

Full lift safety valve / Standard safety valve
ARI-SAFE
**Full lift safety valve D/G
 Standard safety valve F**

- Type-test approved acc. to DIN EN ISO 4126-1 / AD2000-A2 / TRD421
- TÜV · SV · . . -663 · D/G **Figure 901/911**
- TÜV · SV · . . -663 · F **Figure 901/911**
- Further approvals: see inside

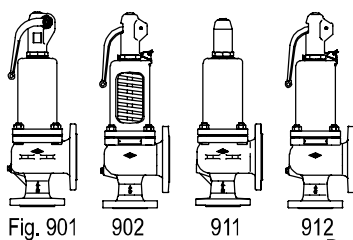


Fig. 901 902 911 912 Page 2

ARI-SAFE
**Standard safety valve
 for the heating technology**

- Type-test approved acc. to DIN EN ISO 4126-1 / DIN EN 12828 / TRD 721
- TÜV · SV · . . -688 · D/G/H **Figure 903**
- TÜV · SV · . . -688 · D **Figure 904**

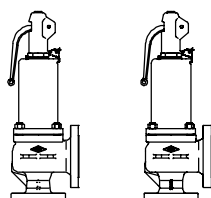


Fig. 903 904 Page 14

ARI-SAFE-P
Standard safety valve D/G/F

- Type-test approved acc. to DIN EN ISO 4126-1 / AD2000-A2
- TÜV · SV · . . -811 · D/G **Figure 921/923**
- TÜV · SV · . . -811 · F **Figure 921/923**

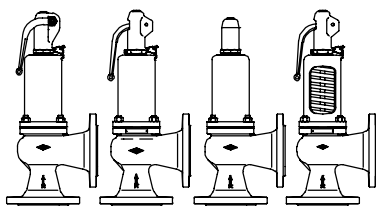


Fig. 921 922 923 924 Page 20

ARI-SAFE-TC
**Full lift safety valve D/G
 Standard safety valve F**

- Type-test approved acc. to DIN EN ISO 4126-1 / AD2000-A2 / TRD421
- TÜV · SV · . . -995 · D/G **Figure 941-943**
- TÜV · SV · . . -995 · F **Figure 941/943**

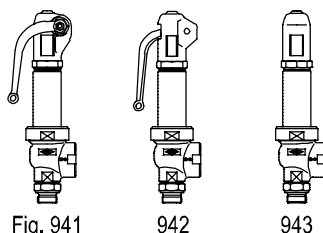


Fig. 941 942 943 Page 26

ARI-SAFE-TC
**Standard safety valve
 for the heating technology**

- Type-test approved acc. to DIN EN ISO 4126-1 / DIN EN 12828 / TRD 721
- TÜV · SV · . . -997 · D/G/H **Figure 945**
- TÜV · SV · . . -997 · D **Figure 946**

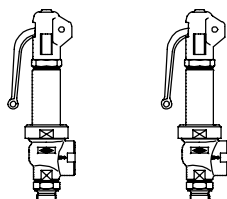


Fig. 945 946 Page 30

ARI-SAFE-TCP
Standard safety valve D/G/F

- Type-test approved acc. to DIN EN ISO 4126-1 / AD2000-A2
- TÜV · SV · . . -1041 · D/G **Figure 961-963**
- TÜV · SV · . . -1041 · F **Figure 961/963**

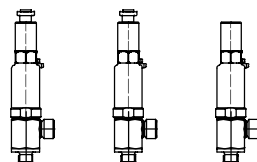


Fig. 961 962 963 Page 34

ARI-SAFE-TCS
Standard safety valve D/G/F

- Type-test approved acc. to DIN EN ISO 4126-1 / AD2000-A2
- TÜV · SV · . . -1041 · D/G **Figure 951-953**
- TÜV · SV · . . -1041 · F **Figure 951/953**

