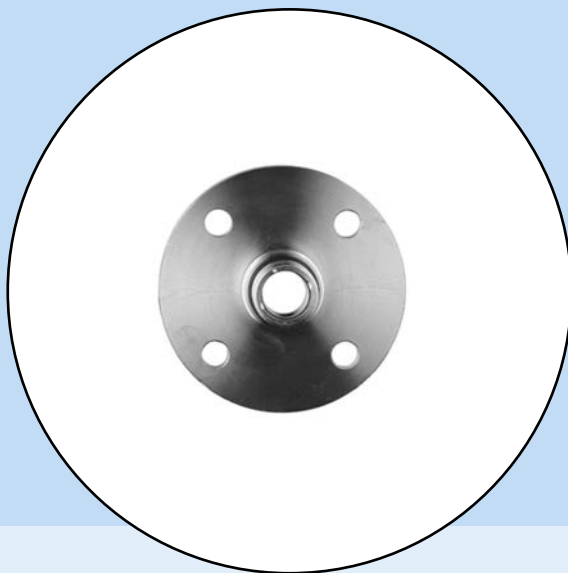


# Supplementary instructions manual



**Flanges according to DIN  
- EN - ASME - JIS**

Technical data

# 1 Product description

## 1.1 Specifications

The described flanges are threaded flanges with seal ledge and are available with G 1 or G 1½ inner thread.

The specifications in these supplementary instructions refer to flanges made of 316L. Material 316L corresponds to 1.4404 or 1.4435.

The flanges are available in different versions according to the following standards:

**DIN** - German National Standards Institute (DIN 2501)

**EN** - European Standard (EN 1092-1)

**ASME** - American Society of Mechanical Engineers (ANSI B 16.5)

**JIS** - Japanese Industrial Standard (B 2210-1984)

## 2 Dimensions

### 2.1 DIN flanges (DIN 2501)

Released | freigegeben) printed: 22.09.2017

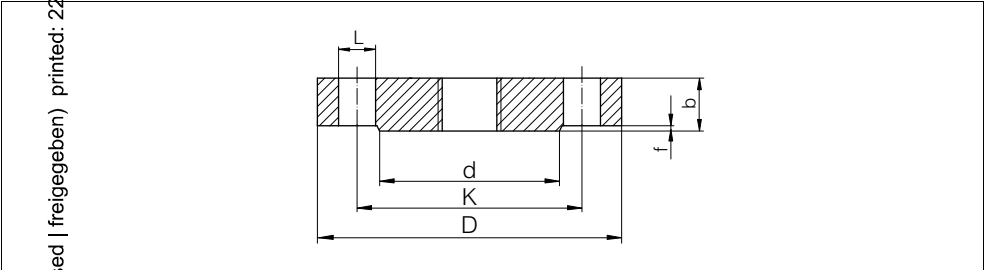


Fig. 1: Dimensions - DIN flange DIN 2501 (seal ledge DIN 2526 Form C)

- L Diameter of holes (number of holes)
- d Seal ledge diameter
- K Diameter of hole circle
- D Flange diameter
- b Total flange thickness
- f Seal ledge height

### PN10

| MAN | DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|-----|----|-----|-----|---|--------|------|
| 100 | 25  | 115 | 16 | 85  | 68  | 2 | 4xø14  | 1,23 |
| 100 | 32  | 140 | 16 | 100 | 78  | 2 | 4xø18  | 1,80 |
| 100 | 40  | 150 | 16 | 110 | 88  | 3 | 4xø18  | 2,09 |
| 100 | 50  | 165 | 18 | 125 | 102 | 3 | 4xø18  | 2,88 |
| 100 | 65  | 185 | 18 | 145 | 122 | 3 | 4xø18  | 3,66 |
| 100 | 80  | 200 | 20 | 160 | 138 | 3 | 8xø18  | 4,83 |
| 100 | 100 | 220 | 20 | 180 | 158 | 3 | 8xø18  | 5,75 |
| 100 | 125 | 250 | 22 | 210 | 188 | 3 | 8xø18  | 8,59 |
| 100 | 150 | 285 | 22 | 240 | 212 | 3 | 8xø22  | 10,6 |
| 100 | 175 | 316 | 24 | 270 | 242 | 3 | 8xø22  | 14,3 |
| 100 | 200 | 340 | 24 | 295 | 268 | 3 | 8xø22  | 16,9 |
| 100 | 250 | 395 | 26 | 350 | 320 | 3 | 12xø22 | 24,7 |
| 100 | 300 | 445 | 26 | 400 | 370 | 4 | 12xø22 | 31,9 |

Fig. 2: Dimensions - DIN flange PN 10

**PN16**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 16 | 85  | 68  | 2 | 4xø14  | 1,23 |
| 32  | 140 | 16 | 100 | 78  | 2 | 4xø18  | 1,80 |
| 40  | 150 | 16 | 110 | 88  | 3 | 4xø18  | 2,09 |
| 50  | 165 | 18 | 125 | 102 | 3 | 4xø18  | 2,88 |
| 65  | 185 | 18 | 145 | 122 | 3 | 4xø18  | 3,66 |
| 80  | 200 | 20 | 160 | 138 | 3 | 8xø18  | 4,83 |
| 100 | 220 | 20 | 180 | 158 | 3 | 8xø18  | 5,75 |
| 125 | 250 | 22 | 210 | 188 | 3 | 8xø18  | 8,59 |
| 150 | 285 | 22 | 240 | 212 | 3 | 8xø22  | 10,6 |
| 175 | 316 | 24 | 270 | 242 | 3 | 8xø22  | 14,3 |
| 200 | 340 | 24 | 295 | 268 | 3 | 12xø22 | 16,5 |
| 250 | 405 | 26 | 355 | 320 | 3 | 12xø26 | 25,6 |
| 300 | 460 | 28 | 410 | 378 | 4 | 12xø26 | 36,1 |

Fig. 3: Dimensions - DIN flange PN 16

**PN25**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,38 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,03 |
| 40  | 150 | 18 | 100 | 88  | 3 | 4xø18  | 2,35 |
| 50  | 165 | 20 | 125 | 102 | 3 | 4xø18  | 3,20 |
| 65  | 185 | 22 | 145 | 122 | 3 | 8xø18  | 4,33 |
| 80  | 200 | 24 | 160 | 138 | 3 | 8xø18  | 5,94 |
| 100 | 235 | 24 | 190 | 162 | 3 | 8xø22  | 7,64 |
| 125 | 270 | 26 | 220 | 188 | 3 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 3 | 8xø26  | 14,7 |
| 175 | 330 | 28 | 280 | 248 | 3 | 12xø26 | 17,6 |
| 200 | 360 | 30 | 310 | 278 | 3 | 12xø26 | 22,7 |
| 250 | 425 | 32 | 370 | 335 | 3 | 16xø30 | 34,2 |
| 300 | 485 | 34 | 430 | 395 | 4 | 16xø30 | 47,3 |

Fig. 4: Dimensions - DIN flange PN 25

**PN40**

| 22.09.20<br>printed<br>freigegeben<br>(released)<br>Status:<br>Version: | DN  | D  | b   | K   | d | f      | L    | ~kg |
|---|-----|----|-----|-----|---|--------|------|-----|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,38 |     |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,03 |     |
| 40  | 150 | 18 | 110 | 88  | 3 | 4xø18  | 2,35 |     |
| 50  | 165 | 20 | 125 | 102 | 3 | 4xø18  | 3,20 |     |
| 65  | 185 | 22 | 145 | 122 | 3 | 8xø18  | 4,33 |     |
| 80  | 200 | 24 | 160 | 138 | 3 | 8xø18  | 5,94 |     |
| 100   | 235 | 24 | 190 | 162 | 3 | 8xø22  | 7,64 |     |
| 125   | 270 | 26 | 220 | 188 | 3 | 8xø26  | 11,0 |     |
| 150   | 300 | 28 | 250 | 218 | 3 | 8xø26  | 14,7 |     |
| 175   | 350 | 32 | 295 | 260 | 3 | 12xø30 | 22,4 |     |
| 200   | 375 | 34 | 320 | 285 | 3 | 12xø30 | 27,6 |     |
| 250   | 450 | 38 | 385 | 345 | 3 | 12xø33 | 44,5 |     |
| 300   | 515 | 42 | 450 | 410 | 4 | 16xø33 | 64,3 |     |

