306,5	99	60	115,5	65	70	40÷43	41,5	10		26	4		M12	8,7		320	1230

FORM N



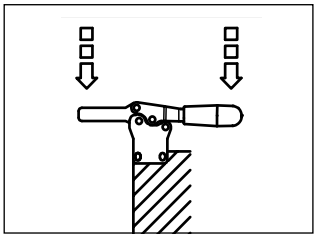
FORM P



HORIZONTAL SERIES WITH STRAIGHT BASE.

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**
Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**
Supporting bushes:
Hardened and ground steel (for sizes ≥ 355).
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form N and **form NX** with open clamping lever and two flanged washers.
Form P and **form PX** with full clamping lever and bolt retainers to be welded in the desired position and angle.
Spindles:
To be ordered separately (see Accessories on page 87).
Features and applications:
The main feature of this series is the low profile of the tool; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.



Code	Description	Stainless steel Code	Description	A	B	C	D	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AD080	75/N	**DS080**	75/NX	118	45,5	24÷25,5	39	28	8	13,5		5,3	11	5÷3,5	20	M5	4,5	36	90	88
AD090	75/P	**DS090**	75/PX	118,5	45,5	24÷25,5	39,5	28	8	13,5	4		11	5÷3,5		M5	4,5		90	88
AD140	130/N	**DS140**	130/NX	171,5	64,5	35÷38	56,5	36	10	26		6,3	16	8,8÷5,8	32	M6	5,6	55	100	200
AD150	130/P	**DS150**	130/PX	172	64,5	35÷38	57	36	10	26	5		16	8,8÷5,8		M6	5,6		100	200
AD275	230/N	**DS275**	230/NX	196	75,5	42÷44,5	65	44	12	26		8,5	18	9÷6,5	37	M8	6,6	62	170	330
AD285	230/P	**DS285**	230/PX	196,5	75,5	42÷44,5	67	44	12	26	6		18	9÷6,5		M8	6,6		170	340
AD375	355/N			270	103	60÷62	100	60	14	41		10,5	22	9,6÷7,5	58	M10	8,6	98	180	700
AD385	355/P			270	103	60÷62	101	60	14	41	7		22	9,6÷7,5		M10	8,6		180	720
AD475	455/N			305	120	68÷69,5	113	70	18	41,5		12,5	26	12,5÷11	65	M12	8,7	113	320	1200
AD485	455/P			306,5	120	68÷69,5	115,5	70	18	41,5	10		26	12,5÷11		M12	8,7		320	1230

HORIZONTAL SERIES WITH FOLDED BASE AND WITH SAFETY LEVER

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

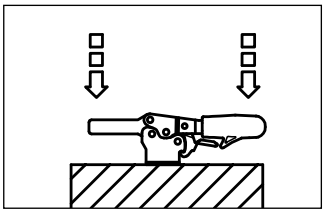
Supporting bushes:
Hardened and ground steel (for sizes ≥ 355).

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

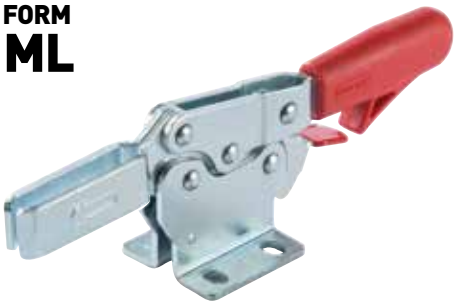
Performance:
Form ML and **form MLX** with open clamping lever and two flanged washers.
Form OL and **form OLX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

Spindles:
To be ordered separately (see Accessories on page 87).

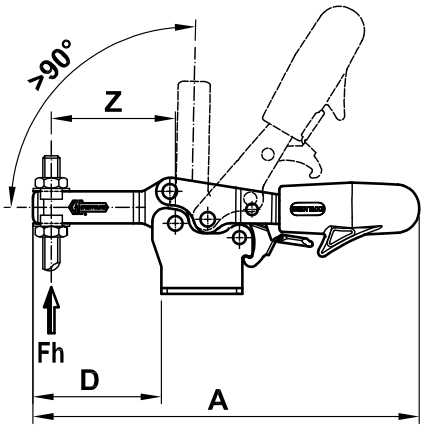
Features and applications: The main feature of this series is the special anti-release lever with the purpose of avoiding any accidental openings caused by vibrations; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.

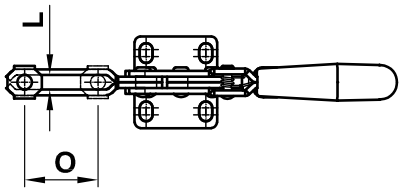


FORM ML



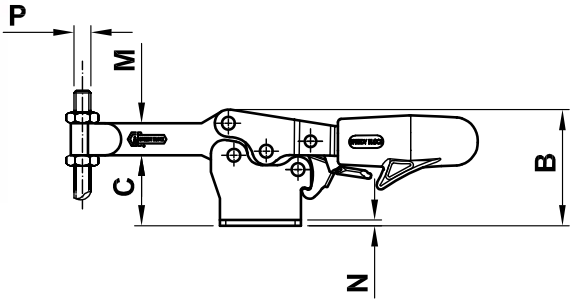
PATENTED

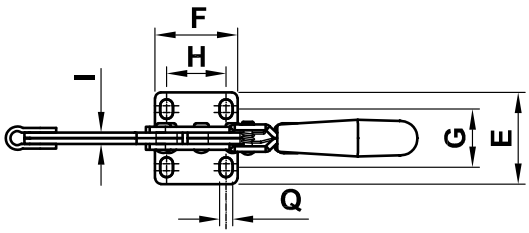




FORM OL

PATENTED

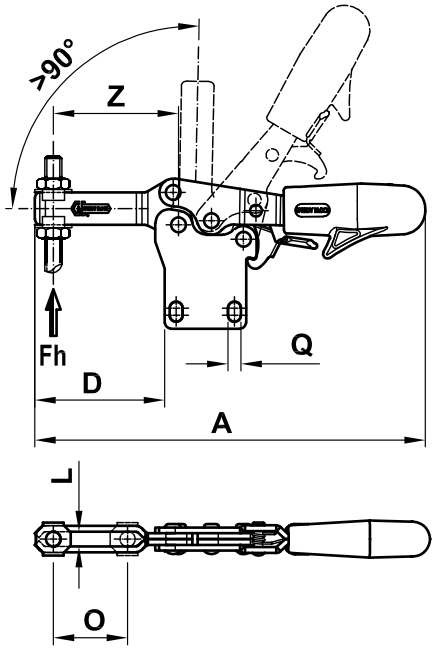




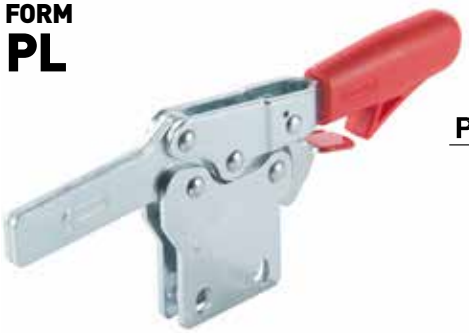
Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AD092	75/ML	**DS100**	75/MLX	118	37	20	39	26	28	16÷19	13,5		5,3	11	2	20	M5	4,5	36	90	90
AD096	75/OL	**DS104**	75/OLX	118,5	37	20	39,5	26	28	16÷19	13,5	4		11	2		M5	4,5		90	90
AD152	130/ML	**DS152**	130/MLX	171,5	51	30,5	56,5	40	36	22,4÷28,4	26		6,3	16	2,5	32	M6	5,6	55	100	200
AD156	130/OL	**DS156**	130/OLX	172	51	30,5	57	40	36	22,4÷28,4	26	5		16	2,5		M6	5,6		100	200
AD290	230/ML	**DS287**	230/MLX	196	61,5	36,5	65	44	44	26÷31,5	26		8,5	18	3	37	M8	6,6	62	170	320
AD294	230/OL	**DS291**	230/OLX	196,5	61,5	36,5	66	44	44	26÷31,5	26	6		18	3		M8	6,6		170	330
AD390	355/ML			270	83	50	100	58	60	38,8÷43	41		10,5	22	3,5	58	M10	8,6	98	180	750
AD394	355/OL			271	83	50	101	58	60	38,8÷43	41	7		22	3,5		M10	8,6		180	750
AD490	455/ML			305	99	60	113	65	70	40÷43	41,5		12,5	26	4	65	M12	8,7	113	320	1200
AD494	455/OL			306,5	99	60	115,5	65	70	40÷43	41,5	10		26	4		M12	8,7		320	1220

FORM NL

PATENTED



FORM PL



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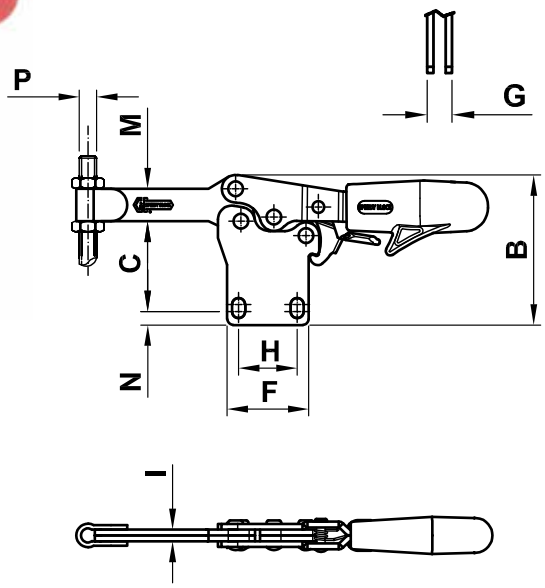


HORIZONTAL SERIES WITH STRAIGHT BASE AND WITH ANTI-RELEASE LEVER

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel
or **AISI 304 stainless steel**

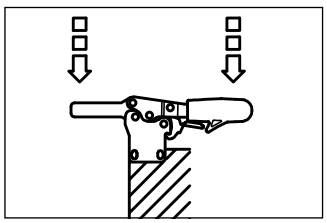
Supporting bushes:
Hardened and ground steel
(for sizes ≥ 355).

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
Form NL and **form NLX** with open clamping lever and two flanged washers.
Form PL and **form PLX** with full clamping lever and bolt retainers to be welded in the desired position and angle.

Spindles:
To be ordered separately
(see Accessories on page 87).

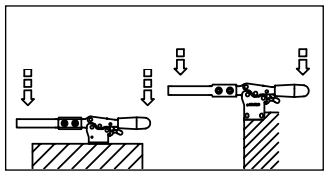
Features and applications:
The main feature of this series is the special anti-release lever with the purpose of avoiding any accidental openings caused by vibrations; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses. A special grease is placed between two contacting surfaces during assembly.



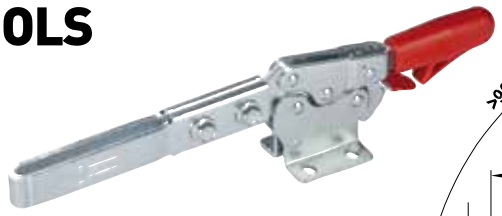
Codice	Descrizione	Stainless steel Code	Description	A	B	C	D	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AD094	75/NL	**DS102**	75/NLX	118	45,5	24÷25,5	39	28	8	13,5		5,3	11	5÷3,5	20	M5	4,5	36	90	90
AD098	75/PL	**DS106**	75/PLX	118,5	45,5	24÷25,5	39,5	28	8	13,5	4		11	5÷3,5		M5	4,5		90	90
AD154	130/NL	**DS154**	130/NLX	171,5	64,5	35÷38	56,5	36	10	26		6,3	16	8,8÷5,8	32	M6	5,6	55	100	200
AD158	130/PL	**DS158**	130/PLX	172	64,5	35÷38	57	36	10	26	5		16	8,8÷5,8		M6	5,6		100	200
AD292	230/NL	**DS289**	230/NLX	196	75,5	42÷44,5	65	44	12	26		8,5	18	9÷6,5	37	M8	6,6	62	170	320
AD296	230/PL	**DS293**	230/PLX	196,5	75,5	42÷44,5	66	44	12	26	6		18	9÷6,5		M8	6,6		170	330
AD392	355/NL			270	102	60÷62	100	60	14	41		10,5	22	9,6÷7,5	58	M10	8,6	98	180	730
AD396	355/PL			271	102	60÷62	101	60	14	41	7		22	9,6÷7,5		M10	8,6		180	750
AD492	455/NL			305	120	68÷69,5	113	70	18	41,5		12,5	26	12,5÷11	65	M12	8,7	113	320	1200
AD496	455/PL			306,5	120	68÷69,5	115,5	70	18	41,5	10		26	12,5÷11		M12	8,7		320	1220

HORIZONTAL SERIES WITH ANTI-RELEASE LEVER AND EXTENDED CLAMPING LEVER

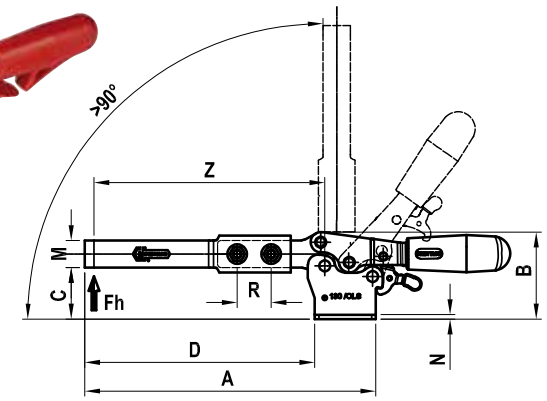
Material:
Galvanized steel
Riveted pivots:
Galvanized steel
Supporting bushes:
Hardened and ground steel.
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form OLS with extended clamping lever and folded base.
Form PLS with extended clamping lever and straight base.
Spindles:
To be ordered separately
(see Accessories on page 87).
Extensions:
The models are supplied with AP6 and AP8 extension as per the drawing and with two flanged washers
(see Accessories on page 90).
Features and applications:
The main features of this series are the special anti-release lever and the special extension of the locking arm to facilitate the specific use in control templates; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses.
A special grease is placed between two contacting surfaces during assembly.

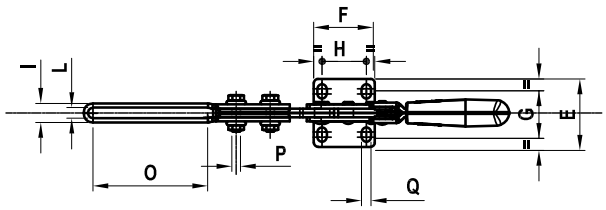


FORM OLS



PATENTED





FORM PLS

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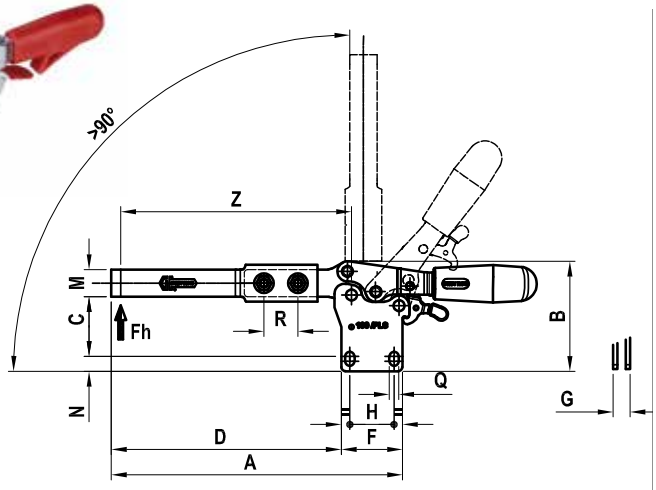
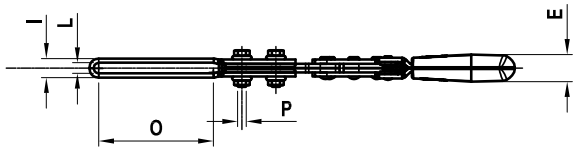
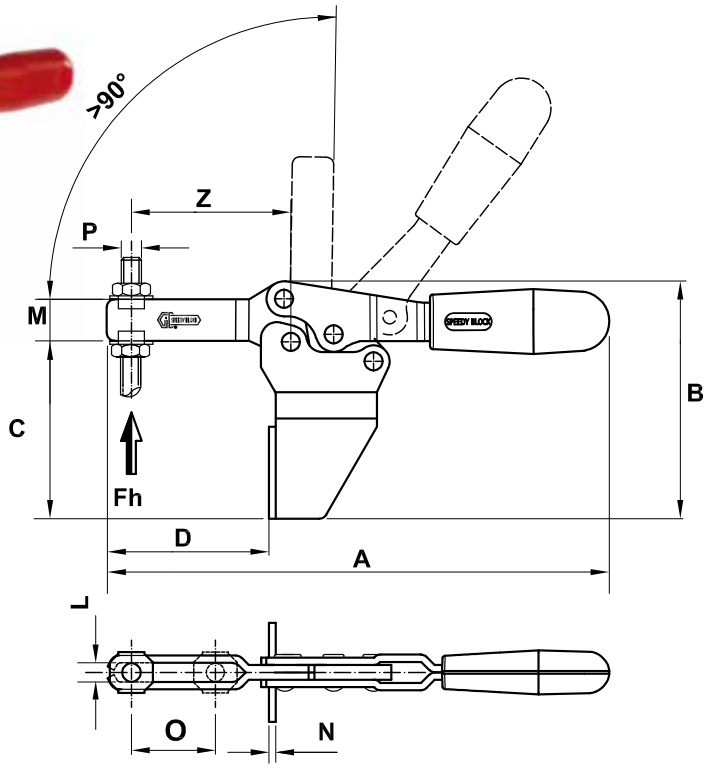
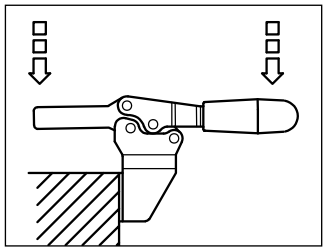




Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	Z	Fh (daN)	gr.
AD146	130/OLS	171	51	30,5	135	40	36	22,4÷28,4	26	11,5	6,3	16	2,5	67,5	M6	5,6	20	134	60	295
AD151	130/PLS	171	64,5	35÷38	135	16	36	10	26	11,5	6,3	16	5,8÷8,8	67,5	M6	5,6	20	134	60	295
AD295	230/OLS	196	61,5	36,5	152	44	44	26÷31,5	26	14,2	8,2	18	3	71,5	M8	6,6	26	150	110	485
AD297	230/PLS	196	75,5	42÷44,5	152	16	44	12	26	14,2	8,2	18	6,5	71,5	M8	6,6	26	150	110	485

FORM
MF





HORIZONTAL SERIES WITH FRONT BASE

Some sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**

Riveted pivots:
Galvanized steel or **AISI 304 stainless steel**

Supporting bushes:
Hardened and ground steel (for sizes ≥355)

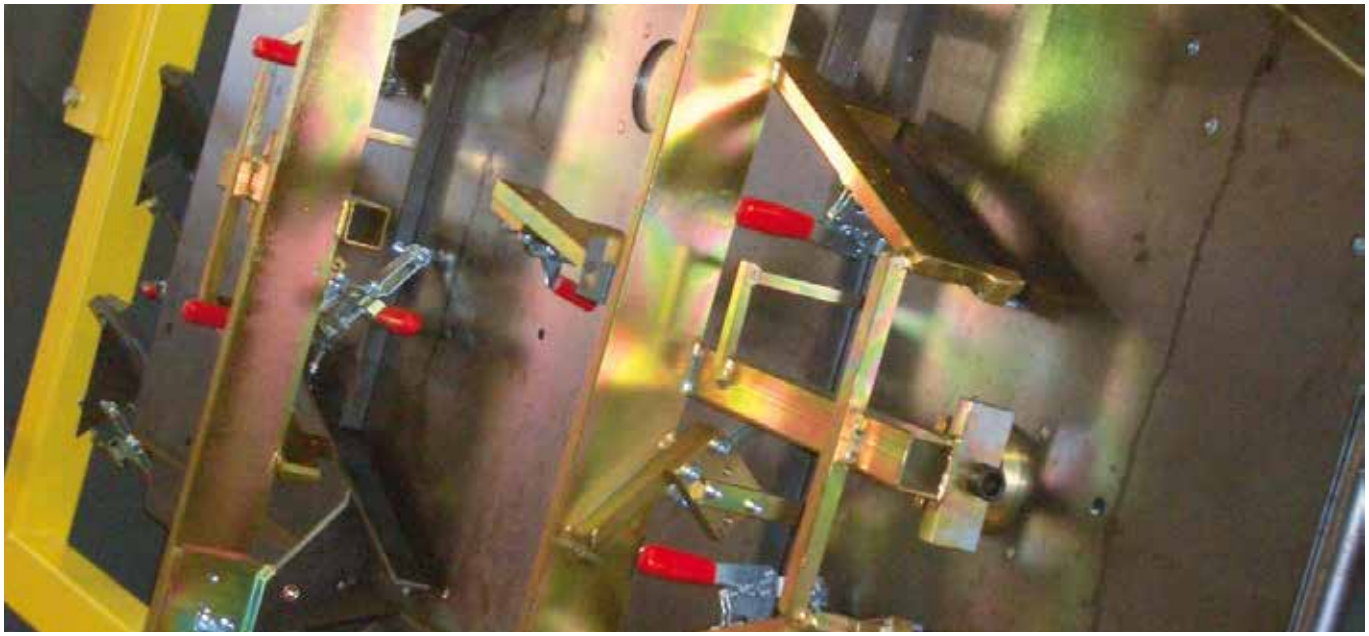
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

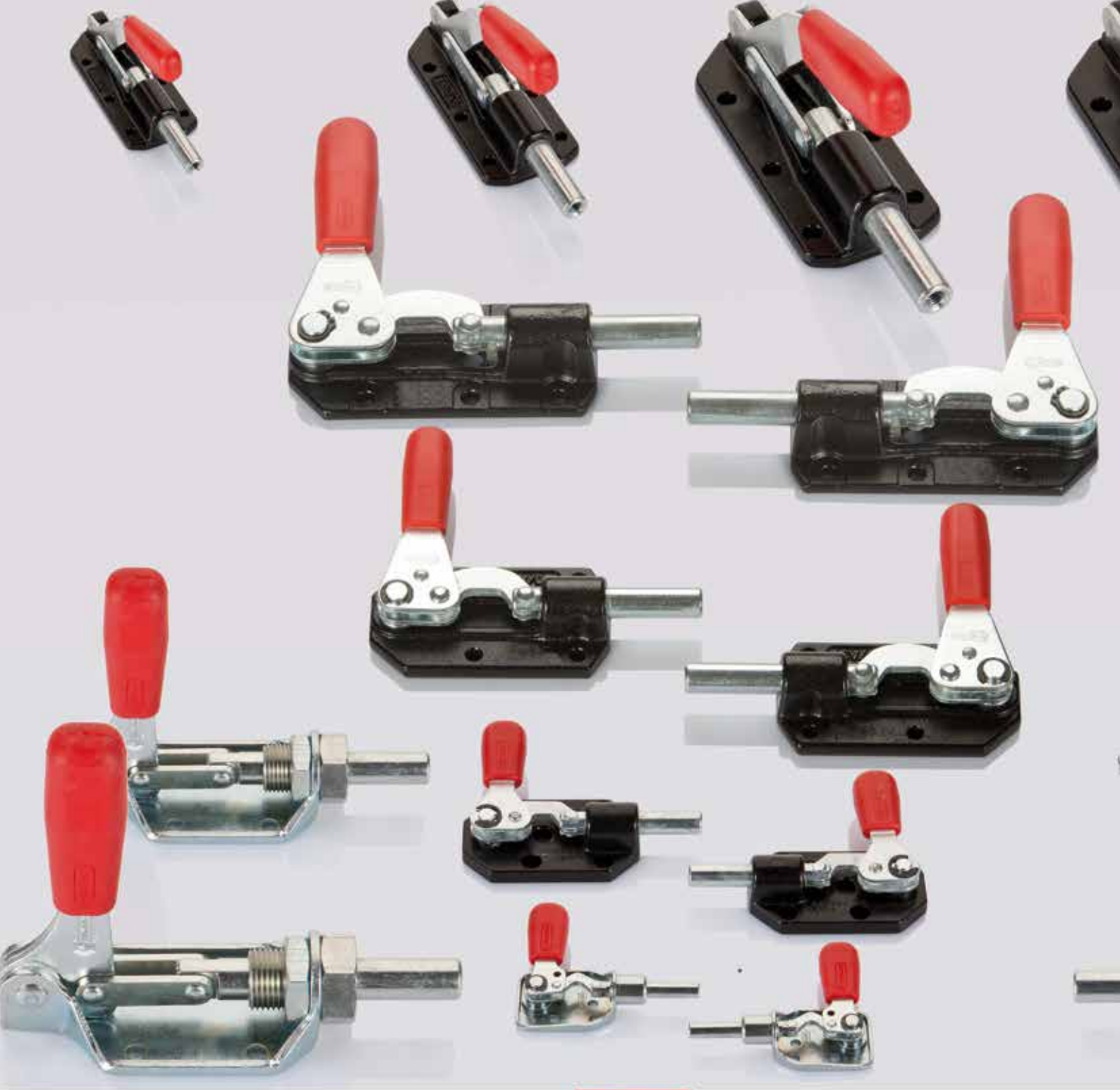
Performance:
Form MF and **form MFX** with open clamping lever and two flanged washers.

