

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

**Nennweiten DN 15 bis DN 100**

Überströmventile mit proportionaler Öffnungs- und Schließcharakteristik finden überall dort ihren Einsatz, wo z. B. in Pumpenkreisläufen und Rohrleitungssysteme möglichst konstante Druckverhältnisse gewährleistet sein müssen.

Die Entlastungsventile dienen als Schutz von:

- Pumpen vor Überlastung in geschlossenen Kreisläufen für neutrale/ nicht neutrale, nicht klebende Flüssigkeiten

Zur Regelung in:

- Drucksystemen für neutrale/ nicht neutrale Gase und Dämpfe und -je nach Dichtung- auch für Wasserdampf

Das Medium kann in der Bypassleitung der Pumpe oder Rohrleitung zirkulieren. Die voreingestellten Überströmventile können vorort innerhalb des Federbereichs ein- oder verstellt werden.

### Anschlüsse:

**Eintritt:** Flansch nach DIN 1092-1, Form B PN 16 / PN 40  
PN 63 / PN 100 / PN 250

**Austritt:** Flansch nach DIN 1092-1, Form B PN 16 / PN 40

Optional auch Flanschanschlüsse nach ASME B 16.5, class 150 oder class 300

**Geeignete Ventilausführung und Dichtung ist je nach Einsatzfall zu verwenden.**



|  |                                                       |
|--|-------------------------------------------------------|
|  | Umgebung -10°C ... +80°C                              |
|  | Medium -10°C ... +280°C<br>(jedoch Dichtungsabhängig) |

### Zulassungen:

Druckgeräterichtlinie:  
97/23/EG  
Konformitätserklärung



### mögliche Ausführung der Ventilköpfe



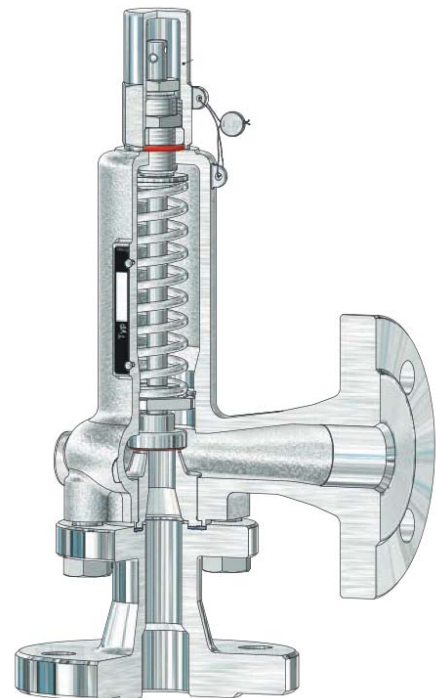
**Lüftehebel  
Kopf A**



**gasdichte Kappe  
Kopf C**



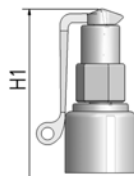
**Handrad  
Kopf F**



## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 15 bis DN 100

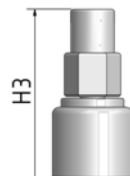
| Bezeichnung     | Werkstoff         |
|-----------------|-------------------|
| Eintrittskörper |                   |
| DN 15 - DN 25   | Edelstahl 1.4571  |
| DN 32 - DN 100  | Edelstahl 1.4581  |
| Austrittskörper |                   |
| DN 15 - DN 25   | Edelstahl 1.4581  |
| DN 32 - DN 65   | Edelstahl 1.4581  |
| DN 80 - DN 100  | Edelstahl 1.4571  |
| Feder           | NIRO-Stahl 1.4310 |
| Kegel           | Edelstahl 1.4571  |



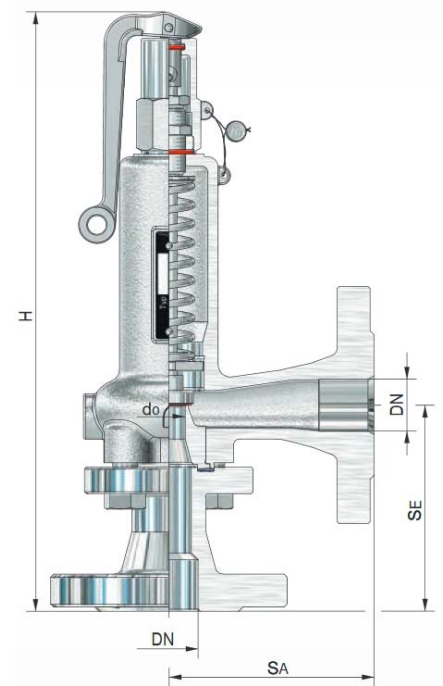
Kopf A



Kopf F



Kopf C



| Baugröße<br>(BG) | Eintritt  |             | d <sub>0</sub><br>(mm) | S <sub>E</sub><br>(mm) | DN<br>(mm) | Austritt    |            | Baumaße    |            | Ansprechdruck    |                  | Gewicht<br>kg |
|------------------|-----------|-------------|------------------------|------------------------|------------|-------------|------------|------------|------------|------------------|------------------|---------------|
|                  | Nennweite | PN<br>(bar) |                        |                        |            | PN<br>(bar) | SA<br>(mm) | H1<br>(mm) | H3<br>(mm) | P min<br>bar (g) | P max<br>bar (g) |               |
| <b>I</b>         | DN 15     | 16-160      | 8 / 12,5 / 16 / 18     | 90                     | 15         | 16/40       | 90         | 282        | 268        | 0,20             | 300              | 4,3           |
|                  | DN 20     |             | 8 / 12,5 / 16 / 18     | 95                     | 20         |             | 95         | 287        | 273        | 0,20             | 125              | 4,5           |
|                  | DN 25     |             | 8 / 12,5 / 16 / 18     | 100                    | 25         |             | 100        | 292        | 278        | 0,10             | 40               | 4,6           |
| <b>II</b>        | DN 32     |             | 16 / 20 / 25           | 105                    | 32         |             | 105        | 395        | 375        | 0,10             | 90               | 9,6           |
|                  | DN 40     |             | 20 / 25 / 32           | 115                    | 40         |             | 115        | 405        | 385        | 0,10             | 75               | 10,0          |
| <b>III</b>       | DN 50     |             | 25 / 32 / 40           | 125                    | 50         |             | 125        | 450        | 430        | 0,10             | 100              | 15,0          |
|                  | DN 65     |             | 32 / 40 / 50           | 145                    | 65         |             | 145        | 470        | 450        | 0,05             | 40               | 19,3          |
| <b>IV</b>        | DN 80     |             | 32 / 40 / 50 / 58      | 155                    | 80         |             | 155        | 700        | 620        | 0,05             | 25               | 36,8          |
|                  | DN 100    |             | 50 / 60 / 70           | 175                    | 100        |             | 175        | 730        | 650        | 0,05             | 25               | 40,5          |



BG IV



BG III



BG II



BG I

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 15 bis DN 100

### Druckstufe PN 16 / PN 40

| Nennweite | Bestell-Nummer       |                   |                 |
|-----------|----------------------|-------------------|-----------------|
|           | Kopf A<br>Lüftehebel | Kopf F<br>Handrad | Kopf C<br>Kappe |
| DN 15     | 33.1635.6.11-A       | 33.1661.6.11-F    | 33.1636.6.11-C  |
| DN 20     | 33.1635.6.13-A       | 33.1661.6.13-F    | 33.1636.6.13-C  |
| DN 25     | 33.1635.6.15-A       | 33.1661.6.15-F    | 33.1636.6.15-C  |
| DN 32     | 33.1635.6.18-A       | 33.1661.6.18-F    | 33.1636.6.18-C  |
| DN 40     | 33.1635.6.19-A       | 33.1661.6.19-F    | 33.1636.6.19-C  |
| DN 50     | 33.1635.6.21-A       | 33.1661.6.21-F    | 33.1636.6.21-C  |
| DN 65     | 33.1635.6.24-A       | 33.1661.6.24-F    | 33.1636.6.24-C  |
| DN 80     | 33.1635.6.25-A       | 33.1661.6.25-F    | 33.1636.6.25-C  |
| DN 100    | 33.1635.6.27-A       | 33.1661.6.27-F    | 33.1636.6.27-C  |