Fig. 5: Dimensions - DIN flange PN 40

**PN64**

| 100025<br>MAN | DN  | D  | b   | K   | d | f      | L    | ~kg |
|---------------|-----|----|-----|-----|---|--------|------|-----|
| 25            | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,65 |     |
| 32            | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,24 |     |
| 40            | 170 | 26 | 125 | 88  | 3 | 4xø22  | 4,09 |     |
| 50            | 180 | 26 | 135 | 102 | 3 | 4xø22  | 4,51 |     |
| 65            | 205 | 26 | 160 | 122 | 3 | 8xø22  | 5,71 |     |
| 80            | 215 | 28 | 170 | 138 | 3 | 8xø22  | 6,92 |     |
| 100           | 250 | 30 | 200 | 162 | 3 | 8xø26  | 10,1 |     |
| 125           | 295 | 34 | 240 | 188 | 3 | 8xø30  | 16,0 |     |
| 150           | 345 | 36 | 280 | 218 | 3 | 8xø33  | 23,5 |     |
| 175           | 375 | 40 | 310 | 260 | 3 | 12xø33 | 30,8 |     |
| 200           | 415 | 42 | 345 | 285 | 3 | 12xø36 | 39,7 |     |
| 250           | 470 | 46 | 400 | 345 | 3 | 12xø36 | 57,4 |     |
| 300           | 530 | 52 | 460 | 410 | 4 | 16xø36 | 81,0 |     |

Fig. 6: Dimensions - DIN flange PN 64

**PN100**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,65 |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,24 |
| 40  | 170 | 26 | 125 | 88  | 3 | 4xø22  | 4,09 |
| 50  | 195 | 28 | 145 | 102 | 3 | 4xø26  | 5,84 |
| 65  | 220 | 30 | 170 | 122 | 3 | 8xø26  | 8,03 |
| 80  | 230 | 32 | 180 | 138 | 3 | 8xø26  | 9,43 |
| 100 | 265 | 36 | 210 | 162 | 3 | 8xø30  | 14,3 |
| 125 | 315 | 40 | 250 | 188 | 3 | 8xø33  | 22,6 |
| 150 | 355 | 44 | 290 | 218 | 3 | 12xø33 | 31,8 |
| 175 | 385 | 48 | 320 | 260 | 3 | 12xø33 | 41,3 |
| 200 | 430 | 52 | 360 | 285 | 3 | 12xø36 | 56,1 |
| 250 | 505 | 60 | 430 | 345 | 3 | 12xø39 | 89,6 |
| 300 | 585 | 68 | 500 | 410 | 4 | 16xø42 | 119  |

Fig. 7. Dimensions - DIN flange PN 100

**2.2 EN flanges (EN 1092-1)**

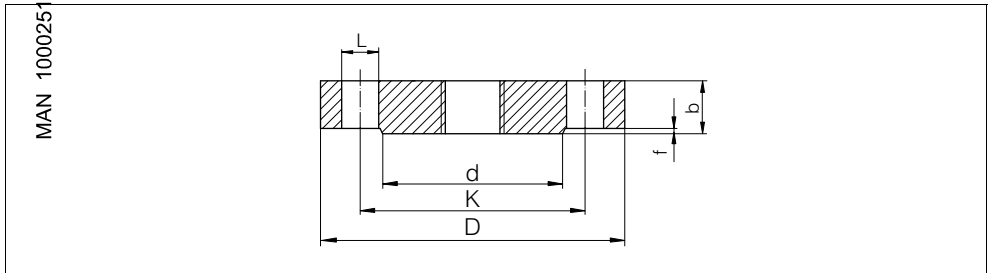


Fig. 8: Dimensions - EN flange EN 1092-1 (seal ledge B1)

- $L$  Diameter of holes (number of holes)
- $d$  Seal ledge diameter
- $K$  Diameter of hole circle
- $D$  Flange diameter
- $b$  Total flange thickness
- $f$  Seal ledge height

**PN16**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 110 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 18 | 125 | 102 | 2 | 4xø18  | 2,90 |
| 65  | 185 | 18 | 145 | 122 | 2 | 8xø18  | 3,50 |
| 80  | 200 | 20 | 160 | 138 | 2 | 8xø18  | 4,50 |
| 100 | 220 | 20 | 180 | 158 | 2 | 8xø18  | 5,50 |
| 125 | 250 | 22 | 210 | 188 | 2 | 8xø18  | 8,00 |
| 150 | 285 | 22 | 240 | 212 | 2 | 8xø22  | 10,5 |
| 200 | 340 | 24 | 295 | 268 | 2 | 12xø22 | 16,5 |
| 250 | 405 | 26 | 355 | 320 | 2 | 12xø26 | 25,0 |
| 300 | 460 | 28 | 410 | 378 | 2 | 12xø26 | 35,0 |

Fig. 9: Dimensions - EN flange PN 16

**PN25**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 100 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 20 | 125 | 102 | 2 | 4xø18  | 3,00 |
| 65  | 185 | 22 | 145 | 122 | 2 | 8xø18  | 4,50 |
| 80  | 200 | 24 | 160 | 138 | 2 | 8xø18  | 5,50 |
| 100 | 235 | 24 | 190 | 162 | 2 | 8xø22  | 7,50 |
| 125 | 270 | 26 | 220 | 188 | 2 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 2 | 8xø26  | 14,5 |
| 200 | 360 | 30 | 310 | 278 | 2 | 12xø26 | 22,5 |
| 250 | 425 | 32 | 370 | 335 | 2 | 12xø30 | 33,5 |
| 300 | 485 | 34 | 430 | 395 | 2 | 16xø30 | 46,5 |

Fig. 10: Dimensions - EN flange PN 25

**PN40**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 110 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 20 | 125 | 102 | 2 | 4xø18  | 3,00 |
| 65  | 185 | 22 | 145 | 122 | 2 | 8xø18  | 4,50 |
| 80  | 200 | 24 | 160 | 138 | 2 | 8xø18  | 5,50 |
| 100 | 235 | 24 | 190 | 162 | 2 | 8xø22  | 7,50 |
| 125 | 270 | 26 | 220 | 188 | 2 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 2 | 8xø26  | 14,5 |
| 200 | 375 | 36 | 320 | 285 | 2 | 12xø30 | 29,0 |
| 250 | 450 | 38 | 385 | 345 | 2 | 12xø33 | 44,5 |
| 300 | 515 | 42 | 450 | 410 | 2 | 16xø33 | 64,0 |

Fig. 11: Dimensions - EN flange PN 40

**PN63**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,50 |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,50 |
| 40  | 170 | 26 | 125 | 88  | 2 | 4xø22  | 4,50 |
| 50  | 180 | 26 | 135 | 102 | 2 | 4xø22  | 5,00 |
| 65  | 205 | 26 | 160 | 122 | 2 | 8xø22  | 6,00 |
| 80  | 215 | 28 | 170 | 138 | 2 | 8xø22  | 7,50 |
| 100 | 250 | 30 | 200 | 162 | 2 | 8xø26  | 10,5 |
| 125 | 295 | 34 | 240 | 188 | 2 | 8xø30  | 16,5 |
| 150 | 345 | 36 | 280 | 218 | 2 | 8xø33  | 24,5 |
| 200 | 415 | 42 | 345 | 285 | 2 | 12xø36 | 40,5 |
| 250 | 470 | 46 | 400 | 345 | 2 | 12xø36 | 58,0 |
| 300 | 530 | 52 | 460 | 410 | 2 | 16xø36 | 83,5 |

