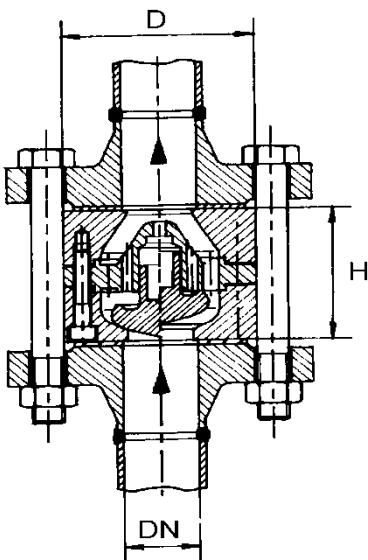


**Funktionselemente und verwendete Werkstoffe:**

|                        |                  |                     |
|------------------------|------------------|---------------------|
| 1 Ventilsitz           | 1.4057 – AISI431 | 1.4571 – AISI 316Ti |
| 2 Dichtkörper          | PEEK             | PEEK                |
| 3 Ventilfänger         | 1.4057 – AISI431 | 1.4571 – AISI 316Ti |
| 4 Gegenflansch         | 1.4057 – AISI431 | 1.4571 – AISI 316Ti |
| 5 Zylinderkopfschraube | DIN 912-A2       | DIN 912-A2          |

**Verwendung:**



Die Baureihe ERV ist konzipiert zum Einklemmen zwischen 2 Flanschen nach:

DIN 1092-1, ASME B16.5 und ASME B16.5 RTJ

und zentriert sich zwischen den Verbindungsschrauben.

Medium: alle Gase und Temperaturen bis 180°C = Ventilgehäuse 1.4057 oder 1.4571 mit Dichtkörper PEEK

**Abmessungen und Gewichte:**
**Turbo Rückschlagventil DN15 ( 1/2")**

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 15<br>EN 10902-1<br>Form B2 | 16 bar         | 52              | 55          | -         | 0,7          | 200                  | 21625.3-01                | 21685.3-01                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              |                      |                           |                            |
|                                | 63 bar         |                 |             |           |              |                      |                           |                            |
|                                | 100 bar        |                 |             |           |              |                      |                           |                            |
|                                | 160 bar        | 73              | 70          | -         | 2            | 150                  | 21714.3-01                | 21734.3-01                 |
|                                | 250 bar        |                 |             |           |              | 50                   | 31370.3-00                | 31371.3-00                 |
|                                | 320 bar        |                 |             |           |              |                      |                           |                            |
| 400 bar                        |                |                 |             |           |              |                      |                           |                            |
| 1/2"<br>ASME<br>B16.5 RF/SF    | 150 lbs        | 45              | 55          | -         | 0,6          | 150                  | 30078.3-01                | 30122.3-01                 |
|                                | 300 lbs        | 52              | 55          | -         | 1,4          | 200                  | 21631.3-01                | 21691.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        | 62              | 70          | -         | 1,5          | 200                  | 21634.3-01                | 21694.3-01                 |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |
| 2500 lbs                       |                |                 |             |           |              |                      |                           |                            |
| 1/2"<br>ASME<br>B16.5 RTJ      | 300 lbs        | 52              | 75          | R11       | 0,9          | 200                  | 21640.3-01                | 21700.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        | 62              | 75          | R12       | 1,5          |                      | 21646.3-01                | 21706.3-01                 |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |
| 2500 lbs                       | 62             | 75              | R13         | 1,5       | 21744.3-02   | 21764.3-01           |                           |                            |

**Turbo Rückschlagventil DN20 (3/4")**

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form  | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |            |            |
|--------------------------------|----------------|-----------------|-------------|------------|--------------|----------------------|---------------------------|----------------------------|------------|------------|
| DN 20<br>EN 10902-1<br>Form B2 | 40 bar         | 63              | 60          | -          | 1            | 200                  | 30005.3-01                | 30152.3-01                 |            |            |
|                                | 100 bar        | 71              | 80          | -          | 1,9          |                      | 100                       |                            | 25000.3-01 |            |
|                                | (160 bar)      |                 |             |            |              |                      |                           | 31373.3-00                 |            |            |
|                                | (250 bar)      |                 |             |            |              |                      |                           |                            |            |            |
| 3/4"<br>ASME<br>B16.5 RF/SF    | 150 lbs        | 54              | 60          | -          | 1            | 200                  | 30135.3-01                |                            |            |            |
|                                | 300 lbs        | 63              | 60          | -          |              |                      | 1                         | 200                        | 30134.3-01 | 30123.3-01 |
|                                | 400 lbs        |                 |             |            |              |                      |                           |                            |            |            |
|                                | 600 lbs        |                 |             |            |              |                      |                           |                            |            |            |
|                                | 1500 lbs       | 66              | 80          | -          |              |                      | 1,6                       | 200                        | 30116.3-01 | 30474.3-01 |
| 2500 lbs                       |                |                 |             |            |              |                      |                           |                            |            |            |
| 71                             | 80             | -               | 1,9         | 31076.3-01 | 31074.3-01   |                      |                           |                            |            |            |
| 3/4" ASME<br>B16.5 RTJ         | 1500 lbs       | 66              | 80          | R14        | 1,6          | 200                  | 30029.3-01                | 30478.3-01                 |            |            |

