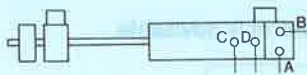


**Pneumatic feed unit
with safety guard**

Type BV-...



FESTO feed units are compact, space-saving components for the synchronized feeding of belts, strips, rods, profiles and pipes made of metal, plastic, wood, textiles etc.

These feed units can be used to perform pushing or pulling movements. Their full operational reliability is guaranteed in all installation positions. The feed speed, feed length as well as clamping and feed force are infinitely adjustable.

The feed speed can be synchronized with the working cycle of the machine to which the feed unit is connected. There is a quick exhaust for the feed gripper. Types BV-200-... have built-in speed control valves for adjusting the feed speed.

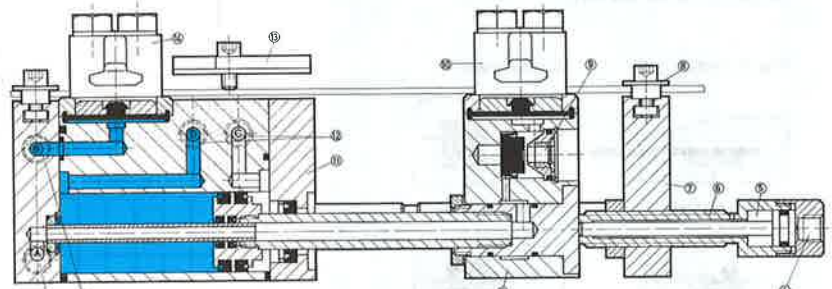
On Types BV-100-... and BV-200-... the total stroke length is divided into several ranges which are used for coarse setting. Fine setting is by means of an adjusting screw. The set stroke will be retained, even over long periods of time. Built-in end position cushioning prevents hard impacts and excessive noise.

All parts which come into contact with the material to be transported are hardened, as are the ground guide rods and bearings.



All clamping and feed movements are controlled centrally and in the correct sequence by a special pilot valve (Type VL-8-³/₈-B, see sheet 2.455) or a special solenoid valve (Type MLC-8-³/₈-B, see sheet 2.555).

Example: Type BV-100-...



- ① Connection for feed gripper
- ② Connection for hold gripper
- ③ Feed block
- ④ Mains connection for end position cushioning
- ⑤ End position cushioning
- ⑥ Stop for fine setting
- ⑦ Stop for coarse setting
- ⑧ Guide roller for strip material
- ⑨ Quick exhaust for feed gripper
- ⑩ Gripper jaw (feeding)
- ⑪ Built-in end position cushioning
- ⑫ Connections for advance and return movements
- ⑬ Hold-down
- ⑭ Grippers jaw (holding)

Order code	2014	3646	2015	2016	3534	2017	4650	
Part No./Type	BV-50-40	BV-50-100	BV-100-70-C	BV-100-200-C	BV-200-125-C	BV-200-250-C	BV-200-350-C	
Medium	Compressed air, filtered, lubricated							
Mounting	Through-holes in housing							
Connection	G 1/8, connector for 4 mm tubing			G 1/4	G 3/8			
Pressure range	3 to 6 bar							
Feed force at 6 bar	240 N (≈ 24 kp)		400 N (≈ 40 kp)		800 N (≈ 80 kp)			
Return force at 6 bar	180 N (≈ 18 kp)		320 N (≈ 32 kp)		640 N (≈ 64 kp)			
Clamping force at 6 bar*	650 N (≈ 65 kp)		1300 N (≈ 130 kp)		3000 N (≈ 300 kp)			
Feed length	mm	0 to 40	0 to 100	0 to 70	0 to 200	0 to 125	0 to 250	0 to 350
Max. width of material	50 mm		100 mm		200 mm			
Max. thickness of material	1 mm		1.5 mm		2 mm			
Temperature range	- 10 to +60° C							
Materials	Housing, chucks: steel; seals: perbunan							
Weight	4.444 kg	5.3 kg	7.42 kg	10.72 kg	21 kg	26 kg	41.8 kg	

* With high-power clamp (available on request) BV-100-...:2500 N (≈ 250 kp)
BV-200-...:5400 N (≈ 540 kp)

Max. number of cycles and feed accuracy

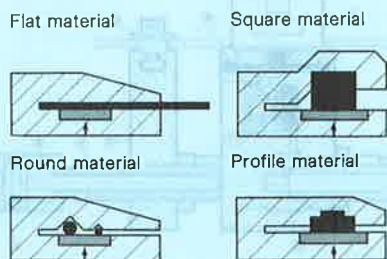
These values depend to a large extent on the accelerated mass, i.e. the greater the dead weight and the number of cycles of the material being conveyed, the higher the clamping force and end position cushioning of the feed block must be to prevent the material from being displaced when it reaches the stop.