Fig. 12: Dimensions - EN flange PN 63



**PN100**

| DN  | D   | b  | K   | d   | f | L      | ~kg   |
|-----|-----|----|-----|-----|---|--------|-------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,50  |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,50  |
| 40  | 170 | 26 | 125 | 88  | 2 | 4xø22  | 4,50  |
| 50  | 195 | 28 | 145 | 102 | 2 | 4xø26  | 6,00  |
| 65  | 220 | 30 | 170 | 122 | 2 | 8xø26  | 8,00  |
| 80  | 230 | 32 | 180 | 138 | 2 | 8xø26  | 9,50  |
| 100 | 265 | 36 | 210 | 162 | 2 | 8xø30  | 14,0  |
| 125 | 315 | 40 | 250 | 188 | 2 | 8xø33  | 22,5  |
| 150 | 355 | 44 | 290 | 218 | 2 | 12xø33 | 30,5  |
| 200 | 430 | 52 | 360 | 285 | 2 | 12xø36 | 54,5  |
| 250 | 505 | 60 | 430 | 345 | 2 | 12xø39 | 87,5  |
| 300 | 585 | 68 | 500 | 410 | 2 | 16xø42 | 131,5 |

Fig. 13: Dimensions - EN flange PN 100

**2.3 ASME flanges (ASME B 16.5)**

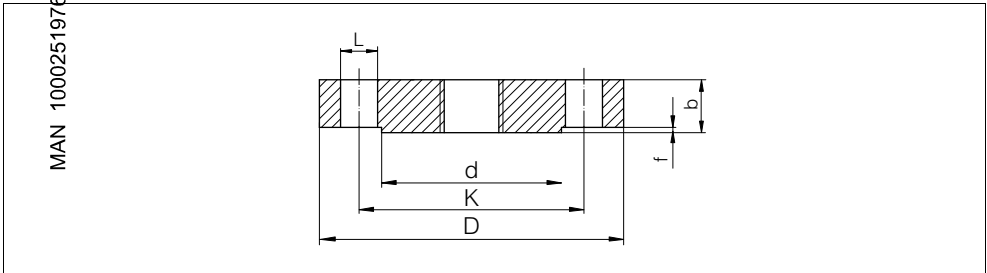


Fig. 14: Dimensions - ASME flange B 16.5 (seal ledge RF)

- L Diameter of holes (number of holes)
- d Seal ledge diameter
- K Diameter of hole circle
- D Flange diameter
- b Total flange thickness
- f Seal ledge height 150 lb/300 lb: 1.6 mm (0.06 in) or from 600 lb: 6.4 mm (0.25 in)

### Class 150

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 108,0 | 14,2 | 50,8  | 79,2  | 4xø15,7  | 0,86 |
| 1¼" | 117,3 | 15,7 | 63,5  | 88,9  | 4xø15,7  | 1,17 |
| 1½" | 127,0 | 17,5 | 73,2  | 98,6  | 4xø15,7  | 1,53 |
| 2"  | 152,4 | 19,1 | 91,9  | 120,7 | 4xø19,1  | 2,42 |
| 2½" | 177,8 | 22,4 | 104,6 | 139,7 | 4xø19,1  | 3,94 |
| 3"  | 190,5 | 23,9 | 127,0 | 152,4 | 4xø19,1  | 4,93 |
| 3½" | 215,9 | 23,9 | 139,7 | 177,8 | 8xø19,1  | 6,17 |
| 4"  | 228,6 | 23,9 | 157,2 | 190,5 | 8xø19,1  | 7,00 |
| 5"  | 254,0 | 23,9 | 185,7 | 215,9 | 8xø22,4  | 8,63 |
| 6"  | 279,4 | 25,4 | 215,9 | 241,3 | 8xø22,4  | 11,3 |
| 8"  | 342,9 | 28,4 | 269,7 | 298,5 | 8xø22,4  | 19,6 |
| 10" | 406,4 | 30,2 | 323,8 | 362,0 | 12xø25,4 | 28,8 |

Fig. 15: Dimensions - ASME flange Class 150

### Class 300

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 124,0 | 17,5 | 50,8  | 88,9  | 4xø19,1  | 1,39 |
| 1¼" | 133,4 | 19,1 | 63,5  | 98,6  | 4xø19,1  | 1,79 |
| 1½" | 155,4 | 20,6 | 73,2  | 114,3 | 4xø22,4  | 2,66 |
| 2"  | 165,1 | 22,4 | 91,9  | 127,0 | 8xø19,1  | 3,18 |
| 2½" | 190,5 | 25,4 | 104,6 | 149,4 | 8xø22,4  | 4,85 |
| 3"  | 209,5 | 28,4 | 127,0 | 168,1 | 8xø22,4  | 6,81 |
| 3½" | 228,6 | 30,2 | 139,7 | 184,2 | 8xø22,4  | 8,71 |
| 4"  | 254,0 | 31,8 | 157,2 | 200,2 | 8xø22,4  | 11,5 |
| 5"  | 279,4 | 35,1 | 185,7 | 235,0 | 8xø22,4  | 15,6 |
| 6"  | 317,5 | 36,6 | 215,9 | 269,7 | 12xø22,4 | 20,9 |
| 8"  | 381,0 | 41,1 | 269,7 | 330,2 | 12xø25,4 | 34,3 |
| 10" | 444,5 | 47,8 | 323,8 | 387,4 | 16xø28,4 | 53,3 |

Fig. 16: Dimensions - ASME flange Class 300

MAN 1000251976 ML Version: - Status: RL (released | freigegeben) printed: 22.09.2017

**Class 600**

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 124,0 | 17,5 | 50,8  | 88,9  | 4xø19,1  | 1,60 |
| 1¼" | 133,4 | 20,6 | 63,5  | 98,6  | 4xø19,1  | 2,23 |
| 1½" | 155,4 | 22,4 | 73,2  | 114,3 | 4xø22,4  | 3,25 |
| 2"  | 165,1 | 25,4 | 91,9  | 127,0 | 8xø19,1  | 4,15 |
| 2½" | 190,5 | 28,4 | 104,6 | 149,4 | 8xø22,4  | 6,13 |
| 3"  | 209,6 | 31,8 | 127,0 | 168,1 | 8xø22,4  | 8,44 |
| 3½" | 228,6 | 35,1 | 139,7 | 184,2 | 8xø25,4  | 11,0 |
| 4"  | 273,1 | 38,1 | 157,2 | 215,9 | 8xø25,4  | 17,3 |
| 5"  | 330,2 | 44,5 | 185,7 | 266,7 | 8xø28,4  | 29,4 |
| 6"  | 355,6 | 47,8 | 215,9 | 292,1 | 12xø28,4 | 36,1 |
| 8"  | 419,1 | 55,6 | 269,7 | 349,3 | 12xø31,8 | 58,9 |
| 10" | 508,0 | 63,5 | 323,8 | 431,8 | 16xø35,1 | 97,5 |

