

# Safety Valves

## Type 06340, Type 06341



**Safety Valves, angle type, cast iron, type tested, TÜV-SV.576. S/G/L**

Full lift safety valve  
Standard safety valve for fluids  
metal to metal seated, with lifting device,  
with enlarged outlet  
Flanged connection acc. to DIN EN 1092-1 PN16

**Part No. 06340.X.0000**

open bonnet

**Part No. 06341.X.0000**

closed bonnet

Available options - on request only:

- Disc with soft sealing

### Applications:

Provided as safety device for protection against excessive pressure in pressure vessels.

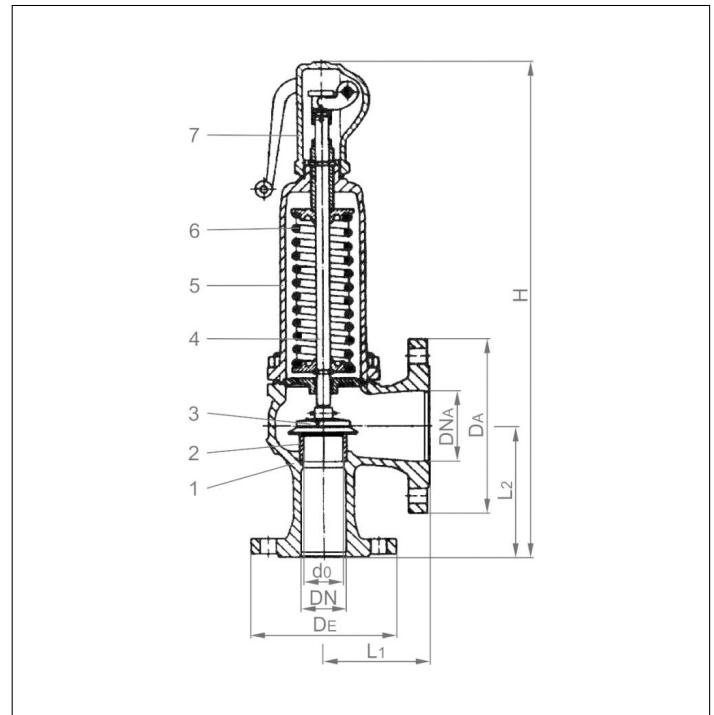
Approved for gases, vapours and fluids.

Working temperatures: -10°C / +14°F (263K) up to +200°C / +392°F (473K)

with spring in special steel up to +300°C / +572°F (573K)



| Materials        | DIN EN | ASME/ASTM             |
|------------------|--------|-----------------------|
| 1 Body           | 0.6025 | A 48-83 Gr. 35B       |
| 2 Seat           | 1.4404 | A 276 Grade 316L      |
| 3 Disc           | 1.4122 | no reference          |
| 4 Stem           | 1.4021 | A 276 Grade 420       |
| 5 Spring         | 1.1200 | A 227                 |
| 6 Bonnet         | 0.7040 | A 536-87 Gr. 60-40-18 |
| 7 Lifting device | 0.7040 | A 536-87 Gr. 60-40-18 |



| Type 06340, 06341                  | Technical data |        |        |        |        |        |        |        |        |        |
|------------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nominal size                       | DN             | 25     | 32     | 40     | 50     | 65     | 80     | 100    | 125    | 150    |
| Outlet                             | DN             | 40     | 50     | 65     | 80     | 100    | 125    | 150    | 200    | 250    |
| Orifice                            | d <sub>0</sub> | 23     | 29     | 37     | 46     | 60     | 74     | 92     | 98     | 125    |
| Dimension code                     | .X.            | 0250   | 0320   | 0400   | 0500   | 0650   | 0800   | 1000   | 1250   | 1500   |
| Set pressure range                 | bar            | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 | 0.2-16 |
| Flange diameter                    | D <sub>E</sub> | 115    | 140    | 150    | 165    | 185    | 200    | 220    | 250    | 285    |
| Flange diameter                    | D <sub>A</sub> | 150    | 165    | 185    | 200    | 220    | 250    | 285    | 340    | 405    |
| Height Type 06340                  | H              | 338    | 440    | 506    | 563    | 696    | 798    | 880    | 910    | 1020   |
| Height Type 06341                  | H              | 339    | 446    | 512    | 569    | 702    | 801    | 883    | 913    | 1020   |
| Length                             | L <sub>1</sub> | 100    | 110    | 115    | 120    | 140    | 160    | 180    | 200    | 225    |
| Length                             | L <sub>2</sub> | 105    | 115    | 140    | 150    | 170    | 195    | 220    | 250    | 285    |
| Weight                             | ca. kg         | 9.0    | 12.0   | 16.0   | 22.0   | 32.0   | 56.0   | 75.0   | 85.0   | 131.0  |
| Coeff. of discharge gases, vapours | α <sub>w</sub> | 0.70   | 0.70   | 0.70   | 0.70   | 0.70   | 0.70   | 0.70   | 0.70   | 0.70   |
| Coeff. of discharge fluids         | α <sub>w</sub> | 0.45   | 0.45   | 0.45   | 0.45   | 0.45   | 0.45   | 0.45   | 0.45   | 0.45   |

