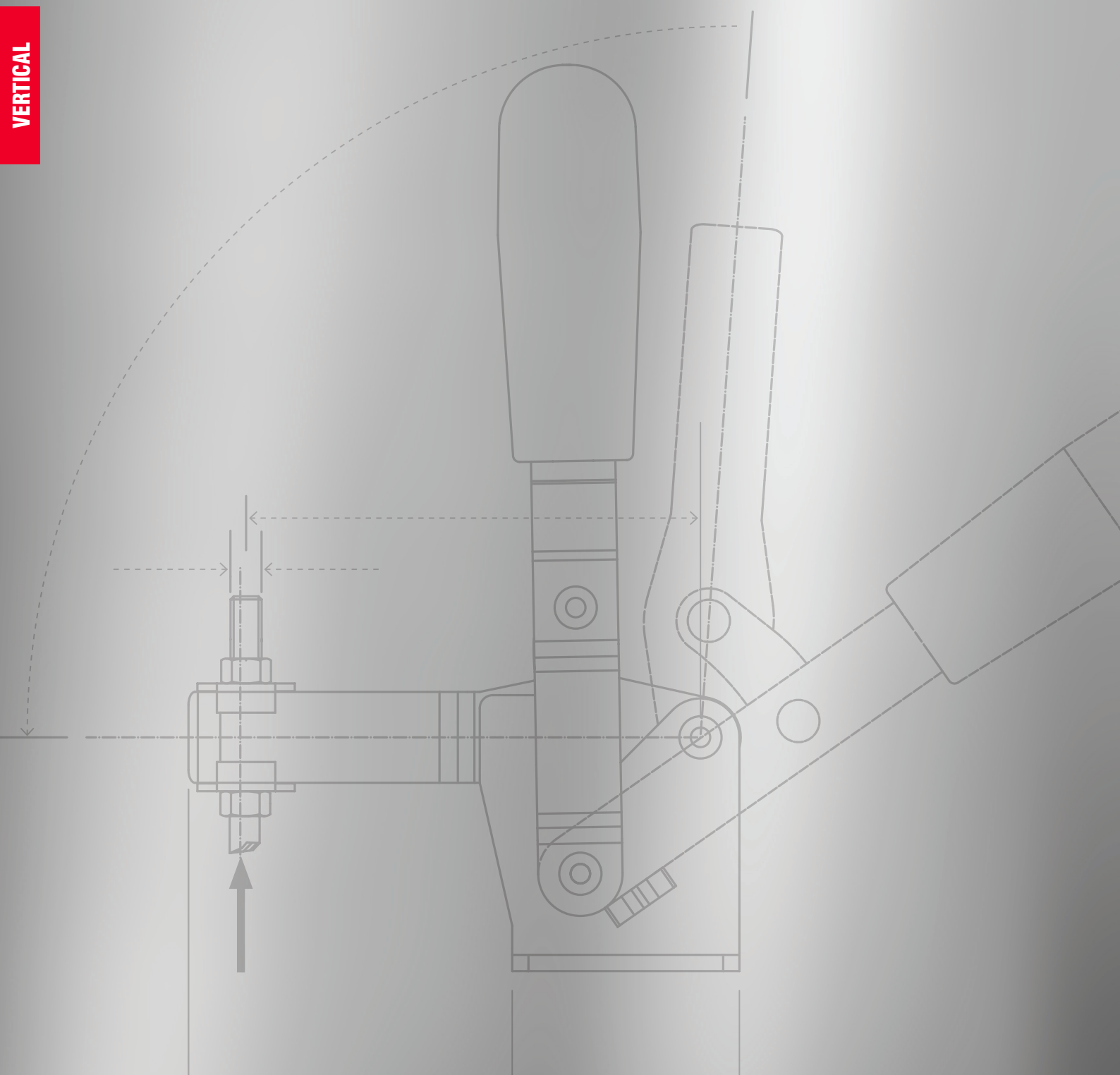


# VERTICAL SERIES

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:

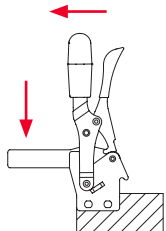
**LIGHT SERIES:** It has holding forces from 75 to 875 daN. They are available in galvanized steel and stainless steel.

**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.



# BL/BLX – FL/FLX

## VERTICAL TOGGLE CLAMPS WITH STRAIGHT BASE AND SAFETY LEVER

### Material:

Galvanized steel (BL/FL) or **AISI 304 stainless steel** (BLX/FLX).