Fig. 17: Dimensions - ASME flange Class 600

**Class 900**

| DN  | D     | b    | d     | K     | L        | ~kg   |
|-----|-------|------|-------|-------|----------|-------|
| 1"  | 149,4 | 28,4 | 50,8  | 101,6 | 4xø25,4  | 3,57  |
| 1¼" | 158,8 | 28,4 | 63,5  | 111,3 | 4xø25,4  | 4,14  |
| 1½" | 177,8 | 31,8 | 73,2  | 124,0 | 4xø28,4  | 5,75  |
| 2"  | 215,9 | 38,1 | 91,9  | 165,1 | 8xø25,4  | 10,1  |
| 2½" | 244,4 | 41,1 | 104,6 | 190,5 | 8xø28,4  | 14,0  |
| 3"  | 241,3 | 38,1 | 127,0 | 190,5 | 8xø25,4  | 13,1  |
| 4"  | 292,1 | 44,5 | 157,2 | 235,0 | 8xø31,8  | 26,9  |
| 5"  | 349,3 | 50,8 | 185,7 | 279,4 | 8xø35,1  | 36,5  |
| 6"  | 381,0 | 55,6 | 215,9 | 317,5 | 12xø31,8 | 47,4  |
| 8"  | 469,9 | 63,5 | 269,7 | 393,7 | 12xø38,1 | 82,5  |
| 10" | 546,1 | 69,9 | 323,8 | 469,9 | 16xø38,1 | 122,0 |

Fig. 18: Dimensions - ASME flange Class 900

### Class 1500

| DN  | D     | b     | d     | K     | L        | ~kg   |
|-----|-------|-------|-------|-------|----------|-------|
| 1"  | 149,4 | 28,4  | 50,8  | 101,6 | 4xø25,4  | 3,57  |
| 1¼" | 158,8 | 28,4  | 63,5  | 111,3 | 4xø25,4  | 4,14  |
| 1½" | 177,8 | 31,8  | 73,2  | 124,0 | 4xø28,4  | 5,75  |
| 2"  | 215,9 | 38,1  | 91,9  | 165,1 | 8xø25,4  | 10,1  |
| 2½" | 244,4 | 41,1  | 104,6 | 190,5 | 8xø28,4  | 14,0  |
| 3"  | 266,7 | 47,8  | 127,0 | 203,2 | 8xø31,8  | 19,1  |
| 4"  | 311,2 | 53,8  | 157,2 | 241,3 | 8xø35,1  | 29,9  |
| 5"  | 374,7 | 73,2  | 185,7 | 292,1 | 8xø41,1  | 58,4  |
| 6"  | 393,7 | 82,6  | 215,9 | 317,5 | 12xø38,1 | 71,8  |
| 8"  | 482,6 | 91,9  | 269,7 | 393,7 | 12xø44,5 | 122,0 |
| 10" | 584,2 | 108,0 | 323,8 | 482,6 | 12xø50,8 | 210,0 |

Fig. 19: Dimensions - ASME flange Class 1500

### Class 2500

| DN  | D     | b     | d     | K     | L        | ~kg   |
|-----|-------|-------|-------|-------|----------|-------|
| 1"  | 158,8 | 35,1  | 50,8  | 108,0 | 4xø25,4  | 4,96  |
| 1¼" | 184,2 | 38,1  | 63,5  | 130,0 | 4xø28,4  | 7,35  |
| 1½" | 203,2 | 44,5  | 73,2  | 146,1 | 4xø31,8  | 10,4  |
| 2"  | 235,0 | 50,8  | 91,9  | 171,5 | 8xø28,4  | 15,6  |
| 2½" | 266,7 | 57,2  | 104,6 | 196,9 | 8xø31,8  | 22,6  |
| 3"  | 304,8 | 66,5  | 127,0 | 228,6 | 8xø35,1  | 34,8  |
| 4"  | 355,6 | 76,2  | 157,2 | 273,1 | 8xø41,1  | 53,9  |
| 5"  | 419,1 | 91,9  | 185,7 | 323,8 | 8xø47,8  | 90,8  |
| 6"  | 482,6 | 108,0 | 215,9 | 368,3 | 8xø53,8  | 141,0 |
| 8"  | 552,5 | 127,0 | 269,7 | 438,2 | 12xø53,8 | 214,0 |
| 10" | 673,1 | 165,1 | 323,8 | 539,8 | 12xø66,5 | 411,0 |

Fig. 20: Dimensions - ASME flange Class 2500

**2.4 JIS flanges (B 2210-1984)**

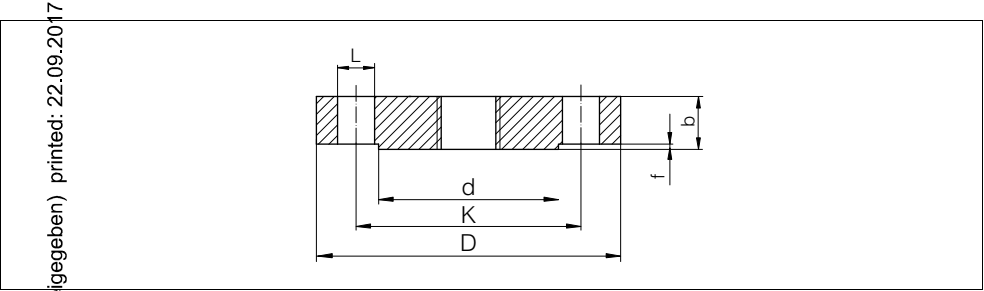


Fig. 21: Dimensions - JIS flange (Regular Flange)

- $L$  Distance between hole centers
- $D$  Diameter of holes (number of holes)
- $d$  Seal ledge diameter
- $K$  Diameter of hole circle
- $D$  Flange diameter
- $b$  Total flange thickness
- $f$  Seal ledge height

**10 K**

| DN  | D   | b  | K   | d   | f | L      |
|-----|-----|----|-----|-----|---|--------|
| 25  | 125 | 14 | 90  | 67  | 1 | 4xø19  |
| 32  | 135 | 16 | 100 | 76  | 2 | 4xø19  |
| 40  | 140 | 16 | 105 | 81  | 2 | 4xø19  |
| 50  | 155 | 16 | 120 | 96  | 2 | 4xø19  |
| 65  | 175 | 18 | 140 | 116 | 2 | 4xø19  |
| 80  | 185 | 18 | 150 | 126 | 2 | 8xø19  |
| 100 | 210 | 18 | 175 | 151 | 2 | 8xø19  |
| 125 | 250 | 20 | 210 | 182 | 2 | 8xø23  |
| 150 | 280 | 22 | 240 | 212 | 2 | 8xø23  |
| 200 | 330 | 22 | 290 | 262 | 2 | 12xø23 |
| 250 | 400 | 24 | 355 | 324 | 2 | 12xø25 |
| 300 | 445 | 24 | 400 | 368 | 3 | 16xø25 |

Fig. 22: Dimensions - JIS flange 10 K (B 2210 - 1984) Regular Flange

### 3 Pressure-Temperature-Charts

#### 3.1 Pressure-Temperature-Chart - EN flanges

The values relate to flanges made of material 316L.

| PN    | 16   | 25   | 40   | 63   | 100   |
|-------|------|------|------|------|-------|
| RT    | 16,0 | 25,0 | 40,0 | 63,0 | 100,0 |
| 50°C  | 15,6 | 24,4 | 39,1 | 61,1 | 97,8  |
| 100°C | 14,2 | 22,2 | 35,6 | 56,0 | 88,9  |
| 150°C | 12,8 | 20,0 | 32,0 | 50,4 | 80,0  |
| 200°C | 11,7 | 18,3 | 29,3 | 46,2 | 73,3  |
| 250°C | 10,9 | 17,0 | 27,2 | 42,8 | 68,0  |
| 300°C | 10,3 | 16,1 | 25,8 | 40,6 | 64,4  |
| 350°C | 9,90 | 15,4 | 24,7 | 38,9 | 61,8  |
| 400°C | 9,60 | 15,0 | 24,0 | 37,8 | 60,0  |

Fig. 23: Pressure-Temperature-Chart - EN flanges (specifications in bar)  
RT Temperature range -10 ... +50°C

#### 3.2 Pressure-Temperature-Chart - ASME flanges

The values relate to flanges made of material 316L.