If necessary, a driven reel and a straightening device must be used.

If these factors are taken into consideration, feed accuracies between 0.02 and 0.05 mm can be obtained.

By means of the automatic equalisation of tension, materials of different thicknesses can be transported without any adjustment being necessary.

The open gripper jaws make it possible to also insert the material to be conveyed into the feed unit from the side. In addition, material can be transported which projects far beyond the width of the unit. If the jaws are shaped appropriately, round material, tubes and profiles can also be fed.



The serrated clamping pistons and grippers can be replaced by smooth or plastic-coated versions depending on application.

Mirror-image design

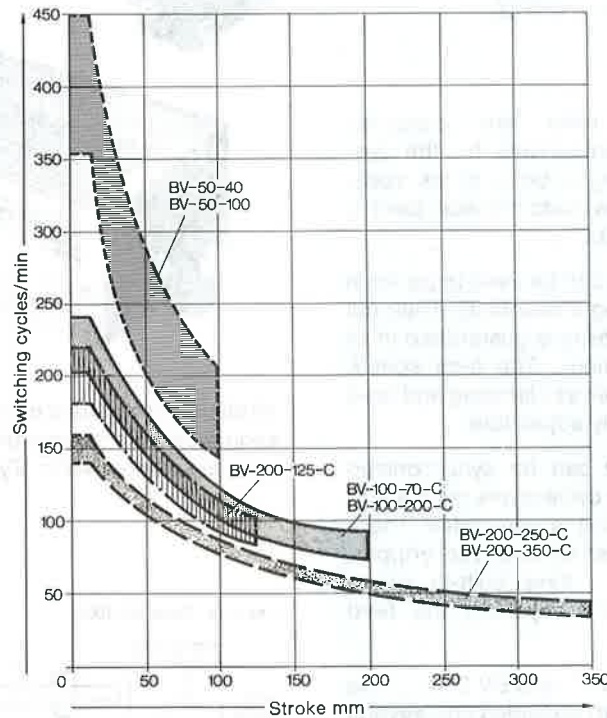
Type BV-50-...

By turning the gripper jaws through 180°, the units can be used in mirror-image design, e.g. when transporting wide strips with two units.

Approximate values for number of cycles/min which can be achieved at 6 bar operating and control pressure

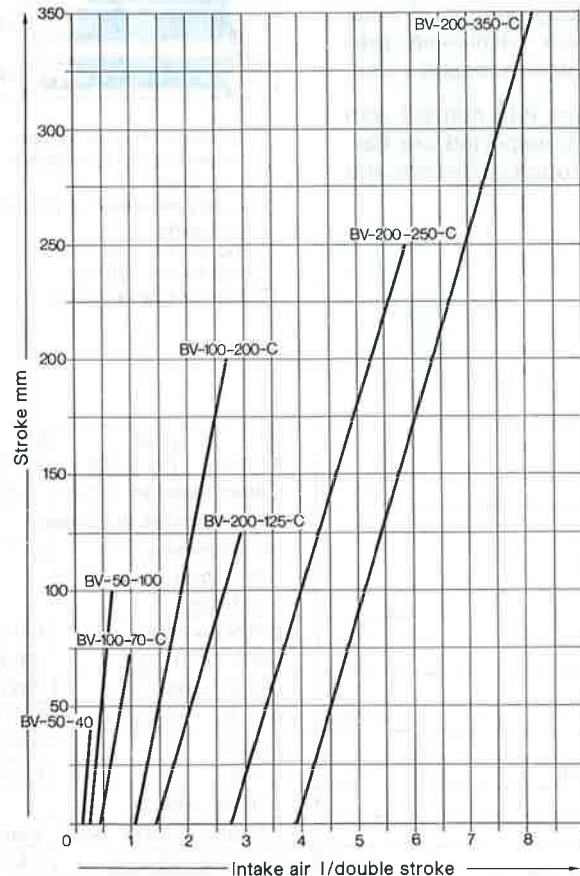
The number of cycles/min which can be achieved depends on several factors, predominantly stroke and load. In the graph, the upper range of each type shows the number of cycles which can be achieved with a small load and the lower range shows the number of cycles which can be achieved with a higher load.