### Riveted Pivots:

Galvanized steel (BL/FL) or **AISI 304 stainless steel** (BLX/FLX).

### Supporting bushes:

Hardened and ground galvanized or stainless steel.

### Handle:

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

### Executions:

- **BL/BLX**: open clamping lever with two folded washers, included in the supply.
- **FL/FLX**: full clamping lever and bolt retainer, included in the supply, to be welded in the desired position and angle.

### Safety lever:

Galvanized steel (BL/FL) or **AISI 304 stainless steel** (BLX/FLX), red PVC coating.

### Features and applications:

The safety lever ensures the perfect anchoring of the tool, even in the open position, preventing any accidental openings caused by vibrations or shocks (see picture 01).

In fact, opening the tool requires a mechanical action by the operator to disengage the retaining system.

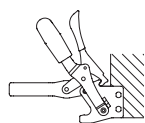
During closing, the clamping lever is guided laterally to ensure greater stability against any transverse stresses.

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.

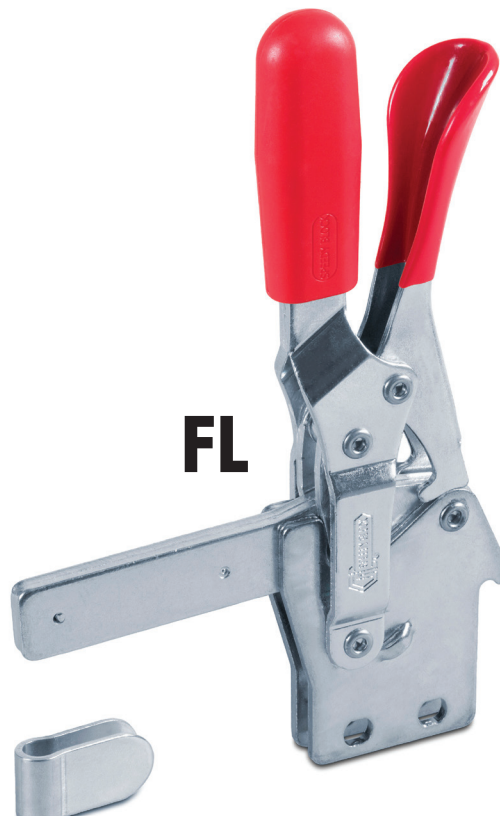
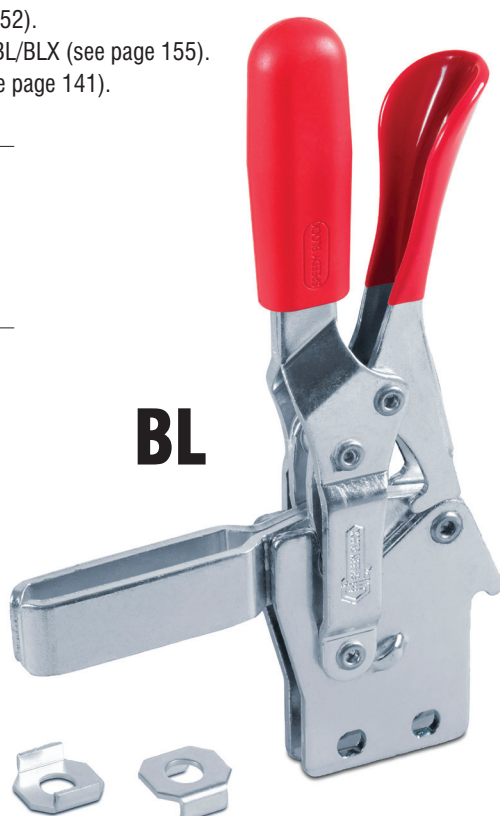
A special grease is applied to the contact surfaces to reduce friction and make the movement smoother.