| Class | 150  | 300  | 600  | 900   | 1500  | 2500  |
|-------|------|------|------|-------|-------|-------|
| RT    | 15,9 | 41,4 | 82,7 | 124,1 | 206,8 | 344,7 |
| 50°C  | 15,3 | 40,0 | 80,0 | 120,1 | 200,1 | 333,5 |
| 100°C | 13,3 | 34,8 | 69,6 | 104,4 | 173,9 | 289,9 |
| 150°C | 12,0 | 31,4 | 62,8 | 94,2  | 157,0 | 261,6 |
| 200°C | 11,2 | 29,2 | 58,3 | 87,5  | 145,8 | 243,0 |
| 250°C | 10,5 | 27,5 | 54,9 | 82,4  | 137,3 | 228,9 |
| 300°C | 10,0 | 26,1 | 52,1 | 78,2  | 130,3 | 217,2 |
| 325°C | 9,30 | 25,5 | 51,0 | 76,4  | 127,4 | 212,3 |
| 350°C | 8,40 | 25,1 | 50,1 | 75,2  | 125,4 | 208,9 |
| 375°C | 7,40 | 24,8 | 49,5 | 74,3  | 123,8 | 206,3 |
| 400°C | 6,50 | 24,3 | 48,6 | 72,9  | 121,5 | 202,5 |

Fig. 24: Pressure-Temperature-Chart - ASME flanges (specifications in bar)  
RT Temperature range -29 ... +38°C

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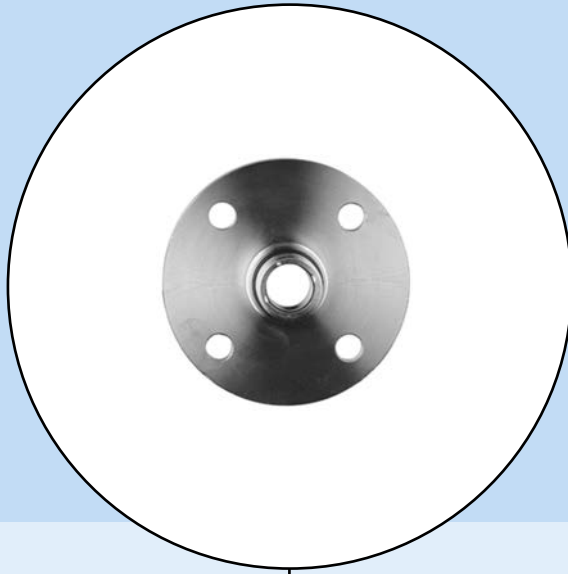
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33784-EN-070915



# Zusatzanleitung



**Flansche nach DIN -  
EN - ASME - JIS -  
GOST**

Technische Daten

# 1 Produktbeschreibung

## 1.1 Vorgaben

Die beschriebenen Flansche sind Gewindeflansche mit Dichtleiste und können mit G 1 oder G 1½ Innengewinde (ISO 228 T1) geliefert werden.

Die Angaben in dieser Zusatzanleitung beziehen sich auf Flansche aus dem Werkstoff 316L. Der Werkstoff 316L entspricht 1.4404 oder 1.4435.

Alle Distanzwerte in Millimeter.

Die Flansche stehen in verschiedenen Ausführungen nach folgenden Standards zur Verfügung:

**DIN** - Deutsches Institut für Normung (DIN 2501)

**EN** - Europäische Norm (EN 1092-1)

**ASME** - American Society of Mechanical Engineers (ANSI B 16.5)

**JIS** - Japanese Industrial Standard (B 2210-1984)

**GOST** - Föderale Agentur für technische Regulierung und Metrologie - Russland (12821-80)

## 2 Maße

### 2.1 DIN-Flansche (DIN 2501)

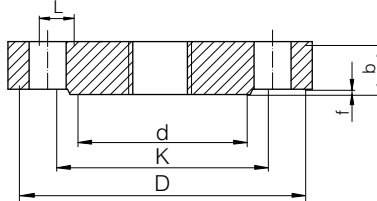


Abb. 1: Maße - DIN-Flansch DIN 2501 (Dichtleiste DIN 2526 Form C)  
 Bohrungsdurchmesser (Anzahl der Bohrungen)  
 Durchmesser der Dichtleiste  
 Lochkreisdurchmesser  
 Flanschdurchmesser  
 Gesamtdicke des Flansches  
 Dichtleistenhöhe

#### DN 10

| DN          | D           | b          | K           | d           | f         | L                | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|------------------|--------------|
| 25 (0.984)  | 115 (4.528) | 16 (0.63)  | 85 (3.347)  | 68 (2.677)  | 2 (0.079) | 4 x ø 14 (0.551) | 1,23 (2.712) |
| 32 (1.26)   | 140 (5.512) | 16 (0.63)  | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709) | 1,8 (3.968)  |
| 40 (1.575)  | 150 (5.906) | 16 (0.63)  | 110 (4.331) | 88 (3.465)  | 3 (0.118) | 4 x ø 18 (0.709) | 2,09 (4.608) |
| 50 (1.969)  | 165 (6.496) | 18 (0.709) | 125 (4.921) | 102 (4.016) | 3 (0.118) | 4 x ø 18 (0.709) | 2,88 (6.349) |
| 65 (2.56)   | 185 (7.284) | 18 (0.709) | 145 (5.709) | 122 (4.803) | 3 (0.118) | 4 x ø 18 (0.709) | 3,66 (8.069) |
| 80 (3.15)   | 200 (7.874) | 20 (0.787) | 160 (6.3)   | 138 (5.433) | 3 (0.118) | 8 x ø 18 (0.709) | 4,83 (10.65) |
| 100 (3.937) | 220 (8.661) | 20 (0.787) | 180 (7.087) | 158 (6.221) | 3 (0.118) | 8 x ø 18 (0.709) | 5,75 (12.68) |
| 125 (4.921) | 250 (9.843) | 22 (0.866) | 210 (8.268) | 188 (7.402) | 3 (0.118) | 8 x ø 18 (0.709) | 8,59 (18.94) |
| 150 (5.906) | 285 (11.22) | 22 (0.866) | 240 (9.449) | 212 (8.347) | 3 (0.118) | 8 x ø 22 (0.866) | 10,6 (23.37) |
| 175 (6.89)  | 316 (12.44) | 24 (0.945) | 270 (10.63) | 242 (9.528) | 3 (0.118) | 8 x ø 22 (0.866) | 14,3 (31.53) |
| 200 (7.874) | 340 (13.39) | 24 (0.945) | 295 (11.61) | 268 (10.55) | 3 (0.118) | 8 x ø 22 (0.866) | 16,9 (37.26) |

| DN         | D           | b          | K           | d           | f         | L                 | ~ kg         |
|------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984) | 395 (15.55) | 26 (1.024) | 350 (13.78) | 320 (12.6)  | 3 (0.118) | 12 x ø 22 (0.866) | 24,7 (54.45) |
| 30 (11.81) | 445 (17.52) | 26 (1.024) | 400 (15.75) | 370 (14.57) | 4 (0.158) | 12 x ø 22 (0.866) | 31,9 (70.33) |

Tab. 1: Maße - DIN-Flansch PN 10. Alle Distanzwerte in Millimeter (in).