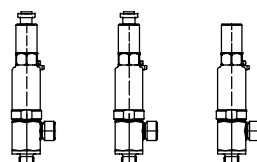


Fig. 951 952 953 Page 38

ALSO FOR HORIZONTAL APPLICATION


Fig. 900



Fig. 940

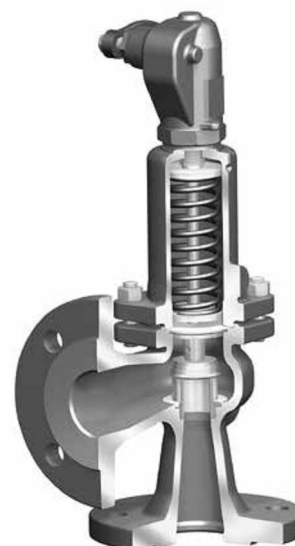


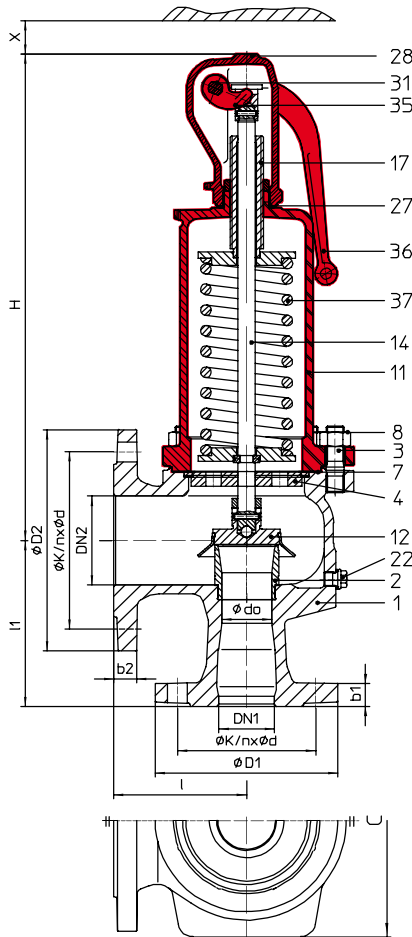
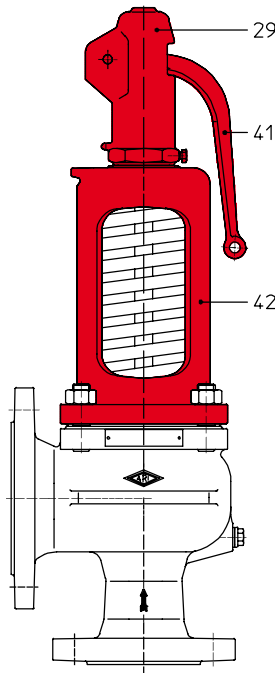
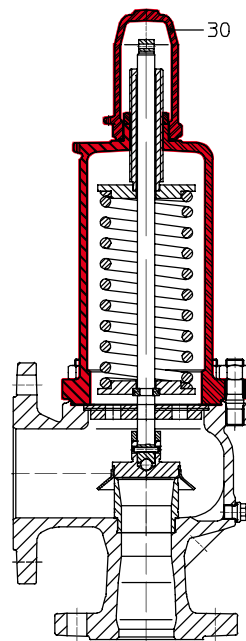
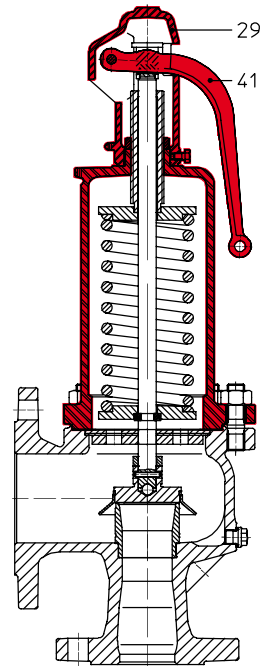
Fig. 920



Fig. 950/960

Features:

- Direct loaded with spring
- Wear resistant seat/disc
- Precision disc alignment and guide
- Possible with soft seal disc
- Possible with EPDM bellows
- Possible with stainless steel bellows
- ARI-SAFE-TC/TCP/TCS:
All common thread types

ARI-SAFE– Full lift safety valve D/G, Standard safety valve F

Fig. ... 901
 closed lifting device,
 closed bonnet

Fig. ... 902
 open lifting device,
 open bonnet

Fig. ... 911
 gastight cap,
 closed bonnet

Fig. ... 912
 open lifting device,
 closed bonnet

| Figure | Nominal pressure | Material | Nominal diameter | Temperature range | Flange | Flangeholes / -thickness tolerances |
|--------------------------|-------------------|------------|---------------------|-------------------|---------------|--|
| 12.901 / 902 / 911 / 912 | PN16/16 | EN-JL 1040 | DN20/32 - 150/250 | -10°C to +300°C | DIN EN 1092-2 | DIN 2533/2533 |
| 23.901 / 902 / 911 / 912 | PN25/16 (PN25/10) | EN-JS1049 | DN200/300 - 250/350 | -10°C to +350°C | DIN EN 1092-2 | DIN 2534/2533 |
| 25.901 / 902 / 911 / 912 | PN40/16 | EN-JS1049 | DN20/32 - 250/350 | -10°C to +350°C | DIN EN 1092-2 | DIN 2535/2533 |
| 34.901 / 902 / 911 / 912 | PN25/16 (PN25/10) | 1.0619+N | DN200/300 - 250/350 | -10°C to +450°C | DIN EN 1092-1 | DIN 2544/2543 |
| 35.901 / 902 / 911 / 912 | PN40/16 | 1.0619+N | DN15/25 - 250/350 | -10°C to +450°C | DIN EN 1092-1 | DIN 2545/2543 |
| 55.901 / 911 | PN40/16 | 1.4408 | DN15/25 - 250/350 | -60°C to +400°C | DIN EN 1092-1 | DIN 2545/2543 |

| | | |
|--|---|---------------------------|
| Construction | | |
| Safety valve, spring loaded, direct loaded | | |
| Requirement | | |
| Acc. to EN ISO 4126-1, VdTUV-leaflet 100, AD2000-A2, material selection observe TRB 801 No. 45! | | |
| Type-test approval | | |
| Full lift safety valve: (acc. to VdTUV-leaflet 663) | Fig. 901/902/911/912 | TÜV · SV · . . -663 · D/G |
| Standard safety valve: | Fig. 901/911 | TÜV · SV · . . -663 · F |
| Sizing | | |
| for steam, air and water refer to capacity tables, calculations acc. to EN ISO 4126-1, TRD421 and AD2000-A2. | | |
| Details required | | |
| Medium gasform: | Mass flow (kg/h), molar mass (kg/kmol), Isotropic exponent, temperature (°C), set pressure (barg), back pressure (barg) | |
| Medium liquid: | Mass flow (kg/h), density (kg/m ³), viscosity, temperature (°C), set pressure (barg), back pressure (barg) | |
| Order data: | | |
| ARI-SAFE-Safety valve, Figure ..., DN .../..., PN ..., Material ..., Set pressure ...bar | | |

| | | |
|-----------------------------------|--|--|
| | standard: without metal bellows | DN15/25 - 100/150 optional: with metal bellows (refer to page 14) |
| Superimposed back pressure | no backpressure allowed | on request |
| Built up back pressure | max. 10% from set pressure (higher on request) | on request |