### Druckstufe PN 63

| Nennweite | Bestell-Nummer       |                   |                 |
|-----------|----------------------|-------------------|-----------------|
|           | Kopf A<br>Lüftehebel | Kopf F<br>Handrad | Kopf C<br>Kappe |
| DN 15     | 33.1637.6.11-A       | 33.1665.6.11-F    | 33.1638.6.11-C  |
| DN 25     | 33.1637.6.15-A       | 33.1665.6.15-F    | 33.1638.6.15-C  |
| DN 32     | 33.1637.6.18-A       | 33.1665.6.18-F    | 33.1638.6.18-C  |
| DN 40     | 33.1637.6.19-A       | 33.1665.6.19-F    | 33.1638.6.19-C  |
| DN 50     | 33.1637.6.21-A       | 33.1665.6.21-F    | 33.1638.6.21-C  |
| DN 65     | 33.1637.6.24-A       | 33.1665.6.24-F    | 33.1638.6.24-C  |
| DN 80     | 33.1637.6.25-A       | 33.1665.6.25-F    | 33.1638.6.25-C  |
| DN 100    | 33.1637.6.27-A       | 33.1665.6.27-F    | 33.1638.6.27-C  |

### Druckstufe PN 100

| Nennweite | Bestell-Nummer       |                   |                 |
|-----------|----------------------|-------------------|-----------------|
|           | Kopf A<br>Lüftehebel | Kopf F<br>Handrad | Kopf C<br>Kappe |
| DN 15     | 33.1637.6.11-A       | 33.1665.6.11-F    | 33.1638.6.11-C  |
| DN 25     | 33.1637.6.15-A       | 33.1665.6.15-F    | 33.1638.6.15-C  |
| DN 32     | 33.1637.6.18-A       | 33.1665.6.18-F    | 33.1638.6.18-C  |
| DN 40     | 33.1637.6.19-A       | 33.1665.6.19-F    | 33.1638.6.19-C  |
| DN 50     | 33.1637.6.21-A       | 33.1665.6.21-F    | 33.1638.6.21-C  |
| DN 65     | 33.1637.6.24-A       | 33.1665.6.24-F    | 33.1638.6.24-C  |

### Druckstufe PN 160

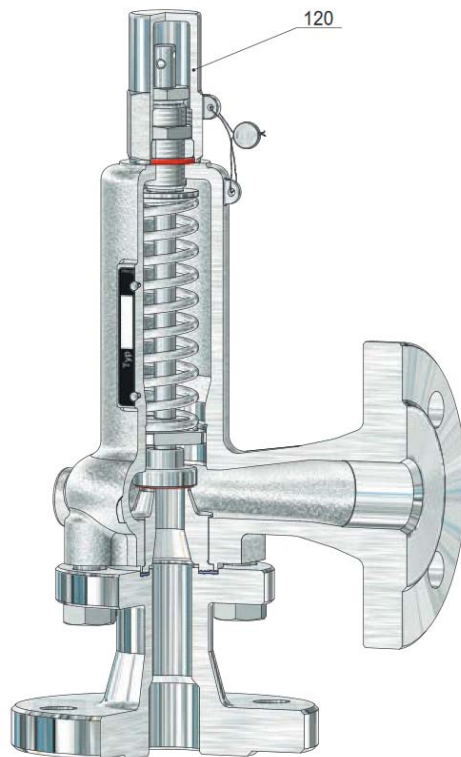
| Nennweite | Bestell-Nummer       |                   |                 |
|-----------|----------------------|-------------------|-----------------|
|           | Kopf A<br>Lüftehebel | Kopf F<br>Handrad | Kopf C<br>Kappe |
| DN 15     | 33.1637.6.11-A       | 33.1665.6.11-F    | 33.1638.6.11-C  |
| DN 25     | 33.1637.6.15-A       | 33.1665.6.15-F    | 33.1638.6.15-C  |
| DN 40     | 33.1637.6.19-A       | 33.1665.6.19-F    | 33.1638.6.19-C  |
| DN 50     | 33.1637.6.21-A       | 33.1665.6.21-F    | 33.1638.6.21-C  |

### Druckstufe PN 250

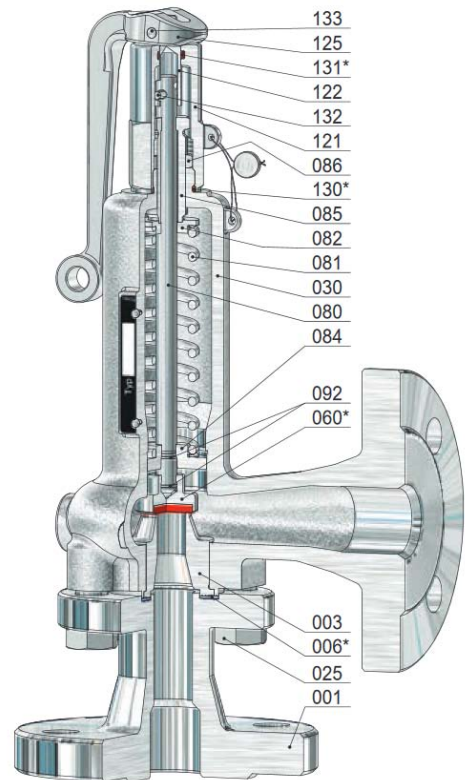
| Nennweite | Bestell-Nummer       |                   |                 |
|-----------|----------------------|-------------------|-----------------|
|           | Kopf A<br>Lüftehebel | Kopf F<br>Handrad | Kopf C<br>Kappe |
| DN 15     | 33.1663.6.11-A       | 33.1666.6.11-F    | 33.1664.6.11-C  |
| DN 25     | 33.1663.6.15-A       | 33.1666.6.15-F    | 33.1664.6.15-C  |

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 15 bis DN 25



Baugröße I DN 15 bis DN 25  
Kopf C



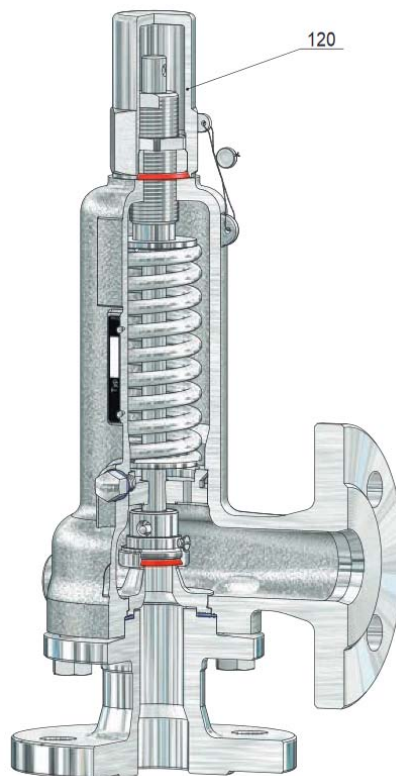
Baugröße I DN 15 bis DN 25  
Kopf A

| Pos. | Stück | Bezeichnung        | Pos. | Stück | Bezeichnung |
|------|-------|--------------------|------|-------|-------------|
| 001  | 1     | Eintrittskörper    | 086  | 1     | Gegenmutter |
| 003  | 1     | Sitz               | 092  | 2     | Sprengring  |
| 006* | 1     | Dichtring          | 120  | 1     | Kappe       |
| 025  | 4     | Schraube           | 121  | 1     | Lüftekappe  |
| 030  | 1     | Federhaube         | 122  | 1     | Kupplung    |
| 060* | 1     | Kegel komplett     | 125  | 1     | Lüftehebel  |
| 560  | 1     | Kegel              | 130* | 1     | O-Ring      |
| 062  | 1     | Kegeldichtung      | 131* | 1     | O-Ring      |
| 080  | 1     | Spindel            | 132  | 1     | Kerbstift   |
| 081  | 1     | Feder              | 133  | 1     | Kerbstift   |
| 082  | 1     | Federteller, oben  |      |       |             |
| 084  | 1     | Federteller, unten |      |       |             |
| 085  | 1     | Druckschraube      |      |       |             |

