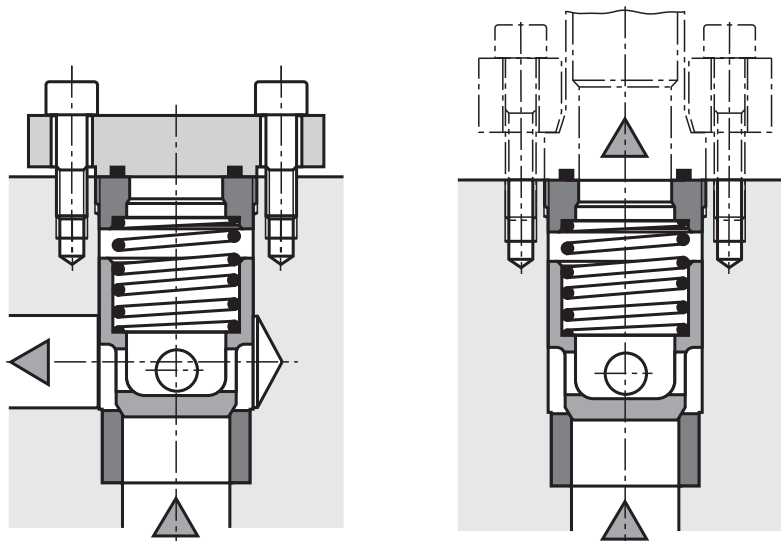
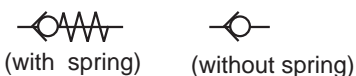


| | | | | |
|-------------------------------|---|---------------|-------------------|----------------------------|
| MANNESMANN REXROTH | Check valve cartridge Type M-SR, Series 1X | | | RE 20 395/12.95 |
| | Sizes 52 to 150 | up to 315 bar | up to 15000 L/min | Replaces: 08.86 |

Characteristics:

- For installation in manifold blocks
 - as right angled check valve cartridge
 - as flow valve cartridge
- Leakage-free closure in one direction
- Various opening pressures, optional (see ordering code)

Symbols



Right angled check valve cartridge
Type M-SR..KE..-1X/.

Straight valve cartridge
Type M-SR..KD..-1X/.

Ordering code

| | | | |
|------------------------------------|-------------|---------------------------|---|
| M-SR | -1X/ | * | |
| Check valve | = M-SR | | Further details in clear text |
| Size 52 | = 52 | | no code = NBR-seals |
| Size 62 | = 62 | | FPM-seals |
| Size 82 | = 82 | | (other seals on request) |
| Size 102 | = 102 | | Warning! |
| Size 125 | = 125 | | Observe sealing suitability of pressure fluid used! |
| Size 150 | = 150 | | |
| Right angled check valve cartridge | = KE | | |
| Straight valve cartridge | = KD | | |
| 1) not for sizes 125 and 150 | | | |
| 2) not for sizes 102, 125 and 150 | | | |
| | | 1X = | Series 10 to 19 (10 to 19: unchanged installation and connection dimensions) |
| | | 00 = | without spring |
| | | 05 = | 0,5 bar opening pressure |
| | | 15 ¹⁾ = | 1,5 bar opening pressure |
| | | 30 ²⁾ = | 3,0 bar opening pressure |

Technical data (For application outside these parameters please consult us!)