## PN 6

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984)  | 115 (4.528) | 16 (0.63)  | 85 (3.346)  | 68 (2.677)  | 2 (0.079) | 4 x ø 14 (0.551)  | 1,23 (2.712) |
| 30 (1.26)   | 140 (5.512) | 16 (0.63)  | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709)  | 1,8 (3.968)  |
| 40 (1.575)  | 150 (5.906) | 16 (0.63)  | 110 (4.331) | 88 (3.465)  | 3 (0.118) | 4 x ø 18 (0.709)  | 2,09 (4.608) |
| 50 (1.969)  | 165 (6.496) | 18 (0.709) | 125 (4.921) | 102 (4.016) | 3 (0.118) | 4 x ø 18 (0.709)  | 2,88 (6.349) |
| 65 (2.559)  | 185 (7.283) | 18 (0.709) | 145 (5.709) | 122 (4.803) | 3 (0.118) | 4 x ø 18 (0.709)  | 3,66 (8.069) |
| 80 (3.15)   | 200 (7.874) | 20 (0.787) | 160 (6.299) | 138 (5.433) | 3 (0.118) | 8 x ø 18 (0.709)  | 4,83 (10.65) |
| 100 (3.937) | 220 (8.661) | 20 (0.787) | 180 (7.087) | 158 (6.220) | 3 (0.118) | 8 x ø 18 (0.709)  | 5,75 (12.68) |
| 125 (4.921) | 250 (9.843) | 22 (0.866) | 210 (8.268) | 188 (7.402) | 3 (0.118) | 8 x ø 18 (0.709)  | 8,59 (18.94) |
| 150 (5.906) | 285 (11.22) | 22 (0.866) | 240 (9.449) | 212 (8.346) | 3 (0.118) | 8 x ø 22 (0.866)  | 10,6 (23.37) |
| 175 (6.89)  | 316 (12.44) | 24 (0.945) | 270 (10.63) | 242 (9.528) | 3 (0.118) | 8 x ø 22 (0.866)  | 14,3 (31.53) |
| 200 (7.874) | 340 (13.39) | 24 (0.945) | 295 (11.61) | 268 (10.55) | 3 (0.118) | 12 x ø 22 (0.866) | 16,5 (36.38) |
| 250 (9.843) | 405 (15.95) | 26 (1.024) | 355 (13.98) | 320 (12.6)  | 3 (0.118) | 12 x ø 26 (1.024) | 25,6 (56.44) |
| 300 (11.81) | 460 (18.11) | 28 (1.102) | 410 (16.14) | 378 (14.88) | 4 (0.157) | 12 x ø 26 (1.024) | 36,1 (79.59) |

Tab. 2: Maße - DIN-Flansch PN 16. Alle Distanzwerte in Millimeter (in).

## PN 25

| DN         | D           | b          | K          | d          | f         | L                | ~ kg         |
|------------|-------------|------------|------------|------------|-----------|------------------|--------------|
| 25 (0.984) | 115 (4.528) | 18 (0.709) | 85 (3.346) | 68 (2.677) | 2 (0.079) | 4 x ø 14 (0.551) | 1,38 (3.042) |

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| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 32 (1.26)   | 140 (5.512) | 18 (0.709) | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,03 (4.475) |
| 40 (1.575)  | 150 (5.906) | 18 (0.709) | 100 (3.937) | 88 (3.465)  | 3 (0.118) | 4 x ø 18 (0.709)  | 2,35 (5.101) |
| 50 (1.969)  | 165 (6.496) | 20 (0.787) | 125 (4.921) | 102 (4.016) | 3 (0.118) | 4 x ø 18 (0.709)  | 3,2 (7.055)  |
| 65 (2.56)   | 185 (7.283) | 22 (0.866) | 145 (5.709) | 122 (4.803) | 3 (0.118) | 8 x ø 18 (0.709)  | 4,33 (9.546) |
| 80 (3.15)   | 200 (7.874) | 24 (0.945) | 160 (6.3)   | 138 (5.433) | 3 (0.118) | 8 x ø 18 (0.709)  | 5,94 (13.1)  |
| 100 (3.937) | 235 (9.252) | 24 (0.945) | 190 (7.48)  | 162 (6.378) | 3 (0.118) | 8 x ø 22 (0.866)  | 7,64 (16.84) |
| 125 (4.921) | 270 (10.63) | 26 (1.024) | 220 (8.661) | 188 (7.402) | 3 (0.118) | 8 x ø 26 (1.024)  | 11 (24.25)   |
| 150 (5.906) | 300 (11.81) | 28 (1.102) | 250 (9.843) | 218 (8.583) | 3 (0.118) | 8 x ø 26 (1.024)  | 14,7 (32.41) |
| 175 (6.89)  | 330 (12.99) | 28 (1.102) | 280 (11.02) | 248 (9.764) | 3 (0.118) | 12 x ø 26 (1.024) | 17,6 (38.80) |
| 200 (7.874) | 360 (14.17) | 30 (1.181) | 310 (12.21) | 278 (10.95) | 3 (0.118) | 12 x ø 26 (1.024) | 22,7 (50.05) |
| 250 (9.843) | 425 (16.73) | 32 (1.26)  | 370 (14.57) | 335 (13.19) | 3 (0.118) | 16 x ø 30 (1.181) | 34,2 (75.4)  |
| 300 (11.81) | 485 (19.09) | 34 (1.339) | 430 (16.93) | 395 (15.55) | 4 (0.157) | 16 x ø 30 (1.181) | 47,3 (104.3) |

Tab. 3: Maße - DIN-Flansch PN 25. Alle Distanzwerte in Millimeter (in).

**PN 40**

| DN          | D           | b          | K           | d           | f         | L                | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|------------------|--------------|
| 25 (0.984)  | 115 (4.528) | 18 (0.709) | 85 (3.346)  | 68 (2.677)  | 2 (0.079) | 4 x ø 14 (0.551) | 1,38 (3.042) |
| 32 (1.260)  | 140 (5.512) | 18 (0.709) | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709) | 2,03 (4.475) |
| 40 (1.575)  | 150 (5.906) | 18 (0.709) | 110 (4.331) | 88 (3.465)  | 3 (0.118) | 4 x ø 18 (0.709) | 2,35 (5.181) |
| 50 (1.969)  | 165 (6.496) | 20 (0.787) | 125 (4.921) | 102 (4.016) | 3 (0.118) | 4 x ø 18 (0.709) | 3,2 (7.055)  |
| 65 (2.560)  | 185 (7.283) | 22 (0.866) | 145 (5.709) | 122 (4.803) | 3 (0.118) | 8 x ø 18 (0.709) | 4,33 (9.546) |
| 80 (3.150)  | 200 (7.874) | 24 (0.945) | 160 (6.299) | 138 (5.433) | 3 (0.118) | 8 x ø 18 (0.709) | 5,94 (13.1)  |
| 100 (3.937) | 235 (9.252) | 24 (0.945) | 190 (7.48)  | 162 (6.378) | 3 (0.118) | 8 x ø 22 (0.866) | 7,64 (16.84) |

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 125 (4.921) | 270 (10.63) | 26 (1.024) | 220 (8.661) | 188 (7.402) | 3 (0.118) | 8 x ø 26 (1.024)  | 11 (24.25)   |
| 150 (5.906) | 300 (11.81) | 28 (1.102) | 250 (9.843) | 218 (8.583) | 3 (0.118) | 8 x ø 26 (1.024)  | 14,7 (32.41) |
| 175 (6.89)  | 350 (13.78) | 32 (1.26)  | 295 (11.61) | 260 (10.24) | 3 (0.118) | 12 x ø 30 (1.181) | 22,4 (49.38) |
| 200 (7.874) | 375 (14.76) | 34 (1.339) | 320 (12.6)  | 285 (11.22) | 3 (0.118) | 12 x ø 30 (1.181) | 27,6 (60.85) |
| 250 (9.843) | 450 (17.72) | 38 (1.496) | 385 (15.16) | 345 (13.58) | 3 (0.118) | 12 x ø 33 (1.299) | 44,5 (98.11) |
| 300 (11.81) | 515 (20.28) | 42 (1.654) | 450 (17.72) | 410 (16.14) | 4 (0.157) | 16 x ø 33 (1.299) | 64,3 (141.8) |

Tab. 1: Maße - DIN-Flansch PN 40. Alle Distanzwerte in Millimeter (in).