Spindles:
To be ordered separately (see Accessories on page 87).

Features and applications:
The main feature of this series is the front mount; these tools are designed to prevent the operator's fingers from being crushed by the levers when opening. During the closing, the clamping lever is guided laterally to ensure greater stability against possible transverse stresses.
A special grease is placed between two contacting surfaces during assembly.

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	L	M	N	O	P	Q	Z	Fh (daN)	gr.
AD076	75/MF	**DS076**	75/MFX	118	62	45	36	30	25,5	18	13,5	5,5	11	2	20	M5	4,5	36	90	105
AD136	130/MF	**DS136**	130/MFX	171,5	85	64	54	39	35	26	22	6,5	16	2,5	32	M6	5,5	55	100	240
AD271	230/MF	**DS271**	230/MFX	196	102	77	62	43	40	28,5	24	8,5	18	3	37	M8	6,5	62	170	400
AD371	355/MF			269	135	102	96	52	52	32	32	10,5	22	3,5	58	M10	8,5	98	180	830





STRAIGHT-LINE ACTION SERIES

In this series, the circular movement of the control lever is transformed into a linear movement of the push rod. Except for models 120/AS and 300/AS, this series works and clamps either by pushing or pulling. The light version meets clamping requirements from 80 to 720 daN, while the heavy-duty series from 120 to 4500 daN.

PERFORMANCE

FOR THE LIGHT SERIES: Push rod, guide sleeve and other parts in galvanized sheet steel.

The main feature of the ASD/ASS models is the low force application point as well as the very reduced vertical encumbrance. Models 80-165-340/AS have the possibility of front mounting with an external thread that enables rotation of the control lever to the most favourable position for use. The bracket increases the range of applications.

FOR THE HEAVY-DUTY SERIES: Hot forged ASTM A105 steel base body with manganese phosphated finishing for all sizes. Riveted pins for sizes 70-160-360. Pins with bushings hardened for the other sizes. Push rod and control lever in galvanized steel.

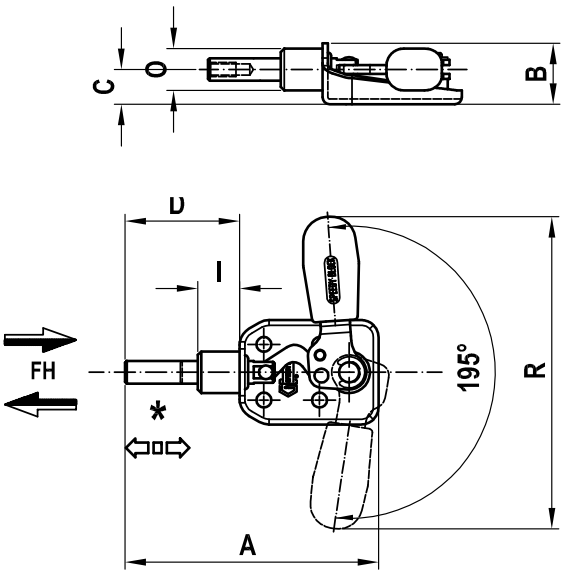
PUSH AND PULL STRAIGHT-LINE ACTION SERIES

Material:
Galvanized steel
Riveted pivots, sliding push bar and bearing:
Galvanized steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form ASS
- push clamping with clockwise control lever rotation
- traction clamping with anti-clockwise control lever rotation

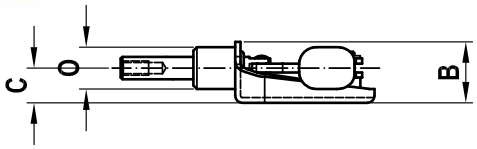
Form ASD
- push clamping with anti-clockwise control lever rotation
-traction clamping with clockwise control lever rotation

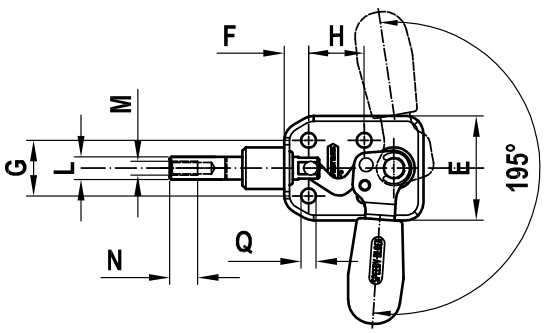
Spindles:
To be ordered separately
(see Accessories on page 87).
Features and applications:
The main feature of this series is its low force application point as well as the very reduced vertical encumbrance. A special grease is placed between two contacting surfaces during assembly.

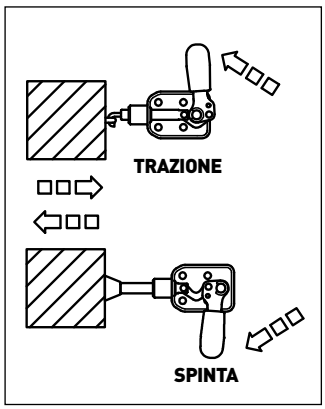
FORM ASD



FORM ASS

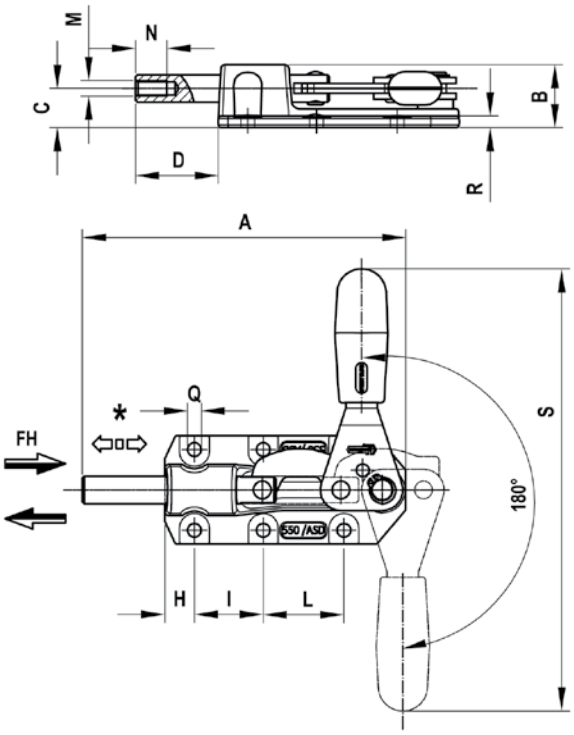




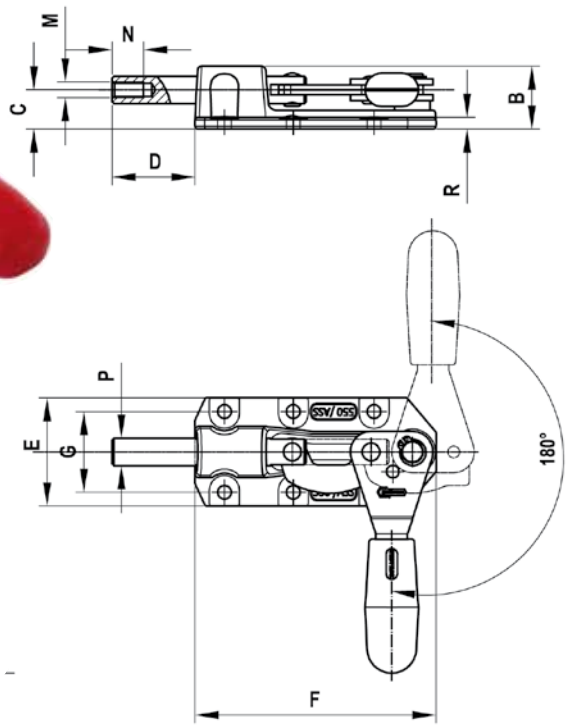


Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	R	*	Fh (daN)	gr.
AG050	50/ASD	73	17,5	10	33	30,5	7	16	16	12	6,5	M4	9	12	4,3	90	16	80	60
AG055	50/ASS	73	17,5	10	33	30,5	7	16	16	12	6,5	M4	9	12	4,3	90	16	80	60

FORM ASD



FORM ASS

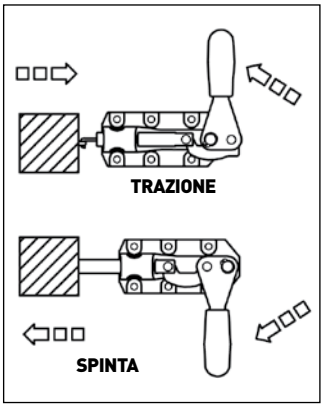


PUSH AND PULL STRAIGHT-LINE ACTION SERIES

Material:
Galvanized steel
Riveted pivots, push bar and control lever:
Galvanized steel
Basic clamp body:
ASTM A105 hot forged steel with manganese phosphated finishing.
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form ASS
- push clamping with clockwise control lever rotation
- traction clamping with anti-clockwise control lever rotation

Form ASD push clamping
- with anti-clockwise control lever rotation
- traction clamping with clockwise control lever rotation

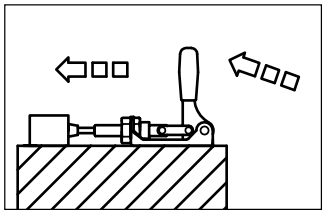
Spindles:
To be ordered separately
(see Accessories on page 87).
Features and applications:
The main feature of this series is its low force application point as well as the very reduced vertical encumbrance. A special grease is placed between two contacting surfaces during assembly.



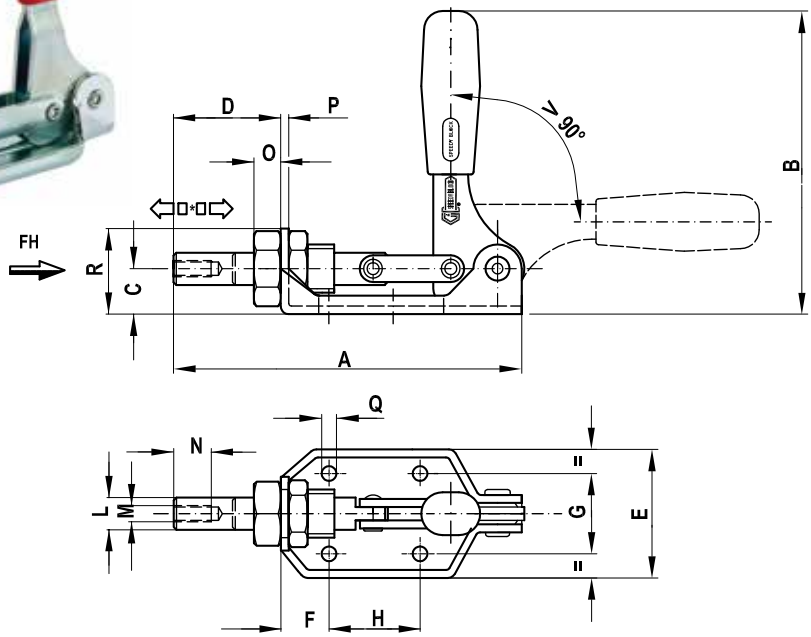
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	P	Q	R	S	*	Fh (daN)	gr.
AG075	70/ASD	85	19,5	12	22	36	64	26	13	26		M6	12	8,5	4,3	6	98	20	90	160
AG080	70/ASS	85	19,5	12	22	36	64	26	13	26		M6	12	8,5	4,3	6	98	20	90	160
AG165	160/ASD	117	25	15	32	46	85	33,5	11,5	36,5		M6	12	11	5,5	7	158	30	130	350
AG170	160/ASS	117	25	15	32	46	85	33,5	11,5	36,5		M6	12	11	5,5	7	158	30	130	350
AG175	550/ASD	164,5	32	20	42	55	122,5	41	15	35	41	M8	16	14	7	7	225	42	450	720
AG180	550/ASS	164,5	32	20	42	55	122,5	41	15	35	41	M8	16	14	7	7	225	42	450	720

ONLY PUSH STRAIGHT-LINE ACTION SERIES

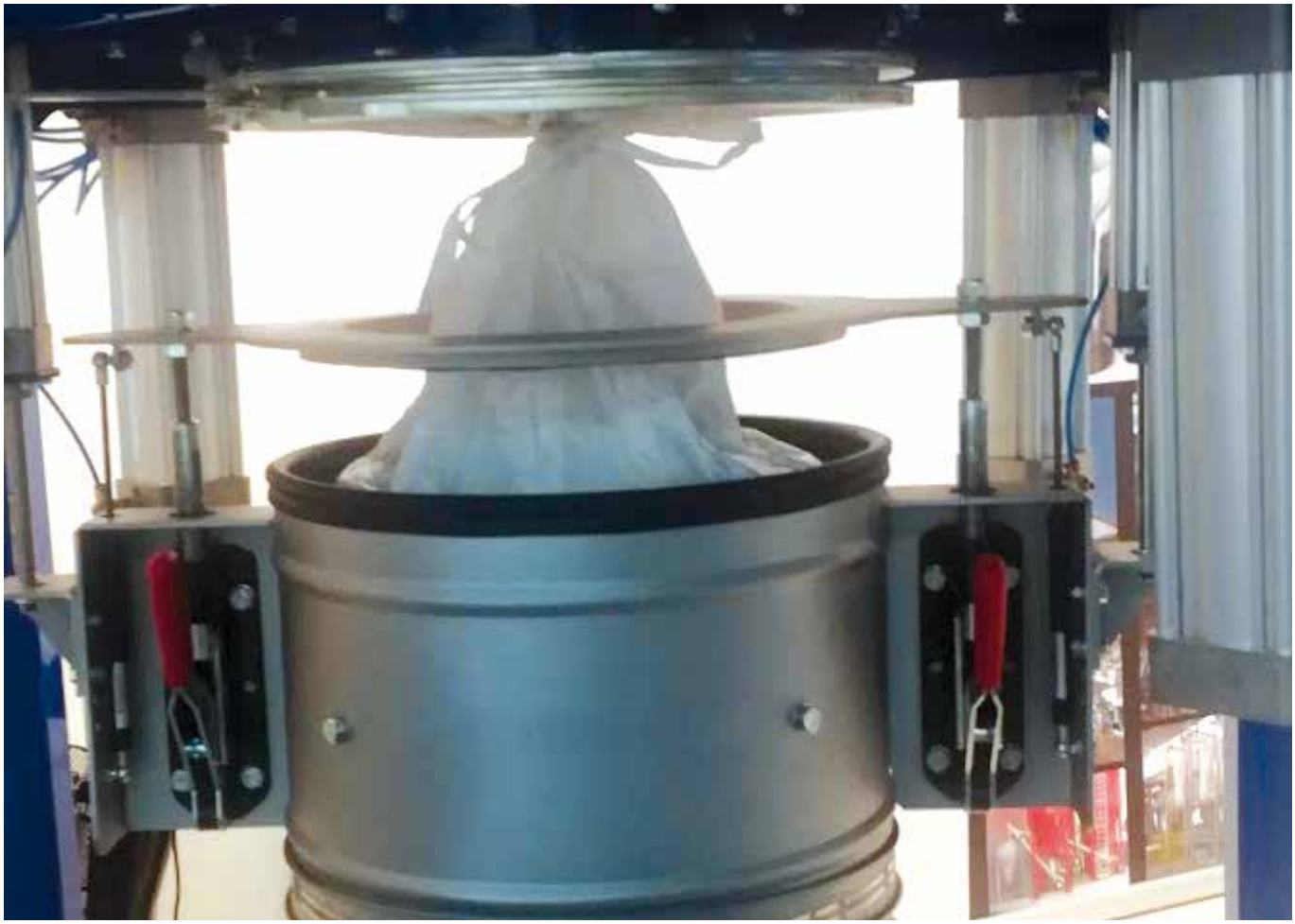
Material:
Galvanized steel
Riveted pivots, push bar, sliding bearing and nut:
Galvanized steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Spindles:
To be ordered separately (see Accessories on page 87).
Features and applications:
The tools of this series can only be pushed.
A special grease is placed between two contacting surfaces during assembly.



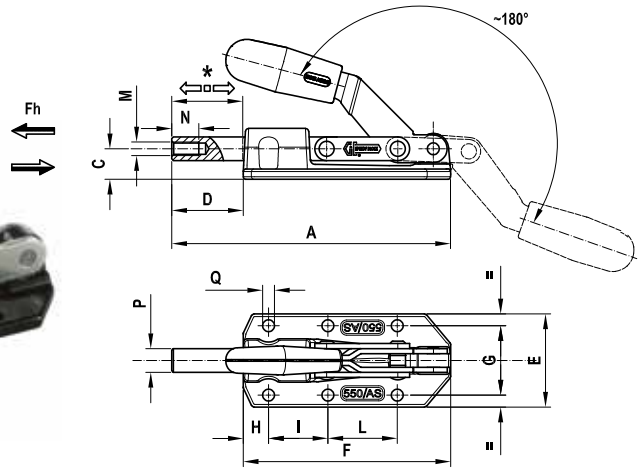
FORM AS

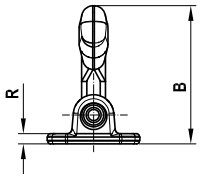


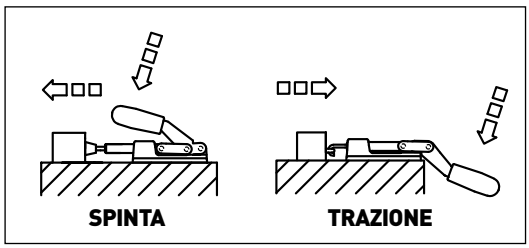
Code	Description	A	B	C	D	E	F	G	H	L	M	N	O	P	Q	R	*	Fh (daN)	gr.
AG120	120/AS	130	111	17	40	48	18	30	34	12	M6	12	10	3	5,5	32	20	360	350
AG300	300/AS	167	140	20	57	58	18	34	50	14	M8	16	12	3	6,5	36	33	720	560



FORM
AS



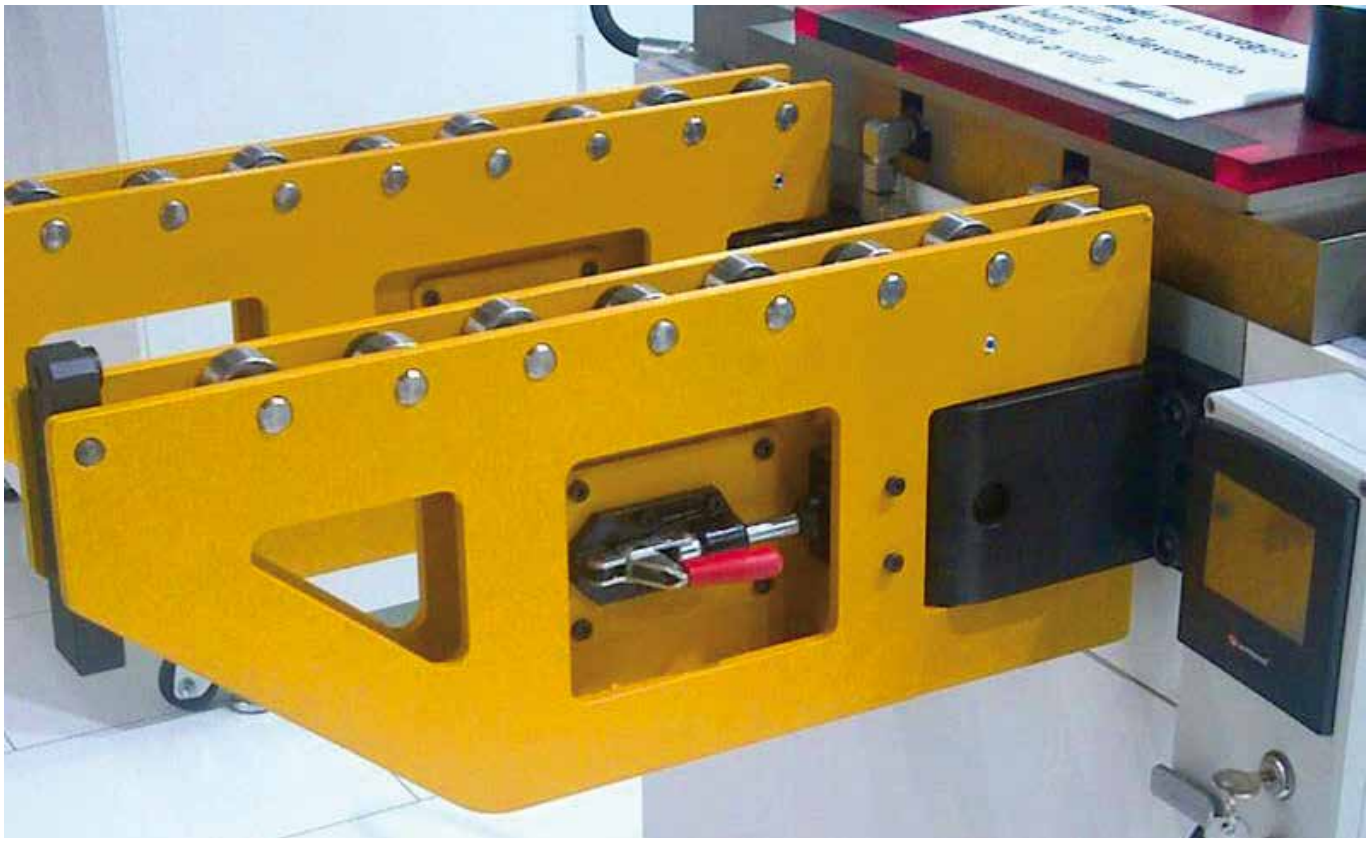




PUSH AND PULL STRAIGHT-LINE ACTION SERIES

Material: Galvanized steel
Riveted pivots, push bar and control lever: Galvanized steel
Basic clamp body: STM A105 hot forged steel and 304 stainless steel for mod. 70-160-360 / ASX
Finish: Manganese phosphating for mod. 70-160-1100 / AS. Painting for mod. 360-550-2100-3100 / AS. Polishing for mod. 70-160-360 / ASX
Handles: Red polyurethane; resistant to oils, grease and other chemical agents.
Spindles: To be ordered separately (see Accessories on page 87).
Features and applications:
The tools of this series can either be pushed or pulled.
A special grease is placed between two contacting surfaces during assembly.
This pneumatic actuated series is found on page 84-85.

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	P	Q	R	*	Fh (daN)	gr.
AG070	70/AS	**AS395**	70/ASX	86	41	12	22	36	64	26	13	26		M6	12	8,5	4,3	6	20	120	165
AG160	160/AS	**AS397**	160/ASX	116	56	15	31	46	85	33,5	11,5	36,5		M6	12	11	5,5	7	30	280	360
AG351	360/AS	**AS399**	360/ASX	122	70	25	32	45,5	90	33,5	30	36,5		M8	15	12	5,5	7	32	560	485
AG355	550/AS			164,5	75	18	42	55	122,5	41	15	35	41	M8	16	14	7	7	42	800	750
AG361	1100/AS			182	92	25	49	57	133	41	15	35	41	M10	18	16	8,5	8	50	1600	1060
AG371	2100/AS			238	118,5	35	61	70	177	50	35	50	50	M12	22	20	8,5	10	60	2500	2280
AG381	3100/AS			316	137	40	100	76	216	54	40	70	70	M14	25	22	11	10	100	4500	3350



PUSH AND PULL STRAIGHT-LINE ACTION SERIES

The sizes of this series are also produced in stainless steel and are shown below in red.

Material: Galvanized steel or AISI 304 stainless steel

Riveted pivots, push bar, bushing fixing screws and sliding bearing and ring: Galvanized steel or AISI 304 stainless steel

Sliding bushes: Galvanized steel or AISI 303 steel

Mounting bracket (to be ordered separately): Galvanized steel or AISI 304 stainless steel

Handles: Red polyurethane resistant to oils, grease and other chemical agents.

Spindles: To be ordered separately (see Accessories on page 87)

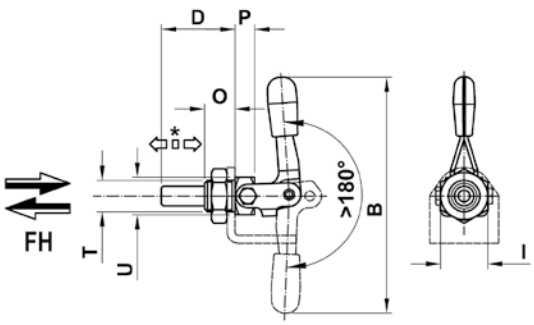
Features and applications:

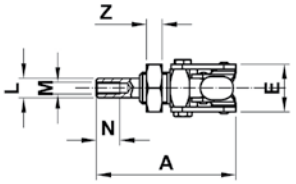
Thanks to the front thread, the tools of this series can be mounted directly on the equipment used and the control lever can be turned to the most favourable position for use.

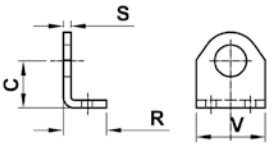
The mounting bracket (order separately) increases the possibility of use.

