

# RS 16/32 Pipe rupture valve

**6.1.1E**  
P 1/2

## 1. General description

- prevents uncontrolled movement of the cylinder if a pipe or a hose burst occurs
- settable closing flow

## 2. Advantages of Beringer's pipe rupture valve

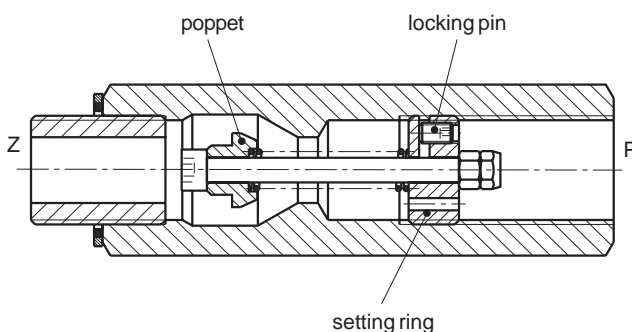
- either almost leakfree closing or slow lowering
- minimal spatial requirement thanks to compact design

## 3. Application

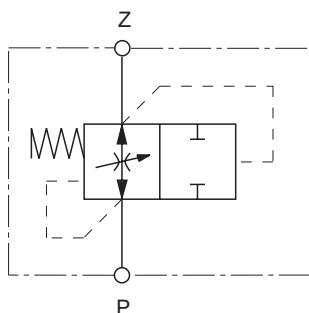
- for protecting hydraulic consumers
- for direct installation in cylinders

## 4. Functional description, sectional view

- 4.1 If, when the oil is flowing from Z to P, the pressure difference in the valve exceeds a value that corresponds to the preloading pressure (approx. 1 bar), the poppet is forced into the conical seat and seals the opening passage.
- 4.2 The pipe rupture valve is opened again automatically when the pressure at port P is higher than that at port Z.



## 5. Symbol



## 6. Characteristics

(Please contact Beringer if machinery is required for use beyond these tolerances)

### 6.1 General:

- Type: direct operated seat valve
- Mounting method: screw-type cartridge
- Ports: P, Z see point 10
- Mounting position: any
- Flow direction: P → Z free flow  
Z → P closing direction
- Weight: see point 10



## 6.2 Hydraulic characteristic:

- Size: 16 / 32
- Min. settable closing flow: 10 l/min / 100 l/min
- Max. settable closing flow: 130 l/min / 400 l/min
- Max. working pressure: up to 480 bar.
- Hydraulic medium: mineral oil per DIN 51524 and DIN 51525 (HL/HLP), inquire about other media
- Hydraulic medium temperature range: -20°C...+80°C, Inquire about other temperatures
- Viscosity range: 2.8 mm<sup>2</sup>/s up to 380 mm<sup>2</sup>/s
- Filtering: NAS 1638 class 9, β<sub>10</sub> ≥ 75.

## 7. Safety instructions

- This valve must only be used for the purpose for which it has been designed.
- It must only be adjusted by trained staff.
- The hydraulic system must be depressurized and checked before the valve is disassembled.
- The valve must not be opened without the express permission of the manufacturer.

## 8. Assembly instructions

- Observe all port designations.
- Protect seals and flange surfaces against becoming damaged.
- Observe the tightening torques (see dimension diagram).
- Bleed the hydraulic system before putting it into operation.