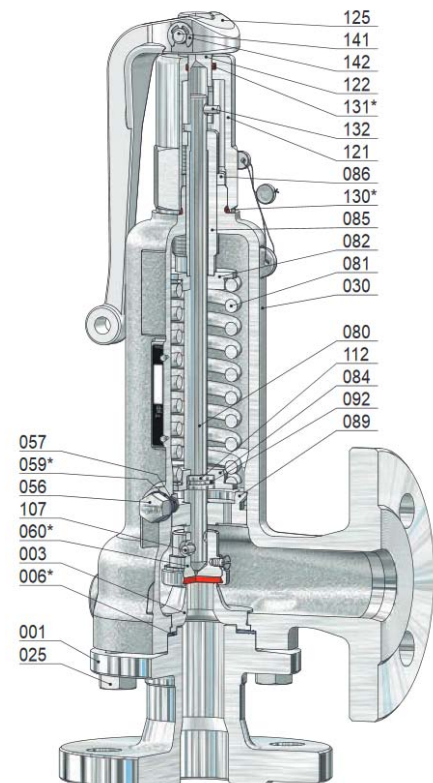
\* Verschleißteile

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 32 bis DN 40



Baugröße II DN 32 bis DN 40  
Kopf C



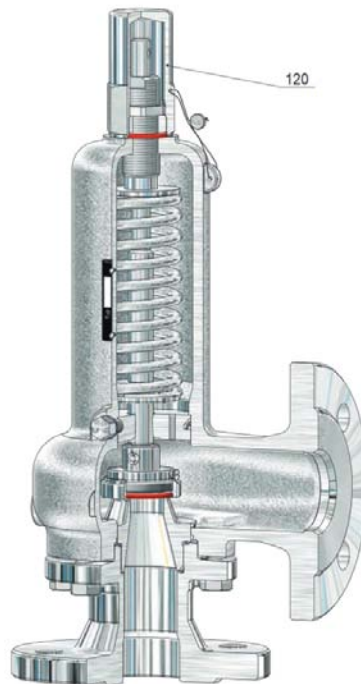
Baugröße II DN 32 bis DN 40  
Kopf A

| Pos. | Stück | Bezeichnung        | Pos. | Stück | Bezeichnung       |
|------|-------|--------------------|------|-------|-------------------|
| 001  | 1     | Eintrittskörper    | 085  | 1     | Druckschraube     |
| 003  | 1     | Sitz               | 086  | 1     | Gegenmutter       |
| 006* | 1     | Dichtring          | 089  | 1     | Führungsteller    |
| 025  | 4     | Schraube           | 092  | 1     | Sprengring        |
| 030  | 1     | Federhaube         | 107  | 1     | Spannhülse        |
| 056  | 2     | Hutmutter          | 112  | 1     | geteilter Ring    |
| 057  | 2     | Gewindestift       | 120  | 1     | Kappe             |
| 059* | 2     | Dichtring          | 121  | 1     | Lüftekappe        |
| 060* | 1     | Kegel komplett     | 122  | 1     | Kupplung          |
| 060  | 1     | Kegel              | 125  | 1     | Lüftehebel        |
| 062  | 1     | Kegeldichtung      | 130* | 1     | O-Ring            |
| 063  | 1     | Kegelring          | 131* | 1     | O-Ring            |
| 067  | 1     | Sicherungsschraube | 132  | 1     | Kerbstift         |
| 080  | 1     | Spindel            | 141  | 1     | Bolzen            |
| 081  | 1     | Feder              | 142  | 2     | Sicherungsscheibe |
| 082  | 1     | Federteller, oben  |      |       |                   |
| 084  | 1     | Federteller, unten |      |       |                   |

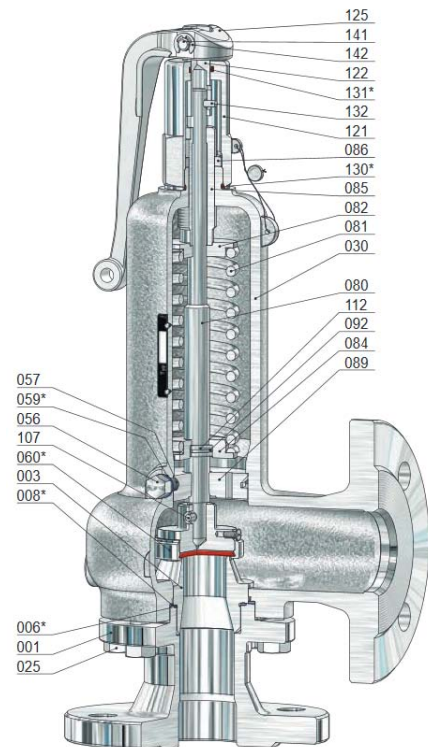
\* Verschleißteile

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 50 bis DN 65



Baugröße III DN 50 bis DN 65  
Kopf C



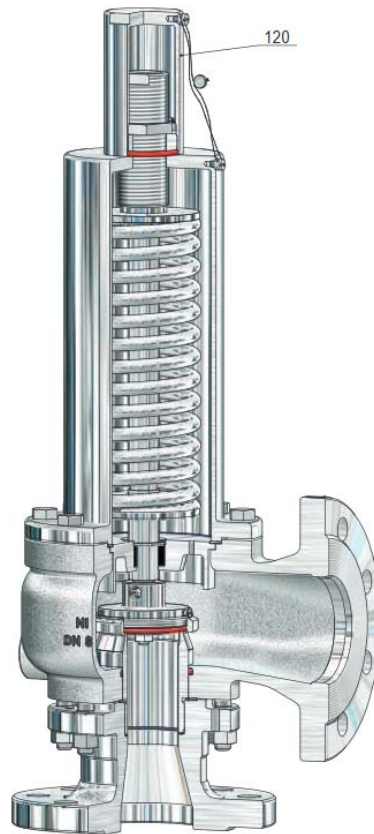
Baugröße III DN 50 bis DN 65  
Kopf A

| Pos. | Stück | Bezeichnung        | Pos. | Stück | Bezeichnung        |
|------|-------|--------------------|------|-------|--------------------|
| 001  | 1     | Eintrittskörper    | 084  | 1     | Federteller, unten |
| 003  | 1     | Sitz               | 085  | 1     | Druckschraube      |
| 006* | 1     | Dichtring          | 086  | 1     | Gegenmutter        |
| 008* | 1     | Dichtring          | 089  | 1     | Führungsteller     |
| 025  | 8     | Schraube           | 092  | 1     | Sprengring         |
| 030  | 1     | Federhaube         | 107  | 1     | Spannhülse         |
| 056  | 2     | Hutmutter          | 112  | 1     | geteilter Ring     |
| 057  | 2     | Gewindestift       | 120  | 1     | Kappe              |
| 059* | 2     | Dichtring          | 121  | 1     | Lüftekappe         |
| 060* | 1     | Kegel komplett     | 122  | 1     | Kupplung           |
| 062  | 1     | Kegel              | 125  | 1     | Lüftehebel         |
| 063  | 1     | Kegeldichtung      | 130* | 1     | O-Ring             |
| 067  | 1     | Kegelring          | 131* | 1     | O-Ring             |
| 080  | 1     | Sicherungsschraube | 132  | 1     | Kerbstift          |
| 081  | 1     | Spindel            | 141  | 1     | Bolzen             |
| 082  | 1     | Feder              | 142  | 2     | Sicherungsscheibe  |
| 082  | 1     | Federteller, oben  |      |       |                    |