| Parts | | | | | | | |
|-------|-------|------------------------------|--|------------------------------|-----------------------------|--------------------------|---------------------------|
| Pos. | Sp.p. | Description | Fig. 12.901/902/911/912 | Fig. 23./25.901/902/911/912 | Fig. 34./35.901/902/911/912 | Fig. 55.901/911 | |
| 1 | | Body | EN-GJL-250 , EN-JL1040 | EN-GJS-400-18U-LT, EN-JS1049 | GP240GH+N, 1.0619+N | GX5CrNiMo19-11-2, 1.4408 | |
| 2 | | Seat | X6CrNiMoTi17-12-2, 1.4571 | | | | |
| 3 | | Studs | 25CrMo4, 1.7218 | | | | A4 - 70 |
| 4 | | Spindle guide | X20Cr13+QT, 1.4021+QT (≥ DN65: EN-GJS-400-18U-LT, EN-JS1049) | | | | X6CrNiMoTi17-12-2, 1.4571 |
| 7 | x | Gasket | Pure graphite (CrNi laminated with graphite) | | | | |
| 8 | | Hexagon nut | C35E, 1.1181 | | | | A4 |
| 11 | | Bonnet, closed | EN-GJL-250 , EN-JL1040 | EN-GJS-400-18U-LT, EN-JS1049 | | GX5CrNiMo19-11-2, 1.4408 | |
| 12 | | Disc | X39CrMo17-1+QT, 1.4122+QT | | | | X6CrNiMoTi17-12-2, 1.4571 |
| 14 | x | Spindle | X20Cr13+QT, 1.4021+QT | | | | X6CrNiMoTi17-12-2, 1.4571 |
| 17 | | Adjusting screw | X20Cr13+QT, 1.4021+QT | | | | X2CrNiMo17-12-2, 1.4404 |
| 22 | | Plug screw | 5.8 | | | | A4 |
| 27 | x | Sealing ring | CuFA (≥ DN125: Graphit) | | | | X6CrNiMoTi17-12-2, 1.4571 |
| 28 | | Cap, closed | EN-GJL-250 , EN-JL1040 | EN-GJS-400-18U-LT, EN-JS1049 | | GX5CrNiMo19-11-2, 1.4408 | |
| 29 | | Cap, open | EN-GJL-250 , EN-JL1040 EN-GJS-400-18U-LT, EN-JS1049 | | | | – |
| 30 | | Cap, gastight | EN-GJL-250 , EN-JL1040 EN-GJS-400-18U-LT, EN-JS1049 | | | | GX5CrNiMo19-11-2, 1.4408 |
| 31 | x | Packing rings | Pure graphite | | | | |
| 35 | | Lift fork | EN-GJS-400-15, EN-JS1030 (DN200: GP240GH+N, 1.0619+N) | | | | GX5CrNiMo19-11-2, 1.4408 |
| 36 | | Lever, closed | EN-GJS-400-18U-LT, EN-JS1049 | | | | X6CrNiMoTi17-12-2, 1.4571 |
| 37 | x | Spring | FDSiCr / 51CrV4, 1.8159 | | | | X10CrNi18-8, 1.4310 |
| 41 | | Lever, open | EN-GJS-400-18U-LT, EN-JS1049 | | | | – |
| 42 | | Bonnet, open | EN-GJL-250 , EN-JL1040 | EN-GJS-400-18U-LT, EN-JS1049 | | – | |
| 43 | | Bellows (optional) | EPDM 70 Shore A | | | | |
| 55 | | Bellows unit (optional) | X6CrNiMoTi17-12-2, 1.4571 | | | | |
| 70 | | Balanced piston (at bellows) | X6CrNiMoTi17-12-2, 1.4571 | | | | |
| | | L Spare parts | | | | | |

| DN1 / DN2 | 15 / 25 | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 | 200 / 300 | 250 / 350 |
|-----------|---------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|-----------|---------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|

| Spring ranges: Standard design | | | | | | | | | | | | | |
|--|--------|--------------|-------------|--|--|-------------|--|-------------|-----------|--------------|---------------|---------------|---------------|
| Full lift safety valve Fig. 901/902/911/912 | (barü) | 0,2 - 0,45 | 0,2 - 0,5 | | | 0,2 - 0,5 | | 0,2 - 0,5 | 0,2 - 0,5 | 0,2 - 0,4 | 0,2 - 0,5 | 0,2 - 0,3 | 0,2 - 0,3 |
| | (barü) | > 0,45 - 0,9 | > 0,5 - 1 | | | > 0,5 - 1 | | > 0,5 - 1 | > 0,5 - 1 | > 0,4 - 0,75 | > 0,5 - 1 | > 0,3 - 0,5 | > 0,3 - 0,35 |
| | (barü) | > 0,9 - 1,3 | > 1 - 1,5 | | | > 1 - 1,5 | | > 1 - 1,5 | > 1 - 1,5 | > 0,75 - 1,1 | > 1 - 1,5 | > 0,5 - 0,85 | > 0,35 - 0,6 |
| | (barü) | > 1,3 - 2 | > 1,5 - 2,5 | | | > 1,5 - 2 | | > 1,5 - 2 | > 1,5 - 2 | > 1,1 - 1,5 | > 1,5 - 1,9 | > 0,85 - 1,1 | > 0,6 - 0,7 |
| | (barü) | > 2 - 2,5 | > 2,5 - 4,5 | | | > 2 - 2,7 | | > 2 - 2,7 | > 2 - 2,5 | > 1,5 - 1,9 | > 1,9 - 2,3 | > 1,1 - 1,4 | > 0,7 - 0,9 |
| | (barü) | > 2,5 - 3,2 | > 4,5 - 8,5 | | | > 2,7 - 3,6 | | > 2,7 - 3,6 | > 2,5 - 3 | > 1,9 - 2,5 | > 2,3 - 2,7 | > 1,4 - 1,8 | > 0,9 - 1,5 |
| | (barü) | > 3,2 - 4,3 | > 8,5 - 19 | | | > 3,6 - 5 | | > 3,6 - 5 | > 3 - 3,6 | > 2,5 - 2,95 | > 2,7 - 3,3 | > 1,8 - 2,0 | > 1,5 - 1,9 |
| | (barü) | > 4,3 - 5,6 | > 19 - 28 | | | > 5 - 9 | | > 5 - 9 | > 3,6 - 5 | > 2,95 - 4 | > 3,3 - 4,1 | > 2,0 - 2,2 | > 1,9 - 2,6 |
| | (barü) | > 5,6 - 10 | > 28 - 35 | | | > 9 - 16 | | > 9 - 14 | > 5 - 9 | > 4 - 5,7 | > 4,1 - 5,5 | > 2,2 - 2,4 | > 2,6 - 3,0 |
| | (barü) | > 10 - 20 | > 35 - 40 | | | > 16 - 22 | | > 14 - 19 | > 9 - 14 | > 5,7 - 8,2 | > 5,5 - 7,4 | > 2,4 - 2,7 | > 3,0 - 4,5 |
| | (barü) | > 20 - 25,9 | | | | > 22 - 28 | | > 19 - 25 | > 14 - 19 | > 8,2 - 12 | > 7,4 - 11 | > 2,7 - 3,1 | > 4,5 - 6,0 |
| | (barü) | > 25,9 - 40 | | | | > 28 - 34 | | | > 19 - 24 | > 12 - 17 | > 11 - 16 | > 3,1 - 4,0 | > 6,0 - 7,0 |
| | (barü) | | | | | > 34 - 40 | | | | > 17 - 24 | > 16 - 21 | > 4,0 - 4,8 | > 7,0 - 8,5 |
| | (barü) | | | | | | | | | > 24 - 27 | > 21 - 26 | > 4,8 - 5,6 | > 8,5 - 10,0 |
| | (barü) | | | | | | | | | | | > 5,6 - 6,8 | > 10,0 - 11,5 |
| | (barü) | | | | | | | | | | | > 6,8 - 7,8 | > 11,5 - 13,0 |
| | (barü) | | | | | | | | | | | > 7,8 - 9,5 | > 13,0 - 14,0 |
| | (barü) | | | | | | | | | | | > 9,5 - 11,0 | > 14,0 - 15,0 |
| | (barü) | | | | | | | | | | | > 11,0 - 13,0 | > 15,0 - 16,0 |
| | (barü) | | | | | | | | | | | > 13,0 - 15,0 | > 16,0 - 20,0 |
| | (barü) | | | | | | | | | | | > 15,0 - 17,5 | |
| (barü) | | | | | | | | | | | > 17,5 - 21,0 | | |
| (barü) | | | | | | | | | | | > 21,0 - 25,0 | | |