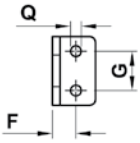
A special grease is placed between two contacting surfaces during assembly.

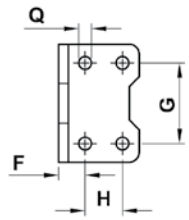
FORM AS

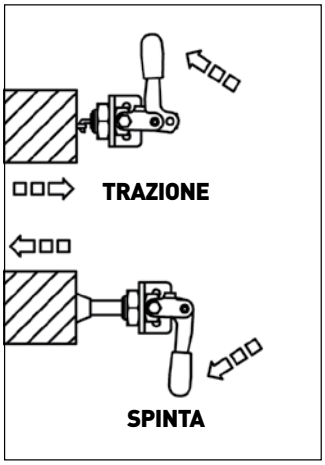












Code	Description	Stainless steel Code	Description	A	B	D	E	I	L	M	N	O	P	T	U	Z	*	Fh (daN)	gr.
AG401	80/AS	AS401	80/ASX	71	120	38	24	24	10	M6	12	15,5	10	M16X1,5	19	8	21	300	135
AG406	165/AS	AS406	165/ASX	113	194	59	28	30	12	M8	15	20	16	M20X1,5	22	9	38	540	335
AG411	340/AS	AS411	340/ASX	173	256	90	38	36	16	M10	18	22	28	M24X2	30	10	66	700	835

Code	Description	Stainless steel Code	Description	C	F	G	H	Q	R	S	V	Supporto per modello
AG416	30080	AS416	30080X	24	8	20	-	5,5	22	4	35	80/AS - 80/ASX
AG421	30165	AS421	30165X	32	13,5	41	19	6,5	41	5	60	165/AS - 165/ASX
AG426	30340	AS426	30340X	48	19	55	25	8,5	59	5	75	340/AS - 340/ASX

LATCH SERIES

The circular movement of the control lever is transformed into linear movement of the rod. This series is mostly used to fasten hinged lids and for containers. Available with forces from 160 to 1000 daN, and in the heavy-duty series from 1700 to 4000 daN. The push bars can be adjusted within the stroke (height D). The main features of the different models are:

FOR T - TF – TL – TFL - T2 MODELS: • Support base parallel to the force line of action. • In the closed position, the control lever is parallel to the support base.

FOR T3 MODELS: • Support base perpendicular to the force line of action. • In the closed position, the control lever is parallel to the support base.

FOR T4 MODELS: • Support base perpendicular to the force line of action. • In the closed position, the control lever is perpendicular to the support base.

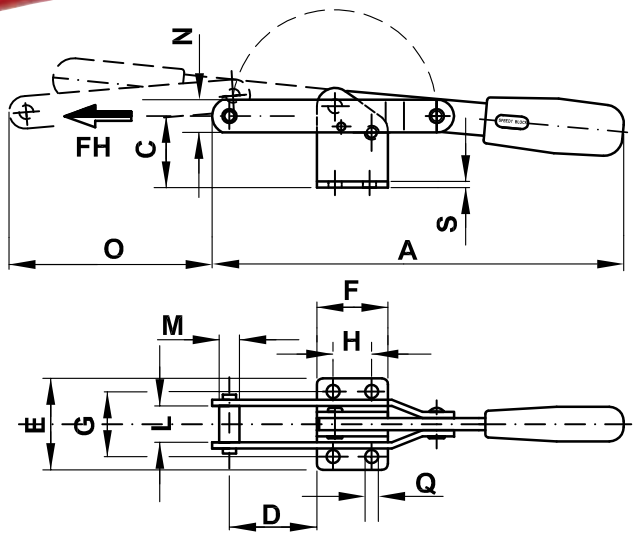
FOR T5 – T6 MODELS: • If the tool is used on machines or in applications with strong stress or vibrations, (in which an accidental and undesired opening is likely), it is necessary to ensure a secure grip by means of a latch.

FOR E MODELS: • The ET and EG models allow safe clamping in mainly static uses, while the ETL and EGL models can operate even in the presence of strong vibrations thanks to the safety lever against accidental opening.

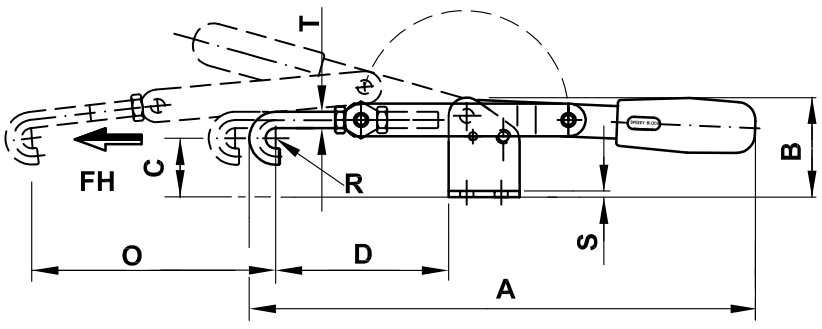
T – TF ROD SERIES (LIGHT PERFORMANCE)

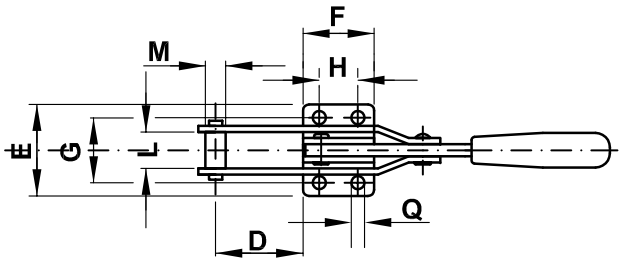
Material:
Zinc coated plates
Riveted pivots and rod:
Galvanized steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
Form T is supplied with a pivot for traction;
Form TF is supplied with a coupling hook for traction
Features and applications:
The tools of this series ensure a perfect closing of lids.
The position of the threaded rod can be adjusted within a certain range (see dimension "D") to meet the requirements of use.
A special grease is placed between two contacting surfaces during assembly.

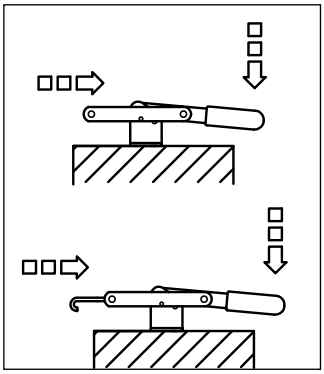
FORM T



FORM TF



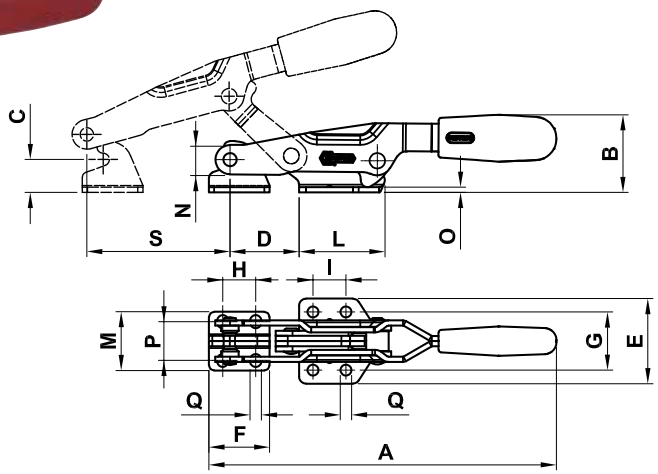




Code	Description	A	B	C	D	E	F	G	H	L	M	N	O	Q	R	S	T	Fh (daN)	gr.
AL200	200/T	203	49	36	43	45	35	32	19	18	10	16	100	6,5		3		200	300
AL205	200/TF	251	49	29	85÷105	45	35	32	19	18		16	100	6,5	5	3	M8	200	380
AL300	300/T	225	49	36	43	60	48	45	32	21	10	18	100	8,5		3		300	460
AL305	300/TF	277	49	25	90÷115	60	48	45	32	21		18	100	8,5	6	3	M10	300	560
AL400	400/T	275	60,5	43	45,5	84	54	60,5	28,5	26	14	25	160	10,5		5		400	1000
AL405	400/TF	339	60,5	30	107÷129	84	54	60,5	28,5	26		25	160	10,5	7	5	M12	400	1200

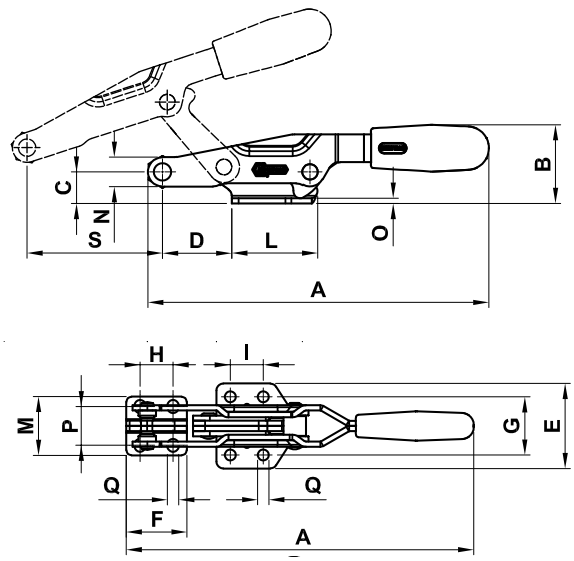
FORM T

PATENTED



FORM TF

PATENTED



T – TF ROD SERIES (LIGHT PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

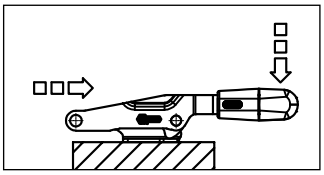
Material:
Galvanized sheet metal or **AISI 304 stainless steel**

Riveted pivots and rod:
Galvanized steel or **AISI 304 stainless steel**

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
Form T and **form TX** is supplied with a pivot for traction and a hooking bracket;
Form TF and **form TFX** it is possible to choose from three different optional rods (to be ordered separately):
Eye bolt rod "TG", T-shaped rod "TT", Hook Rod "U" (See page 49).

Features and applications:
The tools of this series ensure a perfect closing of lids.
The position of the threaded rod can be adjusted within a certain range (see drawing) to meet the requirements of use.
A special grease is placed between two contacting surfaces during assembly.



Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	S	Fh (daN)	gr.
AL410	33/T	**AS430**	33/TX	200	45	19	40	49	35	33,5	19	19	50	34	17	3	22,3	6,5	83	500	422
AL415	33/TF	**AS432**	33/TFX	197	45	19	40	49		33,5		19	50		17	3		6,5	83	500	394
AL420	43/T	**AS436**	43/TX	248	56	28	51	63	50	45	31	32	61	41	20	4	25,4	8,5	110	1000	811
AL425	43/TF	**AS438**	43/TFX	242	56	28	51	63		45		32	61		20	4		8,5	90	1000	696

TL – TFL ROD SERIES WITH SAFETY LEVER (LIGHT PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

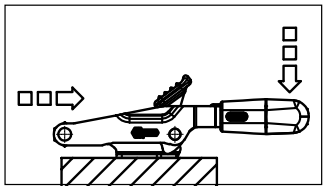
Material:
Galvanized sheet metal or **AISI 304 stainless steel**

Riveted pivots and rod:
Galvanized steel or **AISI 304 stainless steel**

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

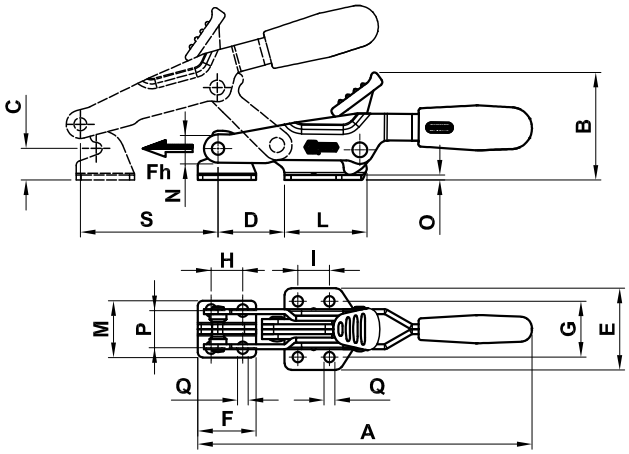
Performance:
Form TL and **form TLX** is supplied with a pivot for traction and a hooking bracket;
Form TFL and **form TFLX** it is possible to choose from three different optional rods (to be ordered separately):
Eye bolt rod "TG", T-shaped rod "TT", Hook Rod "U" (see Page 47).

Features and applications:
The tools of this series ensure a perfect closing of lids.
The position of the threaded rod can be adjusted within a certain range (see drawing) to meet the requirements of use.



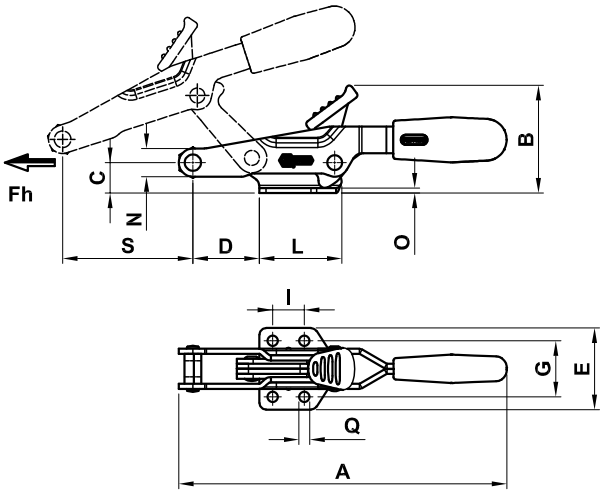
FORM TL

PATENTED

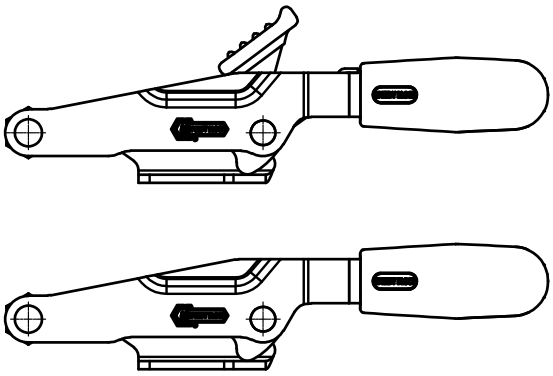


FORM TFL

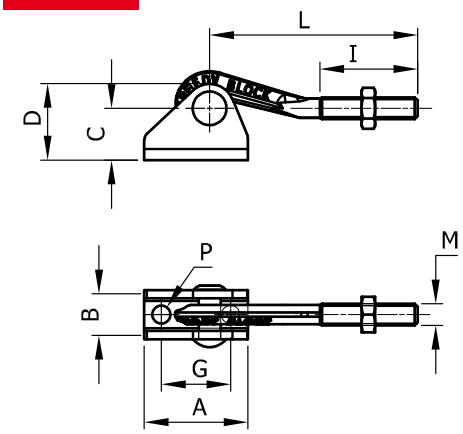
PATENTED



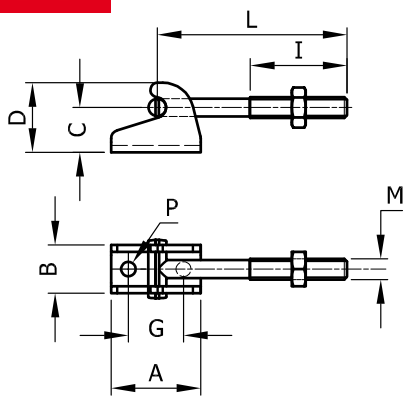
Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	S	Fh (daN)	gr.
AL430	33/TL	AS440	33/TLX	200	65	19	40	49	35	33,5	19	19	50	34	17	3	22,3	6,5	83	500	441
AL435	33/TFL	AS442	33/TFLX	197	65	19	40	49		33,5		19	50		17	3		6,5	83	500	413
AL440	43/TL	AS444	43/TLX	248	74	28	51	63	50	45	31	32	61	41	20	4	25,4	8,5	90	1000	834
AL445	43/TFL	AS446	43/TFLX	242	74	28	51	63		45		32	61		20	4		8,5	90	1000	719



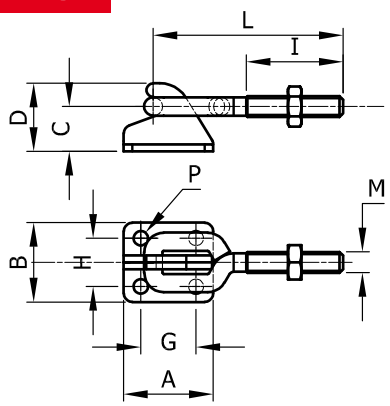
TU Hook rod



TT T-shaped rod



TG Eye bolt rod



Code	Description	Stainless steel Code	Description	A	B	C	D	G	H	I	L	M	P
AU544	33/TG	**AU556**	33/TGX	35	34	19	30	19	22,3	34	76,5	M8	6,7
AU546	43/TG	**AU558**	43/TGX	50	41	28	40,5	31	25,4	42	95,5	M10	8,5

Code	Description	Stainless steel Code	Description	A	B	C	D	G	I	L	M	P
AU548	33/TU	**AU560**	33/TUX	38	18	19	28	25,4	34	76,5	M8	6,7
AU550	43/TU	**AU562**	43/TUX	50	26	28	39	31	43	93	M10	8,5

Code	Description	Stainless steel Code	Description	A	B	C	D	G	I	L	M	P
AU552	33/TT	**AU564**	33/TTX	35	18	19	30	19	34	76,5	M8	6,7
AU554	43/TT	**AU566**	43/TTX	50	26	28	40,5	31	43	93	M10	8,5

DOUBLE ROD SERIES (LIGHT PERFORMANCE).

The sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or
AISI 304 stainless steel

Riveted pivots and rod:
Galvanized steel or **AISI 304 stainless steel**

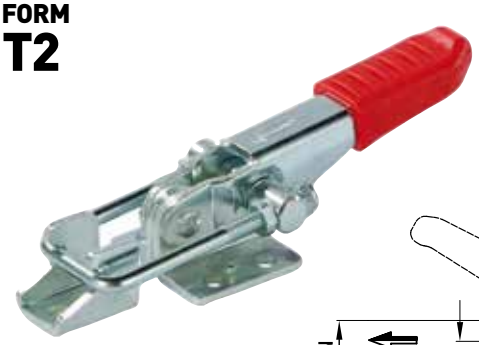
Swinging pivot:
Galvanized steel or **AISI 303 stainless steel**

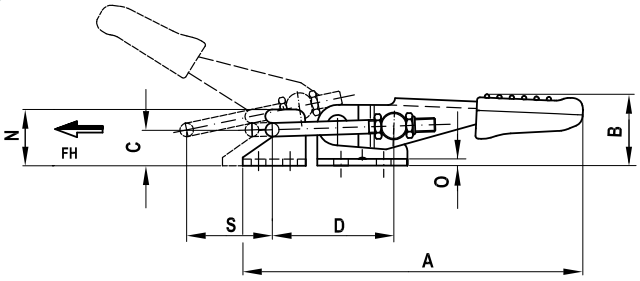
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

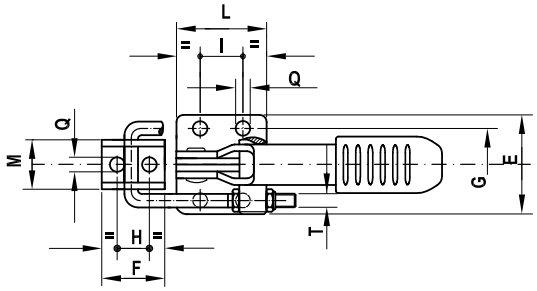
Performance:
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T2 or T2X = Tool with Standard Double Threaded Rod and hooking bracket
T20 or T20X = Tool without double Threaded rod, which is to be ordered separately (see page 57)

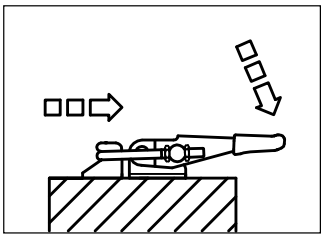
Features and applications:
The tools of this series ensure a perfect closing of lids.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is parallel to the support base.
A special grease is placed between two contacting surfaces during assembly.

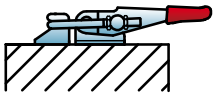
FORM
T2



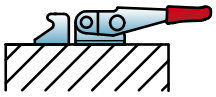








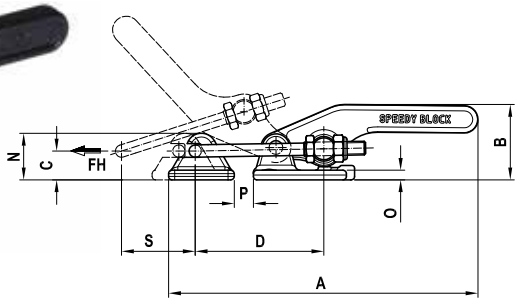
T2-T2X

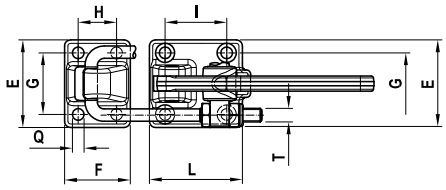


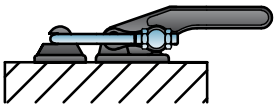
T20-T20X

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	S	T	Fh (daN)	gr.
AL500	160/T2	**AS500**	160/T2X	98	25	12	35÷44	28	20	19	10	16	26	14	18	2	4,3	25	M4	160	85
AL505	320/T2	**AS505**	320/T2X	152	30	16	54÷63	44	28	32	14,3	19	40	22	25	3	6,5	48	M6	320	250
AL510	700/T2	**AS510**	700/T2X	220	42	24	70÷90	54	38	38	19	41,5	60	26	36	3,5	8,5	58	M8	750	600

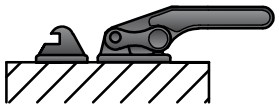
FORM T2



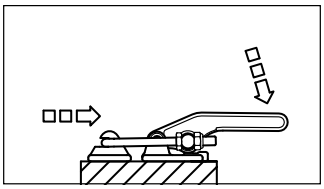




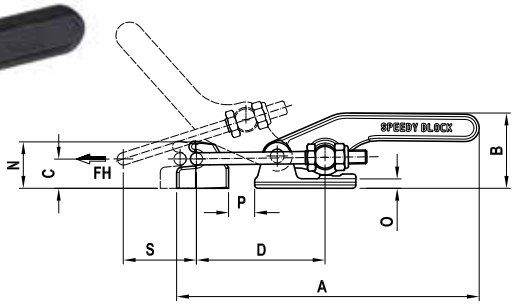
T2-T2X

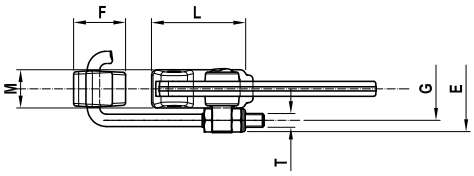


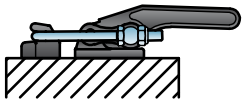
T20-T20X



FORM T2S

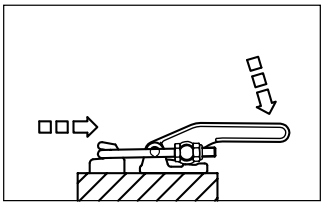






T2S-T2SX

T2S0-T2S0X



DOUBLE AND WELDABLE DOUBLE ROD SERIES (HEAVY PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Hot-stamped, weldable, black varnished steel or **hot-stamped AISI 304 stainless steel**.

Pivot:
Hardened, ground and knurled steel to prevent rotation.
Bar, swinging pivot and nuts: Galvanized steel or **AISI 303 stainless steel**

Performance:
Form T2 Hot-stamped black varnished steel or **hot-stamped AISI 304 stainless steel**
Form T2S Hot-stamped and phosphated stainless steel or **hot-stamped AISI 304 stainless steel**
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T2-T2S or T2X-T2SX -= Tool with Standard Double Threaded Rod and hooking bracket
T20-T2S0 or T20X-T2S0X -= Tool without double Threaded rod, which is to be ordered separately
(see page 57)

Features and applications:
The tools of this series ensure a good closure of lids. The construction features and the materials chosen give these tools high resistance qualities.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is parallel to the support base.
A special grease is placed between two contacting surfaces during assembly.

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	N	O	P	Q	S	T	Fh (daN)	FhX (daN)	gr.
AL518	1700/T2	AS518	1700/T2X	226	55	21	94-106	64	48	45	28	45	68	34	7	14	8,5	54-58	M10	1700	1400	1085
AL522	4000/T2	AS522	4000/T2X	282	68	27	112-124	80	60	57	35	57	85	42	9	14	10,5	62-65	M12	4000	3000	2070

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	L	M	N	O	P	S	T	Fh (daN)	FhX (daN)	gr.
AL520	1700/T2S	AS520	1700/T2SX	221	55	21	94-106	64	38	46	68	26,5	34,5	7	19	54-58	M10	1700	1400	1085
AL524	4000/T2S	AS524	4000/T2SX	277	68	27	102-124	80	50	55	85	32	43	9	19	62-65	M12	4000	3000	2070

DOUBLE ROD WITH SAFETY LEVER SERIES (LIGHT PERFORMANCE)

The sizes of this series are also produced in **Stainless Steel 316** and are shown below in red.