Dimensions in mm.

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### Discharge capacities

Calculation of flow rate acc. to AD2000-Merkblatt A2

Medium:

**A = Saturated steam** in kg/h

**B = Air** in m<sup>3</sup>/h at 0°C and 1013.25 mbar

**C = Water** in kg/h at 20°C

The capacity indicated below is for a fully opened valve.

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

| Set pressure in bar (g) | DN                                | 25    |      |       | 32    |      |       | 40     |      |        | 50     |       |        | 65     |       |        |
|-------------------------|-----------------------------------|-------|------|-------|-------|------|-------|--------|------|--------|--------|-------|--------|--------|-------|--------|
|                         | d <sub>0</sub> (mm)               | 23    |      |       | 29    |      |       | 37     |      |        | 46     |       |        | 60     |       |        |
|                         | A <sub>0</sub> (mm <sup>2</sup> ) | 415.5 |      |       | 660.6 |      |       | 1075.3 |      |        | 1662.1 |       |        | 2827.8 |       |        |
|                         | Medium                            | A     | B    | C     | A     | B    | C     | A      | B    | C      | A      | B     | C      | A      | B     | C      |
| 0.2                     |                                   | 140   | 162  | 5210  | 223   | 258  | 8280  | 363    | 420  | 13500  | 561    | 649   | 20800  | 954    | 1105  | 35500  |
| 0.5                     |                                   | 224   | 263  | 7370  | 356   | 418  | 11700 | 579    | 680  | 19100  | 895    | 1051  | 29500  | 1523   | 1789  | 50100  |
| 1.0                     |                                   | 326   | 388  | 9970  | 518   | 617  | 15900 | 843    | 1004 | 25800  | 1302   | 1552  | 39900  | 2215   | 2641  | 67900  |
| 2.0                     |                                   | 519   | 627  | 14100 | 825   | 996  | 22400 | 1343   | 1622 | 36500  | 2075   | 2507  | 56400  | 3531   | 4265  | 96000  |
| 3.0                     |                                   | 699   | 854  | 17300 | 1111  | 1357 | 27500 | 1808   | 2209 | 44700  | 2794   | 3414  | 69100  | 4754   | 5809  | 118000 |
| 4.0                     |                                   | 871   | 1071 | 19900 | 1385  | 1703 | 31700 | 2254   | 2773 | 51600  | 3485   | 4286  | 79800  | 5928   | 7291  | 136000 |
| 5.0                     |                                   | 1043  | 1289 | 22300 | 1658  | 2050 | 35500 | 2699   | 3337 | 57700  | 4172   | 5157  | 89200  | 7097   | 8774  | 152000 |
| 6.0                     |                                   | 1214  | 1507 | 24400 | 1930  | 2396 | 38800 | 3142   | 3900 | 63200  | 4856   | 6029  | 97700  | 8262   | 10257 | 166000 |
| 7.0                     |                                   | 1381  | 1725 | 26400 | 2196  | 2742 | 42000 | 3574   | 4464 | 68300  | 5525   | 6900  | 106000 | 9399   | 11739 | 180000 |
| 8.0                     |                                   | 1551  | 1943 | 28200 | 2466  | 3089 | 44800 | 4014   | 5028 | 73000  | 6205   | 7771  | 113000 | 10556  | 13222 | 192000 |
| 9.0                     |                                   | 1721  | 2161 | 29900 | 2736  | 3435 | 47600 | 4454   | 5592 | 77400  | 6884   | 8643  | 120000 | 11712  | 14704 | 204000 |
| 10.0                    |                                   | 1891  | 2379 | 31500 | 3006  | 3781 | 50100 | 4893   | 6155 | 81600  | 7562   | 9514  | 126000 | 12866  | 16187 | 215000 |
| 12.0                    |                                   | 2230  | 2814 | 34600 | 3545  | 4474 | 54900 | 5770   | 7283 | 89400  | 8919   | 11257 | 138000 | 15174  | 19152 | 235000 |
| 14.0                    |                                   | 2562  | 3250 | 37300 | 4073  | 5167 | 59300 | 6629   | 8411 | 96600  | 10247  | 13000 | 149000 | 17433  | 22117 | 254000 |
| 16.0                    |                                   | 2900  | 3686 | 39900 | 4610  | 5859 | 63400 | 7505   | 9538 | 103000 | 11600  | 14743 | 160000 | 19735  | 25082 | 272000 |