| Spring ranges: Bellows design (optional) | | | | | | | | | | | | | | |
|--|--------|-------------|--------------|-------------|---------------|-------------|-------------|-------------|--------------|--------------|---------------|--------------|---------------|---------------|
| Standard safety valve Fig. 901/911 | (barü) | 5 - 6,4 | 3 - 3,7 | 2,5 - 3,3 | 2,5 - 3,2 | 2,6 - 3,6 | 2,8 - 3,4 | 2,5 - 3,7 | 2,5 - 3,3 | 2,5 - 3,5 | 1,1 - 1,5 | 1,1 - 1,3 | 2,4 - 2,7 | 2,1 - 2,4 |
| | (barü) | > 6,4 - 7,7 | > 3,7 - 4,6 | > 3,3 - 4,6 | > 3,2 - 4 | > 3,6 - 4,5 | > 3,4 - 4,5 | > 3,7 - 4,6 | > 3,3 - 4,5 | > 3,5 - 4,2 | > 1,5 - 2 | > 1,3 - 1,7 | > 2,7 - 2,9 | > 2,4 - 2,6 |
| | (barü) | > 7,7 - 10 | > 4,6 - 6,3 | > 4,6 - 5,4 | > 4 - 5,5 | > 4,5 - 5,6 | > 4,5 - 8,4 | > 4,6 - 5,9 | > 4,5 - 5,8 | > 4,2 - 4,9 | > 2 - 2,5 | > 1,7 - 2,1 | > 2,9 - 3,1 | > 2,6 - 2,9 |
| | (barü) | > 10 - 16 | > 6,3 - 8,4 | > 5,4 - 7 | > 5,5 - 6,4 | > 5,6 - 7,5 | > 8,4 - 10 | > 5,9 - 8 | > 5,8 - 7,5 | > 4,9 - 5,6 | > 2,5 - 2,9 | > 2,1 - 2,4 | > 3,1 - 3,3 | > 2,9 - 3,2 |
| | (barü) | > 16 - 18,5 | > 8,4 - 10,2 | > 7 - 9 | > 6,4 - 7,9 | > 7,5 - 10 | > 10 - 11,5 | > 8 - 10 | > 7,5 - 8,9 | > 5,6 - 7 | > 2,9 - 3,5 | > 2,4 - 2,8 | > 3,3 - 3,6 | > 3,2 - 3,6 |
| | (barü) | > 18,5 - 26 | > 10,2 - 13 | > 9 - 11,7 | > 7,9 - 11,5 | > 10 - 12,5 | > 11,5 - 16 | > 10 - 18 | > 8,9 - 10,5 | > 7 - 8 | > 3,5 - 4,2 | > 2,8 - 3,1 | > 3,6 - 3,9 | > 3,6 - 4,1 |
| | (barü) | > 26 - 40 | > 13 - 17 | > 11,7 - 16 | > 11,5 - 18,5 | > 12,5 - 16 | > 16 - 18,5 | > 18 - 24 | > 10,5 - 13 | > 8 - 9,3 | > 4,2 - 5,1 | > 3,1 - 3,4 | > 3,9 - 4,1 | > 4,1 - 4,6 |
| | (barü) | | > 17 - 27,5 | > 16 - 22 | > 18,5 - 25 | > 16 - 22 | > 18,5 - 23 | > 24 - 26 | > 13 - 18 | > 9,3 - 11,5 | > 5,1 - 6,5 | > 3,4 - 3,9 | > 4,1 - 4,3 | > 4,6 - 5,2 |
| | (barü) | | | > 22 - 30 | | | | | > 18 - 23 | > 11,5 - 14 | > 6,5 - 7,5 | > 3,9 - 4,8 | > 4,3 - 4,8 | > 5,2 - 5,8 |
| | (barü) | | | | | | | | | > 14 - 20 | > 7,5 - 9 | > 4,8 - 5,8 | > 4,8 - 5,5 | > 5,8 - 6,5 |
| | (barü) | | | | | | | | | | > 9 - 10,5 | > 5,8 - 6,8 | > 5,5 - 6,5 | > 6,5 - 7,2 |
| | (barü) | | | | | | | | | | > 10,5 - 12,6 | > 6,8 - 8,1 | > 6,5 - 7,9 | > 7,2 - 8,3 |
| | (barü) | | | | | | | | | | > 12,6 - 17 | > 8,1 - 9,7 | > 7,9 - 9,5 | > 8,3 - 9,3 |
| | (barü) | | | | | | | | | | > 17 - 25 | > 9,7 - 11,3 | > 9,5 - 12,3 | > 9,3 - 10 |
| | (barü) | | | | | | | | | | | > 11,3 - 13 | > 12,3 - 15,9 | > 10 - 10,8 |
| | (barü) | | | | | | | | | | | > 13 - 15 | > 15,9 - 20 | > 10,8 - 11,5 |
| | (barü) | | | | | | | | | | | > 15 - 18 | | > 11,5 - 12,2 |
| | (barü) | | | | | | | | | | | | | > 12,2 - 13 |