Material:
Galvanized steel or **AISI 316 stainless steel**

Rivets and rods:
Galvanized steel or **AISI 316 stainless steel**

Swinging pivot:
Galvanized steel or **AISI 316 stainless steel**

Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

Performance:
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.

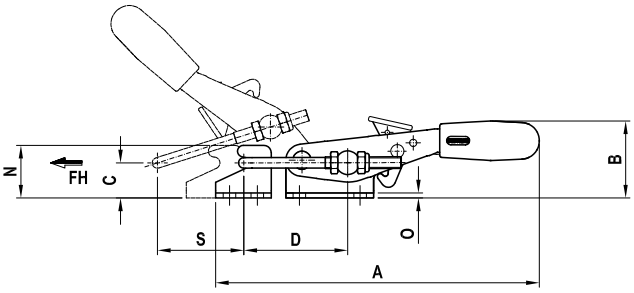
T6 or T16 = Tool with Standard Double Threaded Rod and hooking bracket

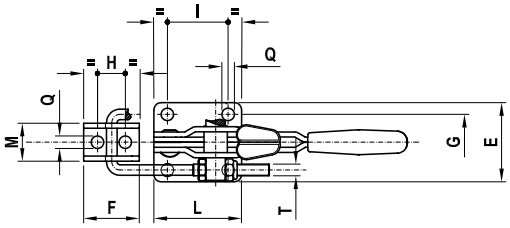
T60 or T160X = Tool without double Threaded rod, which is to be ordered separately (see page 57)

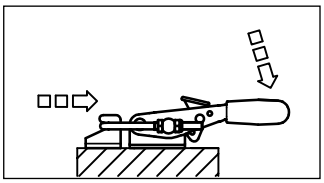
Features and applications:
The main feature of this series is the special safety lever with the purpose of preventing any accidental openings caused by vibrations. The tools of this series ensure a perfect closing of lids. The support base is perpendicular to the force line of action. In the closed position, the control lever is parallel to the support base. A special grease is placed between two contacting surfaces during assembly.

FORM
T6

PATENTED







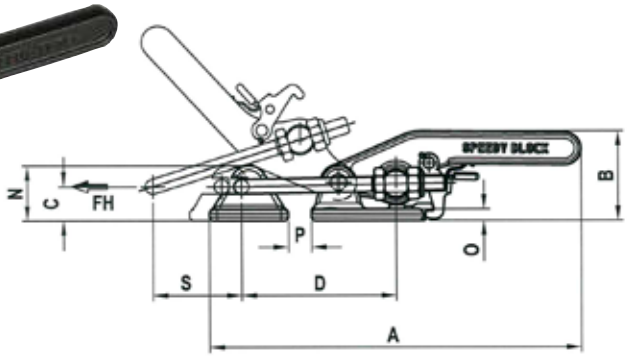
T6-T16

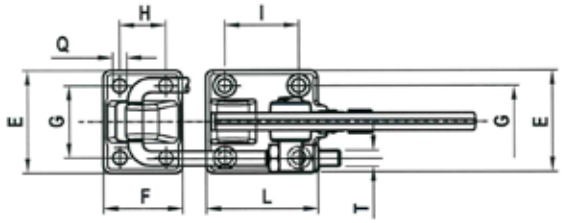
T60-T160

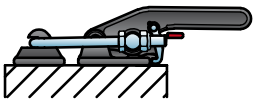
Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	S	T	Fh (daN)	gr.	gr. inox
AL780	160/T6	**AS600**	160/T16	101	31	12	35÷44	28	20	19	10	16	26	14	18	2	4,3	18÷24	M4	160	92	95
AL785	320/T6	**AS605**	320/T16	169	45	16	54÷63	44	28	32	14,3	19	40	22	25	3	6,5	26÷34	M6	320	307	331
AL790	700/T6	**AS610**	700/T16	221	56	24	70÷90	54	38	38	19	41,5	60	26	36	3,5	8,5	40÷50	M8	750	627	644

FORM T6

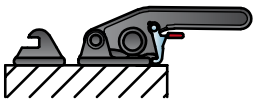
PATENTED





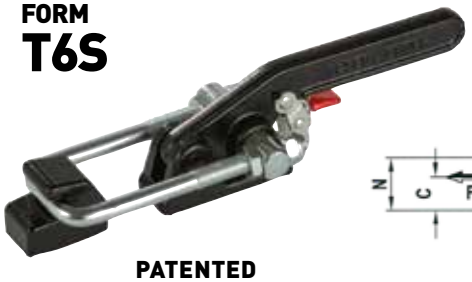


T6-T6X



T60-T60X

FORM T6S



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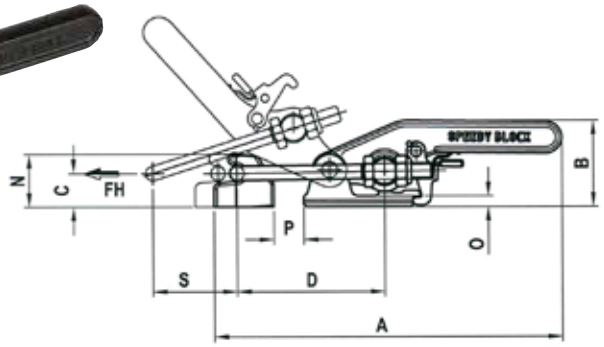
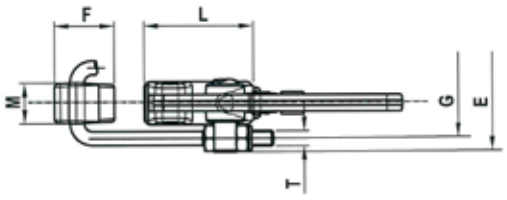
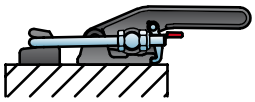
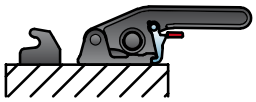


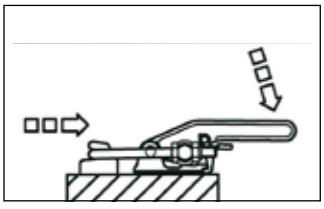




T6S-T6SX



T6S0-T6S0X



DOUBLE AND WELDABLE DOUBLE ROD WITH SAFETY LEVER SERIES (HEAVY PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Hot stamped, weldable, black varnished steel or hot stamped **AISI 304** stainless steel.

Pivot:
Hardened, ground and knurled steel to prevent rotation.

Bar, swinging pivot and nuts:
Galvanized steel or **AISI 303 stainless steel**

Performance:
Form T6 hot stamped, black varnished steel or hot stamped **AISI 304** stainless steel.
Form T6S hot stamped, and phosphated steel or hot stamped **AISI 304** stainless steel.
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T6-T6S or T6X-T6SX = Tool with Standard Double Threaded Rod and hooking bracket
T60-T6S0 or T60X-T6S0X = Tool without double Threaded rod, which is to be ordered separately (see page 57).

Features and applications:
The tools of this series ensure a perfect closing of lids.
The construction features and materials chosen make these tools highly resistant.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is parallel to the support base.
A special grease is placed between two contacting surfaces during assembly.

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	N	O	P	Q	S	T	Fh (daN)	FhX (daN)	gr.
AL795	1700/T6	AS615	1700/T6X	226	55	21	94÷106	64	48	45	28	45	68	34	7	14	8,5	54÷58	M10	1700	1400	1110
AL800	4000/T6	AS620	4000/T6X	282	68	27	112÷124	80	60	57	35	57	85	42	9	14	10,5	62÷65	M12	4000	3000	2100

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	L	M	N	O	P	S	T	Fh (daN)	FhX (daN)	gr.
AL805	1700/T6S	AS625	1700/T6SX	221	55	21	94÷106	64	38	46	68	26,5	34,5	7	19	54÷58	M10	1700	1400	1110
AL810	4000/T6S	AS630	4000/T6SX	277	68	27	112÷124	80	50	55	85	32	43	9	19	62÷65	M12	4000	3000	2100

DOUBLE ROD SERIES (LIGHT PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Galvanized steel or **AISI 304 stainless steel**
Riveted pivots and rod: Galvanized steel or **AISI 304 stainless steel**

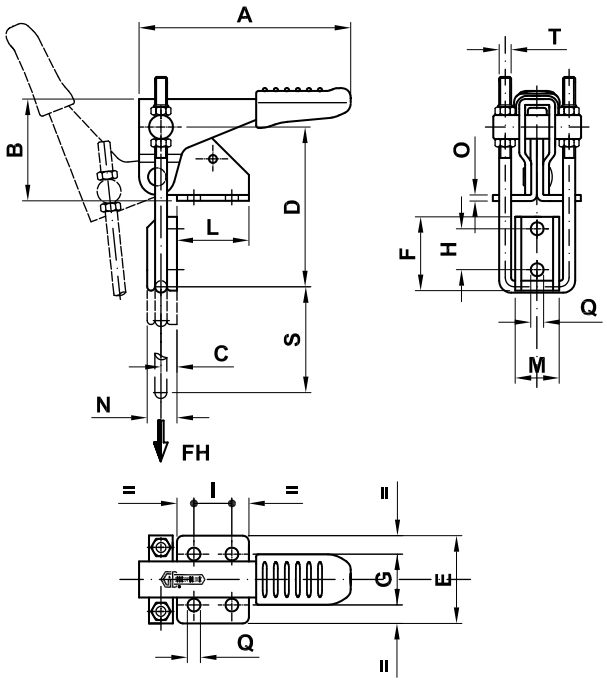
Swinging pivot:
Galvanized steel or **AISI 303 stainless steel**

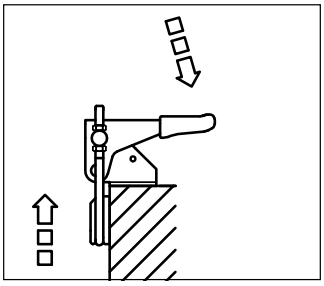
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

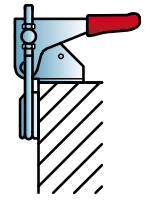
Performance:
the tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57. Therefore, when ordering, indicate: **T3 or T3X =** Tool with Standard Double Threaded Rod and hooking bracket
T30 or T30X = Tool without double Threaded rod, which is to be ordered separately (see page 57)

Features and applications:
The tools of this series ensure a perfect closing of lids. The support base is perpendicular to the force line of action. In the closed position, the control lever is parallel to the support base. A special grease is placed between two contacting surfaces during assembly.

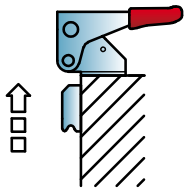
FORM
T3







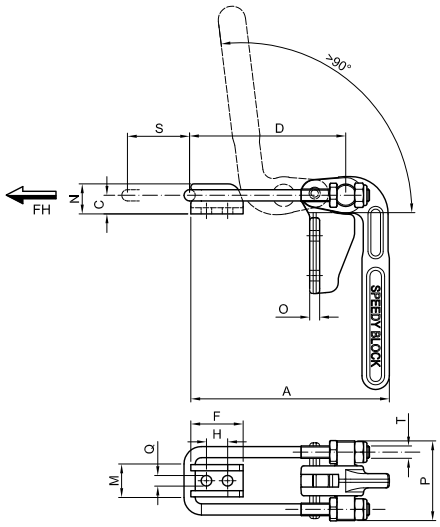
T3-T3X

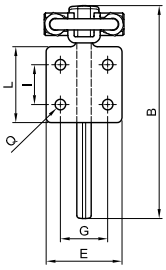


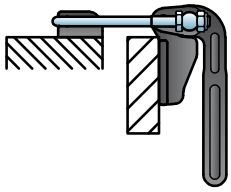
T30-T30X

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	S	T	Fh (daN)	gr.
AL530	160/T3	**AS530**	160/T3X	68	37	5	49,5÷58	35	25,5	22	14,3	13	26	14	10	2	4,3	22÷29	M4	160	100
AL535	320/T3	**AS535**	320/T3X	106	53	8	75÷95	44	37	25,5	20,5	19	36	22	15	3	6,5	39÷49	M6	320	320
AL540	700/T3	**AS540**	700/T3X	147	66	13	98÷122	54	48,5	36,5	27	32	52	26	23	3,5	8,5	50÷62	M8	750	680

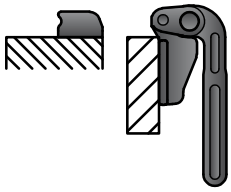
FORM T3





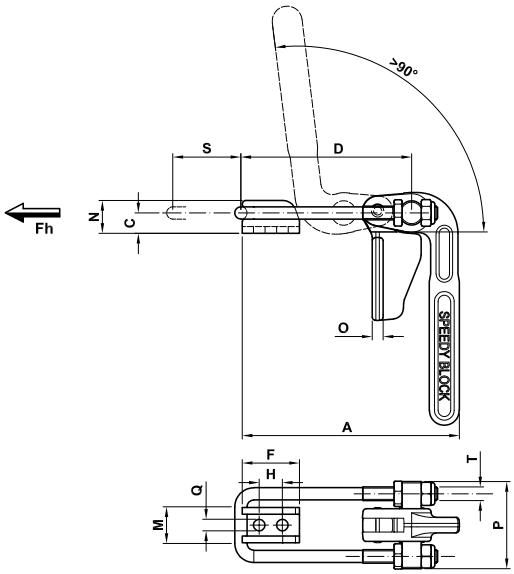


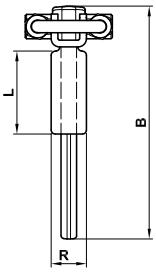
T3

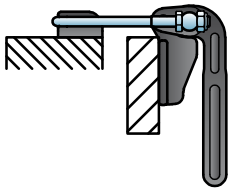


T30

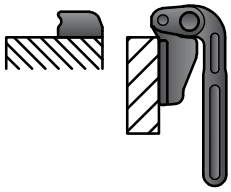
FORM T3S







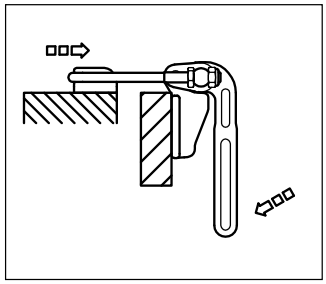
T3S



T3S0

DOUBLE AND WELDABLE DOUBLE ROD SERIES (HEAVY PERFORMANCE)

Material:
Hot-stamped, weldable, black varnished steel.
Pivot: Hardened, ground and knurled steel to prevent rotation.
Bar, swinging pivot and nuts:
Galvanized steel.
Performance:
Form T3 Hot-stamped, black varnished steel.
Form T3S Hot-stamped and phosphated steel
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T3-T3S = Tool with Standard Double Threaded Rod and hooking bracket
T30-T3S0 = Tool without double Threaded rod, **which is to be ordered separately** (see page 57)
Features and applications:
The tools of this series ensure a perfect closing of lids. The construction features and materials chosen make these tools highly resistant. The support base is perpendicular to the force line of action. In the closed position, the control lever is parallel to the support base.



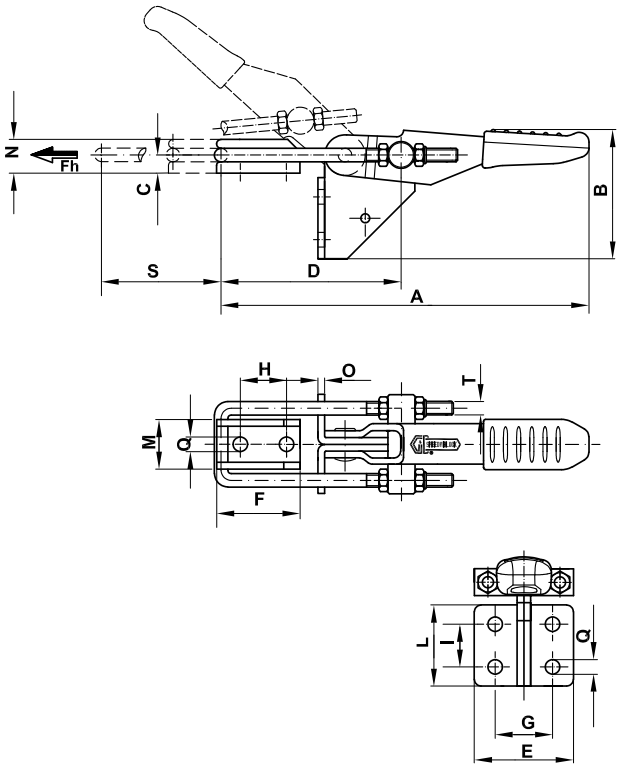
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	S	T	Fh (daN)	gr.
AL550	1400/T3	159,5	171	15	104,5÷125,5	61	42	38	17	32	61	26	24	8	64	8,5	50	M10	1200	1235

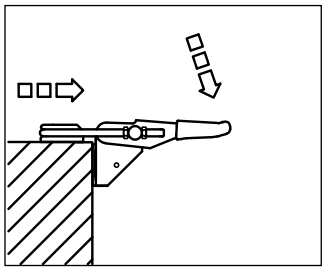
Code	Description	A	B	C	D	F	H	L	M	N	O	P	Q	R	S	T	Fh (daN)	gr.
AL552	1400/T3S	159,5	171	15	104,5÷125,5	42	17	61	26	24	8	64	8,5	26	50	M10	1200	1115

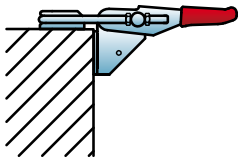
DOUBLE ROD SERIES (LIGHT PERFORMANCE)

Material:
Galvanized steel
Riveted pivots and rod:
Galvanized steel
Swinging pivot:
Galvanized steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
The tool comes with a double bar with hooking bracket and nuts.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T4 = Tool with Standard Double Threaded Rod and hooking bracket
T40 = Tool without double Threaded rod, **which is to be ordered separately** (see page 57)
Features and applications:
The tools of this series ensure a perfect closing of lids.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is perpendicular to the support base.
A special grease is placed between two contacting surfaces during assembly.

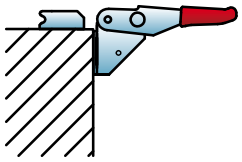
FORM
T4





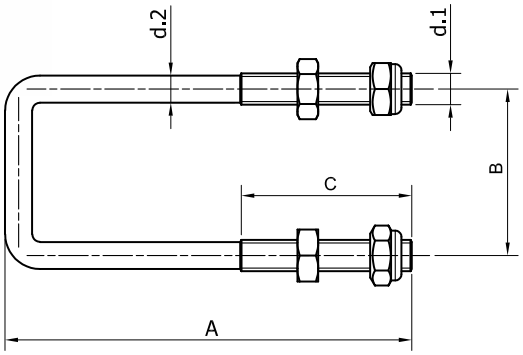


T4



T40

Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	S	T	Fh (daN)	gr.
AL560	160/T4	104	40	5	49÷58	35	25,5	22	14,3	13	26	14	10	2	4,3	23,5÷27,5	M4	160	95
AL565	320/T4	160	57,5	8	75÷95	44	37	25,5	20,5	19	36	22	15	3	6,5	40÷46	M6	320	295
AL570	700/T4	233	82	13	98÷122	54	48,5	36,5	27	32	52	26	23	3,5	8,5	50÷58	M8	750	655



U-SHAPED ACCESSORY FOR LATCH SERIES

Material:
Galvanized steel or **AISI 304 stainless steel** or **AISI 316 stainless steel**
Performance:
The rod comes complete with 4 nuts.

Code	Description	Stainless steel 304 Code	Description	Stainless steel 316 Code	Description	A	B	C	D.1	D.2
AX556	160/T2-T6	**AX570**	160/T2X	**AX604**	160/T16	56,4	21	27,5	M4	3,4
AX557	160/T3-T4	**AX574**	160/T3X			70,4	21	28,5	M4	3,4
AX556-103	160/T20-T30-T40-T60	**AX570-103**	160/T20X-T30X	**AX604-103**	160/T160	103,4	21	30	M4	3,4
AX556-153	160/T20-T30-T40-T60	**AX570-153**	160/T20X-T30X	**AX604-153**	160/T160	153,4	21	35	M4	3,4
AX556-203	160/T20-T30-T40-T60	**AX570-203**	160/T20X-T30X	**AX604-203**	160/T160	203,4	21	35	M4	3,4
AX558	320/T2-T6	**AX572**	320/T2X	**AX606**	320/T16	78,2	32	44	M6	5,2
AX559	320/T3-T4	**AX576**	320/T3X			110,2	32	44	M6	5,2
AX558-130	320/T20-T30-T40-T60	**AX572-130**	320/T20X-T30X	**AX606-130**	320/T160	130,2	32	45	M6	5,2
AX558-155	320/T20-T30-T40-T60	**AX572-155**	320/T20X-T30X	**AX606-155**	320/T160	155,2	32	45	M6	5,2
AX558-205	320/T20-T30-T40-T60	**AX572-205**	320/T20X-T30X	**AX606-205**	320/T160	205,2	32	45	M6	5,2
AX560	700/T2-T6	**AX573**	700/T2X	**AX608**	700/T16	111,2	38	52	M8	7,2
AX563	700/T3-T4	**AX577**	700/T3X			143,2	38	56	M8	7,2
AX560-127	700/T20-T30-T40-T60	**AX573-127**	700/T20X-T30X	**AX608-127**	700/T160	127,2	38	60	M8	7,2
AX560-157	700/T20-T30-T40-T60	**AX573-157**	700/T20X-T30X	**AX608-157**	700/T160	157,2	38	60	M8	7,2
AX560-207	700/T20-T30-T40-T60	**AX573-207**	700/T20X-T30X	**AX608-207**	700/T160	207,2	38	60	M8	7,2

Code	Description	Stainless steel 304 Code	Description	A	B	C	D.1	D.2
AX561	1700/T2-T2S-T6-T6S	**AX578**	1700/T2X-T2SX-T6-T6SX	129	46	45	M10	9
AX564	1400/T3-T3S			149	46	55	M10	9
AX561-179	1400/T30-T3S0 1700/T20-T2S0-T60-T6S0	**AX578-179**	1700/T20X-T2S0X-T60X-T6S0X	179	46	45	M10	9
AX561-209	1400/T30-T3S0 1700/T20-T2S0-T60-T6S0	**AX578-209**	1700/T20X-T2S0X-T60X-T6S0X	209	46	45	M10	9
AX561-259	1400/T30-T3S0 1700/T20-T2S0-T60-T6S0	**AX578-259**	1700/T20X-T2S0X-T60X-T6S0X	259	46	45	M10	9
AX565	1500-1510/T2S			179	52	70	M10	8,9
AX562	4000/T2-T2S-T6-T6S	**AX580**	4000/T2X	150,8	55	70	M12	10,8
AX562-211	4000/T20-T2S0-T60-T6S0	**AX580-211**	4000/T20X-T2S0X-T60X-T6S0X	210,8	55	70	M12	10,8
AX562-361	4000/T20-T2S0-T60-T6S0	**AX580-361**	4000/T20X-T2S0X-T60X-T6S0X	360,8	55	70	M12	10,8
AX562-421	4000/T20-T2S0-T60-T6S0	**AX580-421**	4000/T20X-T2S0X-T60X-T6S0X	420,8	55	70	M12	10,8

T5 ROD SERIES WITH SAFETY LEVER (LIGHT PERFORMANCE)

The sizes of this series are also produced in stainless steel and are shown below in red.

Material:
Parts made of phosphated sheet metal and riveted pivots made of galvanized steel or **AISI 304 stainless steel**.
Turned parts made of galvanized steel or **AISI 303 stainless steel**.

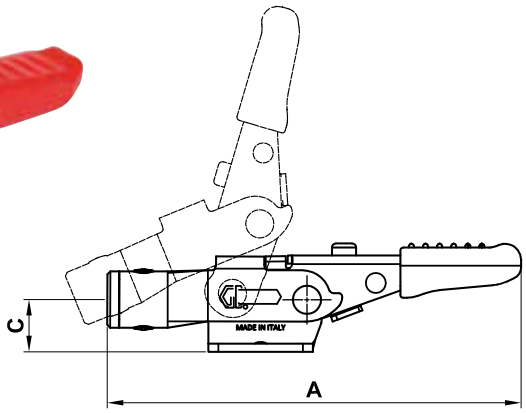
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.

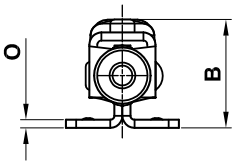
Rod:
Phosphated steel or **AISI 304 stainless steel** to be ordered separately.