To reach the upper limit, a time-advance control is advisable.

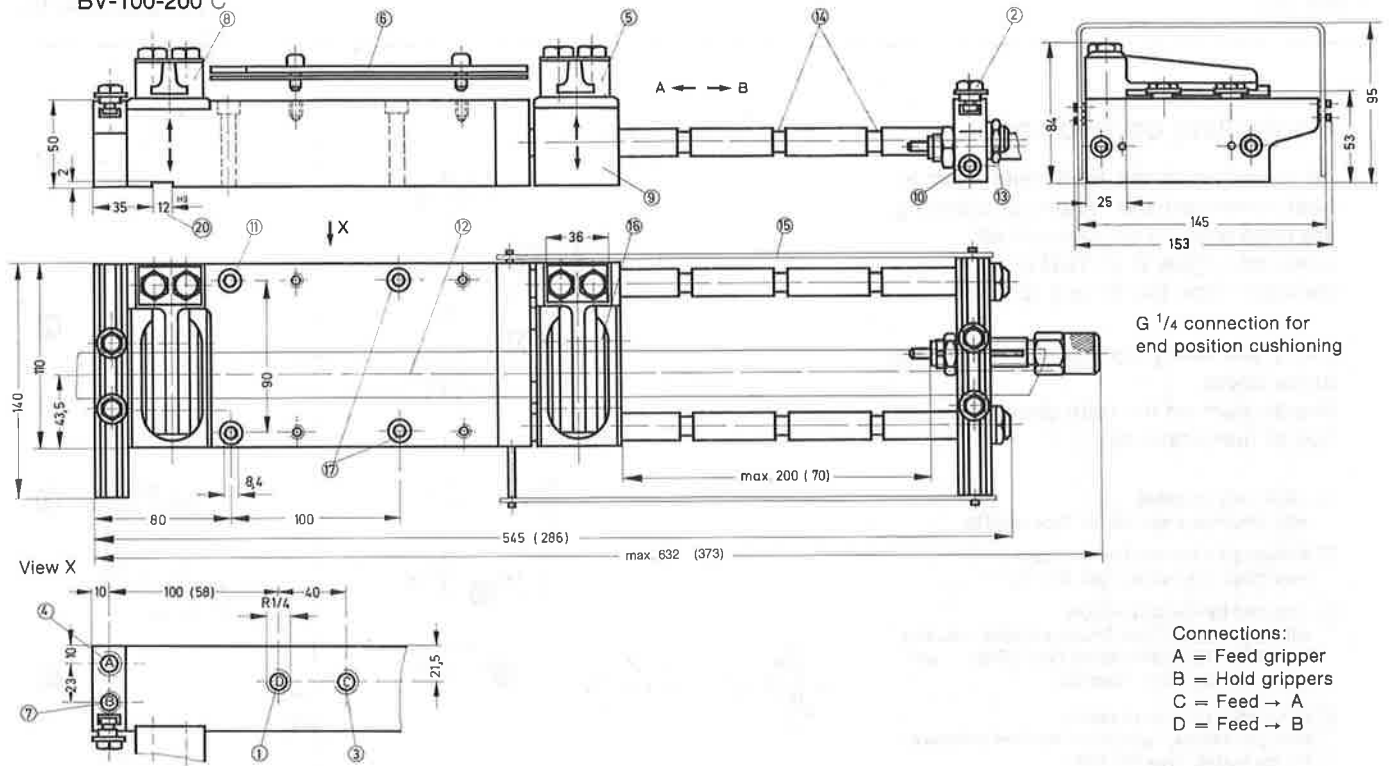


Air consumption at 6 bar operating pressure