| DN1 / DN2 | | 15 / 25 | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 | 200 / 300 | 250 / 350 | |
|--------------------------------|--|---------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|--|
| Dimensions | | | | | | | | | | | | | | | |
| d0 | (mm) | 13 | 18 | 22,5 | 29 | 36 | 45 | 58,5 | 72 | 90 | 106 | 125 | 165 | 200 | |
| A0 | (mm ²) | 133 | 254 | 398 | 661 | 1018 | 1590 | 2688 | 4072 | 6362 | 8825 | 12272 | 21382 | 31416 | |
| l | (mm) | 80 | 85 | 100 | 110 | 115 | 120 | 140 | 160 | 180 | 200 | 225 | 300 | 325 | |
| l1 | (mm) | 90 | 95 | 105 | 115 | 140 | 150 | 170 | 195 | 220 | 250 | 285 | 305 | 340 | |
| H | (mm) | 260 | 270 | 280 | 330 | 390 | 435 | 545 | 610 | 690 | 845 | 890 | 1105 | 1175 | |
| H (Bellows design) | (mm) | 290 | 310 | 335 | 390 | 445 | 500 | 620 | 690 | 808 | 919 | 953 | 1215 | 1262 | |
| X | (mm) | 150 | 150 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 500 | 500 | 500 | 500 | |
| C (Widthsupport tongues) | EN-JL1040 | (mm) | – | – | – | – | – | – | 280 | 332 | 362 | 408 | – | – | |
| | EN-JS1049 | (mm) | – | – | – | – | – | – | 280 | 332 | 362 | 408 | 521 | 600 | |
| | 1.0619+N | (mm) | – | – | – | – | – | 204 | 242 | 280 | 332 | 362 | 408 | 521 | |
| | 1.4408 | (mm) | – | – | – | – | – | 204 | 242 | 280 | 332 | 362 | 408 | 521 | |
| Drainhole with plug | (inch) | G1/4" | | | | | | | G3/8" | | | | | | |
| | Standard for EN-JL1040, EN-JS1049 1.0619+N, optional at 1.4408 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|--------------------------|------|-----|-----|------|----|------|----|----|----|----|-----|-----|-----|-----|--|
| Weights | | | | | | | | | | | | | | | |
| standard | (kg) | 7 | 8,5 | 10 | 14 | 20 | 28 | 40 | 53 | 80 | 125 | 165 | 280 | 430 | |
| optional: Bellows design | (kg) | 7,5 | 9,5 | 11,5 | 16 | 22,5 | 32 | 47 | 59 | 93 | 140 | 180 | 310 | 470 | |

| | | | | | | | | | | | | | | | |
|----------------|-----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Flanges | | | | | | | | | | | | | | | |
| ØD1 | PN16 | (mm) | 95 | 105 | 115 | 140 | 150 | 165 | 185 | 200 | 220 | 250 | 285 | – | – |
| | PN25 | (mm) | – | – | – | – | – | – | – | – | – | – | – | 360 | 425 |
| | PN40 | (mm) | 95 | 105 | 115 | 140 | 150 | 165 | 185 | 200 | 235 | 270 | 300 | 375 | 450 |
| ØD2 | PN10 | (mm) | – | – | – | – | – | – | – | – | – | – | – | 445 | 505 |
| | PN16 | (mm) | 115 | 140 | 150 | 165 | 185 | 200 | 220 | 250 | 285 | 340 | 405 | 460 | 520 |
| b1 | EN-JL1040 | (mm) | – | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 24 | 26 | 26 | – | – |
| | EN-JS1049 | (mm) | – | 18 | 18 | 18 | 19 | 20 | 22 | 24 | 24 | 27 | 29 | 37 | 40 |
| | 1.0619+N | (mm) | 16 | 20 | 20 | 20 | 21 | 22 | 24 | 26 | 28 | 31 | 34 | 37 | 40 |
| | 1.4408 | (mm) | 16 | 16 | 16 | 18 | 19 | 20 | 22 | 22 | 23 | 26 | 28 | 37 | 40 |
| b2 | EN-JL1040 | (mm) | – | 18 | 18 | 20 | 20 | 22 | 24 | 26 | 26 | 30 | 32 | – | – |
| | EN-JS1049 | (mm) | – | 19 | 19 | 20 | 20 | 20 | 20 | 22 | 22 | 31 | 33 | 33 | 35 |
| | 1.0619+N | (mm) | 18 | 19 | 19 | 20 | 20 | 20 | 20 | 22 | 22 | 27 | 29 | 33 | 35 |
| | 1.4408 | (mm) | 18 | 15 | 16 | 17 | 17 | 17 | 17 | 19 | 19 | 24 | 26 | 33 | 35 |