## Turbo Rückschlagventil DN25 (1")

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 25<br>EN 10902-1<br>Form B2 | 16 bar         | 71              | 60          | -         | 1,4          | 200                  | 20825.3-02                | 20885.3-01                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              |                      |                           |                            |
|                                | 63 bar         | 82              | 80          | -         | 1,9          |                      | 30486.3-01                | 30491.3-01                 |
|                                | 100 bar        |                 |             |           |              |                      |                           |                            |
|                                | 160 bar        |                 |             |           |              |                      |                           |                            |
|                                | 250 bar        |                 |             |           |              |                      |                           |                            |
| 320 bar                        | 90             | 95              | -           | 4         | 100          | 31374.3-00           | 31375.3-00                |                            |
|                                |                |                 |             |           | 50           | 25004.3-01           | 30878.3-01                |                            |
| 1" ASME<br>B16.5 RF/SF         | 150 lbs        | 63              | 60          | -         | 1,3          | 200                  | 30011.3-01                | 30146.3-01                 |
|                                | 300 lbs        | 71              | 60          | -         | 1,4          |                      | 20831.3-01                | 20891.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        | 71              | 80          | -         | 1,9          |                      | 30074.3-01                | 30118.3-01                 |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |
| 2500 lbs                       | 82             | 80              | -           | 2,3       | 30997.3-01   | 31001.3-01           |                           |                            |
| 1" ASME<br>B16.5 RTJ           | 300 lbs        | 71              | 80          | R16       | 1,9          | 200                  | 20840.3-01                | 20900.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |

## Turbo Rückschlagventil DN32 (1 ¼")

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 32<br>EN 10902-1<br>Form B2 | 16 bar         | 81              | 60          | -         | 1,7          | 200                  | 21025.3-01                | 21085.3-01                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              |                      |                           |                            |
|                                | 100 bar        | 86              | 75          | -         | 2,1          |                      |                           | 30481.3-01                 |
| 1 ¼" ASME<br>B16.5 RF/SF       | 300 lbs        | 81              | 60          | -         | 1,7          | 200                  | 21031.3-01                | 21091.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |
| 1 ¼" ASME<br>B16.5 RTJ         | 300 lbs        | 81              | 75          | R18       | 2,2          | 200                  | 21040.3-01                | 21100.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |

## Turbo Rückschlagventil DN40 (1 1/2")

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 40<br>EN 10902-1<br>Form B2 | 16 bar         | 93              | 65          | -         | 2,4          | 200                  | 21225.3-02                | 21285.3-01                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              |                      |                           |                            |
|                                | 63 bar         |                 |             |           |              | 150                  | 31388.3-00                | 31390.3-00                 |
|                                | 100 bar        |                 |             |           |              |                      |                           |                            |
|                                | 160 bar        |                 |             |           |              |                      |                           |                            |
| 1 1/2"<br>ASME<br>B16.5 RF/SF  | 150 lbs        | 83              | 65          | -         | 1,7          | 200                  | 21314.3-01                | 30355.3-01                 |
|                                | 300 lbs        | 93              | 65          | -         | 2,4          |                      | 21231.3-01                | 21291.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |
|                                | 2500 lbs       | 108             | 85          | -         | 4,8          |                      | 150                       | 31384.3-00                 |
| 50                             | 30113.3-01     |                 |             |           |              |                      |                           |                            |
| 1 1/2"<br>ASME<br>B16.5 RTJ    | 300 lbs        | 94              | 80          | R20       | 2,7          | 200                  | 21240.3-01                | 21300.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 900 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            |