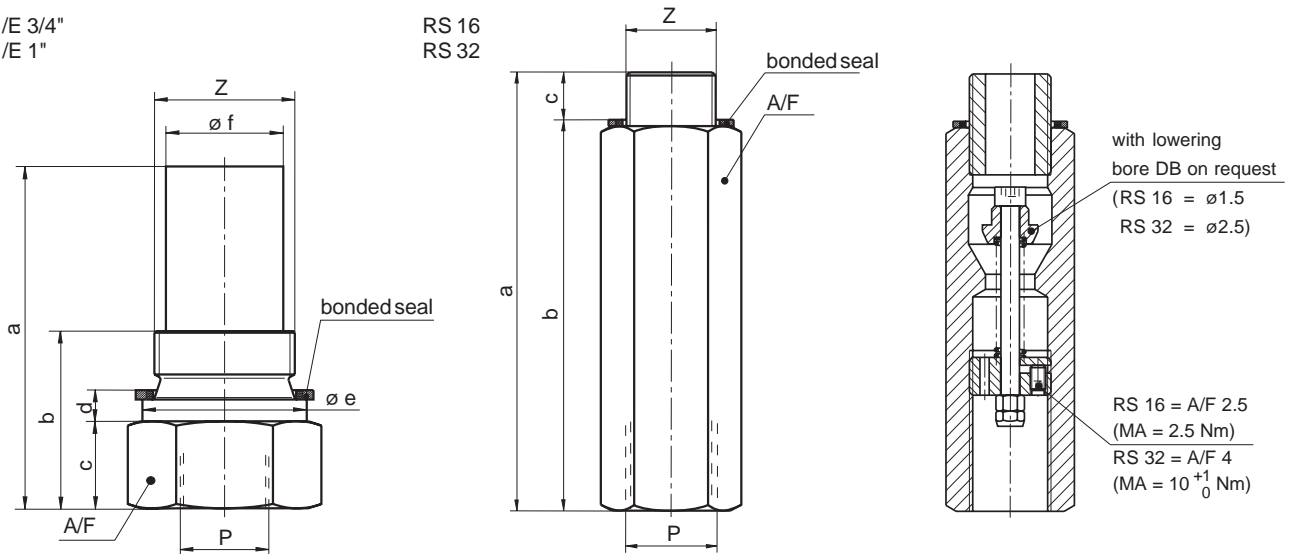
## 9. Adjustment instructions

1. Release the locking pin.
2. Unscrew the setting ring until the poppet sits on the seat.
3. Set the flow acc. to the setting diagrams (see section 11).
4. Tighten the locking pin to the specified torque (see section 10).

**10. Dimension diagram**

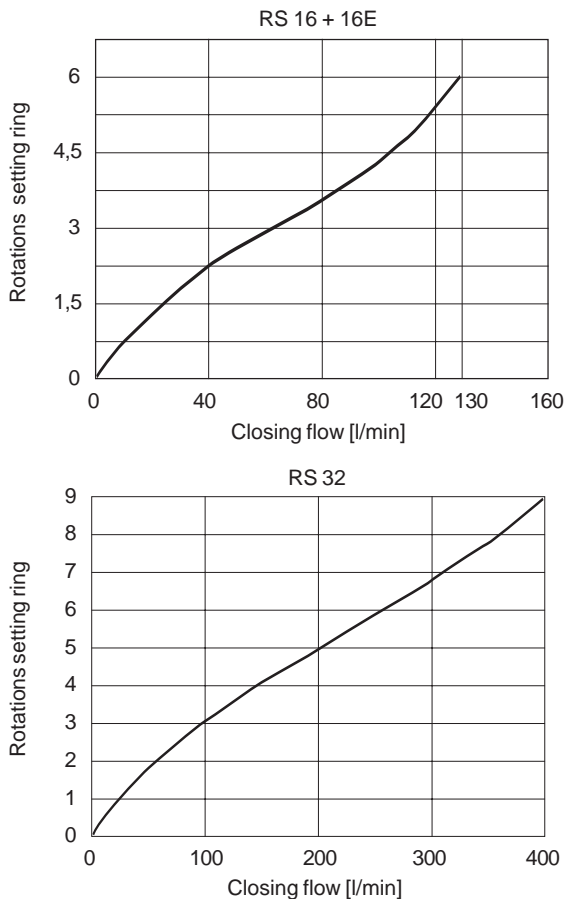
RS 16 /E 3/4"  
RS 16 /E 1"

RS 16  
RS 32

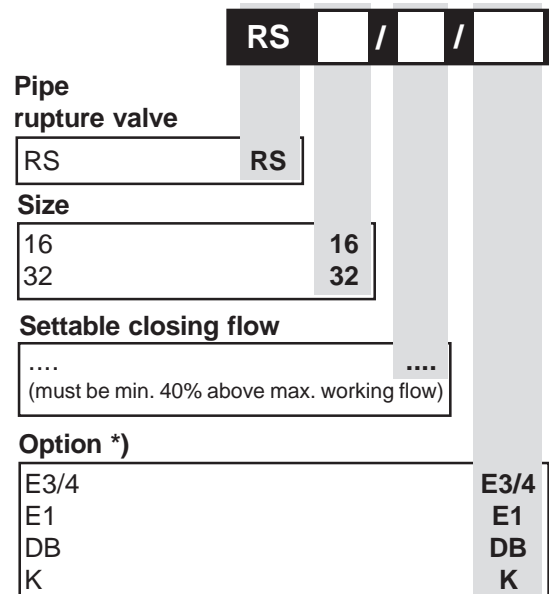


| Type        | max. closing flow [l/min] | P     | Z     | A/F | a   | b   | c  | d  | e   | f   | bonded seal       | weight [kg] |
|-------------|---------------------------|-------|-------|-----|-----|-----|----|----|-----|-----|-------------------|-------------|
| RS 16       | 130                       | G3/4  | G3/4  | 36  | 141 | 127 | 14 | -  | -   | -   | 28.7 x 37.0 x 2.0 | 0.8         |
| RS 32       | 400                       | G11/2 | G11/2 | 70  | 253 | 233 | 20 | -  | -   | -   | 48.7 x 59.0 x 3.0 | 5.5         |
| RS 16/E3/4" | 130                       | G3/4  | G11/4 | 50  | 110 | 57  | 28 | 10 | ø49 | ø35 | 42.7 x 53.0 x 3.0 | 0.8         |
| RS 16/E 1"  | 130                       | G1    | G11/4 | 50  | 110 | 57  | 28 | 10 | ø49 | ø35 | 42.7 x 53.0 x 3.0 | 0.8         |

**11. Setting diagrams** measured at 33 mm<sup>2</sup>/s



**12. Type code**



- \*) E3/4 = threaded connection G3/4"
- E1 = threaded connection G1"
- DB = lowering bore in the closing poppet
- K = copper ring instead of bonded seal for HFD fluids