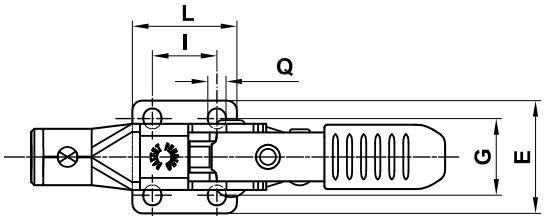
Features and applications:
The tool can be opened with only one hand, disengage the working surface (the clamping lever opens by itself) and close it again for the next operation; you can choose from three different optional tie rods (to be ordered separately):
Eye bolt rod "TG", T-shaped rod "TT", Hook Rod "TU".
The construction features and materials chosen make these tools highly resistant.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is parallel to the support base.
A special grease is placed between two contacting surfaces during assembly.

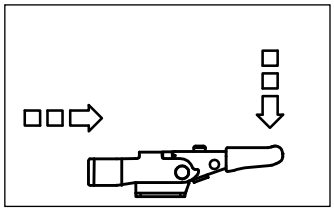
FORM
T5

PATENTED



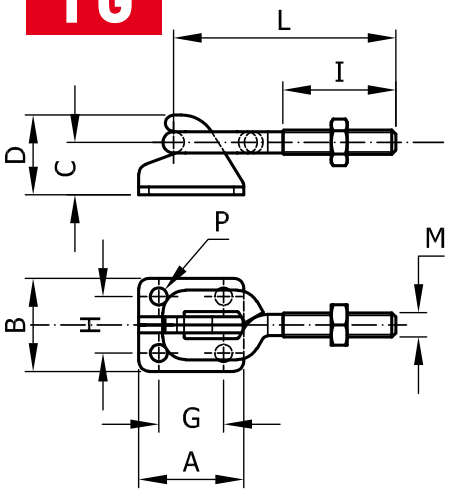




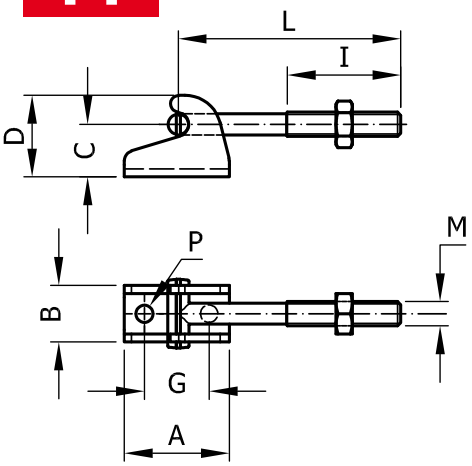


Code	Description	Stainless steel Code	Description	A	B	C	E	G	I	L	O	Q	Fh (daN)	gr.
AL575	160/T5	**AS545**	160/T5X	103	26,8	13	28	19	16	26	2	4,5	175	100
AL580	320/T5	**AS550**	320/T5X	153	38,5	19	44	32	19	40	3	6,7	400	295
AL585	700/T5	**AS555**	700/T5X	222	53	28	54	38,1	41,5	60	3,5	8,5	750	690

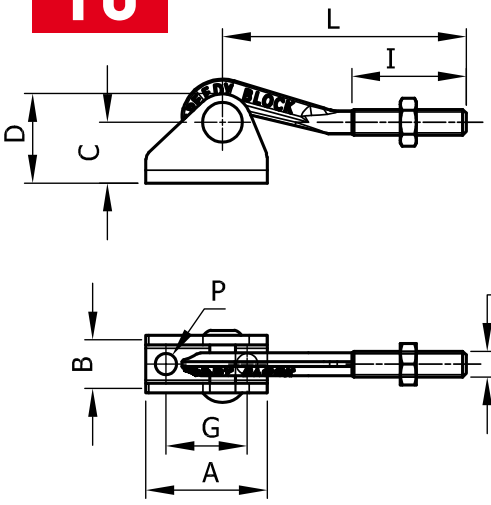
TG Eye bolt rod

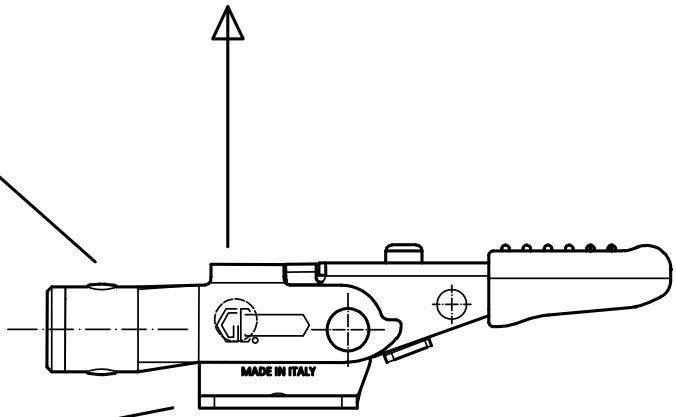


TT T-shaped rod



TU Hook rod





Code	Description	Stainless steel Code	Description	A	B	C	D	G	H	I	L	M	P
AU400	160/TG	AU420	160/TGX	26	23	13	19,8	16	14,30	28	55,5	M6	4,5
AU406	320/TG	AU556	320/TGX	35	34	19	30	19	22,30	34	76,5	M8	6,7
AU412	700/TG	AU432	700/TGX	50	41	28	40,5	31	25,40	42	95,5	M10	8,5

Code	Description	Stainless steel Code	Description	A	B	C	D	G	I	L	M	P
AU402	160/TU	AU422	160/TUX	35	14	13	20,4	25,4	28	54,5	M6	4,5
AU408	320/TU	AU428	320/TUX	38	18	19	28	25,4	34	76,5	M8	6,7
AU414	700/TU	AU434	700/TUX	50	26	28	39	31	43	93	M10	8,5

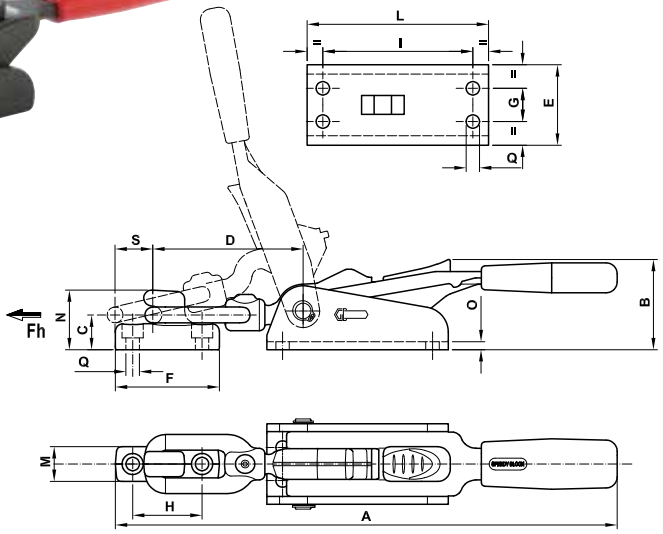
Code	Description	Stainless steel Code	Description	A	B	C	D	G	I	L	M	P
AU404	160/TT	AU424	160/TTX	26	14	13	20	16	28	55	M6	4,5
AU410	320/TT	AU430	320/TTX	35	18	19	30	19	34	76,5	M8	6,7
AU416	700/TT	AU436	700/TTX	50	26	28	40,5	31	43	93	M10	8,5

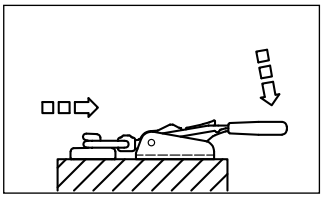
T5 ROD SERIES WITH SAFETY LEVER (HEAVY PERFORMANCE)

Material:
Parts made of sheet metal and phosphated riveted pivots
Turned parts made of phosphated steel
Handles:
Red polyurethane resistant to oils, grease and other chemical agents.
Performance:
The tool comes with an eye bolt bar and hooking bracket.
Features and applications:
The tool can be opened with only one hand, disengage the working surface (the clamping lever opens by itself) and close it again for the next operation.
The construction features and materials chosen make these tools highly resistant.
The support base is perpendicular to the force line of action.
In the closed position, the control lever is parallel to the support base.
A special grease is placed between two contacting surfaces during assembly.

FORM
T5

PATENTED



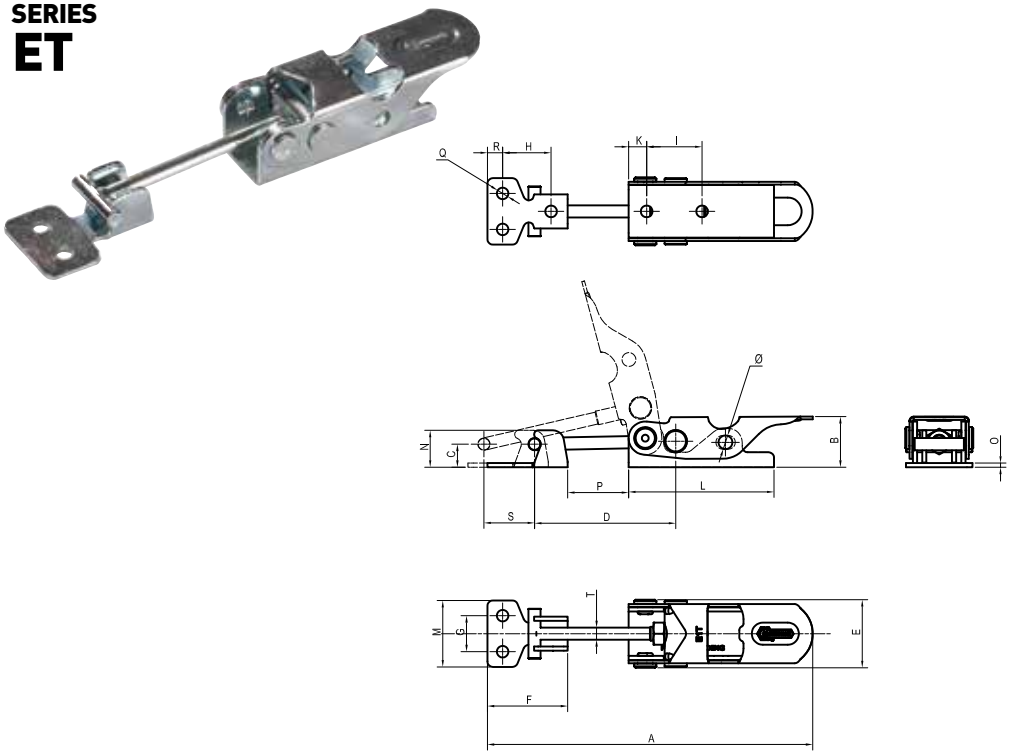


Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	S	Fh (daN)	gr.
AL590	1400/T5	318	57	22	95-105	51	66	21	44	95	115	22	38	5	8,5	25	1500	1600

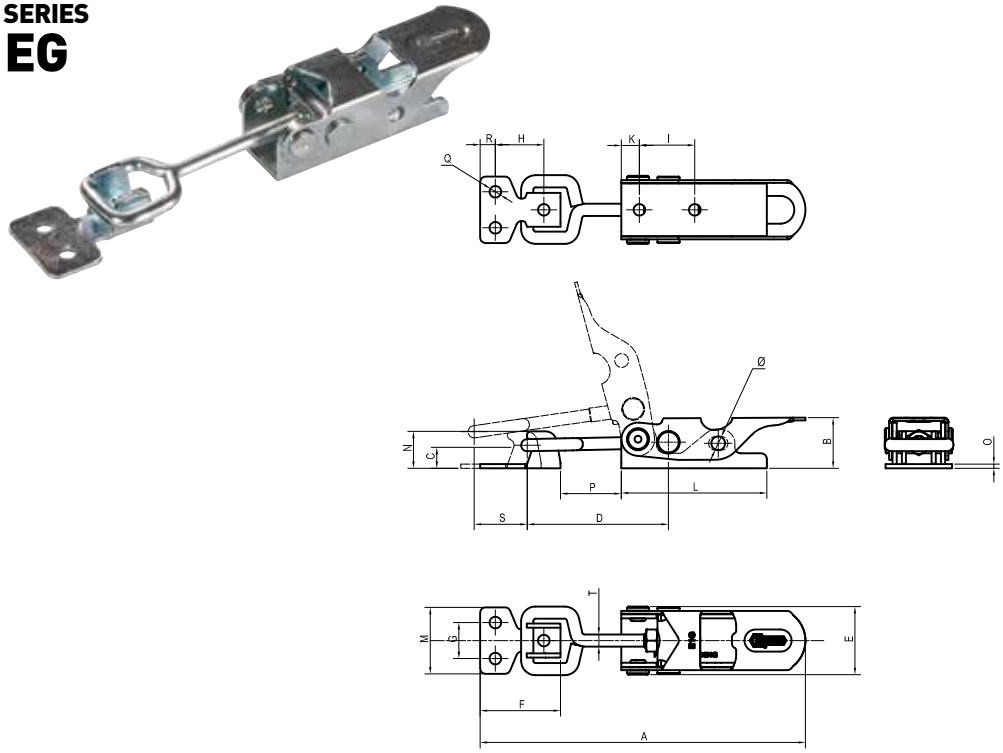
ET-EG ROD SERIES (LIGHT PERFORMANCE)

Material:
Galvanized steel or **AISI 304 stainless Steel**
Swivel Pivot:
Galvanized steel or **AISI 303 stainless Steel**
Riveted Pivots and rod:
Galvanized steel or **AISI 304 stainless Steel**
Performance:
Form ET is supplied with a T-shaped rod and a hooking bracket.
Form EG is supplied with a eye-bolt rod and a hooking bracket.

SERIES ET



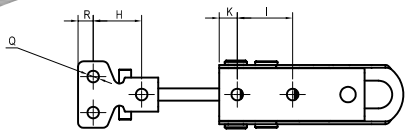
SERIES EG

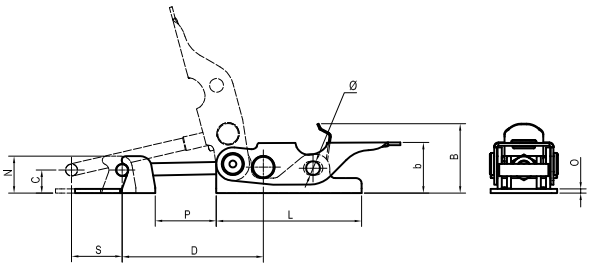


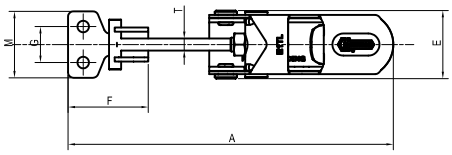
Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	Diam.	Fh (daN)	gr.
AE1020	E1T	**ES1020**	E1TX	117,5	18	8,3	51÷58	25	29	13	17,5	20	6,5	52,5	24	13,3	1,5	22÷29	4,2	5,5	11	M5	5	100	61
AE2020	E2T	**ES2020**	E2TX	155,5	25	10	64÷75	31	42	15	24	24,5	8	65	32	16,4	2	28÷39	5,2	10	13	M6	6	200	135
AE3020	E3T	**ES3020**	E3TX	189,5	32	12,7	79,5÷92	36	52	20	29,5	30	11	81,5	38	20,7	2,5	33÷45,5	6,5	12,5	16	M8	8	300	256

Code	Description	Stainless steel Code	Description	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	Diam.	Fh (daN)	gr.
AE1010	E1G	**ES1010**	E1GX	117,5	18	8,3	51÷58	25	29	13	17,5	20	6,5	52,5	24	13,3	1,5	22÷29	4,2	5,5	12	M5	5	100	63
AE2010	E2G	**ES2010**	E2GX	155,5	25	10	64÷75	31	42	15	24	24,5	8	65	32	16,4	2	28÷39	5,2	10	14	M6	6	200	142
AE3010	E3G	**ES3010**	E3GX	189,5	32	12,7	79,5÷92	36	52	20	29,5	30	11	81,5	38	20,7	2,5	33÷45,5	6,5	12,5	18	M8	8	300	270

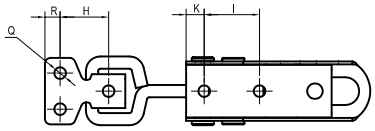
SERIES ETL

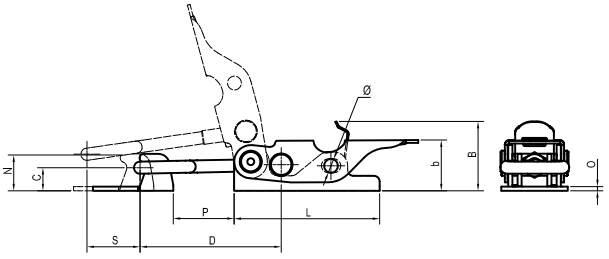


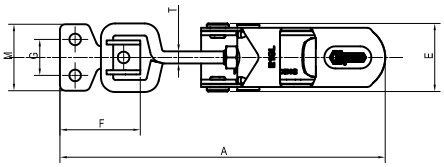




SERIES EGL







ETL-EGL ROD SERIES (LIGHT PERFORMANCE)

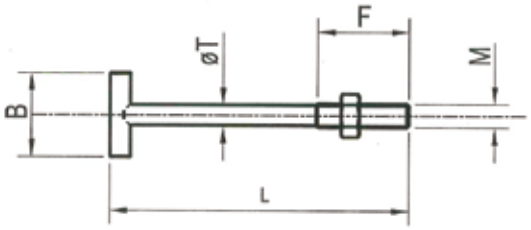
The sizes of this series are also produced in stainless steel and are shown below in red.
The main feature of this series is the special safety lever with the purpose of preventing any accidental openings caused by vibrations.

Material:
Galvanized steel or **AISI 304 stainless Steel**
Swivel Pivot:
Galvanized steel or **AISI 303 stainless Steel**
Riveted Pivots and rod:
Galvanized steel or **AISI 304 stainless Steel**
Performance:
Form ETL is supplied with a T-shaped rod and a hooking bracket.
Form EGL is supplied with a eye-bolt rod and a hooking bracket

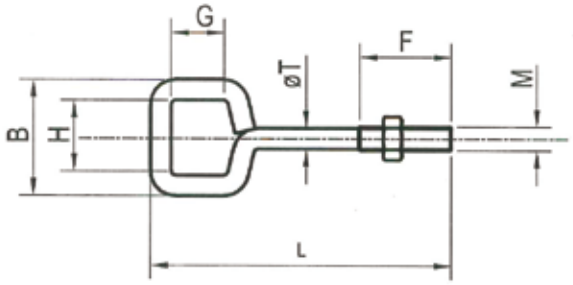
Code	Description	Stainless steel Code	Description	A	b	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	Diam.	Fh (daN)	gr.
AE1120	E1TL	**ES1120**	E1TLX	117,5	18	25	8,3	51÷58	25	29	13	17,5	20	6,5	52,5	24	13,3	1,5	22÷29	4,2	5,5	11	M5	5	100	62
AE2120	E2TL	**ES2120**	E2TLX	155,5	25	33	10	64÷75	31	42	15	24	24,5	8	65	32	16,4	2	28÷39	5,2	10	13	M6	6	200	136
AE3120	E3TL	**ES3120**	E3TLX	189,5	32	41,5	12,7	79,5÷92	36	52	20	29,5	30	11	81,5	38	20,7	2,5	33÷45,5	6,5	12,5	16	M8	8	300	258

Code	Description	Stainless steel Code	Description	A	b	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	Diam.	Fh (daN)	gr.
AE1110	E1GL	**ES1110**	E1GLX	117,5	18	25	8,3	51-58	25	29	13	17,5	20	6,5	52,5	24	13,3	1,5	22-29	4,2	5,5	12	M5	5	100	65
AE2110	E2GL	**ES2110**	E2GLX	155,5	25	33	10	64-75	31	42	15	24	24,5	8	65	32	16,4	2	28-39	5,2	10	14	M6	6	200	143
AE3110	E3GL	**ES3110**	E3GLX	189,5	32	41,5	12,7	79,5-92	36	52	20	29,5	30	11	81,5	38	20,7	2,5	33-45,5	6,5	12,5	18	M8	8	300	273

ET T-shaped rod

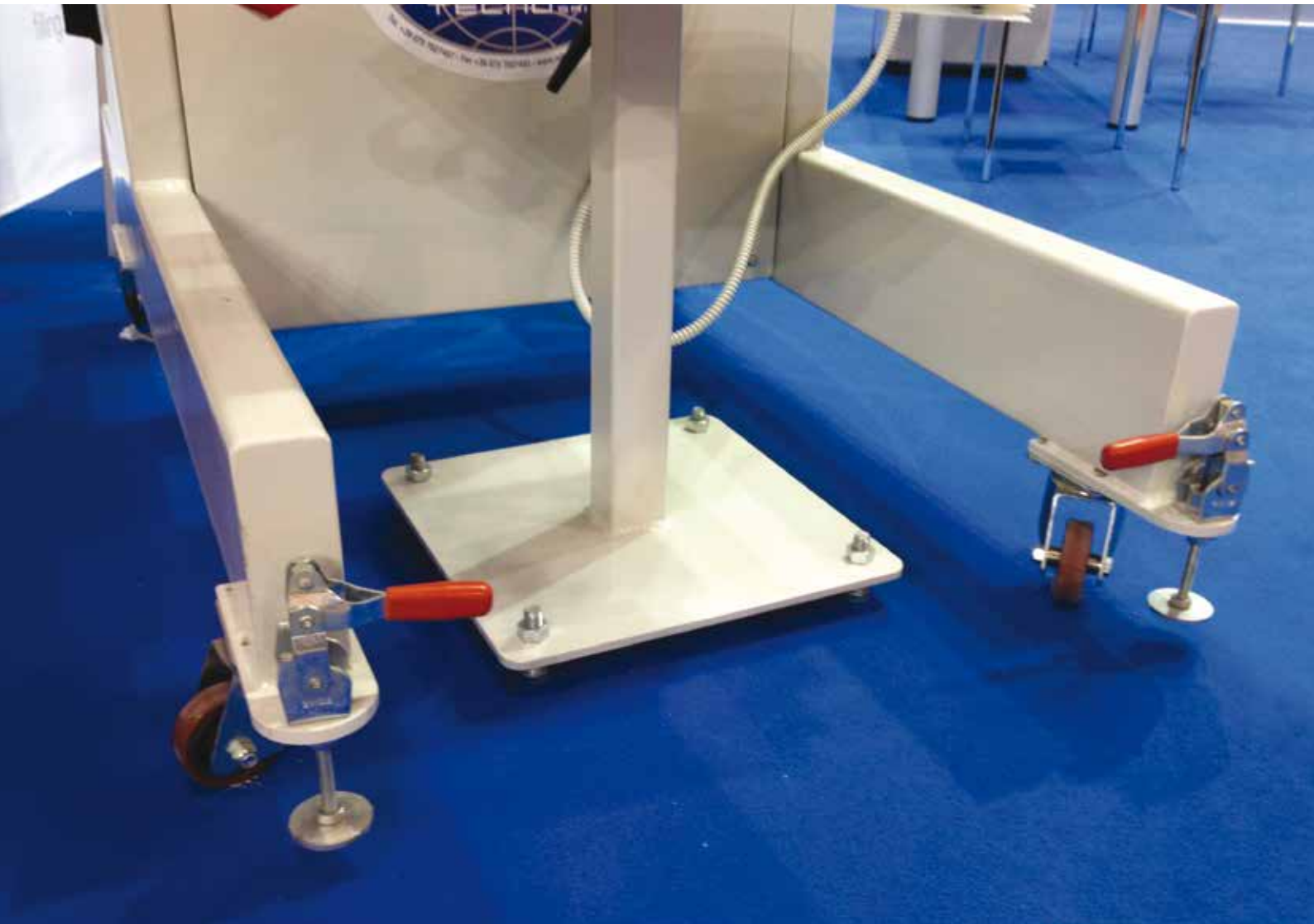


EG Eye bolt rod



Code	Description	Stainless steel Code	Description	B	F	G	H	L	M	T
AX642	E1T-E1TL	**AX648**	E1TX-E1TLX	18	20			64	M5	4,4
AX644	E2T-E2TL	**AX650**	E2TX-E2TLX	24	25			84	M6	5,2
AX646	E3T-E3TL	**AX652**	E3TX-E3TLX	30	30			102	M8	7

Code	Description	Stainless steel Code	Description	B	F	G	H	L	M	T
AX630	E1G-E1GL	**AX636**	E1GX-E1GLX	25	20	12	16	64	M5	4,4
AX632	E2G-E2GL	**AX638**	E2GX-E2GLX	31	25	15	20,4	83	M6	5,2
AX634	E3G-E3GL	**AX640**	E3GX-E3GLX	42	30	18,4	28	102	M8	7



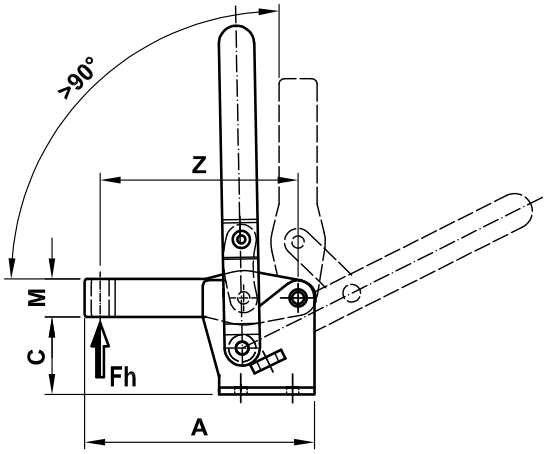
ROTATIONAL SERIES

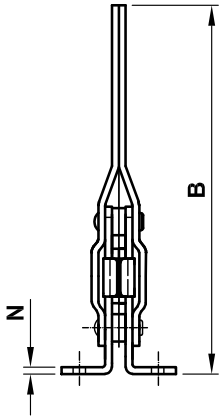
The rotational moulding of plastics requires clamping devices able to work in a quick and safe way at very high temperatures (240-300°C.) without any hesitation when opening and clamping. So, we have achieved a full series of clamps suitable to this type of work. This series is in part a spin off from the Speedy Block's mass production with the contribution of suitable alterations (couplings with different tolerances, modified geometries, different finishings, etc.), and it has been optimized following the suggestions and expectations of the users which urged their design.

