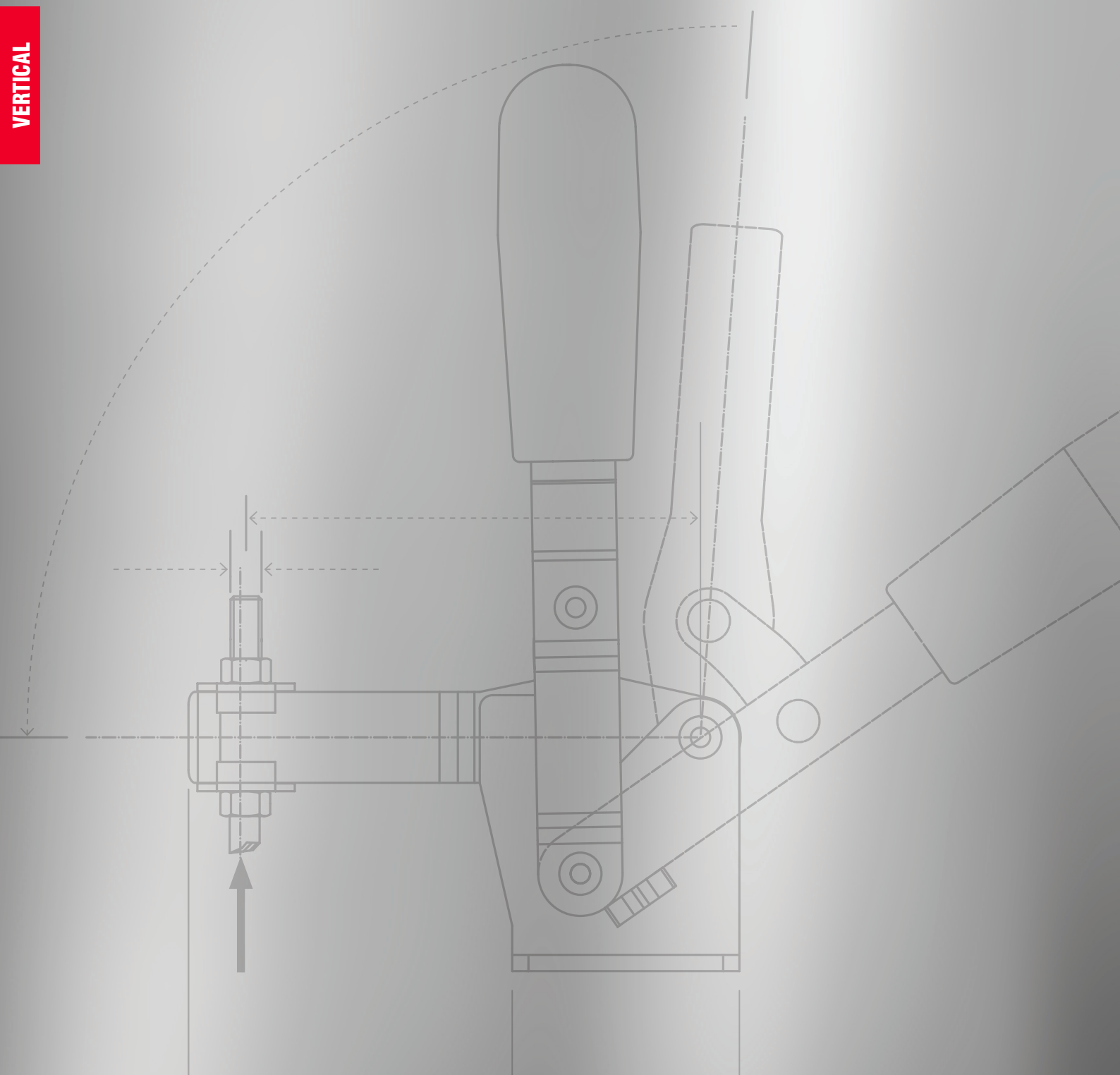


# VERTICAL SERIES

VERTICAL



Here you can download  
2D and 3D CAD drawings  
of all products.



The tools of this family are characterized by the vertical position of the control lever in the clamping position. The clamping and control levers normally move in the same direction.

Depending on the different needs of the application, you can choose between four different executions:

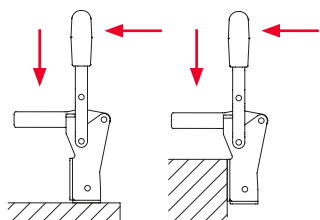
**LIGHT SERIES:** It has holding forces from 75 to 875 daN. They are available in galvanized steel and stainless steel.

**HEAVY-DUTY SERIES:** It has retention forces from 1000 to 3000 daN. The heavy-duty version is used when there are resistant forces of high intensity, for example: in the closing of moulds for foams, polyurethanes, etc. The tools of this series are built so that they can be easily disassembled so as to allow the reworking of the individual elements according to the needs of use. The products are made of phosphated weldable steel.