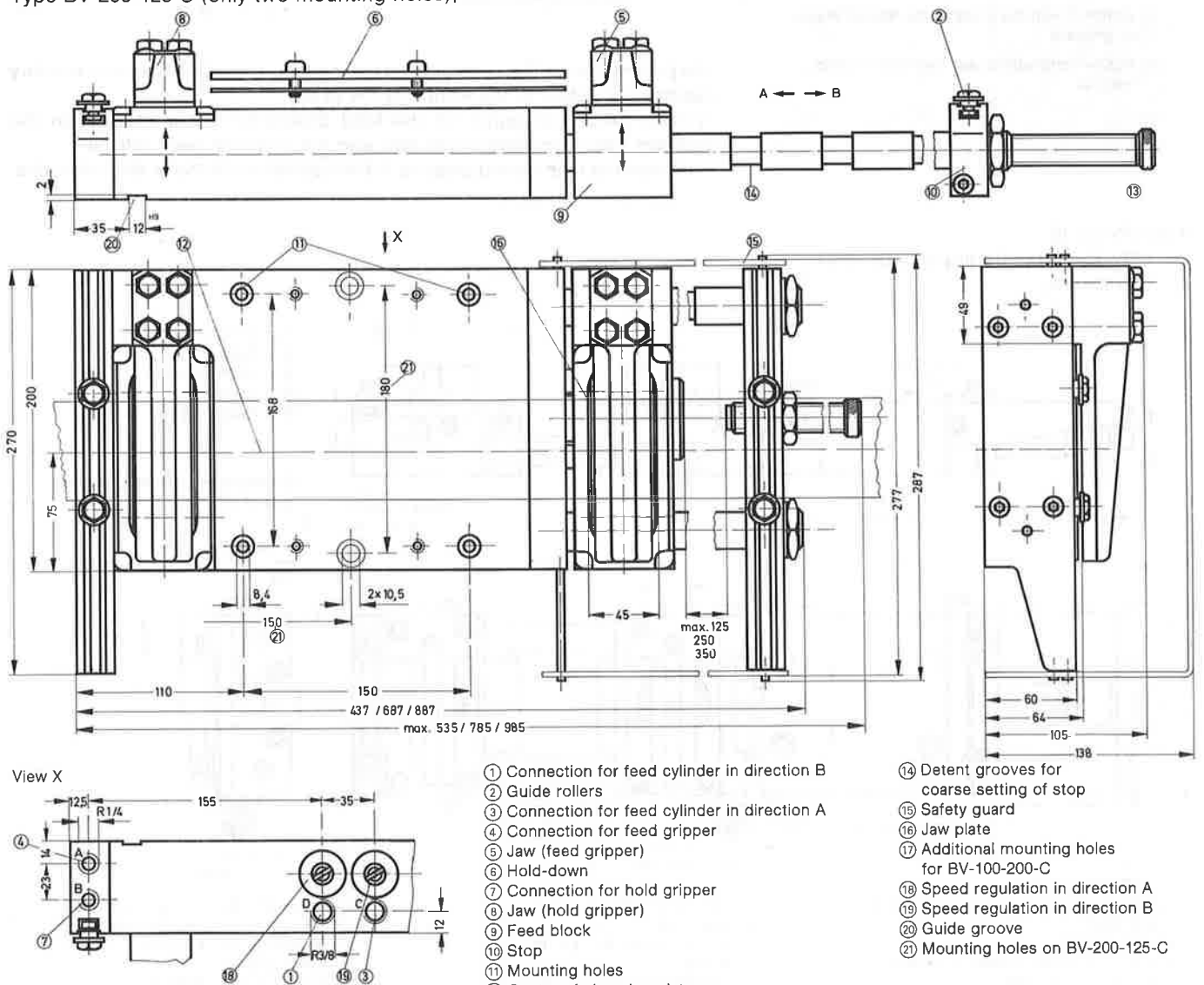
Losses through supply and control lines as well as valves are not taken into account