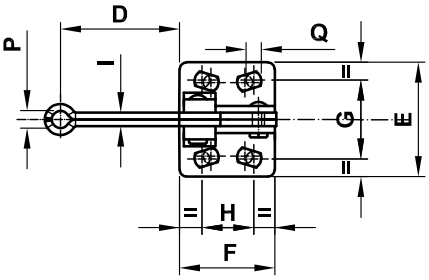
VERTICAL SERIES FOR HIGH TEMPERATURES

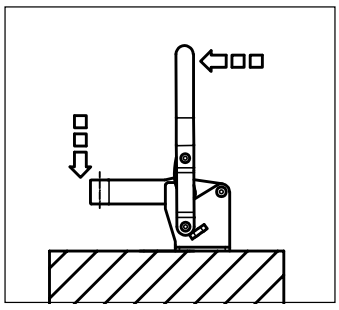
Material:
Phosphated steel
Riveted pivots:
Phosphated steel
Supporting bushes:
Hardened and ground steel.
Performance:
With eye bolt clamping lever for inserting the spindle.
Spindles:
To be ordered separately
(see Accessories on page 87)
Features and applications:
The tools of this series are generally used in rotational forging, as it is able to operate at high temperatures (240-300°C).
This is made possible thanks to their finish, the interposition of special copper grease between the parts and appropriate tolerances between the couplings.

FORM
ER



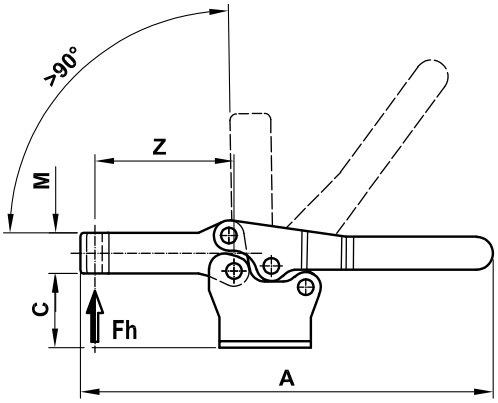


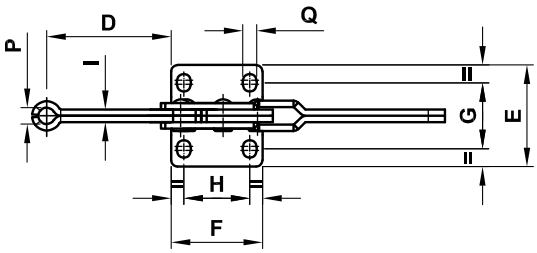


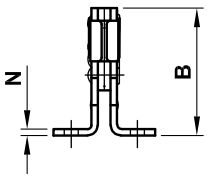


Code	Description	A	B	C	D	E	F	G	H	I	M	N	P	Q	Z	Fh (daN)	gr.
AR530	130/ER	85	136	28	44	42	35	27÷29	12,5÷19	5	16	2,5	6,5	5,6	73	160	210
AR540	230/ER	110	164	33,5	60	45	43	32	19÷20	6	18	3	8	6,7	96	200	330
AR550	330/ER	128	189	43	69	65	50	45÷46	29÷32	7	22	3,5	10,5	8,5	111	240	519

FORM
OR

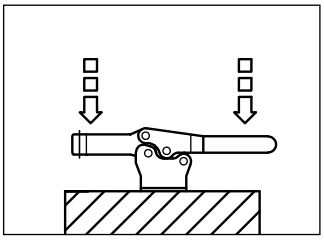






HORIZONTAL SERIES FOR HIGH TEMPERATURES

Material:
Phosphated steel
Riveted pivots:
Phosphated steel
Supporting bushes:
Hardened and ground steel.
Performance:
With eye bolt clamping lever for inserting the spindle.
Spindles:
To be ordered separately
(see Accessories on page 87).
Features and applications:
The tools of this series are generally used in rotational forging, as it is able to operate at high temperatures (240-300°C).
This is made possible thanks to their finish, the interposition of special copper grease between the parts and appropriate tolerances between the couplings.

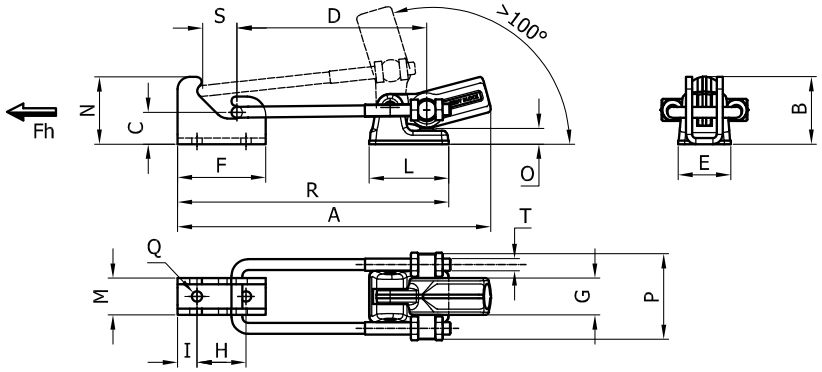


Code	Description	A	B	C	D	E	F	G	H	I	M	N	P	Q	Z	Fh (daN)	gr.
AR145	130/OR	165	51	30,5	50	40	36	22,4÷28,4	26	5	16	2,5	6,5	5,6	56	100	185
AR280	230/OR	190	61,5	36,5	56	44	44	26÷31,5	26	6	18	3	8,5	6,6	63	170	300
AR380	355/OR	260,5	83	50	89,5	58	60	38,8÷43	41	7	22	3,5	10,5	8,6	98,5	180	700

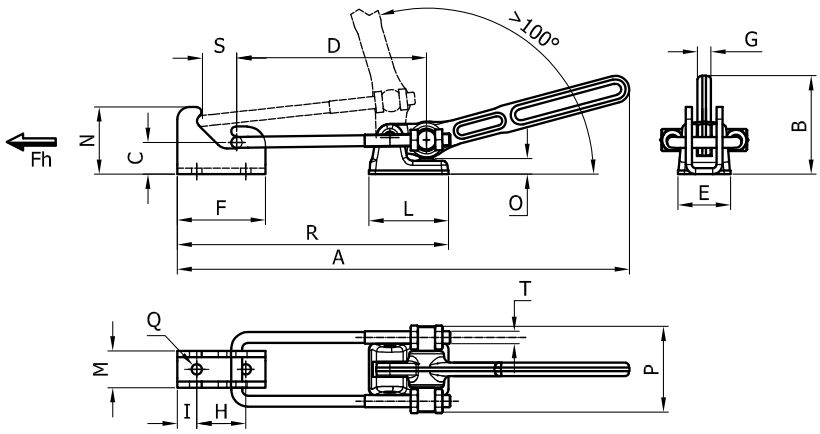
DOUBLE ROD SERIES FOR HIGH TEMPERATURES

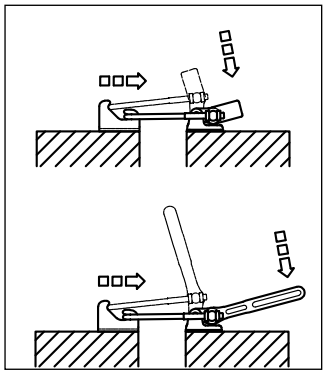
Material:
Base and lever in hot pressed rough steel
Rod:
Rough steel
Hooking bracket:
Rough steel.
Performance:
The tool comes with a bar with hooking bracket and nuts.
Features and applications:
The tools of this series are generally used in rotational forging, as it is able to operate at high temperatures (240-300°C).
This is made possible thanks to their finish, the interposition of special copper grease between the parts and appropriate tolerances between the couplings.
In addition to the standard length of the U rods, a variety of other lengths are given on page 57.
Therefore, when ordering, indicate:
T2S = Tool with Standard Double Threaded Rod and hooking bracket
T2S0 = Tool without double Threaded rod, **which is to be ordered separately** (see page 57)

FORM
1500/T2S



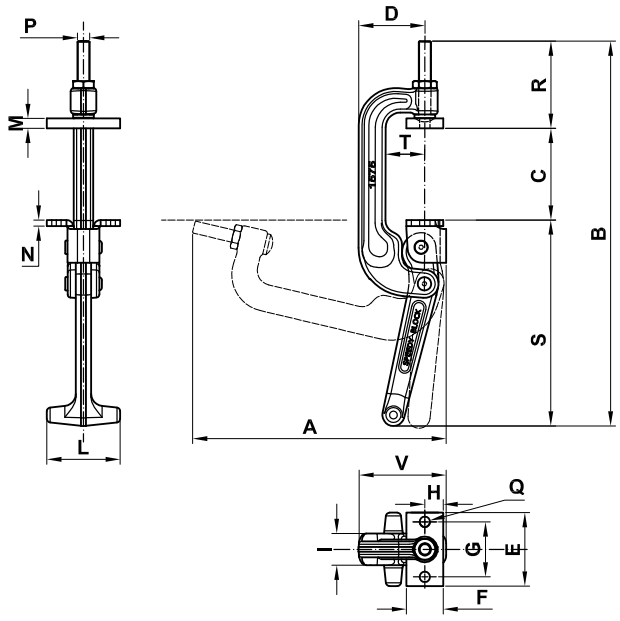
FORM
1510/T2S





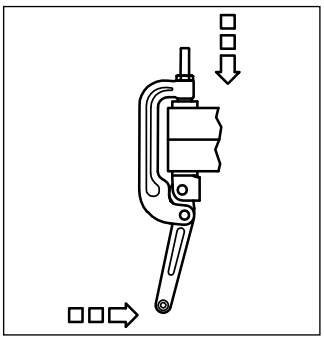
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	Fh (daN)	gr.
AL750	1500/T2S	256	55	26	155	43	72	30	40	16	65	30	55	13	70	8,5	222	28	M10	1500	1240
AL755	1510/T2S	369	80,5	26	155	43	72	11	40	16	65	30	55	13	70	8,5	222	28	M10	1500	1320

FORM
C

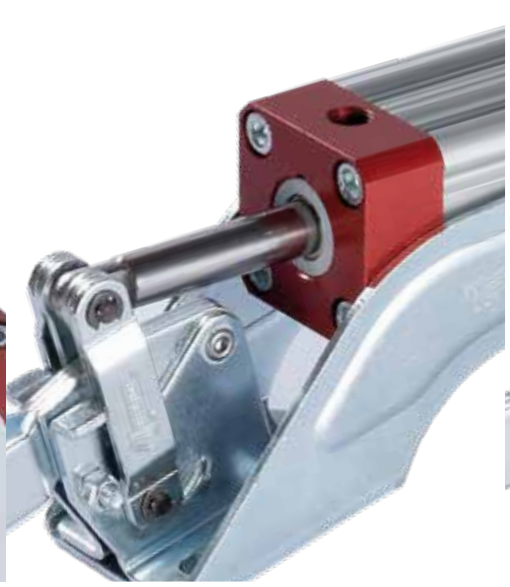


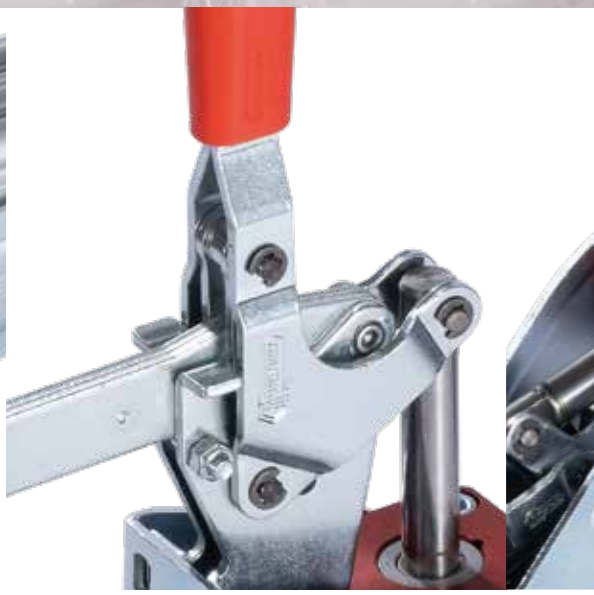
C SERIES FOR HIGH TEMPERATURES

Material:
The sheet metal parts are made from steel;
The other parts are made of hot-stamped weldable steel.
Performance:
The tool comes complete with adjusting screw and bearing plate.
Features and applications:
The tools of this series are generally used in rotational forging, as it is able to operate at high temperatures (240-300°C).
This is made possible thanks to their finish, the interposition of special copper grease between the parts and appropriate tolerances between the couplings.



Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	P	Q	R	S	T	V	Fh (daN)	gr.
AL758	1540	173	280	40	54	60	30	45	15	26	60	8	5	M10	8,5	71	169	32	72	1500	1110
AL760	1575	207	315	75	54	60	30	45	15	26	60	8	5	M10	8,5	71	169	32	72	1500	1190





PNEUMATIC SERIES

This series combines the advantages of toggle action (even in case of pressure loss the tool remains closed) with the possibilities offered by the pneumatics:

- Constant FS clamping force independent of the operation.
- Possibility of actuating several devices at the same time.
- Possibility of actuating various points; remote control performed also by machines.
- Several versions are available with magnetic cylinders that enable positioning control without contacts, to obtain electric command impulses in certain clamping situations.

The pneumatic series also contains vertical and push rod series with Fs clamping forces between 50 and 240 daN and Fh retaining forces from 70 to 450 daN for the light series; and Fs from 87 daN to 430 daN with Fh from 220 to 2000 daN for the heavy-duty series. The use of a filter - reducer - lubricator group is essential for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulators and calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed. The cylinders of the heavy-duty series (1000-2000/EPM/EPVM) already mount these flow regulators on the heads and they can be adjusted using a screw on the side of the air supply. For all the other cylinders, a fixed pin is present in the back head to slow down the stroke during the opening phase. Operating pressure between 2-6 bar. Ambient temperature -30° + 80°C. The Fs forces indicated in the catalogue were measured at a pressure of 4 bar.

PERFORMANCE

LIGHT SERIES: Components in case-hardening sheet steel. Hardened and tempered supporting pivots. Supporting bushes (for sizes from 200 daN and over) undergo case-hardening and grinding.

HEAVY-DUTY SERIES: Base made of black varnished spheroidal cast iron. Other parts made of galvanized (weldable) steel. Supporting pivots undergo case hardening.

REINFORCED HEAVY-DUTY SERIES: Base body made of black phosphated steel sheet; cemented and ground support pins and bushes.

Double-acting cylinder with adjustable shock absorption. The tools of this series are built so as to be easily disassembled: the pivots are fixed axially with seeger rings.

LIGHT PNEUMATIC SERIES

Some sizes of this series are also produced for Magnetic performance and are shown in the table below ("magnetic version")

Material: Sheet metal and galvanized steel riveted pivots. Hardened and ground steel rotation pivots.

Performance:

Form AP3 with open clamping lever and two flanged washers.
Form EP3 with full clamping lever and bolt retainers.
Form APM just like AP3 but with magnetic cylinder for the detection of the position.
Form EPM just like EP3 but with magnetic cylinder for the detection of the position.

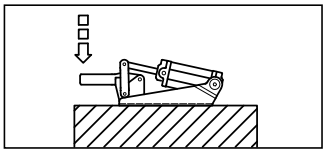
Cylinder:

Maximum operating pressure 6 bar.
Maximum operating temperature 80°C
The AU460 model reed switch is used for detecting the position, for sizes 200 and 300; model AU450 is used for size 400 (see Accessories on page 87).
The proximity switches must be ordered separately.

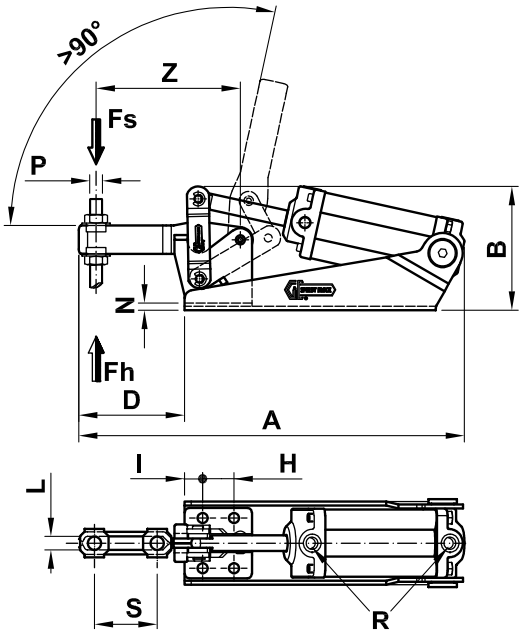
Spindles: To be ordered separately (see Accessories on page 87).

Features and applications:

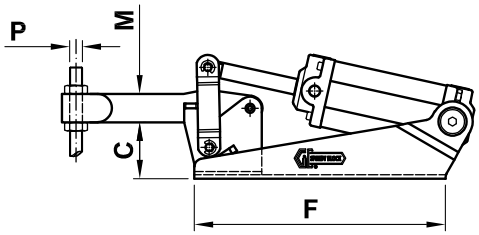
We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulators and calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.
This manually actuated series is found on page 10.

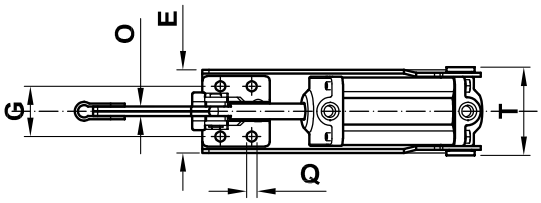


FORM
AP3



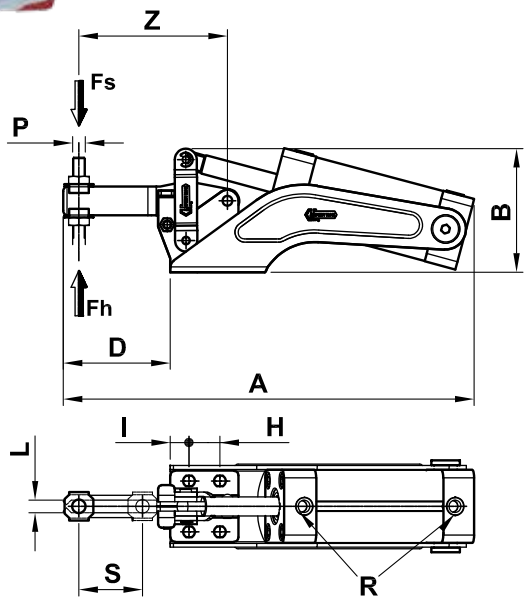
FORM
EP3





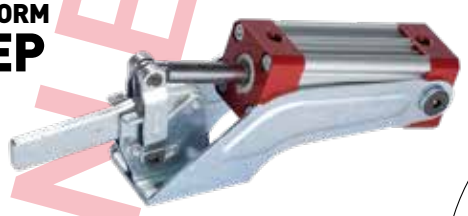
Code	Description	Magnetic Version Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	Z	Fh (daN)	Fs (daN)	gr.
A0020	70/AP3			163	51,5	21	38	42	92	24	15	6,5÷7	5,2	11	4		M5	4,5	1/8"	20	45	56	70	50	500
A0025	70/EP3			163	51,5	21	39	42	92	24	15	6,5÷7		11	4	4	M5	4,5	1/8"		45		70	50	500
A0041	125/AP3			200	70,5	30	50	47,5	150	29	19	8÷11,2	6,2	14	4,5		M6	5,5	1/8"	23	46	71	160	70	700
A0046	125/EP3			201	70,5	30	51	47,5	150	29	19	8÷11,2		14	4,5	5	M6	5,5	1/8"		46		160	70	700
A0161	200/AP3	A0162	200/APM	246	79	36	67,5	53	160	32	20	11,5÷12	8,5	18	5,5		M8	6,5	1/8"	40	56	94	220	90	1070
A0166	200/EP3	A0167	200/EPM	248	79	36	69,5	53	160	32	20	11,5÷12		18	5,5	6	M8	6,5	1/8"		56		220	90	1070
A0201	300/AP3	A0202	300/APM	304,5	98	48	78,5	74	195,5	46	29	8,5÷10,5	10,5	20	8,5		M10	8,5	1/4"	42	66	110	270	120	2100
A0206	300/EP3	A0207	300/EPM	306	98	48	80	74	195,5	46	29	8,5÷10,5		20	8,5	8	M10	8,5	1/4"		66		270	120	2100
A0301	400/AP3	A0302	400/APM	360	107,5	51	110	74	216	45	32	10	12,5	22	10		M12	8,5	1/4"	66	80	143	300	140	3100
A0306	400/EP3	A0307	400/EPM	362	107,5	51	112	74	216	45	32	10		22	10	10	M12	8,5	1/4"		80		300	140	3100

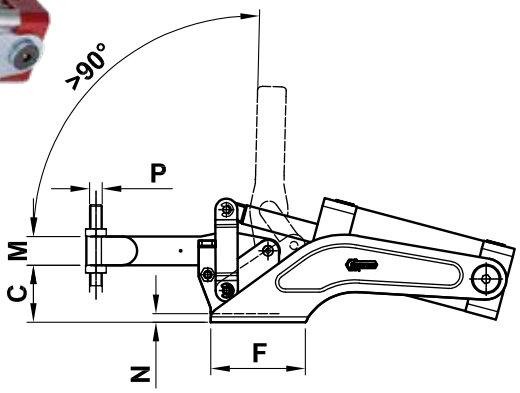
FORM
AP

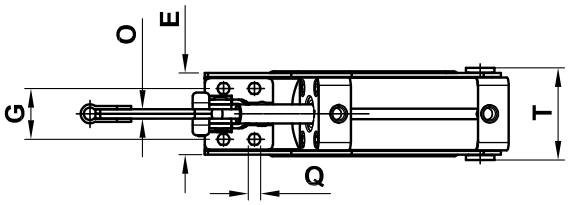


NEW

FORM
EP







LIGHT PNEUMATIC SERIES

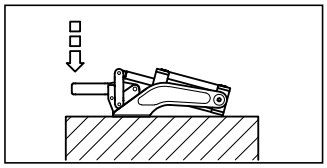
This series has been completely redesigned, giving the items a greater operating life.

Material:
Sheet metal and galvanized steel riveted pivots.
Hardened and groung steel rotation pivots, running into sockets with similar feature.

Pneumatic cylinder:
All the cylinders of this series are magnetic, with a pneumatic brake inside the back head.
Maximum operating pressure 6 bar.
Maximum operating temperature 70°C.
The electronic switch for detecting the position is AU570 (see the presentation at page 87) and must be ordered separately.

Spindle:
To be ordered separately (see accessories on page 87).

Feature and applications:
A filter-reducer-lubricator group is recommanded for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulations and calibrating the speed of the motion desired.
You can find the instructions for the set-up and daily use of the items of this series on the technical sheets reported on our website.
The values of the clamping force Fs on the chart are measured at 6 bar pressure air. This pneumatically operated series can be found on p. 10.



Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	Z	Fh (daN)	Fs (daN)	gr.
A0400	75/AP	162	54	22	38	40	40	24	14,5÷16,5	6,5÷7	5,2	11	3,5		M5	4,5	M5	20	47	56	75	38	400
A0402	75/EP	163	54	22	39	40	40	24	14,5÷16,5	6,5÷7		11	3,5	4	M5	4,5	M5		47		75	38	400
A0408	130/AP	195	66	30	50	47,5	45	27÷29	12,5÷19	8÷11,2	6,2	16	4,5		M6	5,6	1/8"	28	51	71	105	80	650
A0410	130/EP	196	66	30	51	47,5	45	27÷29	12,5÷19	8÷11,2		16	4,5	5	M6	5,6	1/8"		51		105	80	650
A0416	230/AP	259	78	36	67	51	55	32	18,5÷20,5	11,5÷12	8,5	18	5,5		M8	6,7	1/8"	40	58	94	200	118	1150
A0418	230/EP	261	78	36	69	51	55	32	18,5÷20,5	11,5÷12		18	5,5	6	M8	6,7	1/8"		58		200	118	1130
A0428	330/AP	307	96	46	78	74	55	45÷46	29÷32	8,5÷10,5	10,5	22	6,5		M10	8,6	1/4"	45	70	110	240	173	1850
A0430	330/EP	309	96	46	80	74	55	45÷46	29÷32	8,5÷10,5		22	6,5	7	M10	8,6	1/4"		70		240	173	1900
A0440	430/AP	363	114	55	88	73	70	45	32	14	12,5	26	7,5		M12	8,5	1/4"	48	82,5	124	400	325	3300
A0442	430/EP	364	114	55	90	73	70	45	32	14		26	7,5	10	M12	8,5	1/4"		82,5		400	325	3300

LIGHT PNEUMATIC SERIES

The sizes of this series are also produced for Magnetic performance and are shown in the table (see "magnetic version").