| Set pressure in bar (g) | DN                                | 80     |       |        | 100    |       |        | 125    |       |        | 150     |        |         |
|-------------------------|-----------------------------------|--------|-------|--------|--------|-------|--------|--------|-------|--------|---------|--------|---------|
|                         | d <sub>0</sub> (mm)               | 74     |       |        | 92     |       |        | 98     |       |        | 125     |        |         |
|                         | A <sub>0</sub> (mm <sup>2</sup> ) | 4301.4 |       |        | 6648.5 |       |        | 7543.9 |       |        | 12273.4 |        |         |
|                         | Medium                            | A      | B     | C      | A      | B     | C      | A      | B     | C      | A       | B      | C       |
| 0.2                     |                                   | 1451   | 1680  | 53900  | 2243   | 2597  | 83300  | 2545   | 2947  | 94600  | 4140    | 4794   | 154000  |
| 0.5                     |                                   | 2316   | 2721  | 76300  | 3580   | 4206  | 118000 | 4062   | 4772  | 134000 | 6609    | 7764   | 218000  |
| 1.0                     |                                   | 3370   | 4017  | 103000 | 5209   | 6209  | 160000 | 5910   | 7045  | 181000 | 9616    | 11461  | 295000  |
| 2.0                     |                                   | 5371   | 6487  | 146000 | 8302   | 10026 | 226000 | 9420   | 11377 | 256000 | 15326   | 18509  | 417000  |
| 3.0                     |                                   | 7232   | 8836  | 179000 | 11178  | 13657 | 276000 | 12683  | 15497 | 314000 | 20635   | 25212  | 510000  |
| 4.0                     |                                   | 9018   | 11091 | 206000 | 13938  | 17143 | 319000 | 15816  | 19462 | 362000 | 25731   | 31647  | 589000  |
| 5.0                     |                                   | 10796  | 13346 | 231000 | 16687  | 20629 | 357000 | 18934  | 23407 | 405000 | 30804   | 38082  | 659000  |
| 6.0                     |                                   | 12568  | 15601 | 253000 | 19426  | 24114 | 391000 | 22042  | 27362 | 444000 | 35861   | 44516  | 722000  |
| 7.0                     |                                   | 14297  | 17857 | 273000 | 22098  | 27600 | 422000 | 25074  | 31317 | 479000 | 40794   | 50951  | 779000  |
| 8.0                     |                                   | 16057  | 20112 | 292000 | 24818  | 31086 | 451000 | 28161  | 35273 | 512000 | 45816   | 57386  | 833000  |
| 9.0                     |                                   | 17815  | 22367 | 310000 | 27535  | 34571 | 479000 | 31244  | 39228 | 543000 | 50831   | 63821  | 884000  |
| 10.0                    |                                   | 19571  | 24622 | 326000 | 30250  | 38057 | 505000 | 34324  | 43183 | 573000 | 55842   | 70255  | 932000  |
| 12.0                    |                                   | 23081  | 29132 | 358000 | 35675  | 45028 | 553000 | 40480  | 51093 | 627000 | 65858   | 83125  | 1021000 |
| 14.0                    |                                   | 26518  | 33642 | 386000 | 40987  | 52000 | 597000 | 46507  | 59003 | 678000 | 75664   | 95994  | 1102000 |
| 16.0                    |                                   | 30020  | 38153 | 413000 | 46400  | 58971 | 638000 | 52650  | 66914 | 724000 | 85657   | 108863 | 1178000 |