## PN 64

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984)  | 140 (5.512) | 24 (0.945) | 100 (3.937) | 68 (2.677)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,65 (5.842) |
| 32 (1.260)  | 155 (6.102) | 24 (0.945) | 110 (4.331) | 78 (3.071)  | 2 (0.079) | 4 x ø 22 (0.866)  | 3,24 (7.143) |
| 40 (1.575)  | 170 (6.693) | 26 (1.024) | 125 (4.921) | 88 (3.465)  | 3 (0.118) | 4 x ø 22 (0.866)  | 4,09 (9.017) |
| 50 (1.969)  | 180 (7.087) | 26 (1.024) | 135 (5.315) | 102 (4.016) | 3 (0.118) | 4 x ø 22 (0.866)  | 4,51 (9.943) |
| 65 (2.559)  | 205 (8.071) | 26 (1.024) | 160 (6.299) | 122 (4.803) | 3 (0.118) | 8 x ø 22 (0.866)  | 5,71 (12.59) |
| 80 (3.15)   | 215 (8.465) | 28 (1.102) | 170 (6.693) | 138 (5.433) | 3 (0.118) | 8 x ø 22 (0.866)  | 6,92 (15.26) |
| 100 (3.937) | 250 (9.843) | 30 (1.181) | 200 (7.874) | 162 (6.378) | 3 (0.118) | 8 x ø 26 (1.024)  | 10,1 (22.27) |
| 125 (4.921) | 295 (11.61) | 34 (1.339) | 240 (9.449) | 188 (7.402) | 3 (0.118) | 8 x ø 30 (1.181)  | 16 (35.27)   |
| 150 (5.906) | 345 (13.58) | 36 (1.417) | 280 (11.02) | 218 (8.583) | 3 (0.118) | 8 x ø 33 (1.299)  | 23,5 (51.81) |
| 175 (6.9)   | 375 (14.76) | 40 (1.575) | 310 (12.21) | 260 (10.24) | 3 (0.118) | 12 x ø 33 (1.299) | 30,8 (67.9)  |
| 200 (7.874) | 415 (16.34) | 42 (1.654) | 345 (13.58) | 285 (11.22) | 3 (0.118) | 12 x ø 36 (1.417) | 39,7 (87.52) |
| 250 (9.843) | 470 (18.5)  | 46 (1.811) | 400 (15.75) | 345 (13.58) | 3 (0.118) | 12 x ø 36 (1.417) | 57,4 (126.5) |
| 300 (11.81) | 530 (20.87) | 52 (2.047) | 460 (18.11) | 410 (16.14) | 4 (0.157) | 16 x ø 36 (1.417) | 81 (178.6)   |

Tab. 5: Maße - DIN-Flansch PN 64. Alle Distanzwerte in Millimeter (in).

**PN 100**

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984)  | 140 (5.512) | 24 (0.945) | 100 (3.937) | 68 (2.677)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,65 (5.842) |
| 32 (1.26)   | 155 (6.102) | 24 (0.945) | 110 (4.331) | 78 (3.071)  | 2 (0.079) | 4 x ø 22 (0.866)  | 3,24 (7.143) |
| 40 (1.575)  | 170 (6.693) | 26 (1.024) | 125 (4.921) | 88 (3.465)  | 3 (0.118) | 4 x ø 22 (0.866)  | 4,09 (9.017) |
| 50 (1.969)  | 195 (7.677) | 28 (1.102) | 145 (5.709) | 102 (4.016) | 3 (0.118) | 4 x ø 26 (1.024)  | 5,84 (12.88) |
| 65 (2.56)   | 220 (8.661) | 30 (1.181) | 170 (6.693) | 122 (4.803) | 3 (0.118) | 8 x ø 26 (1.024)  | 8,03 (17.7)  |
| 80 (3.15)   | 230 (9.055) | 32 (1.26)  | 180 (7.087) | 138 (5.433) | 3 (0.118) | 8 x ø 26 (1.024)  | 9,43 (20.79) |
| 100 (3.937) | 265 (10.43) | 36 (1.417) | 210 (8.268) | 162 (6.378) | 3 (0.118) | 8 x ø 30 (1.181)  | 14,3 (31.53) |
| 125 (4.921) | 315 (12.4)  | 40 (1.575) | 250 (9.843) | 188 (7.402) | 3 (0.118) | 8 x ø 33 (1.299)  | 22,6 (49.82) |
| 150 (5.906) | 355 (13.98) | 44 (1.732) | 290 (11.42) | 218 (8.583) | 3 (0.118) | 12 x ø 33 (1.299) | 31,8 (70.11) |
| 175 (6.89)  | 385 (15.16) | 48 (1.89)  | 320 (12.6)  | 260 (10.24) | 3 (0.118) | 12 x ø 33 (1.3)   | 41,3 (91.05) |
| 200 (7.874) | 430 (16.93) | 52 (2.047) | 360 (14.17) | 285 (11.22) | 3 (0.118) | 12 x ø 36 (1.417) | 56,1 (123.7) |
| 250 (9.843) | 505 (19.88) | 60 (2.362) | 430 (16.93) | 345 (13.58) | 3 (0.118) | 12 x ø 39 (1.535) | 89,6 (197.5) |
| 300 (11.81) | 585 (23.03) | 68 (2.677) | 500 (19.69) | 410 (16.14) | 4 (0.157) | 16 x ø 42 (1.654) | 119 (262.4)  |

Tab. 6: Maße - DIN-Flansch PN 100. Alle Distanzwerte in Millimeter (in).

## 2.2 EN-Flansche (EN 1092-1)

(Vorgegeben) printed: 22.09.2017

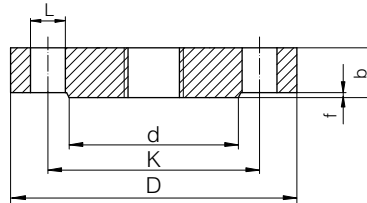


Abb. 1: Maße - EN-Flansch EN 1092-1 (Dichtleiste B1)

- $L$  Bohrungsdurchmesser (Anzahl der Bohrungen)  
 $d$  Durchmesser der Dichtleiste  
 $K$  Lochkreisdurchmesser  
 $D$  Flanschkreisdurchmesser  
 $b$  Gesamtdicke des Flansches  
 $f$  Dichtleistenhöhe

### PN 6

| DN          | D           | b          | K           | d           | f         | L                             | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------------------|--------------|
| 25 (0.984)  | 115 (4.528) | 18 (0.709) | 85 (3.346)  | 68 (2.677)  | 2 (0.079) | 4 x $\varnothing$ 14 (0.551)  | 1,5 (3.307)  |
| 30 (1.26)   | 140 (5.512) | 18 (0.709) | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x $\varnothing$ 18 (0.709)  | 2 (4.409)    |
| 40 (1.575)  | 150 (5.906) | 18 (0.709) | 110 (4.331) | 88 (3.465)  | 2 (0.079) | 4 x $\varnothing$ 18 (0.709)  | 2,5 (5.512)  |
| 50 (1.969)  | 165 (6.496) | 18 (0.709) | 125 (4.921) | 102 (4.016) | 2 (0.079) | 4 x $\varnothing$ 18 (0.709)  | 2,9 (6.393)  |
| 65 (2.559)  | 185 (7.283) | 18 (0.709) | 145 (5.709) | 122 (4.803) | 2 (0.079) | 8 x $\varnothing$ 18 (0.709)  | 3,5 (7.716)  |
| 80 (3.15)   | 200 (7.874) | 20 (0.787) | 160 (6.299) | 138 (5.433) | 2 (0.079) | 8 x $\varnothing$ 18 (0.709)  | 4,5 (9.921)  |
| 100 (3.937) | 220 (8.661) | 20 (0.787) | 180 (7.087) | 158 (6.221) | 2 (0.079) | 8 x $\varnothing$ 18 (0.709)  | 5,5 (12.13)  |
| 125 (4.921) | 250 (9.843) | 22 (0.866) | 210 (8.268) | 188 (7.402) | 2 (0.079) | 8 x $\varnothing$ 18 (0.709)  | 8 (17.64)    |
| 150 (5.906) | 285 (11.22) | 22 (0.866) | 240 (9.449) | 212 (8.346) | 2 (0.079) | 8 x $\varnothing$ 22 (0.866)  | 10,5 (23.15) |
| 200 (7.874) | 340 (13.39) | 24 (0.945) | 295 (11.61) | 268 (10.55) | 2 (0.079) | 12 x $\varnothing$ 22 (0.866) | 16,5 (36.38) |
| 250 (9.843) | 405 (15.95) | 26 (1.024) | 355 (13.98) | 320 (12.6)  | 2 (0.079) | 12 x $\varnothing$ 26 (1.024) | 25 (55.12)   |
| 300 (11.81) | 460 (18.11) | 28 (1.102) | 410 (16.14) | 378 (14.88) | 2 (0.079) | 12 x $\varnothing$ 26 (1.024) | 35 (77.16)   |