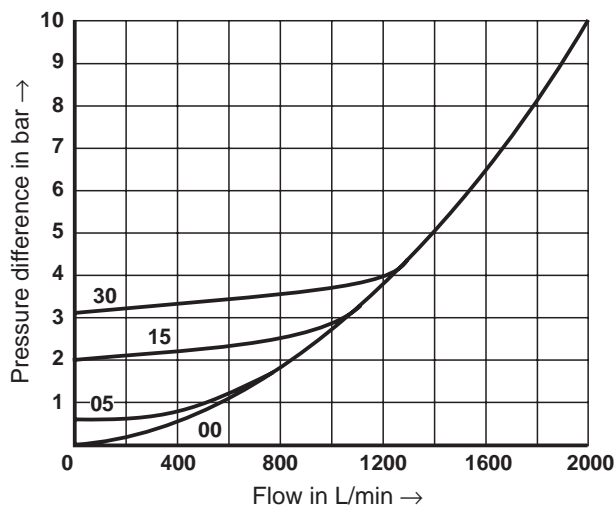
Hydraulic

| | | |
|----------------------------------|--------------------|--|
| Pressure fluid temperature range | °C | - 30 to +80 (NBR-seals) |
| | °C | - 20 to +80 (FPM-seals) |
| Viscosity range | mm ² /s | 2,8 to 380 |
| Operating pressure, max. | bar | up to 315 |
| Opening pressure, max. | bar | see operating curves |
| Flow, max. | L/min | see operating curves |
| Pressure fluid | | Mineral oil (HL, HLP) to DIN 51 524 ¹⁾ ; Fast bio-degradable pressure fluids to VDMA 24 568 (also see RE 90 221); HETG (rape seed oil) ¹⁾ ; HEPG (polyglycols) ²⁾ ; HEES (synthetic ester) ²⁾ ; other pressure fluids on request |
| Fluid cleanliness | | Maximum permissible degree of contamination of pressure fluid to NAS 1638 Class 9. We therefore recommend a filter with a minimum retention rate of β ₁₀ ≥ 75 |

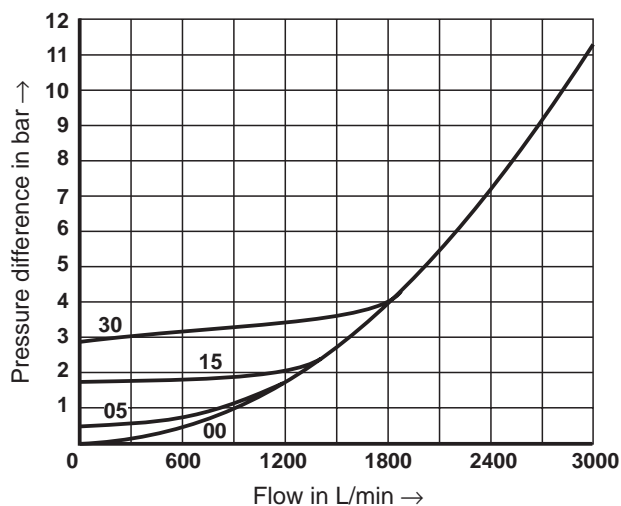
Operating curves (measured at $v = 41 \text{ mm}^2/\text{s}$ and $t = 50 \text{ }^\circ\text{C}$)