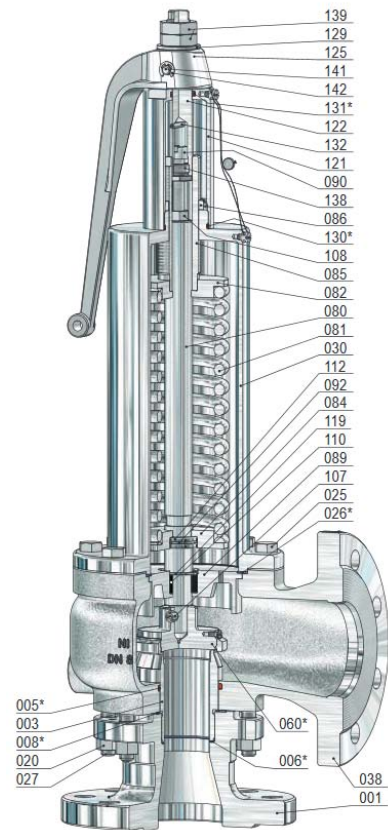
\* Verschleißteile

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 80 bis DN 100



Baugröße IV DN 80 bis DN 100  
Kopf C



Baugröße IV DN 80 bis DN 100  
Kopf A

| Pos. | Stück | Bezeichnung        | Pos. | Stück | Bezeichnung        | Pos. | Stück | Bezeichnung       |
|------|-------|--------------------|------|-------|--------------------|------|-------|-------------------|
| 001  | 1     | Eintrittskörper    | 073  | 1     | O-Ring             | 121  | 1     | Lüftekappe        |
| 003  | 1     | Sitz               | 074  | 1     | Kegelplatte        | 122  | 1     | Kupplung          |
| 005* | 1     | O-Ring             | 080  | 1     | Spindel            | 125  | 1     | Lüftehebel        |
| 006* | 1     | Dichtring          | 081  | 1     | Feder              | 129  | 1     | Druckscheibe      |
| 008* | 1     | Dichtring          | 082  | 1     | Federteller. oben  | 130* | 1     | O-Ring            |
| 020  | 8     | Mutter             | 084  | 1     | Federteller, unten | 131* | 1     | O-Ring            |
| 025  | 8     | Schraube           | 085  | 1     | Druckschraube      | 132  | 1     | Kerbstift         |
| 026* | 1     | Dichtring          | 086  | 1     | Gegenmutter        | 138  | 1     | Schraube          |
| 027  | 8     | Stiftschraube      | 089  | 1     | Führungsteller     | 139  | 2     | Mutter            |
| 030  | 1     | Federhaube         | 090  | 1     | Schraube           | 141  | 1     | Bolzen            |
| 038  | 1     | Ausblasgehäuse     | 092  | 1     | Sprengring         | 142  | 2     | Sicherungsscheibe |
| 060* | 1     | Kegel komplett     | 107  | 1     | Spannhülse         |      |       |                   |
| 560  | 1     | Kegel              | 108  | 1     | Mutter             |      |       |                   |
| 062  | 1     | Kegeldichtung      | 110  | 1     | Buchse             |      |       |                   |
| 063  | 1     | Kegelring          | 112  | 1     | geteilter Ring     |      |       |                   |
| 065  | 1     | Sicherungsmutter   | 119  | 1     | Sicherungsring     |      |       |                   |
| 067  | 1     | Sicherungsschraube | 120  | 1     | Kappe              |      |       |                   |

\* Verschleißteile

171-VA\_DE\_2021\_Rev. 0

## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

| Massenstromtabelle                     |            |       |      |      |      |             |      |      |      |      |      |
|----------------------------------------|------------|-------|------|------|------|-------------|------|------|------|------|------|
| Wasser bei 20°C (10 <sup>3</sup> kg/h) |            |       |      |      |      |             |      |      |      |      |      |
|                                        | Baugröße I |       |      |      |      | Baugröße II |      |      |      |      |      |
| Eintritt                               | 15/20      | 15/25 | 25   | 25   | 25   | 32          | 32   | 32   | 40   | 40   | 40   |
| d <sub>o</sub> [mm]                    | 12,5       | 8     | 12,5 | 16   | 18   | 16          | 20   | 25   | 20   | 25   | 32   |
| aw, max                                | 0,16       | 0,07  | 0,16 | 0,15 | 0,10 | 0,19        | 0,16 | 0,14 | 0,15 | 0,15 | 0,12 |
| pe [bar(g)]                            |            |       |      |      |      |             |      |      |      |      |      |
| 0,1                                    | 0,3        |       |      | 0,5  | 0,4  |             | 0,8  | 1,1  |      | 1,2  | 1,5  |
| 0,2                                    | 0,4        |       |      | 0,7  | 0,6  |             | 1,1  | 1,5  |      | 1,7  | 2,2  |
| 0,3                                    | 0,5        |       |      | 0,8  | 0,7  |             | 1,4  | 1,9  |      | 2,0  | 2,7  |
| 0,4                                    | 0,6        |       |      | 1,0  | 0,8  |             | 1,6  | 2,2  |      | 2,4  | 3,1  |
| 0,5                                    | 0,7        |       |      | 1,1  | 0,9  |             | 1,8  | 2,5  |      | 2,6  | 3,5  |
| 1,0                                    | 1,0        |       |      | 1,5  | 1,3  |             | 2,5  | 3,5  |      | 3,7  | 4,9  |
| 1,5                                    | 1,2        |       |      | 1,9  | 1,6  |             | 3,1  | 4,3  |      | 4,6  | 6,0  |
| 2,0                                    | 1,4        |       |      | 2,2  | 1,8  |             | 3,6  | 4,9  |      | 5,3  | 6,9  |
| 2,5                                    | 1,6        |       |      | 2,4  | 2,0  |             | 4,0  | 5,5  |      | 5,9  | 7,7  |
| 3,0                                    | 1,7        |       |      | 2,6  | 2,2  |             | 4,4  | 6,0  |      | 6,5  | 8,5  |
| 3,5                                    | 1,9        |       |      | 2,9  | 2,4  |             | 4,8  | 6,5  |      | 7,0  | 9,2  |
| 4,0                                    | 2,0        |       |      | 3,1  | 2,6  |             | 5,1  | 7,0  |      | 7,5  | 9,8  |
| 4,5                                    | 2,1        |       |      | 3,2  | 2,7  |             | 5,4  | 7,4  |      | 7,9  | 10,5 |
| 5                                      | 2,2        |       |      | 3,4  | 2,9  |             | 5,7  | 7,8  |      | 8,4  | 11,0 |
| 6                                      | 2,4        |       |      | 3,7  | 3,2  |             | 6,2  | 8,5  |      | 9,2  | 12,0 |
| 7                                      | 2,6        |       |      | 4,0  | 3,4  |             | 6,7  |      |      | 9,9  |      |
| 8                                      | 2,8        |       |      | 4,3  | 3,6  |             | 7,2  |      |      | 10,5 |      |
| 9                                      | 3,0        |       |      | 4,6  | 3,9  |             | 7,7  |      |      | 11,0 |      |
| 10                                     | 3,1        |       |      | 4,8  | 4,1  |             | 8,1  |      |      | 12,0 |      |
| 12                                     | 3,4        |       |      | 5,3  | 4,5  |             | 8,8  |      |      | 13,0 |      |
| 14                                     | 3,7        |       |      | 5,7  | 4,8  |             | 9,5  |      |      | 14,0 |      |
| 16                                     | 4,0        |       |      | 6,1  | 5,2  |             | 10,0 |      |      | 15,0 |      |
| 18                                     | 4,2        |       |      | 6,5  | 5,5  |             | 10,5 |      |      | 16,0 |      |
| 20                                     | 4,4        |       |      | 6,8  | 5,8  |             | 11,5 |      |      | 17,0 |      |
| 25                                     | 5,0        |       |      | 7,7  |      |             | 13,0 |      |      | 19,0 |      |
| 30                                     | 5,5        |       |      | 8,4  |      |             | 14,0 |      |      | 20,5 |      |
| 35                                     | 5,9        |       |      | 9,7  |      |             | 15,0 |      |      | 22,0 |      |
| 40                                     | 6,3        |       |      |      |      |             | 16,0 |      |      | 24,0 |      |
| 45                                     | 6,7        |       |      |      |      |             |      |      |      |      |      |
| 50                                     | 7,0        | 1,26  | 7,0  |      |      | 13,5        |      |      | 18,0 |      |      |
| 60                                     |            | 1,38  | 7,7  |      |      | 15,0        |      |      | 2,0  |      |      |
| 70                                     |            | 1,50  | 8,3  |      |      | 16,0        |      |      | 21,5 |      |      |
| 80                                     |            | 1,60  | 8,9  |      |      | 17,5        |      |      | 23,0 |      |      |
| 90                                     |            | 1,70  | 9,5  |      |      | 18,5        |      |      | 24,0 |      |      |
| 100                                    |            | 1,79  | 10,0 |      |      | 19,5        |      |      | 25,5 |      |      |
| 110                                    |            | 1,87  | 10,5 |      |      |             |      |      |      |      |      |
| 120                                    |            | 1,96  | 11,0 |      |      |             |      |      |      |      |      |
| 130                                    |            | 2,04  |      |      |      |             |      |      |      |      |      |
| 140                                    |            | 2,12  |      |      |      |             |      |      |      |      |      |
| 150                                    |            | 2,19  |      |      |      |             |      |      |      |      |      |
| 160                                    |            | 2,26  |      |      |      |             |      |      |      |      |      |
| 170                                    |            | 2,33  |      |      |      |             |      |      |      |      |      |
| 180                                    |            | 2,40  |      |      |      |             |      |      |      |      |      |
| 190                                    |            | 2,46  |      |      |      |             |      |      |      |      |      |
| 200                                    |            | 2,53  |      |      |      |             |      |      |      |      |      |
| 210                                    |            | 2,59  |      |      |      |             |      |      |      |      |      |
| 220                                    |            | 2,65  |      |      |      |             |      |      |      |      |      |
| 230                                    |            | 2,71  |      |      |      |             |      |      |      |      |      |
| 240                                    |            | 2,77  |      |      |      |             |      |      |      |      |      |
| 250                                    |            | 2,83  |      |      |      |             |      |      |      |      |      |