## Turbo Rückschlagventil DN50 (2")

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |            |            |            |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|------------|------------|------------|
| DN 50<br>EN 10902-1<br>Form B2 | 16 bar         | 107             | 70          | -         | 3,3          | 200                  | 20025.3-01                | 20085.3-01                 |            |            |            |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 40 bar         |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 63 bar         |                 |             |           |              | 150                  | 31388.3-00                | 31390.3-00                 |            |            |            |
|                                | 100 bar        |                 |             |           |              |                      |                           |                            |            |            |            |
| 2"<br>ASME<br>B16.5 RF/SF      | 150 lbs        | 102             | 70          | -         | 3,1          | 200                  | 30044.3-01                | 30656.3-01                 |            |            |            |
|                                | 300 lbs        | 107             | 70          | -         | 3,3          |                      | 20031.3-01                | 20091.3-01                 |            |            |            |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 900 lbs        | 141             | 70          | -         | 7,2          |                      | 150                       | 20034.3-01                 | 20094.3-01 |            |            |
|                                | 1500 lbs       |                 |             |           |              |                      | 50                        | 31392.3-00                 | 31393.3-00 |            |            |
| 2"<br>ASME<br>B16.5 RTJ        | 300 lbs        | 109             | 85          | R23       | 4,2          | 200                  | 20040.3-01                | 20100.3-01                 |            |            |            |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |            |            |            |
|                                | 900 lbs        | 141             | 85          | R24       | 8,2          |                      |                           |                            | 150        | 20046.3-01 | 20106.3-01 |
|                                | 1500 lbs       |                 |             |           |              |                      |                           |                            | 50         | 31394.3-00 | 31395.3-00 |

**Turbo Rückschlagventil DN65 (2 1/2")**

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 65<br>EN 10902-1<br>Form B2 | 16 bar         | 128             | 80          | -         | 4,8          | 200                  | 20225.3-02                | 20285.3-02                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              | 100                  | 31396.3-00                | 31397.3-00                 |
|                                | 63 bar         |                 |             |           |              |                      |                           |                            |
| 2 1/2"<br>ASME<br>B16.5 RF/SF  | 150 lbs        | 121             | 80          | -         | 4,3          | 200                  | 30600.3-01                | 30605.3-01                 |
|                                | 300 lbs        | 128             | 80          | -         | 4,8          |                      |                           |                            |
|                                | 400 lbs        |                 |             |           |              |                      | 20231.3-01                | 20291.3-01                 |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
| 2 1/2"<br>ASME<br>B16.5 RTJ    | 300 lbs        | 129             | 95          | R26       | 5,8          | 200                  | 20240.3-01                | 20300.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |

**Turbo Rückschlagventil DN80 (3")**

| Ausführung                     | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|--------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 80<br>EN 10902-1<br>Form B2 | 16 bar         | 143             | 90          | -         | 6,3          | 200                  | 20425.3-01                | 20485.3-01                 |
|                                | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                | 40 bar         |                 |             |           |              | 150                  | 31398.3-00                | 31399.3-00                 |
| 3"<br>ASME<br>B16.5 RF/SF      | 150 lbs        | 188             | 90          | -         | 4,7          | 200                  | 30049.3-01                |                            |
|                                | 300 lbs        | 143             | 90          | -         | 6,3          |                      |                           |                            |
|                                | 400 lbs        |                 |             |           |              |                      | 20431.3-01                | 20491.3-01                 |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |
| 3"<br>ASME<br>B16.5 RTJ        | 300 lbs        | 143             | 90          | R31       | 6,3          | 200                  | 20440.3-01                | 20500.3-01                 |
|                                | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                | 600 lbs        |                 |             |           |              |                      |                           |                            |