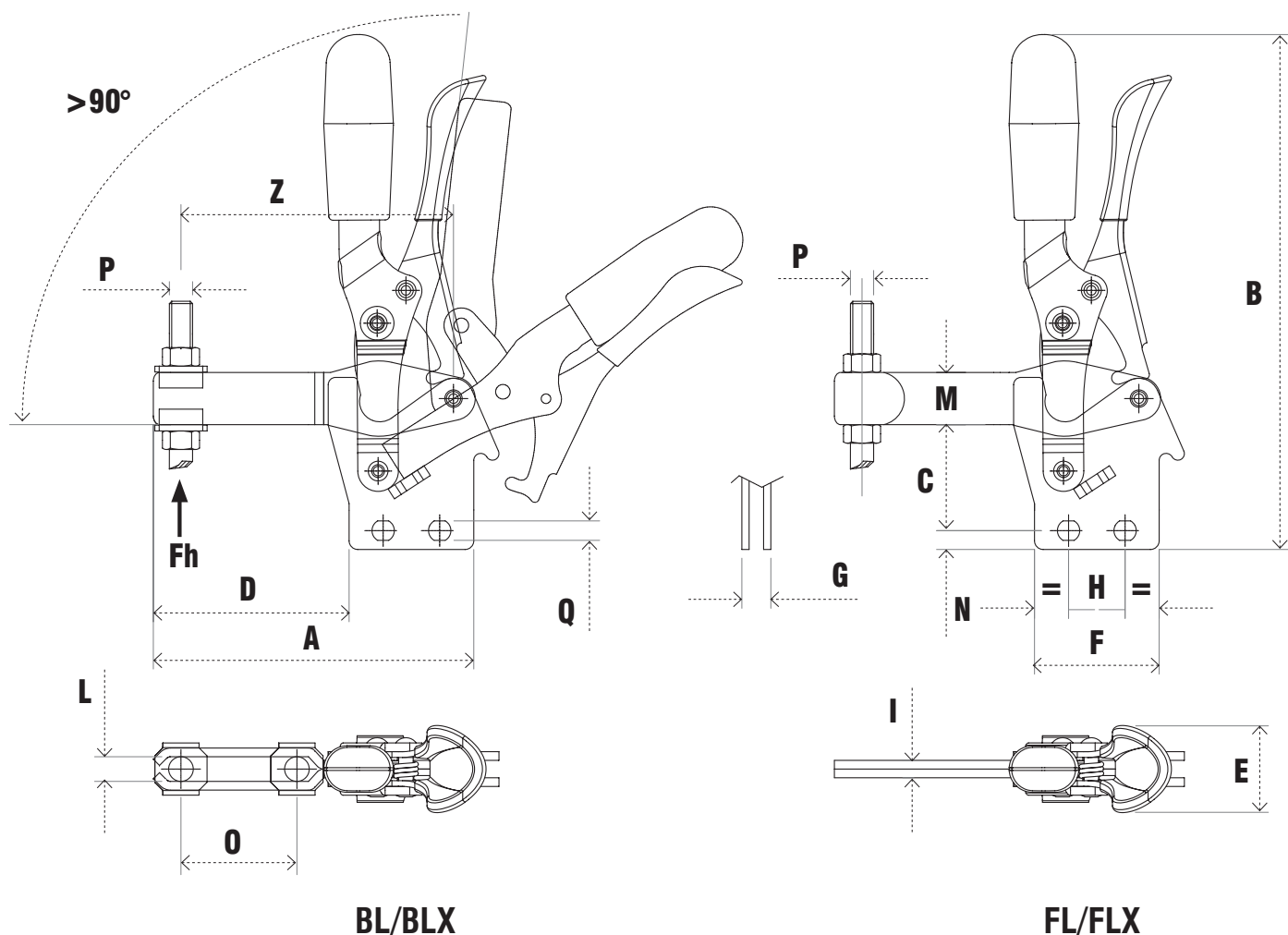
### Accessories:

- Spindles (see page 152).
- Lever crossbars for BL/BLX (see page 155).
- Safety sensor kit (see page 141).



picture 01  
Vertical assembly.





Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	Gr.
AA584	130/BL	85	156	35÷36	50	25.5	35	10	12.5÷19		6.2	16	6.7÷7.5	28	M6	5.6	71	105	275
AA588	130/FL	86	156	35÷36	51	25.5	35	10	12.5÷19	5		16	6.7÷7.5		M6	5.6		105	280
AA592	230/BL	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	112	183	41.5	69	30	43	12	18÷21	6		18	6.5		M8	6.7		200	390



Code	Description	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	Z	Fh (daN)	Gr.
AS202	130/BLX	85	156	35÷36	50	25.5	35	10	12.5÷19		6.2	16	6.7÷7.5	28	M6	5.6	71	105	275
AS206	130/FLX	86	156	35÷36	51	25.5	35	10	12.5÷19	5		16	6.7÷7.5		M6	5.6		105	280
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
AS216	230/FLX	112	183	41.5	69	30	43	12	18÷21	6		18	6.5		M8	6.7		200	390