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## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

| Massenstromtabelle        |              |      |      |      |      |      |             |      |      |      |       |       |      |
|---------------------------|--------------|------|------|------|------|------|-------------|------|------|------|-------|-------|------|
| Wasser bei 20°C (10³kg/h) |              |      |      |      |      |      |             |      |      |      |       |       |      |
|                           | Baugröße III |      |      |      |      |      | Baugröße IV |      |      |      |       |       |      |
| Eintritt                  | 50           | 50   | 50   | 65   | 65   | 65   | 80          | 80   | 80   | 80   | 100   | 100   | 100  |
| d <sub>o</sub> [mm]       | 25           | 32   | 40   | 32   | 40   | 50   | 32          | 40   | 50   | 58   | 50    | 60    | 70   |
| aw, max                   | 0,15         | 0,13 | 0,11 | 0,13 | 0,11 | 0,10 | 0,22        | 0,16 | 0,16 | 0,13 | 0,18  | 0,16  | 0,14 |
| pe [bar(g)]               |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 0,1                       |              | 1,7  |      |      |      |      |             |      |      |      |       |       |      |
| 0,2                       |              | 2,4  | 3,1  |      | 3,1  | 4,4  |             | 4,6  | 7,1  | 7,8  | 8,0   | 10,0  | 12,0 |
| 0,3                       |              | 2,9  | 3,8  |      | 3,8  | 5,5  |             | 5,6  | 8,7  | 9,6  | 9,8   | 12,5  | 15,0 |
| 0,4                       |              | 3,3  | 4,4  |      | 4,4  | 6,3  |             | 6,5  | 10,0 | 11,0 | 11,0  | 14,5  | 17,0 |
| 0,5                       |              | 3,7  | 5,0  |      | 5,0  | 7,0  |             | 7,2  | 11,0 | 12,3 | 12,5  | 16,0  | 19,5 |
| 1,0                       |              | 5,3  | 7,0  |      | 7,0  | 10,0 |             | 10,0 | 16,0 | 17,4 | 18,0  | 23,0  | 27,5 |
| 1,5                       |              | 6,5  | 8,6  |      | 8,6  | 12,0 |             | 12,5 | 19,5 | 21,4 | 22,0  | 28,0  | 33,5 |
| 2,0                       |              | 7,5  | 9,9  |      | 9,9  | 14,0 |             | 14,5 | 22,5 | 24,7 | 25,5  | 32,5  | 38,5 |
| 2,5                       |              | 8,4  | 11,0 |      | 11,0 | 16,0 |             | 16,0 | 25,0 | 27,6 | 28,5  | 36,5  | 43,5 |
| 3,0                       |              | 9,2  | 12,0 |      | 12,0 | 17,5 |             | 17,5 | 27,5 | 30,2 | 31,0  | 40,0  | 47,5 |
| 3,5                       |              | 9,9  | 13,0 |      | 13,0 | 18,5 |             | 19,0 | 30,0 | 32,7 | 33,5  | 43,0  | 51,0 |
| 4,0                       |              | 10,5 | 14,0 |      | 14,0 | 20,0 |             | 20,5 | 32,0 | 34,9 | 36,0  | 46,0  | 55,0 |
| 4,5                       |              | 11,5 | 15,0 |      | 15,0 | 21,0 |             | 21,5 | 34,0 | 37,0 | 38,0  | 49,0  | 58,0 |
| 5                         |              | 12,0 | 15,5 |      | 15,5 | 22,5 |             | 23,0 | 35,5 | 39,0 | 40,0  | 51,5  | 61,0 |
| 6                         |              | 13,0 | 17,0 |      | 17,0 | 24,5 |             | 25,0 | 39,0 | 42,8 | 44,0  | 56,0  | 67,0 |
| 7                         |              | 14,0 |      |      | 18,5 |      |             | 27,0 | 42,0 |      | 47,5  | 61,0  |      |
| 8                         |              | 15,0 |      |      | 20,0 |      |             | 29,0 | 45,0 |      | 51,0  | 65,0  |      |
| 9                         |              | 16,0 |      |      | 21,0 |      |             | 30,5 | 48,0 |      | 54,0  | 69,0  |      |
| 10                        |              | 17,0 |      |      | 22,0 |      |             | 32,0 | 50,5 |      | 57,0  | 72,5  |      |
| 12                        |              | 18,5 |      |      | 24,5 |      |             | 35,5 | 55,0 |      | 62,0  | 79,5  |      |
| 14                        |              | 20,0 |      |      | 26,5 |      |             | 38,0 | 60,0 |      | 67,0  | 86,0  |      |
| 16                        |              | 21,5 |      |      | 28,0 |      |             | 41,0 | 64,0 |      | 72,0  | 92,0  |      |
| 18                        |              | 22,5 |      |      | 30,0 |      |             | 43,5 | 68,0 |      | 76,0  | 97,5  |      |
| 20                        |              | 24,0 |      |      | 31,5 |      |             | 45,5 | 71,5 |      | 80,5  | 103,0 |      |
| 25                        |              | 26,5 |      |      | 35,0 |      |             | 51,0 | 80,0 |      | 90,0  | 115,0 |      |
| 30                        |              | 29,0 |      |      | 38,5 |      |             | 56,0 |      |      | 98,5  |       |      |
| 35                        |              | 31,5 |      |      | 41,5 |      |             | 60,5 |      |      | 106,0 |       |      |
| 40                        |              | 33,5 |      |      | 44,5 |      |             | 64,5 |      |      | 113,0 |       |      |
| 45                        |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 50                        | 26,5         |      |      | 37,5 |      |      | 63,5        |      |      |      |       |       |      |
| 60                        | 29,0         |      |      | 41,0 |      |      | 70,0        |      |      |      |       |       |      |
| 70                        | 31,0         |      |      | 44,5 |      |      | 75,0        |      |      |      |       |       |      |
| 80                        | 33,5         |      |      | 47,5 |      |      |             |      |      |      |       |       |      |
| 90                        | 35,5         |      |      | 50,5 |      |      |             |      |      |      |       |       |      |
| 100                       | 37,5         |      |      | 53,0 |      |      |             |      |      |      |       |       |      |
| 110                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 120                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 130                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 140                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 150                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 160                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 170                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 180                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 190                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 200                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 210                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 220                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 230                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 240                       |              |      |      |      |      |      |             |      |      |      |       |       |      |
| 250                       |              |      |      |      |      |      |             |      |      |      |       |       |      |