Type BV-100-70-C (differing dimensions in brackets)
 BV-100-200 C



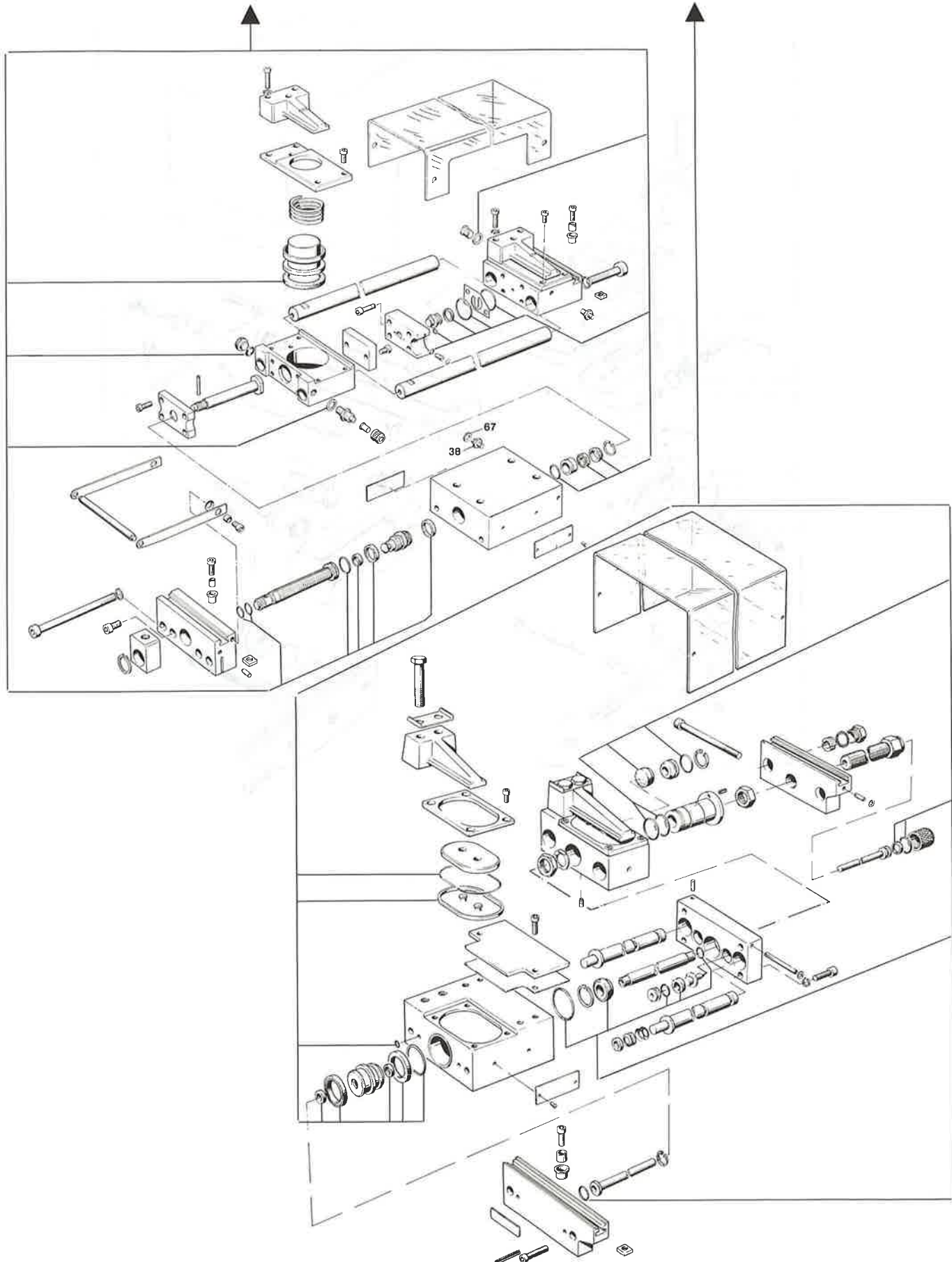
Type BV-200-125 C (only two mounting holes), BV-200-250 C and BV-200-350 C



Dimensional drawing for mounting bracket
 available on request

Wearing parts kit

For type	BV-50-...	BV-100-...
Order code	104 116	104 117



Wearing parts kit

For type	BV-200-...
Order code	104 118