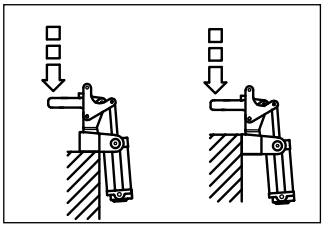
Material: Sheet metal and galvanized steel riveted pivots.
Hardened and ground steel rotation pivots.

Performance:
Form APV3 with open clamping lever and two flanged washers.
Form EPV3 with full clamping lever and bolt retainers.
Form APVM just like APV3 but with magnetic cylinder for the detection of the position.
Form EPVM just like EPV3 but with magnetic cylinder for the detection of the position.

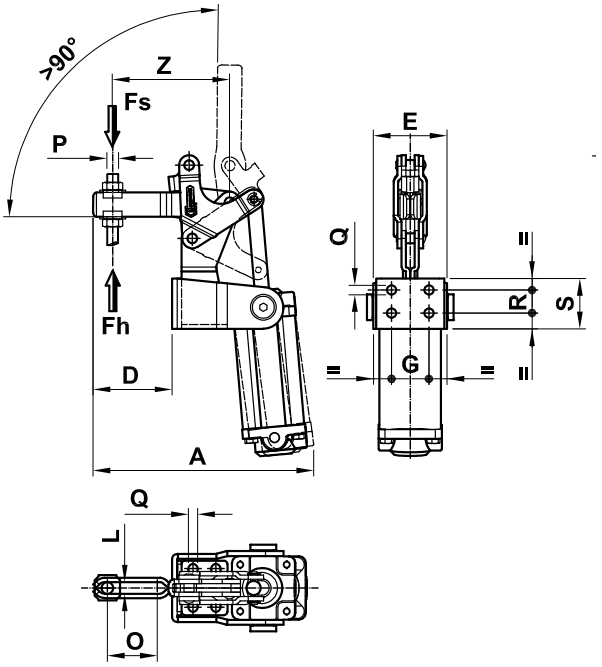
Cylinder: Maximum operating pressure 6 bar.
Maximum operating temperature 80°C
Model AU460 is the reed switch for detecting the position
(see Accessories on page 87).
The proximity switches must be ordered separately.

Spindles:
To be ordered separately
(see Accessories on page 87).

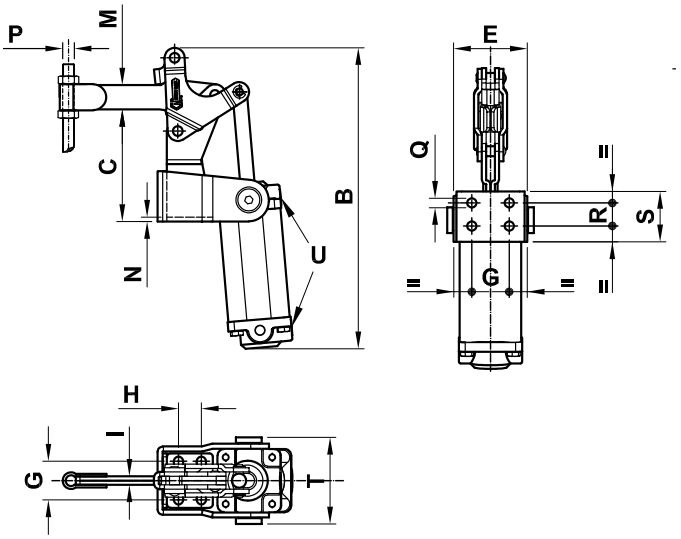
Features and applications:
We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulators and calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.
This manually actuated series is found on page 15.



FORM APV3

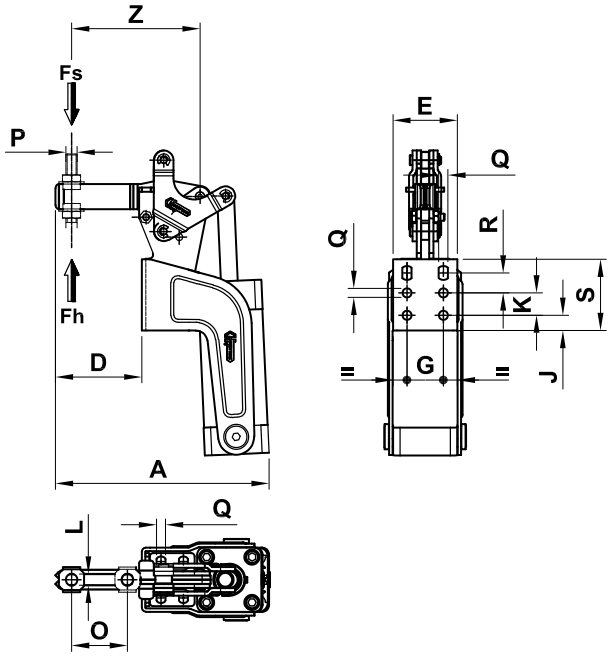


FORM EPV3

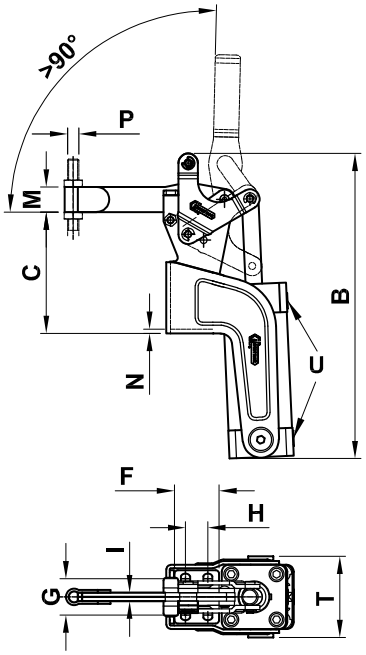


Code	Description	Magnetic Version Code	Description	A	B	C	D	E	G	H	I	L	M	N	O	P	Q	R	S	T	U	Z	Fh (daN)	Fs (daN)	gr.
A0181	200/APV3	A0182	200/APVM	149	210	77	55	51	26	16		8,5	17	3	34	M8	6,5	16	35	59,5	1/8"	88	160	90	1200
A0186	200/EPV3	A0187	200/EPVM	151	210	77	57	51	26	16	6		17	3		M8	6,5	16	35	59,5	1/8"		160	90	1200
A0221	300/APV3	A0222	300/APVM	186	258	108	71	60,5	30	28		10	20	3	42	M10	8,5	30	50	68,5	1/4"	110	240	120	2450
A0226	300/EPV3	A0227	300/EPVM	187,5	258	108	72,5	60,5	30	28	8		20	3		M10	8,5	30	50	68,5	1/4"		240	120	2450

FORM APV



FORM EPV



LIGHT PNEUMATIC SERIES

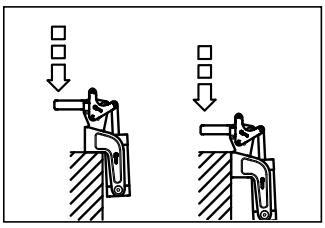
This series has been completely redesigned, giving the items a greater operating life.

Material:
Sheet metal and galvanized steel riveted pivots.
Hardened and groung steel rotation pivots, running into sockets with similar feature.

Pneumatic cylinder:
All the cylinders of this series are magnetic, with a pneumatic brake inside the back head.
Maximum operating pressure 6 bar.
Maximum operating temperature 70°C.
The electronic switch for detecting the position is AU570 (see the presentation at page 87) and must be ordered separately.

Spindle:
To be ordered separately (see accessories on page 87)

Feature and applications:
A filter-reducer-lubricator group is recommanded for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulations and calibrating the speed of the motion desired.
You can find the instructions for the set-up and daily use of the items of this series on the technical sheets reported on our website.
The values of the clamping force Fs on the chart are measured at 6 bar pressure air. This pneumatically operated series can be found on p. 10.



Code	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	Z	Fh (daN)	Fs (daN)	gr.
A0404	75/APV	99	151	43	34	40	22	24	12,5		10	12,5	5,2	11	2	21	M5	4,5		30	47	M5	56,5	75	57	500
A0406	75/EPV	99	151	43	35	40	22	24	12,5	4	10	12,5		11	2		M5	4,5		30	47	M5		75	57	500
A0412	130/APV	118	167	70	41	47	28	27	12,5		16	12,5	6,2	16	2,5	28,5	M6	5,6	12,5	49	51	1/8"	72	110	61	750
A0414	130/EPV	119	167	70	42	47	28	27	12,5	5	16	12,5		16	2,5		M6	5,6	12,5	49	51	1/8"		110	61	750
A0420	230/APV	153	218	87	62	46	32	26	16		11	16	8,5	18	3	41	M8	6,5	14,25	51	58	1/8"	94,5	220	126	1250
A0422	230/EPV	155	218	87	63	46	32	26	16	6	11	16		18	3		M8	6,5	14,25	51	58	1/8"		220	126	1255
A0432	330/APV	182	263	108	68	56	45	30	28		19	30	10,5	22	3,5	45	M10	8,5	20	79	70	1/4"	110	260	181	2200
A0434	330/EPV	184	263	108	70	56	45	30	28	7	19	30		22	3,5		M10	8,5	20	79	70	1/4"		260	181	2200

LIGHT PNEUMATIC SERIES

The sizes of this series are also produced for Magnetic performance and are shown in the table (see "magnetic version")

Material:

Sheet metal and galvanized steel riveted pivots.
Hardened and ground steel rotation pivots.

Performance:

Form APV3S with open clamping lever and two flanged washers.
Form EPV3S with full clamping lever and bolt retainers.
Form APVMS just like APV3S but with magnetic cylinder for the detection of the position.
Form EPVMS just like EPV3S but with magnetic cylinder for the detection of the position.

Cylinder:

Maximum operating pressure 6 bar.
Maximum operating temperature 80°C
Model AU460 is the reed switch for detecting the position (see Accessories on page 87).
The proximity switches must be ordered separately.

Handles:

Red polyurethane resistant to oils, grease and other chemical agents.

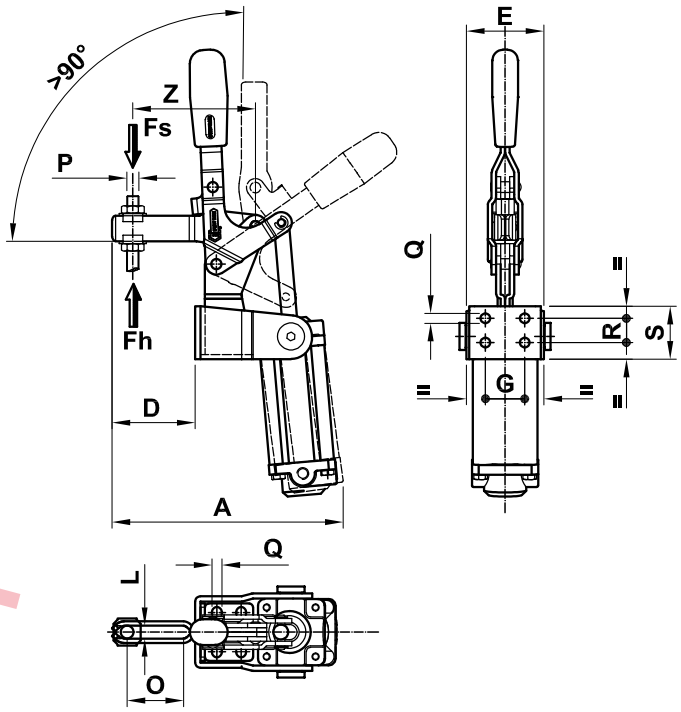
Spindles:

To be ordered separately (see Accessories on page 87).

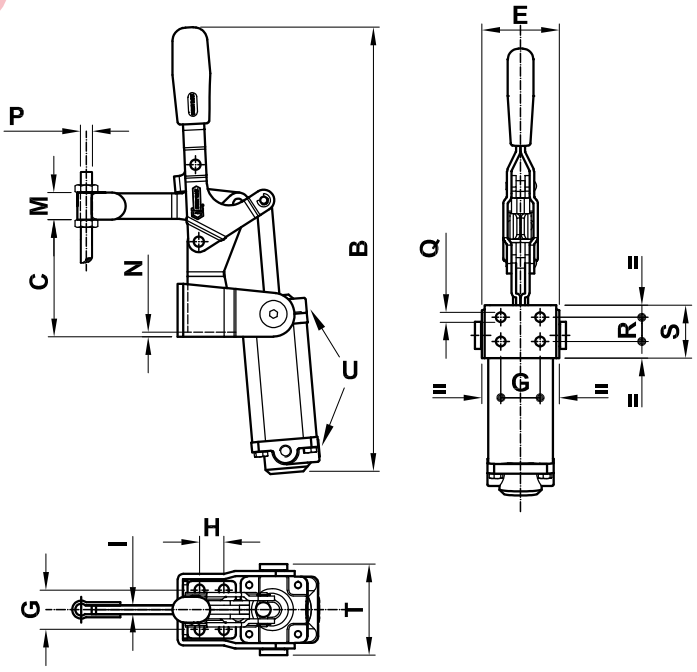
Features and applications:

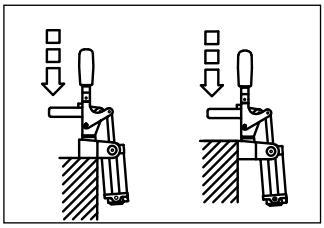
The tools of this series are used when there is a need for pneumatic closing (generally simultaneous closing of the tools remotely) but manual and single opening is mandatory. We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulators and calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.
This manually actuated series is found on page 16.

FORM APV3S



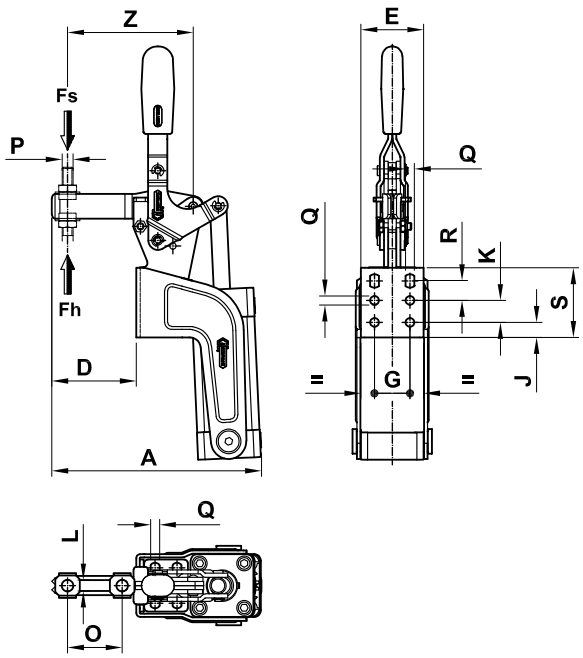
FORM EPV3S





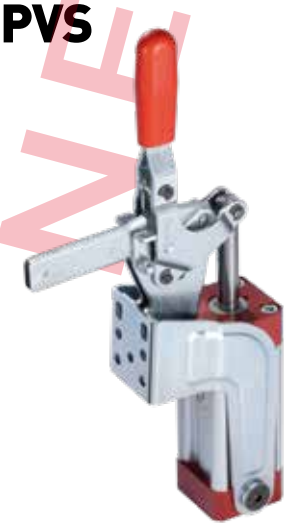
Code	Description	Magnetic Version Code	Description	A	B	C	D	E	G	H	I	L	M	N	O	P	Q	R	S	T	U	Z	Fh (daN)	Fs (daN)	gr.
A0184	200/APV3S	A0185	200/APVMS	149	296	77	55	51	26	16		8,5	17	3	34	M8	6,5	16	35	59,5	1/8"	88	160	90	1200
A0189	200/EPV3S	A0190	200/EPVMS	151	296	77	57	51	26	16	6		17	3		M8	6,5	16	35	59,5	1/8"		160	90	1200
A0224	300/APV3S	A0225	300/APVMS	186	360	108	71	60,5	30	28		10	20	3	42	M10	8,5	30	50	68,5	1/4"	110	240	120	2450
A0229	300/EPV3S	A0230	300/EPVMS	187,5	360	108	72,5	60,5	30	28	8		20	3		M10	8,5	30	50	68,5	1/4"		240	120	2450

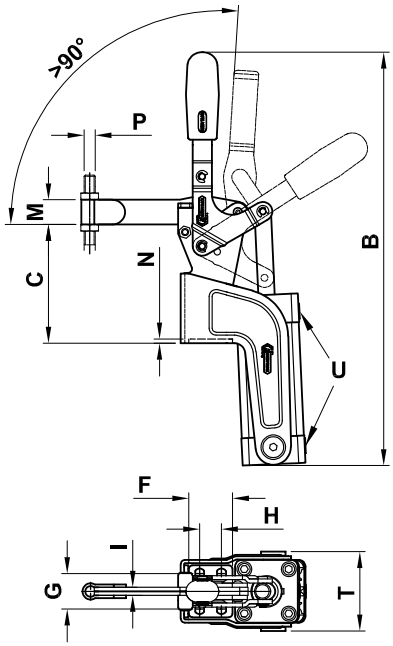
FORM APVS



NEW

FORM EPVS





LIGHT PNEUMATIC SERIES

This series has been completely redesigned, giving the items a greater operating life.

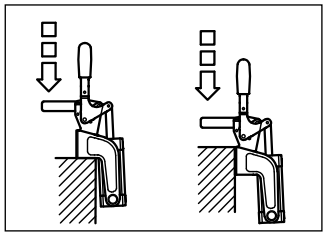
Material:
Sheet metal and galvanized steel riveted pivots. Hardened and groung steel rotation pivots, running into sockets with similar feature.

Pneumatic cylinder:
All the cylinders of this series are magnetic, with a pneumatic brake inside the back head.
Maximum operating pressure 6 bar.
Maximum operating temperature 70°C.
The electronic switch for detecting the position is AU570 (see the presentation at page 87) and must be ordered separately.

Handle:
Red polyurethan resistant to oils, grease and other chemical agents.

Spindle:
To be ordered separately (see accessories on page 87)

Feature and applications:
A filter-reducer-lubricator group is recommanded for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulations and calibrating the speed of the motion desired.
You can find the instructions for the set-up and daily use of the items of this series on the technical sheets reported on our website.
The values of the clamping force Fs on the chart are measured at 6 bar pressure air. This pneumatically operated series can be found on p. 16/17.



Code	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	Z	Fh (daN)	Fs (daN)	gr.
A0424	230/APVS	153	302	87	62	46	32	26	16		11	16	8,5	18	3	41	M8	6,5	14,25	51	58	1/8"	94,5	220	126	1350
A0426	230/EPVS	155	302	87	63	46	32	26	16	6	11	16		18	3		M8	6,5	14,25	51	58	1/8"		220	126	1400
A0436	330/APVS	182	363	108	68	56	45	30	28		19	30	10,5	22	3,5	45	M10	8,5	20	79	70	1/4"	110	260	181	2300
A0438	330/EPVS	184	363	108	70	56	45	30	28	7	19	30		22	3,5		M10	8,5	20	79	70	1/4"		260	181	2300

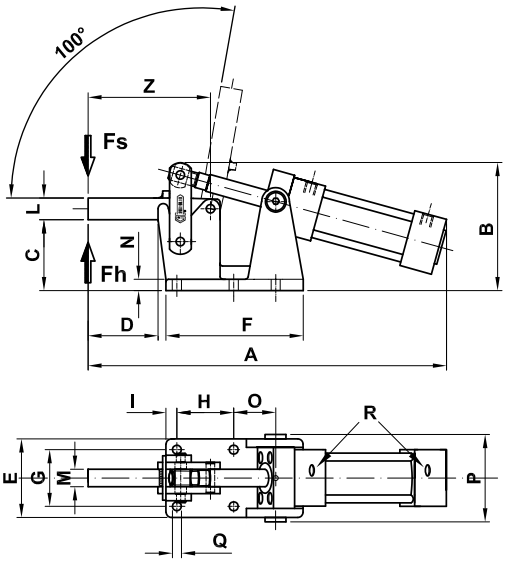
HEAVY-DUTY PNEUMATIC SERIES

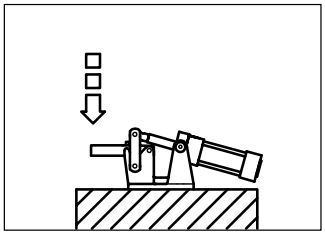
Material:
Base made of black varnished spheroidal cast iron;
Lever in galvanized steel;
Hardened and ground pivots.

Cylinder:
ISO Magnetic Standards.
Maximum operating pressure 10 bar.
Maximum operating temperature 80°C
Model AU470 is the reed switch for detecting the position to be ordered separately.

Features and applications:
These tools are designed to withstand high loads and a high number of operations.
We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using the flow regulators found on the head for calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.

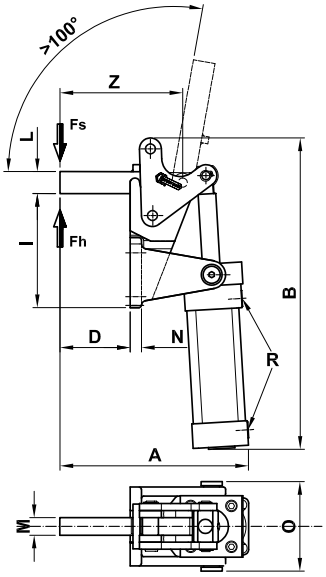
FORM
EPM

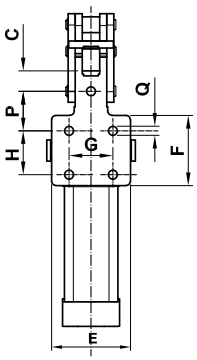


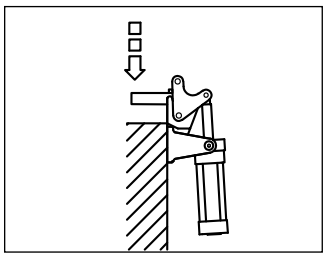


Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	Z	Fh (daN)	Fs (daN)	gr.
A0600	1000/EPM	410	146,5	80	80	90	155	65	65	12,5	25	20	13	48	102	10,5	1/4"	140	1000	320	6500
A0620	2000/EPM	487	171,5	90	100	100	176	70	70	15	35	20	13	56	112	10,5	3/8"	172	2000	380	9500

FORM
EPVM







HEAVY-DUTY PNEUMATIC SERIES

Material:
Base made of black/varnished spheroidal cast iron.
Lever in galvanized steel;
Hardened and ground pivots.
Cylinder:
ISO Magnetic Standards
Maximum operating pressure 10 bar.
Maximum operating temperature 80°C
Model AU470 is the reed switch for detecting the position to be ordered separately.
Features and applications:
These tools are designed to withstand high loads and a high number of operations.
We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using the flow regulators found on the head for calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.

Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	Z	Fh (daN)	Fs (daN)	gr.
A0605	1000/EPVM	215	355		80	90	80	50	50	130	25	20	13	102		10,5	1/4"	140	1000	340	6500
A0625	2000/EPVM	246,5	424	45	100	100	90	54	58	157	35	20	14	112	45	12,5	3/8"	172	2000	432	9000

REINFORCED HEAVY-DUTY PNEUMATIC SERIES

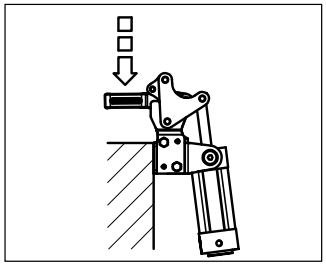
Material:
Phosphated Steel.

Pivots:
Hardened and ground Steel.

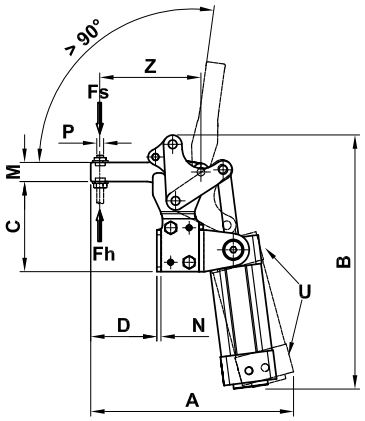
Supporting bushes:
Hardened and ground Steel.

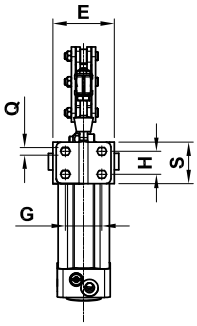
Spindles:
To be ordered separately
(see Accessories on page 87).

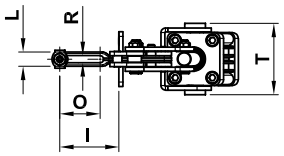
Features and applications:
the clamping levers are obtained by hot moulding; the series is generally used in clamping jobs with medium and heavy loads, on welding masks, carpentry works, moulds and where large clamping forces and strong repetitiveness of movements are required.