Pressure difference Δp dependent on flow q_v at opening pressure

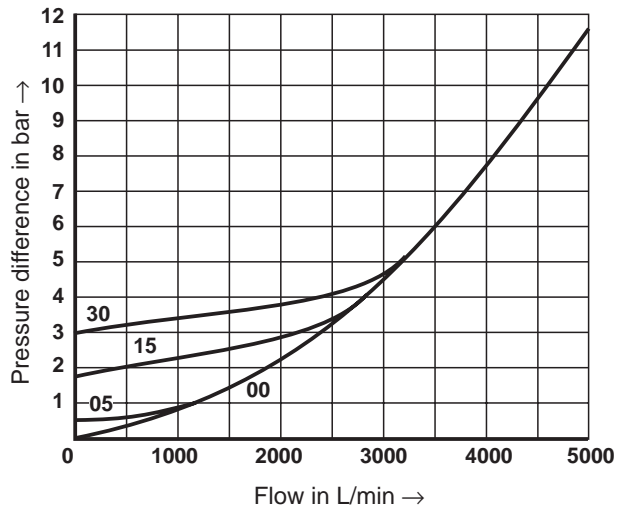
Size 52



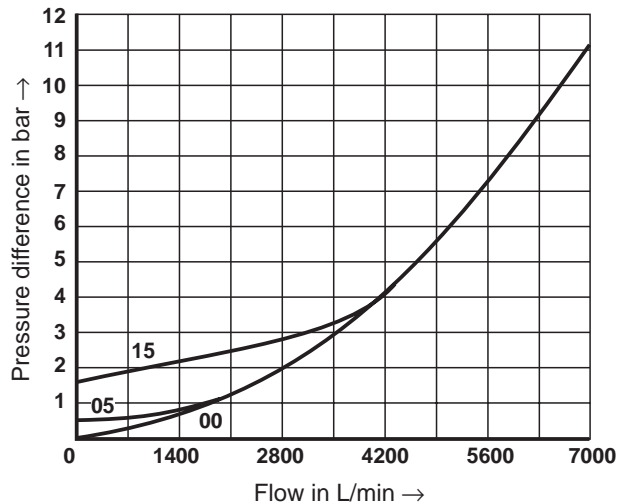
Size 62



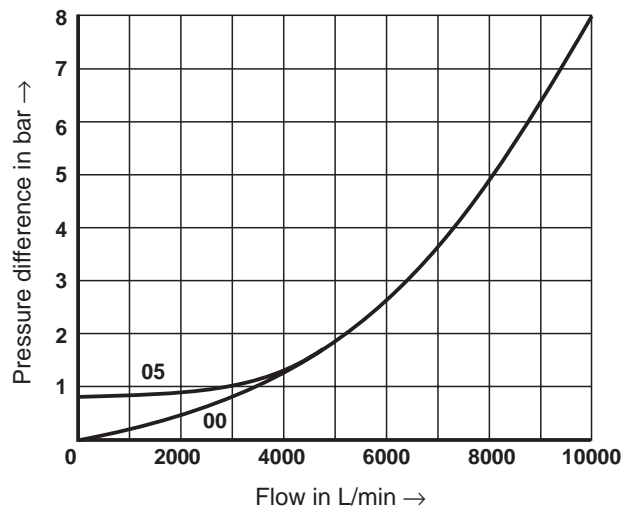
Size 82



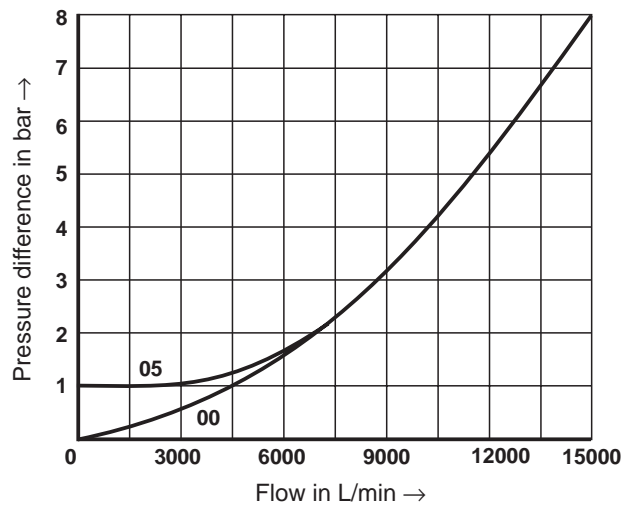
Size 102



Size 125

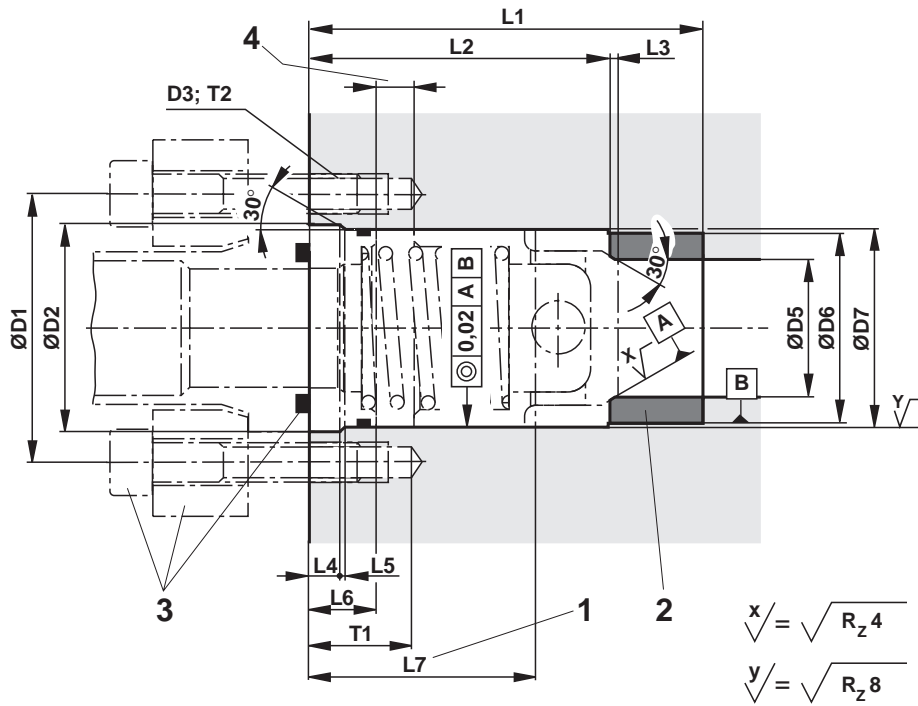


Size 150



Installation bore: Straight valve cartridge, sizes 52 to 150

(Dimensions in mm)



- 1 Fitting depth
- 2 Seat shrunk with -60 °C
- 3 Flange, fixing screws and O-ring are **not included in delivery** and must be ordered separately:

- **Sizes 52 to 102:**
Data sheet RE 45 501
- **Sizes 125 and 150:**
Data sheet RE 45 502

4 Stroke

Warning!

The valve seats ØD6 in sizes 62 to 150 are only pre-ground. The valve seats must be shrunk by 60 µm oversize in sizes 62 and 82 and in sizes 102 to 150 by 80 µm oversize!