Flanges acc. to DIN EN 1092-1 / -2, Flangeholes/-thickness tolerances acc. to DIN 2533 / 2543 / 2545 / 28605 / 28607, raised face, facing acc. to DIN 2526 form C

| Standard-Flangeholes | | | | | | | | | | | | | | | | | |
|-----------------------------|---------------|------|------|------|------|------|------|------|--------------------|------|------|------|-------|-------|-------|-------|-------|
| DN | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | |
| ØK | PN10 DIN 2532 | (mm) | – | – | – | – | – | – | – | – | – | – | – | – | 400 | 460 | |
| | | (mm) | – | – | – | – | – | – | – | – | – | – | – | – | 12x22 | 16x22 | |
| ØK | PN16 DIN 2533 | (mm) | 65 | 75 | 85 | 100 | 110 | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 355 | 410 | 470 |
| | | (mm) | 4x14 | 4x14 | 4x14 | 4x18 | 4x18 | 4x18 | 4x18 ¹⁾ | 8x18 | 8x18 | 8x18 | 8x22 | 12x22 | 12x26 | 12x26 | 16x26 |
| ØK | PN25 DIN 2533 | (mm) | – | – | – | – | – | – | – | – | – | – | 310 | 370 | – | – | |
| | | (mm) | – | – | – | – | – | – | – | – | – | – | 12x26 | 12x30 | – | – | |
| ØK | PN40 DIN 2545 | (mm) | 65 | 75 | 85 | 100 | 110 | 125 | 145 | 160 | 190 | 220 | 250 | 320 | 385 | – | – |
| | | (mm) | 4x14 | 4x14 | 4x14 | 4x18 | 4x18 | 4x18 | 8x18 | 8x18 | 8x22 | 8x26 | 8x26 | 12x30 | 12x33 | – | – |

¹⁾ also with 8 bore holes acc. to DIN EN 1092-1/-2 possible.

| | | | | | | | | | | | | | | | |
|-------------------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Pressure-temperature-ratings | | Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart. | | | | | | | | | | | | | |
|-------------------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|

| acc. to DIN EN 1092-2 | | | -60°C to <-10°C ¹⁾ | -10°C to 120°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|-----------------------|----|-------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| EN-JL1040 | 16 | (bar) | – | 16 | 14,4 | 12,8 | 11,2 | 9,6 | – | – | – |
| EN-JS1049 | 25 | (bar) | on request | 25 | 24,3 | 23 | 21,8 | 20 | 17,5 | – | – |
| EN-JS1049 | 40 | (bar) | on request | 40 | 38,8 | 36,8 | 34,8 | 32 | 28 | – | – |

| acc. to manufacturers standard | | | -60°C to <-10°C ¹⁾ | -10°C to 120°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|--------------------------------|----|-------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.0619+N | 25 | (bar) | 18,7 | 25 | 23,9 | 22 | 20 | 17,2 | 16 | 14,8 | 8,2 |
| 1.0619+N | 40 | (bar) | 30 | 40 | 38,1 | 35 | 32 | 28 | 25,7 | 23,8 | 13,1 |

| acc. to DIN EN 1092-1 | | | -60°C to <-10°C ¹⁾ | -10°C to 100°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|-----------------------|----|-------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.4408 | 40 | (bar) | 40 | 40 | 36,3 | 33,7 | 31,8 | 29,7 | 28,5 | 27,4 | – |

¹⁾ Studs and nuts made of A4-70 (at temperatures below -10°C)

| Certified coefficient of discharge Kdr (Values for D/G variable: DN15-100; 250 < 3,5 bar, DN125-200 < 4,0 bar) | | | | | | | | | | | | | | | |
|---|--|---------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|--|
| DN1 / DN2 | | 15 / 25 | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 | 200 / 300 | 250 / 350 | |
| TÜV · SV · ... -663 · D/G | | 0,74 | | | | | | | | | | 0,7 | 0,75 | 0,7 | |
| TÜV · SV · ... -663 · F | | 0,52 | | | 0,54 | | | | 0,48 | | | 0,45 | 0,56 | 0,52 | |

Capacity saturated steam (incl. 10% overpressure)

