

BENCOR (Pty) Ltd.

Check valves



Line rupture safety valves type LB

The line rupture safety valves, type LB, are check valves. They are available as screw-in valves or with housing for in-line installation.

The line rupture safety valves are best installed directly on the actuator (cylinder) which is to be safeguarded. This will prevent an uncontrollable, accelerated movement (drop) of a loaded cylinder when the hydraulic back-pressure is lost as a result of a rupture of the pressurized line or pipe connection.

If the flow through the valve increases above the pre-set limit, the flow forces will exceed the opposing spring force and the valve will block the flow immediately. The valve element in these valves is a shim.



There are two different versions available. One valve will completely block the flow when actuated. A second will allow a minimum flow (via an orifice) to slowly drop the load.

Nomenclature: Line rupture safety valve

Design: Screw-in valve with housing for in-line installation

Adjustability: Tool adjustable

p_{max}: 500 bar

Q_{max}: 4 ... 160 l/min

Basic types and general parameters

Basic type and size	Flow Q _{max} (l/min)	Pressure p _{max} (bar)	Connection thread	Symbol
LB 1	4 ... 25	500	G 1/4 (A)	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>simplified</p> </div> <div style="text-align: center;"> <p>detailed</p> </div> </div>
LB 2	6,3 ... 50		G 3/8 (A)	
LB 3	16 ... 80		G 1/2 (A)	
LB 4	25 ... 160		G 3/4 (A)	
Available orifice diameters				<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>slow dropping</p> </div> <div style="text-align: center;"> </div> </div>
		0,5 / 0,8 / 1,0 / 1,2 / 1,5 / 2,0 depending on type and size		

Additional versions

- Line rupture safety valve with housing featuring a thread reduction for special applications
- Versions with metric and UNF thread

Order examples

LB 4 C - 40

Line rupture safety valve size 4 as screw-in valve (coding C), factory set for a response flow of 40 l/min

LB 2 E - 25

Line rupture safety valve size 2 with housing (coding E), factory set for a response flow of 25 l/min