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## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

| Massenstromtabelle        |            |       |      |      |      |             |      |      |      |      |      |
|---------------------------|------------|-------|------|------|------|-------------|------|------|------|------|------|
| Sattdampf [kg/h] bzw. t/h |            |       |      |      |      |             |      |      |      |      |      |
|                           | Baugröße I |       |      |      |      | Baugröße II |      |      |      |      |      |
| Eintritt                  | 15/20      | 15/25 | 25   | 25   | 25   | 32          | 32   | 32   | 40   | 40   | 40   |
| d <sub>0</sub> [mm]       | 12,5       | 8     | 12,5 | 16   | 18   | 16          | 20   | 25   | 20   | 25   | 32   |
| aw, max                   | 0,23       | 0,10  | 0,23 | 0,19 | 0,14 | 0,27        | 0,23 | 0,19 | 0,23 | 0,20 | 0,17 |
| pe [bar(g)]               |            |       |      |      |      |             |      |      |      |      |      |
| 0,4                       | 16         |       |      | 23   | 20   |             | 41   | 54   |      | 58   | 77   |
| 0,5                       | 18         |       |      | 26   | 23   |             | 46   | 61   |      | 65   | 87   |
| 0,6                       | 20         |       |      | 29   | 25   |             | 51   | 67   |      | 71   | 96   |
| 0,7                       | 22         |       |      | 31   | 27   |             | 56   | 72   |      | 77   | 104  |
| 0,8                       | 23         |       |      | 33   | 30   |             | 60   | 78   |      | 83   | 112  |
| 0,9                       | 25         |       |      | 35   | 32   |             | 65   | 83   |      | 88   | 120  |
| 1,0                       | 27         |       |      | 38   | 34   |             | 69   | 89   |      | 94   | 128  |
| 1,5                       | 36         |       |      | 49   | 45   |             | 91   | 116  |      | 123  | 169  |
| 2,0                       | 44         |       |      | 60   | 55   |             | 113  | 144  |      | 152  | 210  |
| 2,5                       | 52         |       |      | 71   | 66   |             | 134  | 171  |      | 180  | 250  |
| 3,0                       | 60         |       |      | 81   | 75   |             | 153  | 197  |      | 207  | 289  |
| 3,5                       | 67         |       |      | 90   | 84   |             | 171  | 221  |      | 232  | 324  |
| 4,0                       | 74         |       |      | 100  | 93   |             | 189  | 245  |      | 257  | 359  |
| 4,5                       | 81         |       |      | 110  | 102  |             | 208  | 268  |      | 282  | 393  |
| 5                         | 88         |       |      | 119  | 111  |             | 226  | 292  |      | 307  | 428  |
| 6                         | 102        |       |      | 139  | 129  |             | 263  | 339  |      | 357  | 497  |
| 7                         | 117        |       |      | 158  | 147  |             | 299  |      |      | 406  |      |
| 8                         | 131        |       |      | 177  | 165  |             | 335  |      |      | 456  |      |
| 9                         | 145        |       |      | 196  | 183  |             | 371  |      |      | 505  |      |
| 10                        | 159        |       |      | 215  | 201  |             | 408  |      |      | 554  |      |
| 12                        | 187        |       |      | 254  | 237  |             | 480  |      |      | 652  |      |
| 14                        | 215        |       |      | 292  | 272  |             | 552  |      |      | 750  |      |
| 16                        | 244        |       |      | 330  | 308  |             | 624  |      |      | 848  |      |
| 18                        | 272        |       |      | 368  | 343  |             | 696  |      |      | 956  |      |
| 20                        | 300        |       |      | 406  | 379  |             | 768  |      |      | 1010 |      |
| 25                        | 370        |       |      | 501  |      |             | 948  |      |      | 1290 |      |
| 30                        | 441        |       |      | 597  |      |             | 1130 |      |      | 1530 |      |
| 35                        | 512        |       |      | 693  |      |             | 1310 |      |      | 1780 |      |
| 40                        | 583        |       |      | 789  |      |             | 1490 |      |      | 2030 |      |
| 45                        | 655        |       |      |      |      |             |      |      |      |      |      |
| 50                        | 727        | 129   | 727  |      |      | 1400        |      |      | 1860 |      |      |
| 60                        |            | 155   | 873  |      |      | 1680        |      |      | 2230 |      |      |
| 70                        |            | 183   | 1030 |      |      | 1980        |      |      | 2640 |      |      |
| 80                        |            | 209   | 1170 |      |      | 2250        |      |      | 3000 |      |      |
| 90                        |            | 236   | 1330 |      |      | 2550        |      |      | 3400 |      |      |
| 100                       |            | 264   | 1480 |      |      | 2860        |      |      | 3800 |      |      |
| 110                       |            | 293   | 1650 |      |      |             |      |      |      |      |      |
| 120                       |            | 323   | 1820 |      |      |             |      |      |      |      |      |
| 130                       |            | 354   |      |      |      |             |      |      |      |      |      |
| 140                       |            | 387   |      |      |      |             |      |      |      |      |      |
| 150                       |            | 422   |      |      |      |             |      |      |      |      |      |
| 160                       |            | 459   |      |      |      |             |      |      |      |      |      |
| 170                       |            | 499   |      |      |      |             |      |      |      |      |      |
| 180                       |            | 542   |      |      |      |             |      |      |      |      |      |
| 190                       |            | 590   |      |      |      |             |      |      |      |      |      |
| 200                       |            | 647   |      |      |      |             |      |      |      |      |      |
| 210                       |            | 718   |      |      |      |             |      |      |      |      |      |
| 220                       |            | 925   |      |      |      |             |      |      |      |      |      |
| 230                       |            |       |      |      |      |             |      |      |      |      |      |
| 240                       |            |       |      |      |      |             |      |      |      |      |      |
| 250                       |            |       |      |      |      |             |      |      |      |      |      |

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## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

| Massenstromtabelle         |              |      |      |      |      |      |             |      |      |      |       |      |      |
|----------------------------|--------------|------|------|------|------|------|-------------|------|------|------|-------|------|------|
| Sattedampf [kg/h] bzw. t/h |              |      |      |      |      |      |             |      |      |      |       |      |      |
|                            | Baugröße III |      |      |      |      |      | Baugröße IV |      |      |      |       |      |      |
| Eintritt                   | 50           | 50   | 50   | 65   | 65   | 65   | 80          | 80   | 80   | 80   | 100   | 100  | 100  |
| d <sub>0</sub> [mm]        | 25           | 32   | 40   | 32   | 40   | 50   | 32          | 40   | 50   | 58   | 50    | 60   | 70   |
| aw, max                    | 0,21         | 0,18 | 0,15 | 0,18 | 0,16 | 0,14 | 0,30        | 0,22 | 0,22 | 0,18 | 0,25  | 0,22 | 0,19 |
| pe [bar(g)]                |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 0,4                        |              | 83   | 110  |      | 112  | 158  |             | 0,16 | 0,25 | 0,27 | 0,28  | 0,36 | 0,43 |
| 0,5                        |              | 93   | 124  |      | 126  | 178  |             | 0,18 | 0,28 | 0,31 | 0,32  | 0,40 | 0,48 |
| 0,6                        |              | 103  | 136  |      | 139  | 196  |             | 0,19 | 0,30 | 0,34 | 0,35  | 0,44 | 0,52 |
| 0,7                        |              | 111  | 148  |      | 151  | 213  |             | 0,21 | 0,33 | 0,35 | 0,38  | 0,47 | 0,57 |
| 0,8                        |              | 120  | 159  |      | 162  | 229  |             | 0,23 | 0,35 | 0,39 | 0,41  | 0,51 | 0,61 |
| 0,9                        |              | 128  | 170  |      | 174  | 245  |             | 0,24 | 0,38 | 0,42 | 0,44  | 0,54 | 0,65 |
| 1,0                        |              | 136  | 181  |      | 186  | 262  |             | 0,26 | 0,40 | 0,45 | 0,47  | 0,58 | 0,69 |
| 1,5                        |              | 179  | 238  |      | 247  | 346  |             | 0,34 | 0,53 | 0,59 | 0,62  | 0,76 | 0,91 |
| 2,0                        |              | 223  | 295  |      | 308  | 429  |             | 0,42 | 0,66 | 0,73 | 0,77  | 0,95 | 1,10 |
| 2,5                        |              | 265  | 349  |      | 368  | 508  |             | 0,50 | 0,79 | 0,87 | 0,91  | 1,10 | 1,30 |
| 3,0                        |              | 306  | 398  |      | 425  | 581  |             | 0,58 | 0,91 | 1,00 | 1,00  | 1,30 | 1,50 |
| 3,5                        |              | 343  | 446  |      | 476  | 651  |             | 0,65 | 1,00 | 1,10 | 1,10  | 1,50 | 1,70 |
| 4,0                        |              | 380  | 494  |      | 527  | 721  |             | 0,72 | 1,10 | 1,20 | 1,30  | 1,60 | 1,90 |
| 4,5                        |              | 416  | 542  |      | 578  | 791  |             | 0,79 | 1,20 | 1,40 | 1,40  | 1,80 | 2,10 |
| 5                          |              | 453  | 590  |      | 629  | 661  |             | 0,86 | 1,30 | 1,50 | 1,50  | 1,90 | 2,30 |
| 6                          |              | 526  | 685  |      | 731  | 999  |             | 1,00 | 1,60 | 1,70 | 1,80  | 2,20 | 2,60 |
| 7                          |              | 599  |      |      | 832  |      |             | 1,10 | 1,80 |      | 2,00  | 2,60 |      |
| 8                          |              | 672  |      |      | 933  |      |             | 1,30 | 2,00 |      | 2,30  | 2,90 |      |
| 9                          |              | 744  |      |      | 1030 |      |             | 1,40 | 2,20 |      | 2,50  | 3,20 |      |
| 10                         |              | 817  |      |      | 1130 |      |             | 1,50 | 2,40 |      | 2,80  | 3,50 |      |
| 12                         |              | 962  |      |      | 1330 |      |             | 1,80 | 2,90 |      | 3,20  | 4,10 |      |
| 14                         |              | 1100 |      |      | 1530 |      |             | 2,10 | 3,30 |      | 3,70  | 4,70 |      |
| 16                         |              | 1250 |      |      | 1740 |      |             | 2,40 | 3,70 |      | 4,20  | 5,40 |      |
| 18                         |              | 1390 |      |      | 1930 |      |             | 2,60 | 4,10 |      | 4,70  | 6,00 |      |
| 20                         |              | 1540 |      |      | 2140 |      |             | 2,90 | 4,60 |      | 5,20  | 6,60 |      |
| 25                         |              | 1900 |      |      | 2640 |      |             | 6,60 | 5,70 |      | 6,40  | 8,10 |      |
| 30                         |              | 2260 |      |      | 3140 |      |             | 4,30 |      |      | 7,70  |      |      |
| 35                         |              | 2620 |      |      | 3640 |      |             | 5,00 |      |      | 8,90  |      |      |
| 40                         |              | 2990 |      |      | 4150 |      |             | 5,70 |      |      | 10,00 |      |      |
| 45                         |              |      |      |      |      |      | 6210        |      |      |      |       |      |      |
| 50                         | 2650         |      |      | 3730 |      |      | 7460        |      |      |      |       |      |      |
| 60                         | 3190         |      |      | 4480 |      |      | 8800        |      |      |      |       |      |      |
| 70                         | 3760         |      |      | 5280 |      |      |             |      |      |      |       |      |      |
| 80                         | 4280         |      |      | 6010 |      |      |             |      |      |      |       |      |      |
| 90                         | 4850         |      |      | 6810 |      |      |             |      |      |      |       |      |      |
| 100                        | 5430         |      |      | 7620 |      |      |             |      |      |      |       |      |      |
| 110                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 120                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 130                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 140                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 150                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 160                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 170                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 180                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 190                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 200                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 210                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 220                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 230                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 240                        |              |      |      |      |      |      |             |      |      |      |       |      |      |
| 240                        |              |      |      |      |      |      |             |      |      |      |       |      |      |