| DN1 / DN2 | | 15 / 25 | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 | 200 / 300 | 250 / 350 |
|--|------------|------------------------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Set pressure | | Saturated steam (kg/h) | | | | | | | | | | | | |
| max. set pressure stainless steel version ↓ | 0,2 (barg) | 42 | 81 | 126 | 210 | 324 | 506 | 855 | 1295 | 2024 | 2510 | 3490 | 6937 | 8931 |
| | 0,4 (barg) | 60 | 120 | 185 | 307 | 473 | 739 | 1250 | 1890 | 2960 | 3630 | 5050 | 9694 | 12615 |
| | 0,5 (barg) | 67 | 132 | 207 | 344 | 529 | 827 | 1400 | 2120 | 3310 | 4070 | 5660 | 10859 | 14204 |
| | 0,6 (barg) | 74 | 147 | 230 | 383 | 590 | 923 | 1560 | 2360 | 3690 | 4470 | 6220 | 11934 | 15698 |
| | 0,8 (barg) | 87 | 174 | 272 | 453 | 698 | 1090 | 1840 | 2790 | 4360 | 5240 | 7280 | 13901 | 18492 |
| | 1 (barg) | 100 | 203 | 317 | 526 | 811 | 1270 | 2140 | 3245 | 5070 | 6030 | 8385 | 15868 | 21306 |
| | 1,5 (barg) | 133 | 272 | 425 | 707 | 1090 | 1700 | 2875 | 4355 | 6800 | 8050 | 11200 | 20739 | 28637 |
| | 2 (barg) | 164 | 305 | 477 | 792 | 1220 | 1900 | 3220 | 4880 | 7625 | 10125 | 14080 | 25647 | 36333 |
| | 2,5 (barg) | 194 | 366 | 572 | 950 | 1460 | 2285 | 3865 | 5855 | 9145 | 11990 | 16660 | 30689 | 43601 |
| | 3 (barg) | 224 | 424 | 662 | 1100 | 1695 | 2645 | 4475 | 6775 | 10600 | 13880 | 19300 | 35874 | 50185 |
| | 4 (barg) | 280 | 535 | 837 | 1390 | 2140 | 3350 | 5650 | 8570 | 13400 | 17550 | 24400 | 45676 | 62689 |
| | 5 (barg) | 335 | 640 | 1000 | 1665 | 2565 | 4000 | 6770 | 10260 | 16000 | 21000 | 29250 | 54723 | 75043 |
| | 6 (barg) | 390 | 745 | 1165 | 1940 | 2990 | 4665 | 7890 | 11950 | 18650 | 24500 | 34050 | 63698 | 87350 |
| | 7 (barg) | 445 | 850 | 1330 | 2210 | 3400 | 5320 | 9000 | 13600 | 21300 | 27900 | 38800 | 72658 | 99638 |
| | 8 (barg) | 500 | 957 | 1495 | 2485 | 3820 | 5980 | 10100 | 15300 | 23900 | 31350 | 43600 | 81599 | 111898 |
| | 9 (barg) | 554 | 1060 | 1660 | 2755 | 4245 | 6630 | 11200 | 16950 | 26500 | 34800 | 48400 | 90525 | 124139 |
| | 10 (barg) | 609 | 1165 | 1820 | 3025 | 4665 | 7290 | 12300 | 18650 | 29150 | 38250 | 53200 | 99452 | 136381 |
| | 11 (barg) | 664 | 1270 | 1985 | 3300 | 5080 | 7940 | 13400 | 20300 | 31750 | 41600 | 58000 | 108370 | 148610 |
| | 12 (barg) | 718 | 1375 | 2150 | 3570 | 5500 | 8590 | 14500 | 22000 | 34350 | 45100 | 62700 | 117282 | 160831 |
| | 13 (barg) | 773 | 1480 | 2310 | 3840 | 5920 | 9250 | 15600 | 23650 | 37000 | 48500 | 67500 | 126197 | 173057 |
| | 14 (barg) | 827 | 1580 | 2475 | 4110 | 6340 | 9900 | 16700 | 25350 | 39600 | 52000 | 72300 | 135113 | 185284 |
| | 15 (barg) | 882 | 1690 | 2640 | 4385 | 6760 | 10550 | 17800 | 27000 | 42200 | 55400 | 77000 | 144035 | 197518 |
| | 16 (barg) | 936 | 1790 | 2800 | 4655 | 7170 | 11200 | 18950 | 28700 | 44800 | 58800 | 81800 | 152960 | 209758 |
| | 17 (barg) | 991 | 1900 | 2965 | 4930 | 7590 | 11850 | 20050 | 30350 | 47400 | 62200 | 86600 | 161889 | 222002 |
| | 18 (barg) | 1046 | 2000 | 3130 | 5200 | 8010 | 12500 | 21150 | 32050 | 50100 | 65700 | 91400 | 170826 | 234257 |
| | 19 (barg) | 1101 | 2100 | 3295 | 5470 | 8430 | 13150 | 22250 | 33700 | 52700 | 69100 | 96200 | 179777 | 246532 |
| | 20 (barg) | 1156 | 2210 | 3460 | 5750 | 8850 | 13800 | 23350 | 35400 | 55300 | 72600 | 101000 | 188724 | 258800 |
| | 21 (barg) | 1210 | 2320 | 3620 | 6020 | 9250 | 14500 | 24500 | 37100 | 57900 | 76000 | 105800 | 197693 | |
| | 22 (barg) | 1265 | 2420 | 3790 | 6290 | 9700 | 15150 | 25600 | 38800 | 60600 | 79500 | 110900 | 206658 | |
| | 24 (barg) | 1375 | 2635 | 4120 | 6840 | 10500 | 16450 | 27850 | 42100 | 65900 | 86500 | 120600 | 224640 | |
| | 25 (barg) | 1431 | 2740 | 4280 | 7120 | 10950 | 17100 | 28950 | 43800 | | 90200 | 125500 | 233648 | |
| | 26 (barg) | 1486 | 2850 | 4450 | 7390 | 11350 | 17800 | 30050 | | | 93700 | 130300 | | |
| 27 (barg) | 1541 | 2950 | 4620 | 7670 | 11820 | 18460 | 31220 | | | 96950 | | | | |
| 28 (barg) | 1597 | 3060 | 4780 | 7950 | 12250 | 19100 | 32300 | | | | | | | |
| 30 (barg) | 1708 | 3270 | 5120 | 8500 | 13100 | 20450 | 34550 | | | | | | | |
| 32 (barg) | 1819 | 3490 | 5450 | 9060 | 13950 | 21800 | 36800 | | | | | | | |
| 34 (barg) | | | | | | | | | | | | | | |
| 40 (barg) | | | | | | | | | | | | | | |

Capacity air (incl. 10% overpressure)