**REINFORCED HEAVY-DUTY SERIES:** It has holding forces from 220 to 1540 daN. The hot forged parts, as well as the tempered and ground pins and bushings, make this series suitable for heavy loads and a long service life. They are normally used on welding masks, carpentry work, moulds and generally where large clamping forces and strong repetitiveness of movements are required.

**HIGH TEMPERATURE SERIES:** It has holding forces from 160 to 1500 daN. These tools are free of plastic parts and with the appropriate modifications compared to the light series models (couplings with different tolerances, changes in geometries, different finishes, etc., etc.) that make them suitable for use in environments that can reach 240-300 °C. The products are made of phosphated weldable steel.

They are normally used in the rotational moulding of plastic and require a type of clamping capable of working safely and quickly at high temperatures without uncertainties in closing and opening.



# AVF-EVF

## VERTICAL TOGGLE CLAMPS WITH DOUBLE HORIZONTAL AND FRONT BASE

### Material:

Galvanized steel.

### Riveted Pivots:

Galvanized steel.

### Supporting bushes (for sizes $\geq 130$ ):

Hardened and ground steel.

### Handle:

Red polyurethane; resistant to oils, greases and other chemical agents.

### Executions:

- **AVF:** clamping lever open with two folded washers, included in the supply
- **EVF:** full clamping lever and bolt retainer, included in the supply, to be welded in the desired position and angle.

### Features and applications:

During closing, the clamping lever is guided laterally to ensure greater stability against any transverse stresses.

The movement of the levers has been designed to ensure the safety of the operator's fingers and prevent them from being crushed during the movement of the tool.

A special grease is applied to the contact surfaces to reduce friction and make the movement smoother.

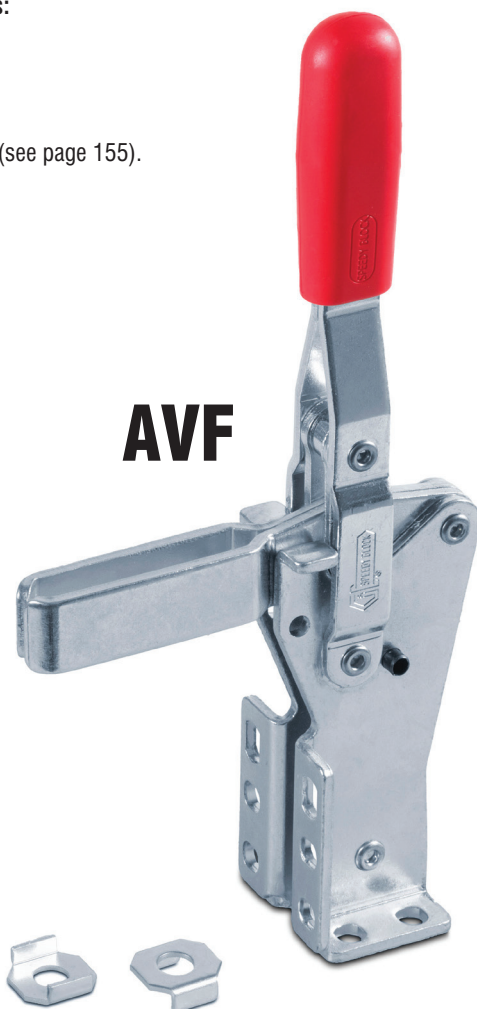
### Other available executions:

Pneumatic series.

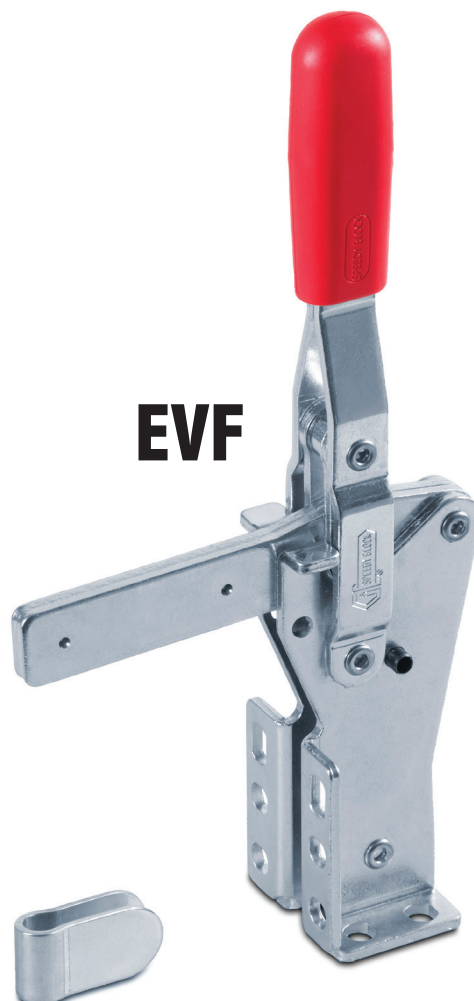
### Accessories:

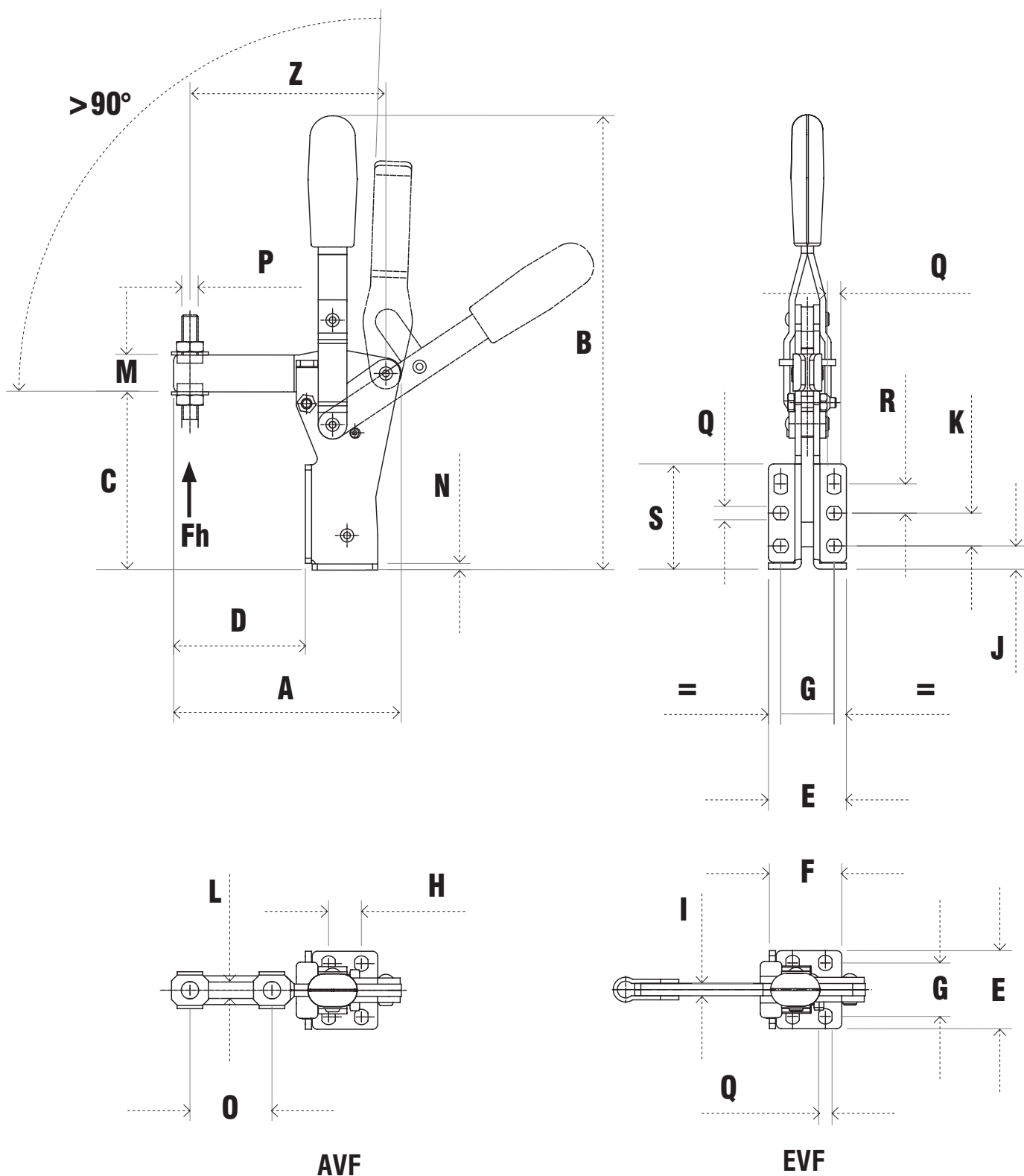
- Spindles (see page 152).
- Lever crossbars for AVF (see page 155).

**AVF**



**EVF**





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. $\Delta^+ \Delta^-$
AA090	75/AVF	67	120	43	35.5	34	24	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	24	24	12.5	4	10	12.5		11	2		M5	4.5		30		75	130
AA142	130/AVF	85	184	70	43	42	31	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	31	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	35	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	35	26	16	6	11	16		18	3		M8	6.5	14.25	51		220	500
AA322	330/AVF	129	259	108	71	48	49	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	49	30	28	7	19	30		22	3.5		M10	8.5	20	79		260	800