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| Volumenstromtabelle |            |       |      |      |      |             |      |      |      |      |      |
|---------------------|------------|-------|------|------|------|-------------|------|------|------|------|------|
| Luft bei 0°C (m³/h) |            |       |      |      |      |             |      |      |      |      |      |
|                     | Baugröße I |       |      |      |      | Baugröße II |      |      |      |      |      |
| Eintritt            | 15/20      | 15/20 | 25   | 25   | 25   | 32          | 32   | 32   | 40   | 40   | 40   |
| d <sub>o</sub> [mm] | 8          | 12,5  | 12,5 | 16   | 18   | 16          | 20   | 25   | 20   | 25   | 32   |
| aw, max             | 0,10       | 0,23  | 0,23 | 0,19 | 0,14 | 0,27        | 0,23 | 0,19 | 0,23 | 0,20 | 0,17 |
| pe [bar(g)]         |            |       |      |      |      |             |      |      |      |      |      |
| 0,1                 |            | 9     |      | 14   | 12   |             | 23   | 31   |      | 33   | 44   |
| 0,2                 |            | 13    |      | 20   | 17   |             | 33   | 45   |      | 48   | 64   |
| 0,3                 |            | 16    |      | 24   | 21   |             | 42   | 56   |      | 60   | 80   |
| 0,4                 |            | 19    |      | 28   | 25   |             | 50   | 66   |      | 70   | 94   |
| 0,5                 |            | 22    |      | 32   | 28   |             | 57   | 75   |      | 79   | 107  |
| 1,0                 |            | 34    |      | 48   | 43   |             | 87   | 112  |      | 119  | 162  |
| 1,5                 |            | 45    |      | 62   | 57   |             | 117  | 148  |      | 156  | 215  |
| 2,0                 |            | 57    |      | 77   | 71   |             | 146  | 184  |      | 195  | 269  |
| 2,5                 |            | 67    |      | 91   | 85   |             | 173  | 221  |      | 232  | 323  |
| 3,0                 |            | 77    |      | 104  | 97   |             | 198  | 255  |      | 269  | 374  |
| 3,5                 |            | 87    |      | 117  | 109  |             | 222  | 287  |      | 302  | 421  |
| 4,0                 |            | 96    |      | 130  | 122  |             | 247  | 319  |      | 336  | 467  |
| 4,5                 |            | 106   |      | 144  | 134  |             | 272  | 351  |      | 369  | 514  |
| 5                   |            | 116   |      | 157  | 146  |             | 296  | 383  |      | 403  | 561  |
| 6                   |            | 135   |      | 183  | 170  |             | 346  | 446  |      | 470  | 654  |
| 7                   |            | 154   |      | 209  | 195  |             | 395  |      |      | 537  |      |
| 8                   |            | 174   |      | 235  | 219  |             | 445  |      |      | 604  |      |
| 9                   |            | 193   |      | 261  | 243  |             | 494  |      |      | 671  |      |
| 10                  |            | 212   |      | 287  | 268  |             | 544  |      |      | 739  |      |
| 12                  |            | 251   |      | 340  | 317  |             | 643  |      |      | 873  |      |
| 14                  |            | 290   |      | 392  | 366  |             | 742  |      |      | 1010 |      |
| 16                  |            | 328   |      | 445  | 415  |             | 841  |      |      | 1140 |      |
| 18                  |            | 367   |      | 497  | 464  |             | 940  |      |      | 1280 |      |
| 20                  |            | 406   |      | 550  | 513  |             | 1040 |      |      | 1410 |      |
| 25                  |            | 503   |      | 681  |      |             | 1290 |      |      | 1750 |      |
| 30                  |            | 601   |      | 813  |      |             | 1540 |      |      | 2090 |      |
| 35                  |            | 698   |      | 945  |      |             | 1790 |      |      | 2430 |      |
| 40                  |            | 796   |      | 1080 |      |             | 2040 |      |      | 2770 |      |
| 45                  |            | 894   |      |      |      |             |      |      |      |      |      |
| 50                  | 176        | 991   | 991  |      |      | 1910        |      |      | 2540 |      |      |
| 60                  | 211        |       | 1190 |      |      | 2280        |      |      | 3040 |      |      |
| 70                  | 246        |       | 1380 |      |      | 2660        |      |      | 3540 |      |      |
| 80                  | 281        |       | 1580 |      |      | 3030        |      |      | 4040 |      |      |
| 90                  | 316        |       | 1770 |      |      | 3410        |      |      | 4540 |      |      |
| 100                 | 350        |       | 1970 |      |      | 3780        |      |      | 5040 |      |      |
| 110                 | 385        |       | 2160 |      |      |             |      |      |      |      |      |
| 120                 | 419        |       | 2350 |      |      |             |      |      |      |      |      |
| 130                 | 453        |       |      |      |      |             |      |      |      |      |      |
| 140                 | 487        |       |      |      |      |             |      |      |      |      |      |
| 150                 | 521        |       |      |      |      |             |      |      |      |      |      |
| 160                 | 554        |       |      |      |      |             |      |      |      |      |      |
| 170                 | 587        |       |      |      |      |             |      |      |      |      |      |
| 180                 | 620        |       |      |      |      |             |      |      |      |      |      |
| 190                 | 652        |       |      |      |      |             |      |      |      |      |      |
| 200                 | 684        |       |      |      |      |             |      |      |      |      |      |
| 210                 | 716        |       |      |      |      |             |      |      |      |      |      |
| 220                 | 748        |       |      |      |      |             |      |      |      |      |      |
| 230                 | 779        |       |      |      |      |             |      |      |      |      |      |
| 240                 | 810        |       |      |      |      |             |      |      |      |      |      |
| 250                 | 840        |       |      |      |      |             |      |      |      |      |      |