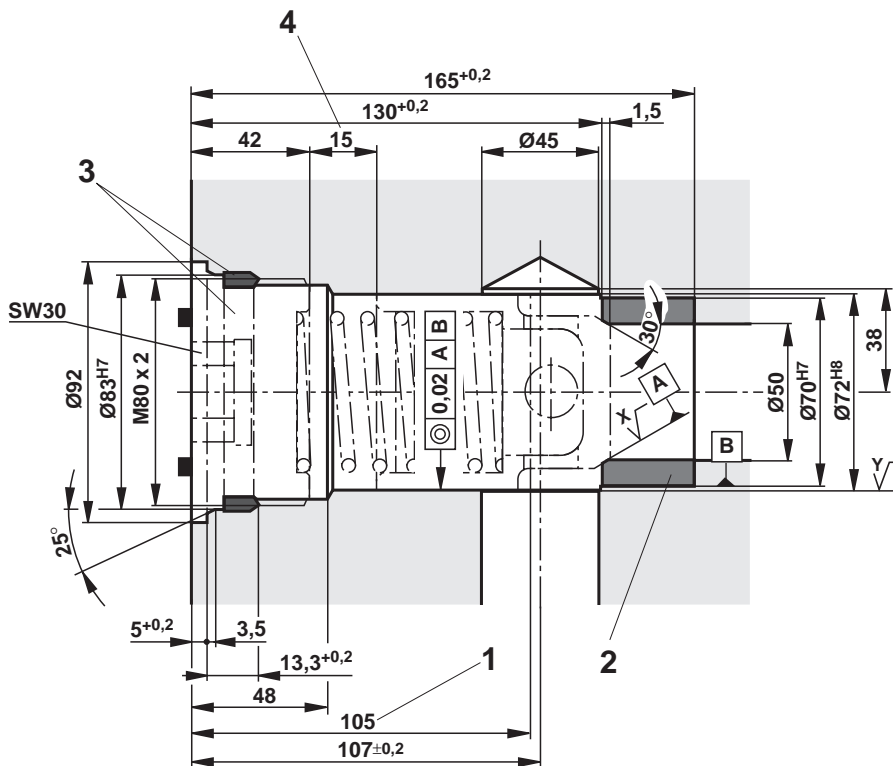
$$x = \sqrt{R_z 4}$$

$$y = \sqrt{R_z 8}$$

| Size | ØD1±0,2 | ØD2+0,1 | D3 | ØD5H7 | ØD6H7s6 | ØD7H8 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | T1 | T2 | Stroke |
|------|---------|---------|-----|-------|---------|-------|-----|-----|-----|----|-----|------|-----|----|----|--------|
| 52 | 98 | 77 | M16 | 50 | 70 | 72 | 146 | 111 | 1,5 | 12 | 1,5 | 23 | 90 | 36 | 26 | 15 |
| 62 | 118 | 93 | M20 | 63 | 85 | 86 | 175 | 135 | 1,5 | 12 | 1,5 | 24,5 | 110 | 42 | 32 | 18 |
| 82 | 145 | 115 | M24 | 72 | 100 | 106 | 210 | 165 | 1,5 | 15 | 2 | 29 | 135 | 50 | 36 | 25 |
| 102 | 175 | 140 | M30 | 90 | 125 | 132 | 260 | 210 | 2 | 18 | 2 | 31,5 | 160 | 60 | 45 | 28 |
| 125 | 245 | 205 | M30 | 122 | 180 | 190 | 360 | 295 | 3 | 30 | 2,5 | 51,5 | 230 | 70 | 56 | 35 |
| 150 | 290 | 240 | M36 | 150 | 220 | 230 | 510 | 430 | 5 | 32 | 2,5 | 81 | 320 | 80 | 64 | 38 |

Installation bore: Right-angled check valve cartridge, size 52

(Dimensions in mm)



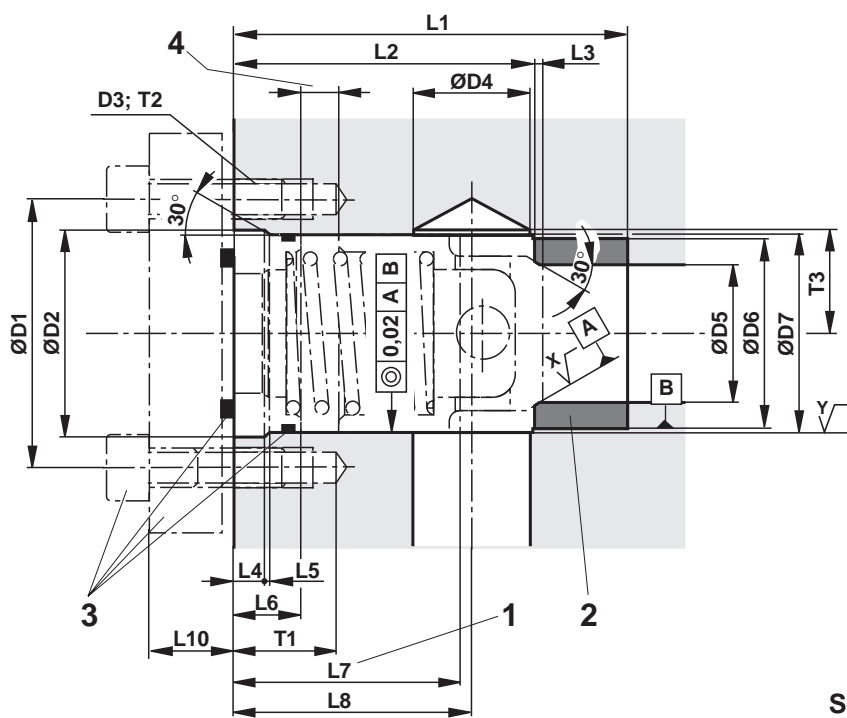
- 1 Fitting depth
- 2 Seat shrunk with -60 °C
- 3 Locking screw and seal are included in delivery
- 4 Stroke