| DN1 / DN2 | | 15 / 25 | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 | 200 / 300 | 250 / 350 |
|---|------------|---|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Set pressure | | Air 0°C and 1,013 bara (Nm ³ /h) | | | | | | | | | | | | |
| max. set pressure stainless steel version ↓ | 0,2 (barg) | 49 | 95 | 148 | 246 | 380 | 594 | 1003 | 1520 | 2375 | 2945 | 4100 | 8150 | 10398 |
| | 0,4 (barg) | 72 | 143 | 223 | 370 | 570 | 891 | 1505 | 2280 | 3565 | 4380 | 6090 | 11695 | 15219 |
| | 0,5 (barg) | 82 | 161 | 252 | 419 | 646 | 1009 | 1705 | 2585 | 4035 | 4970 | 6910 | 13256 | 17340 |
| | 0,6 (barg) | 91 | 182 | 284 | 472 | 728 | 1135 | 1920 | 2910 | 4545 | 5520 | 7675 | 14731 | 19376 |
| | 0,8 (barg) | 110 | 218 | 341 | 567 | 873 | 1365 | 2305 | 3490 | 5460 | 6555 | 9115 | 17428 | 23182 |
| | 1 (barg) | 126 | 255 | 398 | 661 | 1019 | 1590 | 2690 | 4075 | 6370 | 7575 | 10530 | 19963 | 26803 |
| | 1,5 (barg) | 168 | 344 | 538 | 894 | 1378 | 2150 | 3640 | 5510 | 8610 | 10195 | 14180 | 26284 | 36294 |
| | 2 (barg) | 209 | 388 | 607 | 1008 | 1550 | 2425 | 4100 | 6210 | 9700 | 12890 | 17920 | 32693 | 46314 |
| | 2,5 (barg) | 248 | 468 | 731 | 1215 | 1870 | 2925 | 4945 | 7490 | 11700 | 15330 | 21300 | 39310 | 55850 |
| | 3 (barg) | 288 | 544 | 850 | 1410 | 2175 | 3400 | 5750 | 8700 | 13600 | 17840 | 24800 | 46140 | 64547 |
| | 4 (barg) | 362 | 692 | 1080 | 1800 | 2770 | 4330 | 7310 | 11080 | 17300 | 22725 | 31600 | 59135 | 81161 |
| | 5 (barg) | 436 | 834 | 1300 | 2160 | 3330 | 5210 | 8800 | 13340 | 20840 | 27350 | 38000 | 71211 | 97653 |
| | 6 (barg) | 510 | 975 | 1520 | 2530 | 3900 | 6090 | 10300 | 15600 | 24370 | 31900 | 44400 | 83238 | 114146 |
| | 7 (barg) | 583 | 1115 | 1745 | 2900 | 4465 | 6970 | 11790 | 17860 | 27900 | 36600 | 50900 | 95264 | 130638 |
| | 8 (barg) | 657 | 1255 | 1965 | 3260 | 5030 | 7860 | 13280 | 20100 | 31430 | 41200 | 57300 | 107291 | 147130 |
| | 9 (barg) | 730 | 1395 | 2185 | 3630 | 5590 | 8740 | 14770 | 22370 | 34960 | 45800 | 63800 | 119318 | 163623 |
| | 10 (barg) | 804 | 1540 | 2400 | 3990 | 6150 | 9610 | 16250 | 24600 | 38500 | 50500 | 70200 | 131344 | 180115 |
| | 11 (barg) | 878 | 1680 | 2625 | 4360 | 6720 | 10500 | 17750 | 26900 | 42000 | 55100 | 76600 | 143371 | 196607 |
| | 12 (barg) | 951 | 1820 | 2845 | 4730 | 7290 | 11380 | 19240 | 29150 | 45500 | 59700 | 83100 | 155398 | 213099 |
| | 13 (barg) | 1025 | 1960 | 3070 | 5090 | 7850 | 12270 | 20730 | 31400 | 49000 | 64400 | 89500 | 167424 | 229592 |
| | 14 (barg) | 1099 | 2100 | 3290 | 5460 | 8400 | 13150 | 22200 | 33650 | 52600 | 69000 | 96000 | 179451 | 246084 |
| | 15 (barg) | 1173 | 2245 | 3500 | 5830 | 8980 | 14030 | 23700 | 35900 | 56100 | 73600 | 102400 | 191477 | 262576 |
| | 16 (barg) | 1246 | 2385 | 3725 | 6190 | 9540 | 14900 | 25200 | 38200 | 59600 | 78200 | 108800 | 203504 | 279069 |
| | 17 (barg) | 1320 | 2530 | 3950 | 6560 | 10100 | 15800 | 26700 | 40400 | 63100 | 82900 | 115300 | 215531 | 295561 |
| | 18 (barg) | 1394 | 2670 | 4170 | 6920 | 10670 | 16650 | 28100 | 42700 | 66700 | 87500 | 121700 | 227557 | 312053 |
| | 19 (barg) | 1467 | 2800 | 4390 | 7300 | 11240 | 17550 | 29600 | 44900 | 70200 | 92100 | 128100 | 239584 | 328546 |
| | 20 (barg) | 1541 | 2950 | 4610 | 7660 | 11800 | 18400 | 31150 | 47200 | 73700 | 96800 | 134600 | 251610 | 345038 |
| | 21 (barg) | 1614 | 3090 | 4830 | 8020 | 12370 | 19300 | 32650 | 49400 | 77300 | 101400 | 141000 | 263637 | |
| 22 (barg) | 1688 | 3230 | 5050 | 8390 | 12930 | 20200 | 34150 | 51700 | 80800 | 106000 | 147500 | 275664 | | |
| 24 (barg) | 1835 | 3515 | 5490 | 9120 | 14060 | 21970 | 37100 | 56200 | 87900 | 115300 | 160400 | 299717 | | |
| 25 (barg) | 1909 | 3655 | 5710 | 9490 | 14620 | 22850 | 38600 | 58500 | | 120000 | 166900 | 311743 | | |
| 26 (barg) | 1983 | 3800 | 5930 | 9850 | 15190 | 23730 | 40100 | | | 124600 | 173300 | | | |
| 27 (barg) | 2057 | 3930 | 6160 | 10240 | 15770 | 24630 | 41650 | | | 129350 | | | | |
| 28 (barg) | 2130 | 4080 | 6370 | 10600 | 16320 | 25500 | 43100 | | | | | | | |
| 30 (barg) | 2277 | 4360 | 6810 | 11320 | 17450 | 27250 | 46100 | | | | | | | |
| 32 (barg) | 2425 | 4640 | 7250 | 12050 | 18570 | 29000 | 49100 | | | | | | | |
| 34 (barg) | 2572 | 4925 | 7700 | 12790 | 19700 | 30800 | 52050 | | | | | | | |
| 40 (barg) | 3014 | 5770 | 9030 | 14477 | 23810 | 36100 | 61000 | | | | | | | |