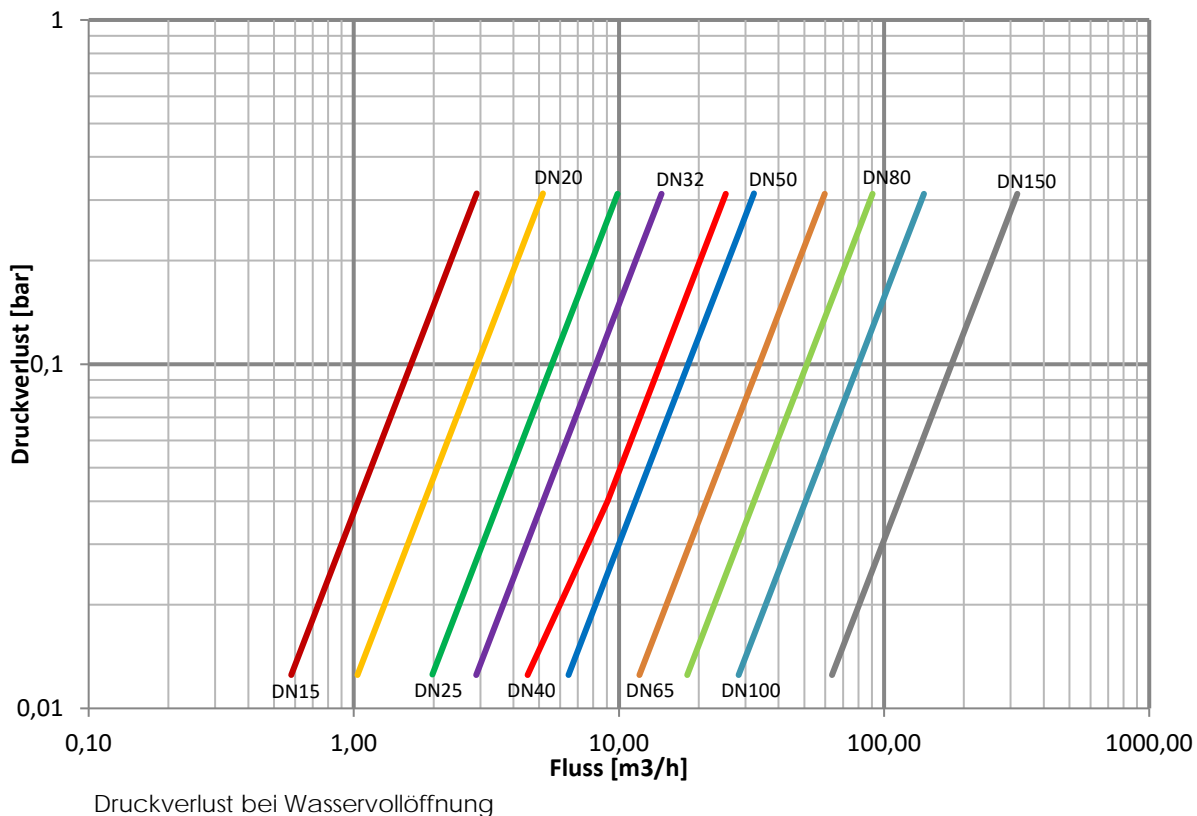
**Turbo Rückschlagventil DN100 (4")**

| Ausführung                      | Druck-Stufe PN | Ventil Ø D [mm] | Höhe H [mm] | Ring-form | Gewicht [kg] | Max. Temperatur [°C] | Artikel-Nr.: 1.4057- PEEK | Artikel-Nr.: 1.4571 - PEEK |
|---------------------------------|----------------|-----------------|-------------|-----------|--------------|----------------------|---------------------------|----------------------------|
| DN 100<br>EN 10902-1<br>Form B2 | 16 bar         | 164             | 110         | -         | 9,1          | 200                  | 20625.3-01                | 20685.3-01                 |
|                                 | 25 bar         |                 |             |           |              |                      |                           |                            |
|                                 | 40 bar         |                 |             |           |              | 100                  | 31404.3-00                | 31405.3-00                 |
| 4"<br>ASME<br>B16.5 RF/SF       | 150 lbs        | 164             | 110         | -         | 9,1          | 200                  | 20631.3-01                | 20691.3-01                 |
|                                 | 300 lbs        |                 |             |           |              |                      |                           |                            |
|                                 | 400 lbs        |                 |             |           |              |                      |                           |                            |
|                                 | 600 lbs        | 20634.3-01      | 20694.3-01  |           |              |                      |                           |                            |
| 4" ASME<br>B16.5 RTJ            | 600 lbs        | 180             | 130         | R37       | 15,5         | 100                  |                           | 30283.3-01                 |

## Ersatz- Dichtkörper

|                | DN 15<br>(1/2") | DN 20<br>(3/4") | DN 25<br>(1") | DN32<br>(1 1/4") | DN 40<br>(1 1/2") | DN50<br>(2") | DN65<br>(2 1/2") | DN80<br>(3") | DN 100<br>(4") |
|----------------|-----------------|-----------------|---------------|------------------|-------------------|--------------|------------------|--------------|----------------|
| PEEK           | 21622.3-01      | 21622.3-01      | 20822.3-01    | 21022.3-01       | 21222.3-01        | 20022.3-01   | 20222.3-01       | 20422.3-01   | 20622.3-01     |
| Gewicht<br>(g) | 10              | 10              | 15            | 23               | 41                | 56           | 110              | 159          | 328            |

## Druckverlust



Umrechnung auf andere Medien, Berechnung des äquivalenten Wasservolumenstroms:

$$\dot{V}_w = \dot{V} * \sqrt{\rho/1000}$$

$\dot{V}_w$  = äquivalenter Wasservolumenstrom [ $m^3/h$ ]

$\dot{V}$  = Volumenstrom des Mediums im Betriebszustand [ $m^3/h$ ]

$\rho$  = Dichte des Mediums im Betriebszustand [ $kg/m^3$ ]

Zuschlag Einbaurichtung vertikal, Strömung aufwärts: + 3 mbar