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## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

### Massenstromtabelle

Luft bei 0°C (m<sup>3</sup>/h)

|                     | Baugröße III |      |      |       |      |      | Baugröße IV |      |      |      |       |       |      |
|---------------------|--------------|------|------|-------|------|------|-------------|------|------|------|-------|-------|------|
| Eintritt            | 50           | 50   | 50   | 65    | 65   | 65   | 80          | 80   | 80   | 80   | 100   | 100   | 100  |
| d <sub>o</sub> [mm] | 25           | 32   | 40   | 32    | 40   | 50   | 32          | 40   | 50   | 58   | 50    | 60    | 70   |
| aw, max             | 0,21         | 0,18 | 0,15 | 0,18  | 0,16 | 0,14 | 0,30        | 0,22 | 0,22 | 0,18 | 0,25  | 0,22  | 0,19 |
| pe [bar(g)]         |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 0,1                 |              | 48   |      |       |      |      |             |      |      |      |       |       |      |
| 0,2                 |              | 69   | 91   |       | 92   | 130  |             | 132  | 206  | 226  | 235   | 296   | 354  |
| 0,3                 |              | 86   | 114  |       | 115  | 163  |             | 164  | 256  | 282  | 294   | 369   | 440  |
| 0,4                 |              | 101  | 134  |       | 135  | 192  |             | 192  | 300  | 331  | 346   | 432   | 517  |
| 0,5                 |              | 114  | 152  |       | 154  | 218  |             | 218  | 340  | 376  | 395   | 490   | 586  |
| 1,0                 |              | 173  | 230  |       | 236  | 332  |             | 327  | 512  | 569  | 601   | 737   | 881  |
| 1,5                 |              | 229  | 304  |       | 315  | 441  |             | 433  | 676  | 752  | 798   | 974   | 1160 |
| 2,0                 |              | 286  | 378  |       | 395  | 550  |             | 542  | 846  | 940  | 992   | 1220  | 1450 |
| 2,5                 |              | 342  | 450  |       | 475  | 656  |             | 650  | 1010 | 1120 | 1170  | 1460  | 1730 |
| 3,0                 |              | 396  | 516  |       | 550  | 752  |             | 757  | 1180 | 1300 | 1340  | 1700  | 2000 |
| 3,5                 |              | 445  | 580  |       | 619  | 846  |             | 851  | 1330 | 1460 | 1510  | 1910  | 2250 |
| 4,0                 |              | 495  | 644  |       | 687  | 940  |             | 945  | 1480 | 1620 | 1680  | 2130  | 2500 |
| 4,5                 |              | 544  | 709  |       | 756  | 1030 |             | 1040 | 1620 | 1790 | 1840  | 2340  | 2750 |
| 5                   |              | 594  | 773  |       | 825  | 1130 |             | 1130 | 1770 | 1950 | 2010  | 2550  | 3000 |
| 6                   |              | 693  | 902  |       | 962  | 1310 |             | 1320 | 2070 | 2270 | 2350  | 2980  | 3500 |
| 7                   |              | 792  |      |       | 1100 |      |             | 1510 | 2360 |      | 2680  | 3400  |      |
| 8                   |              | 891  |      |       | 1240 |      |             | 1700 | 2660 |      | 3020  | 3830  |      |
| 9                   |              | 990  |      |       | 1370 |      |             | 1890 | 2950 |      | 3360  | 4250  |      |
| 10                  |              | 1090 |      |       | 1510 |      |             | 2080 | 3250 |      | 3690  | 4680  |      |
| 12                  |              | 1290 |      |       | 1790 |      |             | 2460 | 3850 |      | 4370  | 5530  |      |
| 14                  |              | 1480 |      |       | 2060 |      |             | 2840 | 4430 |      | 5040  | 6390  |      |
| 16                  |              | 1680 |      |       | 2340 |      |             | 3220 | 5030 |      | 5710  | 7240  |      |
| 18                  |              | 1880 |      |       | 2620 |      |             | 3600 | 5620 |      | 6390  | 8100  |      |
| 20                  |              | 2080 |      |       | 2890 |      |             | 3980 | 6220 |      | 7060  | 8950  |      |
| 25                  |              | 2580 |      |       | 3580 |      |             | 4930 | 7700 |      | 8750  | 11100 |      |
| 30                  |              | 3080 |      |       | 4280 |      |             | 5880 |      |      | 10400 |       |      |
| 35                  |              | 3580 |      |       | 4970 |      |             | 6840 |      |      | 12100 |       |      |
| 40                  |              | 4080 |      |       | 5670 |      |             | 7790 |      |      | 13800 |       |      |
| 45                  |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 50                  | 3620         |      |      | 5080  |      |      | 8470        |      |      |      |       |       |      |
| 60                  | 4330         |      |      | 6090  |      |      | 10100       |      |      |      |       |       |      |
| 70                  | 5050         |      |      | 7090  |      |      | 10800       |      |      |      |       |       |      |
| 80                  | 5760         |      |      | 8090  |      |      |             |      |      |      |       |       |      |
| 90                  | 6470         |      |      | 9090  |      |      |             |      |      |      |       |       |      |
| 100                 | 7180         |      |      | 10100 |      |      |             |      |      |      |       |       |      |
| 110                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 120                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 130                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 140                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 150                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 160                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 170                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 180                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 190                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 200                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 210                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 220                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 230                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 240                 |              |      |      |       |      |      |             |      |      |      |       |       |      |
| 250                 |              |      |      |       |      |      |             |      |      |      |       |       |      |

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## Entlastungs-/Überströmventil in Eckform, Artikel 171-VA

Nennweiten DN 15 bis DN 100

Tabelle der Weichdichtungen

| BSA -<br>Kurzbez.  | ISO -<br>Kurzbez. | ASTM -<br>Kurzbez. | Werkstoff - Type                             | Allgemeine Druckgrenzen          |                               | Allgemeine Verwendung                                                                                                                                           |
|--------------------|-------------------|--------------------|----------------------------------------------|----------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                   |                    |                                              | Flachdichtung                    | O-Ring                        |                                                                                                                                                                 |
| Elastomere         |                   |                    |                                              |                                  |                               |                                                                                                                                                                 |
| EPDM <sup>1)</sup> | EPDM              | EPDM               | APTK®<br>Ethylen-Propylen-<br>Dien-Kautschuk | ≤ 16 bar<br>-40°C bis +120°C     | < 120 bar<br>-40°C bis +140°C | Gute Beständigkeit gegen viele<br>Chemikalien, Heisswasser, Dampf,<br>Laugen,Säuren, Alkohol. Mittlere<br>mechanische Eigenschaften.<br>Ozonfest, nicht ölfest. |
| FPM <sup>1)</sup>  | FPM               | FKM                | Viton®<br>Fluor-Kautschuk                    | ≤ 25 bar<br>-20°C bis +200°C     | < 200 bar<br>-20°C bis +200°C | Gute Beständigkeit gegen viele<br>Chemikalien, Mineralöl, Heißluft, Säuren.<br>Mittlere bis gute mechanische<br>Eigenschaften.                                  |
| NBR <sup>1)</sup>  | NBR               | NBR                | Acrylnitril-Butadien-<br>Kautschuk           | -                                | -20°C bis +120°C              | Besitzt gute mechanische Eigenschaften<br>und im Vergleich mit anderen Elastomeren<br>eine höhere Abriebbeständigkeit.                                          |
| Thermoplaste       |                   |                    |                                              |                                  |                               |                                                                                                                                                                 |
| PTFE <sup>1)</sup> | PTFE              | PTFE               | Teflon®<br>Polytetrafluorethylen             | ≤ 15/25 bar<br>-200°C bis +260°C |                               | Sehr gute Beständigkeit gegen Chemikalien,<br>Säuren, Laugen, Lösungsmittel, Öle.<br>Gute thermische und mittlere mechanische<br>Eigenschaften.                 |

<sup>1)</sup> Standard Weichdichtung

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