$$x = \sqrt{R_z 4}$$

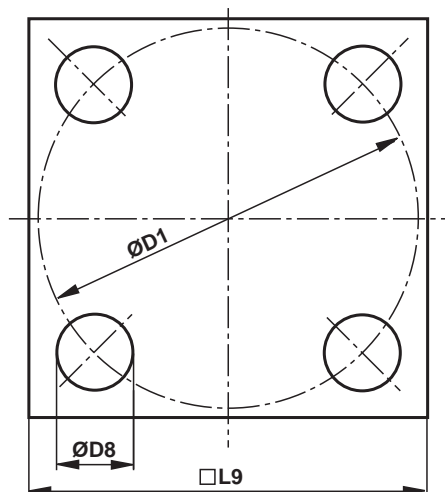
$$y = \sqrt{R_z 8}$$

Installation bore: right-angled check valve cartridge, sizes 62 to 150

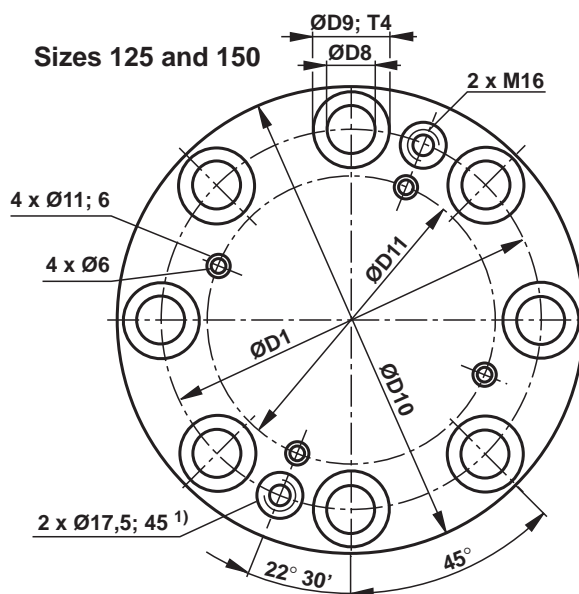
(Dimensions in mm)



Sizes 62 to 102



Sizes 125 and 150



- 1 Fitting depth
- 2 Seat shrunk with -60 °C
- 3 Flange, fixing screws and O-ring are included in delivery.
- 4 Stroke

Warning!

The valve seats ØD6 in sizes 62 to 150 are only pre-ground.
The valve seats must be shrunk with 60 µm oversize in sizes 62 and 82 and in sizes 102 to 150 with 80 µm oversize!

1) only in size 150

$$x = \sqrt{R_z 4}$$

$$y = \sqrt{R_z 8}$$

| Size | ØD1±0,2 | ØD2+0,-1 | D3 | ØD4 | ØD5 ^{H7} | ØD6 ^{H7/s6} | ØD7 ^{H8} | ØD8 | ØD9 | ØD10 | ØD11 | T1 | T2 | T3 | T4 |
|------|---------|----------|-----|-----|-------------------|----------------------|-------------------|-----|-----|------|------|----|----|-----|----|
| 62 | 118 | 93 | M20 | 55 | 63 | 85 | 86 | 21 | - | - | - | 42 | 32 | 45 | - |
| 82 | 145 | 115 | M24 | 72 | 72 | 100 | 106 | 25 | - | - | - | 50 | 36 | 55 | - |
| 102 | 175 | 140 | M30 | 90 | 90 | 125 | 132 | 33 | - | - | - | 60 | 45 | 68 | - |
| 125 | 245 | 205 | M30 | 122 | 122 | 180 | 190 | 33 | 48 | 300 | 192 | 70 | 56 | 98 | 13 |
| 150 | 290 | 240 | M36 | 150 | 150 | 220 | 230 | 39 | 57 | 355 | 230 | 80 | 64 | 118 | 10 |

| Size | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | Stroke | Flange fixing screws | | M _A in Nm |
|------|-----|-----|-----|----|-----|------|-----|-----|-----|-----|--------|------------------------------|--|-------------------------|
| 62 | 175 | 135 | 1,5 | 12 | 1,5 | 24,5 | 110 | 106 | 120 | 30 | 18 | 4 off M20 x 60 DIN 912-10.9 | | 550 |
| 82 | 210 | 165 | 1,5 | 15 | 2 | 29 | 135 | 128 | 150 | 45 | 25 | 4 off M24 x 80 DIN 912-10.9 | | 940 |
| 102 | 260 | 210 | 2 | 18 | 2 | 31,5 | 160 | 164 | 180 | 55 | 28 | 4 off M30 x 100 DIN 912-10.9 | | 1900 |
| 125 | 360 | 295 | 3 | 30 | 2,5 | 51,5 | 230 | 233 | - | 78 | 35 | 8 off M30 x 120 DIN 912-10.9 | | 1900 |
| 150 | 510 | 430 | 5 | 32 | 2,5 | 81 | 320 | 354 | - | 88 | 38 | 8 off M36 x 140 DIN 912-10.9 | | 3250 |



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