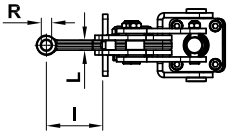
FORM
LPV







LPV1
LPV2



LPV3

Code	Description	A	B	C	D	E	G	H	I	L	M	N	O	P	Q	R	S	T	U	Z	Fh (daN)	Fs (daN)	gr.
A0384	LPV1	172	172	215	77	57	30÷34	20	51	12,3	16,6	3,5	35	M6	6,3	6,3	36	63	1/8"	89	240	118	1150
A0386	LPV2	195	195	288	106	71	42,5÷46,5	30	60	20	24	5	35	M10	10,3	10,3	54	75	1/4"	113,5	440	217	2750
A0388	LPV3	239	239	372	140	80	52÷56	55	68	12	31	6		M12	10,5	12,5	75	89	1/4"		850	317	5300

PUSH HEAVY-DUTY PNEUMATIC SERIES

Some sizes of this series are also produced for Magnetic performance and are shown in the table below (see "magnetic version").

Material:
Galvanized steel

Riveted pivots, push bar and control lever:
Galvanized steel

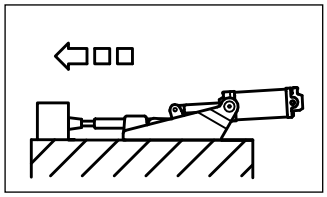
Basic clamp body:
Black varnished brass for size 70; hot forged steel and painted black for the other sizes.

Performance:
Form SP3 Tool equipped with normal pneumatic cylinder.
Form SPM Tool equipped with magnetic pneumatic cylinder.

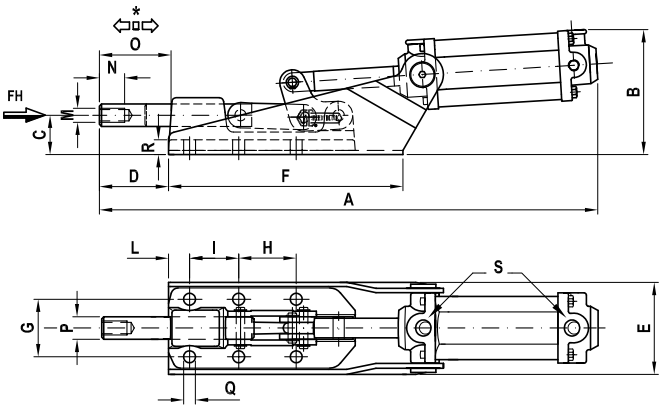
Cylinder:
Maximum operating pressure 6 bar.
Maximum operating temperature 80°C.
The AU460 model reed switch is used for detecting the position, for sizes 360 and 1100; model AU450 is used for size 2100 (see Accessories on page 87).
The proximity switches must be ordered separately.

Spindles:
To be ordered separately (see Accessories on page 87).

Features and applications:
We recommend using a filter-reducer-lubricator group for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulators and calibrating the speed of the motions desired, starting from a low speed and gradually increasing this speed.
A special grease is placed between two contacting surfaces during assembly.
This manually actuated series is found on page 41.



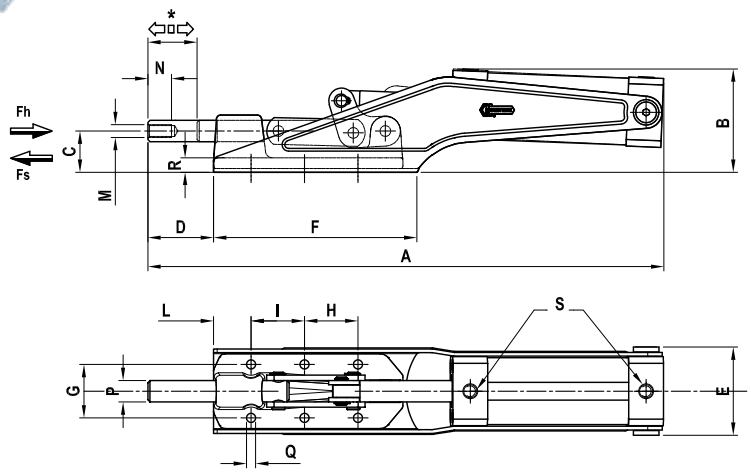
FORM
SP3



Code	Description	Magnetic Version Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	*	Fh (daN)	Fs (daN)	gr.
A0350	70/SP3			171	51	14	20	42	64	26	26		13	M6	12	22	8,5	4,3	8	1/8"	12	120	50	550
A0361	360/SP3	A0362	360/SPM	260	72,5	27,5	32	55	116	33,5	36,5		30	M8	15	34	12	5,5	9,5	1/8"	22	560	310	1300
A0371	1100/SP3	A0372	1100/SPM	355	89	28	49	66	167	41	41	35	15	M10	18	50	16	8,5	12	1/4"	32	1600	410	2400
A0381	2100/SP3	A0382	2100/SPM	468,5	100	38,5	61,5	81	231	50	50	50	35	M12	22	63,5	20	8,5	13	1/4"	45	2500	607	5000

FORM
SP4

NEW



LIGHT PNEUMATIC SERIES

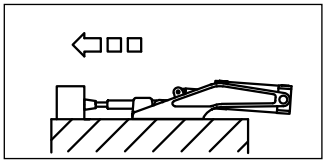
This series has been completely redesigned, giving the items a greater operating life.

Material:
Sheet metal and galvanized steel riveted pivots.
Hardened and groung steel rotation pivots, running into sockets with similar feature.

Pneumatic cylinder:
All the cylinders of this series are magnetic, with a pneumatic brake inside the back head.
Maximum operating pressure 6 bar.
Maximum operating temperature 70°C.
The electronic switch for detecting the position is AU570 (see the presentation at page 87) and must be ordered separately.

Spindle:
To be ordered separately (see accessories on page 87)

Feature and applications:
A filter-reducer-lubricator group is recommanded for a long and smooth operation of the cylinder, while for a long duration of the mechanical components we recommend using suitable flow regulations and calibrating the speed of the motion desired.
You can find the instructions for the set-up and daily use of the items of this series on the technical sheets reported on our website.
The values of the clamping force Fs on the chart are measured at 6 bar pressure air. This pneumatically operated series can be found on p. 41.

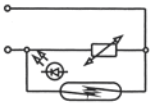


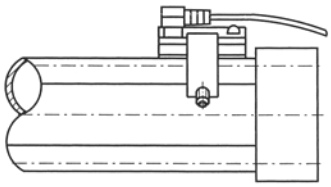
Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	P	Q	R	S	*	Fh (daN)	Fs (daN)	gr.
A0444	70/SP4	163	50	13,5	20	48	70	26		26	13	M6	12	8,5	4,3	7,5	M5	12	120	78	500
A0446	360/SP4	274	69	27,5	32	58	94	33,5		36,5	30	M8	15	12	5,5	9,5	1/8"	23	560	128	1400
A0448	1100/SP4	361	85	28	49	70	138	41	41	35	15	M10	18	16	8,5	11	1/4"	32	1600	340	2600
A0450	2100/SP4	482	96,5	38,5	61,5	82,5	190	50	50	50	35	m12	22	20	8,5	13,5	1/4"	45	2500	552	5200

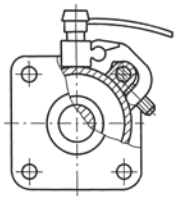
THE PROXIMITY SWITCHES

The proximity switches are sensors capable of detecting the presence of a magnetic field and report it through an electric pulse. The tools of this series are provided with magnetic cylinders that, since they are related by relative proximity switches, provide electric command and/or control impulses when activated. Since it is equipped with luminous LEDs, it operates at a minimum voltage of 3 V, and in case of series connection, the voltage drop will be 3 V. for each. It is good practice to use a connecting cable that is as short as possible since this could harm the operation of the sensor due to the capacity of the cable, which is directly proportional to its length. For example, for a 10 meter cable we recommend the series application to an inductor sensor that eliminates the effects of the capacity of the cable. DC positive pole must always be connected to the brown wire. We recommend keeping an adequate distance between the electric cables and large ferrous objects as this could cause disturbances to the sensor due to the effects of mutual induction. The sensors are in a condition to receive a signal at a speed of 1 m/s.

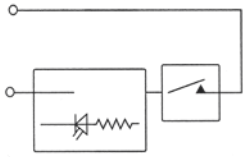
ELECTRICAL DATA	
DC Voltage	3-110 V
AC Voltage	3-110 V
Current at 25°	0,3 A
Power	10 VA
Connection time	0,6 mS
Disconnection time	0,1 mS
Connection point	110 Gauss
Disconnection point	60 Gauss
Electrical life (pulses)	10^7
Contact resistance	0,1 Ohm

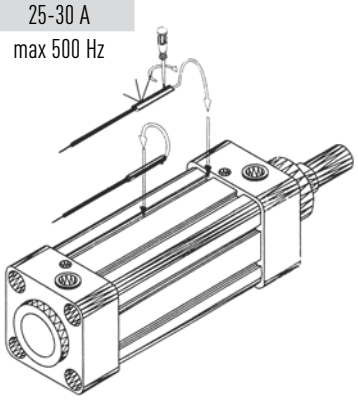




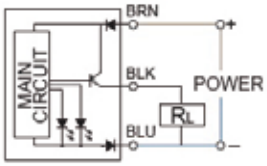


ELECTRICAL DATA	
DC Voltage	3-110V
AC Voltage	3-110 V
Current at 25°	200 mA
Power	6 w
Connection time	0,5 mS
Disconnection time	0,1 mS
Connection point	110 Gauss
Disconnection point	60 Gauss
Electrical life (pulses)	10^7
Contact resistance	0,1 Ohm
Voltage drop	‹ 3
V Nominal operating point	25-30 A
T Operating frequency	max 500 Hz

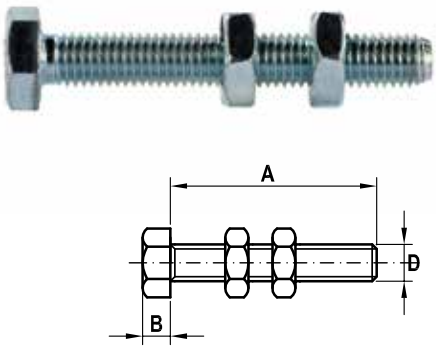




CONNECTION BOARD



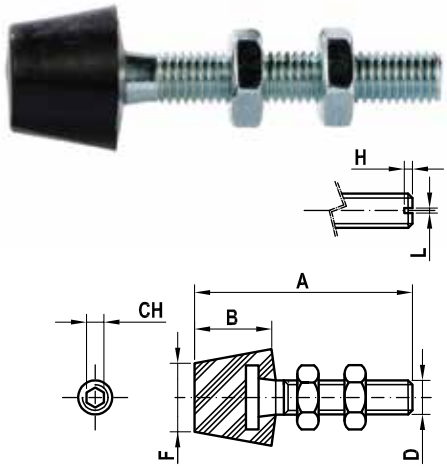
ELECTRICAL DATA	
Switch logic	Electronic normally open
Model	PNP
Operating voltage	10 ~ 28 V DC
Operating current	80 mA max
Power	2 W max
Red Led indicator	unstable reading rang
Green Led	stable reading range
Operating temperature	-10 ~ 60 °C



RIGID SPINDLE

ALSO IN STAINLESS STEEL (See table)

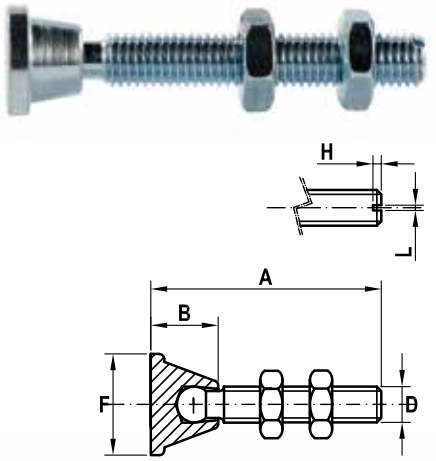
Code	Description	Stainless steel Code	Description	A	B	D
AU099	10099	**AU509**	50099	20	3	M4
AU100	10100	**AU510**	50100	35	3,5	M5
AU101	10101	**AU511**	50101	45	4	M6
AU102	10102	**AU512**	50102	55	5	M8
AU103	10103			70	6	M10
AU104	10104			80	8	M12
AU105	10105			120	8	M12



NEOPRENE SPINDLE

ALSO IN STAINLESS STEEL (See table)

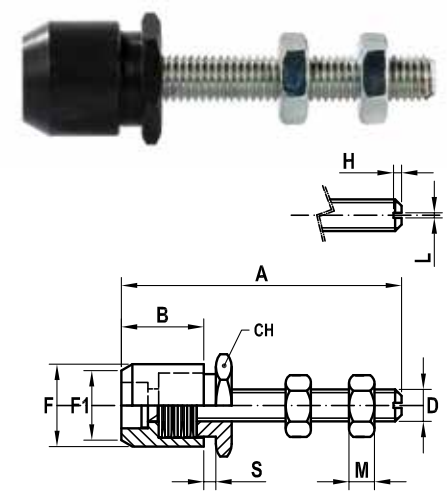
Code	Description	Stainless steel Code	Description	A	B	D	F	CH	L	H
AU139	10139	**AU539**	50139	25	5	M4	6			
AU140	10140	**AU540**	50140	45	11	M5	10	2,5		
AU141	10141	**AU541**	50141	55	12	M6	12,5	3		
AU142	10142	**AU542**	50142	70	16	M8	16	4		
AU143	10143			77	20	M10	20	5		
AU144	10144			100	25	M12	24		2	2,8
AU145	10145			130	25	M12	24		2	2,8



ARTICULED SPINDLE

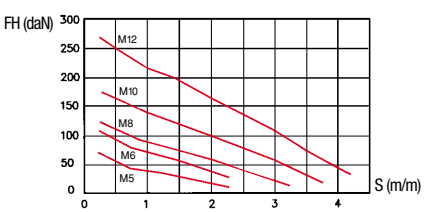
ALSO IN STAINLESS STEEL (See table)

Code	Description	Stainless steel Code	Description	A	B	D	F	L	H
AU120	10120	**AU520**	50120	36	9,5	M5	14	0,8	1,25
AU121	10121	**AU521**	50121	46	10	M6	16	1	1,6
AU122	10122	**AU522**	50122	65	12	M8	18	1,2	2
AU123	10123			75	14	M10	20	1,6	2,4
AU124	10124			85	16	M12	24	2	2,8
AU125	10125			125	16	M12	24	2	2,8

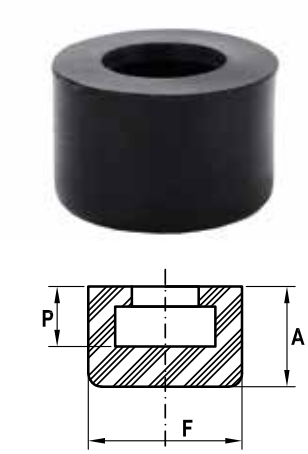


SPRING SPINDLE

Code	Description	A	B	D	F	F1	M	CH	L	H
AU128	10128	45	13	M5	13	11	4	14	0,8	1,25
AU129	10129	50	15	M6	16	13	4	16	1	1,6
AU130	10130	70	17	M8	18	15	5	18	1,2	3
AU131	10131	85	20	M10	24	18	6	24	1,6	2,4
AU132	10132	106	24	M12	28	21	7	27	2	2,8

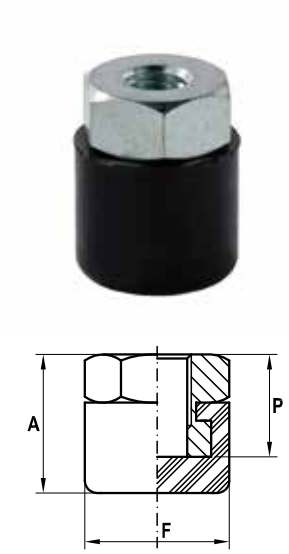


NEOPRENE CAP



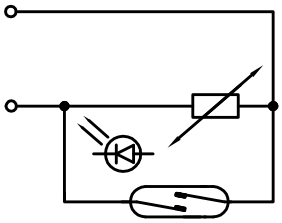
Code	Description	A	F	P	For spindle
AU109	1099	6,5	11	4	10099-M4
AU110	1100	8	12	5,5	10100-M5
AU111	1101	10	15	6	10101-M6
AU112	1102	13	19	7,5	10102-M8
AU113	1103	16	24	9	10103-M10
AU114	1104	19	26	10,5	10104-10105-M12

THREADED NEOPRENE CAP

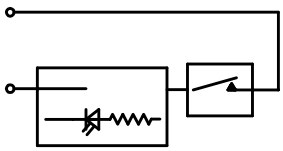


Code	Description	A	F	P	For spindle
AU200	1200	11	12,5	8,5	M5
AU201	1201	14	15	10	M6
AU202	1202	18	19	12,5	M8
AU203	1203	23	24	16	M10
AU204	1204	26,6	26	18	M12

PROXIMITY SWITCHES



AU450 for models
400/APM/EPM - 2100/SPM
AU460 for models
200/APM/EPM - 300/APM/EPM
200/APVM/EPVM - 200/APVMS/EPVMS
300/APVM/EPVM - 300/APVMS/EPVMS
360/SPM - 1100/SPM



AU470 for models
1000/EPM/EPVM
2000/EPM/EPVM

AU570 for models
1000/EPM/EPVM
2000/EPM/EPVM
LPV1/2/3 - 75-130-230-330-430/AP/EP/APV/EPV/ APVS/EPVS - 70-360-1100-2100/SP4

ERGONOMIC HANDLE

Code	Description	Used for series
AU150	10150	75/A-B-E-F-M-MF-N-O-P-ML-NL-OL-PL**50/ASD-ASS**70/AS-ASD-ASS**80/AS**160/T6 **"Also for the Stainless steel series"**
AU151	10151	120/AS**130/M-N-O-P-MF-A-B-E-F-ML-NL-OL-PL-OLS-PLS**LLA-LLB-LLE-LLF/01 **"Also for the Stainless steel series"**
AU152	10152	200/AVF-EVF**230/A-B-E-F-AL-BL-EL-ELS-FL-FLS-M-MF-N-O-P**165/AS**320/T6**200/ APV3S-APVMS-EPV3S-EPVMS** **"Also for the Stainless steel series"**
AU153	10153	200/AV-EV**300/AVF-EVF**330/A-B-E-F**550/ASD-ASS**300/AS**550/AS**200/ T-TF**33/T-TF-TL-TFL**700/T6**300/APV3S-APVMS-EPV3S-EPVMS **"Also for the Stainless steel series"**
AU154	10154	300/AV-EV**430/A-B-E-F**LLA-LLB-LLE-LLF/02**1100/AS**340/AS**300/T-TF**43/ T-TF-TL-TFL**1400/T5**355/M-MF-N-O-P **"Also for the Stainless steel series"**
AU155	10155	530/A-B-E-F**2100/AS**3100/AS**400-T-TF**455/M-MF-N-O-P
AU156	10156	LLE-LLF/03**1000/F**2000/F
AU157	10157	LLE-LLF/04**3000/F
AU158	10158	160/AS-ASD-ASS**230/OLS-PLS
AU159	10159	230/ML-NL-OL-PL **"Also for the Stainless steel series"**
AU160	10160	355/ML-NL-OL-PL
AU161	10161	455/ML-NL-OL-PL

FLANGED WASHER

ALSO IN STAINLESS STEEL (See table)

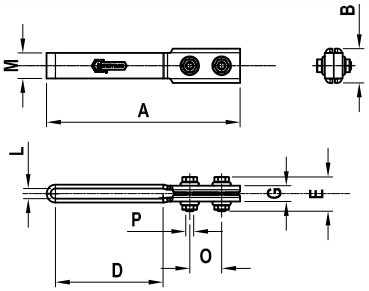
Code	Description	Stainless steel Code	Description	Used for series	For spindle
AU205	20105	**AU505**	50105	25/M-MX	M4
AU206	20106	**AU506**	50106	70/AP3-75/M-N-MF-A-B-ML-NL **"Also for the Stainless steel series"**	M5
AU207	20107	**AU507**	50107	AT6-AP6 (NO INOX) 130/M-N-MF-A-B-ML-NL-AL-BL **"Also for the Stainless steel series"**	M6
AU208	20108	**AU508**	50108	AT8-AP8 (NO INOX) 200/AV-APM-AP3-APV3-APVM-APV3S-APVMS-AVF-230/M-N-MF-A-B-ML-NL-AL-BL **"Also for the Stainless steel series"**	M8
AU209	20109			300/A-B-AV-APV3S-APVMS-APM-APV3-APVM-AP3-AVF-330/A-B-355/M-N-MF-ML-NL	M10
AU210	20110			400/AP3-APM-430/A-B-455/M-N-ML-NL-530/A	M12
AU211	20111			LLA-B/01	M6
AU212	20112			LLA-B/02	M10

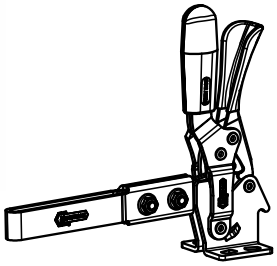
BOLT RETAINER BAND

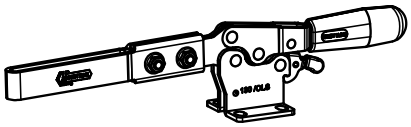
ALSO IN STAINLESS STEEL (See table)

Code	Description	Stainless steel Code	Description	Used for series	For spindle
AU180	10180	**AU580**	50180	70/EP3-75/O-P-E-F-OL-PL **"Also for the Stainless steel series"**	M5
AU181	10181	**AU581**	50181	125/EP3	M6
AU182	10182	**AU582**	50182	200/EV-EPM-EP3-EPV3-EPVM-EPV3S-EPVMS-EVF-230/ O-P-E-F-OL-PL-EL-FL **"Also for the Stainless steel series"**	M8
AU183	10183			300/EV-EPV3S-EPVMS-EPM-EPV3-EPVM-EP3-EVF	M10
AU184	10184			330/E-F-355/O-P-OL-PL	M12
AU185	10185			400/EP3-EPM	M12
AU186	10186			430/E-F-455/O-P-OL-PL	M12
AU189	10189	**AU589**	50189	130/O-P-E-F-OL-PL-EL-FL **"Also for the Stainless steel series"**	M6
AU190	10190			530/E-F	M12

EXTENSION

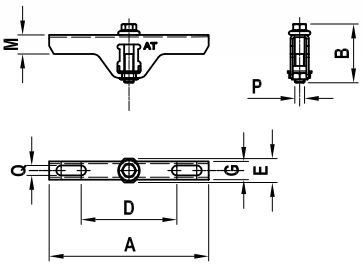


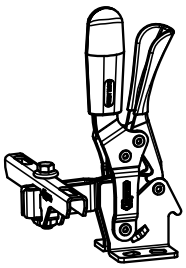


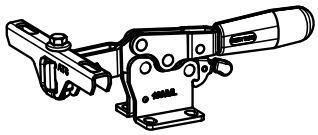


Code	Description	A	B	D	E	G	L	M	O	P	Q	gr.	Can be applied to the tools
AU340	AP6	121	21,5	67,5	21,5	10	6,3	16	20	M5		95	130/OLS/PLS/ELS/FLS
AU342	AP8	142	24,5	71,5	26,5	12	8,2	18	26	M6		165	230/OLS/PLS/ELS/FLS

CROSS BAR

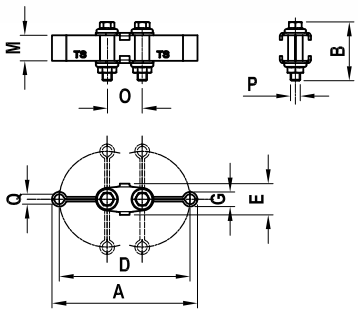


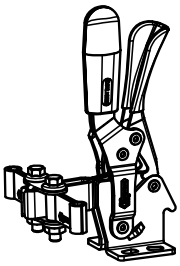


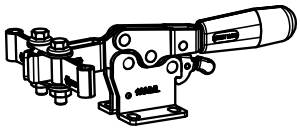


Code	Description	A	B	D	E	G	L	M	O	P	Q	gr.	Can be applied to the tools
AU320	AT6	100	37	60-85	15	11,5		12		M6	6,2	50	130 VER.-130 HORIZ.-125/AP3
AU322	AT8	120	43	70-100	18	14		15,5		M8	8,2	96	230 VER.- 230 HORIZ.- 200/AP3

ARTICULATED CROSS BAR







Code	Description	A	B	D	E	G	L	M	O	P	Q	gr.	Can be applied to the tools
AU330	TS6	91	37	82	19,5	9,2		16	22	M6	6,2	70	130 VER.- 130 HORIZ.- 125AP3
AU332	TS8	112	43	100	26	12		18	27	M8	8	120	230 VER.- 230 HORIZ.- 200AP3

ANALYTICAL INDEX

ANALYTICAL INDEX

ANALYTICAL INDEX

ANALYTICAL INDEX

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>90°
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FH1 FH2
D
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>100°
FS
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