Tab. 7: Maße - EN-Flansch PN 16. Alle Distanzwerte in Millimeter (in).

**PN 25**

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984)  | 115 (4.528) | 18 (0.709) | 85 (3.346)  | 68 (2.677)  | 2 (0.079) | 4 x ø 14 (0.551)  | 1,5 (3.307)  |
| 32 (1.260)  | 140 (5.511) | 18 (0.709) | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2 (4.409)    |
| 40 (1.575)  | 150 (5.906) | 18 (0.709) | 100 (3.937) | 88 (3.465)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,5 (5.512)  |
| 50 (1.969)  | 165 (6.496) | 20 (0.787) | 125 (4.921) | 102 (4.016) | 2 (0.079) | 4 x ø 18 (0.709)  | 3 (6.614)    |
| 65 (2.559)  | 185 (7.284) | 22 (0.866) | 145 (5.709) | 122 (4.803) | 2 (0.079) | 8 x ø 18 (0.709)  | 4,5 (9.921)  |
| 80 (3.15)   | 200 (7.874) | 24 (0.945) | 160 (6.299) | 138 (5.433) | 2 (0.079) | 8 x ø 18 (0.709)  | 5,5 (12.13)  |
| 100 (3.937) | 235 (9.252) | 24 (0.945) | 190 (7.48)  | 162 (6.378) | 2 (0.079) | 8 x ø 22 (0.866)  | 7,5 (16.54)  |
| 125 (4.921) | 270 (10.63) | 26 (1.024) | 220 (8.661) | 188 (7.402) | 2 (0.079) | 8 x ø 26 (1.024)  | 11 (24.25)   |
| 150 (5.906) | 300 (11.81) | 28 (1.102) | 250 (9.843) | 218 (8.583) | 2 (0.079) | 8 x ø 26 (1.024)  | 14,5 (31.97) |
| 200 (7.874) | 360 (14.17) | 30 (1.181) | 310 (12.21) | 278 (10.95) | 2 (0.079) | 12 x ø 26 (1.024) | 22,5 (49.6)  |
| 250 (9.843) | 425 (16.73) | 32 (1.26)  | 370 (14.57) | 335 (13.19) | 2 (0.079) | 12 x ø 30 (1.181) | 33,5 (73.86) |
| 300 (11.81) | 485 (19.09) | 34 (1.339) | 430 (16.93) | 395 (15.55) | 2 (0.079) | 16 x ø 30 (1.181) | 46,5 (102.5) |

Tab. 8: Maße - EN-Flansch PN 25. Alle Distanzwerte in Millimeter (in).

**PN 40**

| DN         | D           | b          | K           | d           | f         | L                | ~ kg        |
|------------|-------------|------------|-------------|-------------|-----------|------------------|-------------|
| 25 (0.984) | 115 (4.528) | 18 (0.709) | 85 (3.346)  | 68 (2.677)  | 2 (0.079) | 4 x ø 14 (0.551) | 1,5 (3.307) |
| 32 (1.260) | 140 (5.512) | 18 (0.709) | 100 (3.937) | 78 (3.071)  | 2 (0.079) | 4 x ø 18 (0.709) | 2 (4.409)   |
| 40 (1.575) | 150 (5.906) | 18 (0.709) | 110 (4.331) | 88 (3.465)  | 2 (0.079) | 4 x ø 18 (0.709) | 2,5 (5.511) |
| 50 (1.969) | 165 (6.496) | 20 (0.787) | 125 (4.921) | 102 (4.016) | 2 (0.079) | 4 x ø 18 (0.709) | 3 (6.614)   |
| 65 (2.559) | 185 (7.283) | 22 (0.866) | 145 (5.709) | 122 (4.803) | 2 (0.079) | 8 x ø 18 (0.709) | 4,5 (9.921) |

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 80 (3.15)   | 200 (7.874) | 24 (0.945) | 160 (6.299) | 138 (5.433) | 2 (0.079) | 8 x ø 18 (0.709)  | 5,5 (12.13)  |
| 100 (3.937) | 235 (9.252) | 24 (0.945) | 190 (7.48)  | 162 (6.378) | 2 (0.079) | 8 x ø 22 (0.866)  | 7,5 (16.53)  |
| 125 (4.921) | 270 (10.63) | 26 (1.024) | 220 (8.661) | 188 (7.402) | 2 (0.079) | 8 x ø 26 (1.024)  | 11 (24.25)   |
| 150 (5.906) | 300 (11.81) | 28 (1.102) | 250 (9.843) | 218 (8.583) | 2 (0.079) | 8 x ø 26 (1.024)  | 14,5 (31.97) |
| 200 (7.874) | 375 (14.76) | 36 (1.417) | 320 (12.6)  | 285 (11.22) | 2 (0.079) | 12 x ø 30 (1.181) | 29 (63.93)   |
| 250 (9.843) | 450 (17.72) | 38 (1.496) | 385 (15.16) | 345 (13.58) | 2 (0.079) | 12 x ø 33 (1.299) | 44,5 (98.11) |
| 300 (11.81) | 515 (20.28) | 42 (1.654) | 450 (17.72) | 410 (16.14) | 2 (0.079) | 16 x ø 33 (1.299) | 64 (141.1)   |

Tab. 5: Maße - EN-Flansch PN 40. Alle Distanzwerte in Millimeter (in).

### PN 63

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg         |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 25 (0.984)  | 140 (5.512) | 24 (0.945) | 100 (3.937) | 68 (2.677)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,5 (5.512)  |
| 30 (1.26)   | 155 (6.102) | 24 (0.945) | 110 (4.331) | 78 (3.071)  | 2 (0.079) | 4 x ø 22 (0.866)  | 3,5 (7.716)  |
| 40 (1.575)  | 170 (6.693) | 26 (1.024) | 125 (4.921) | 88 (3.465)  | 2 (0.079) | 4 x ø 22 (0.866)  | 4,5 (9.921)  |
| 50 (1.969)  | 180 (7.087) | 26 (1.024) | 135 (5.315) | 102 (4.016) | 2 (0.079) | 4 x ø 22 (0.866)  | 5 (11.02)    |
| 60 (2.56)   | 205 (8.071) | 26 (1.024) | 160 (6.3)   | 122 (4.803) | 2 (0.079) | 8 x ø 22 (0.866)  | 6 (13.23)    |
| 80 (3.15)   | 215 (8.465) | 28 (1.102) | 170 (6.693) | 138 (5.433) | 2 (0.079) | 8 x ø 22 (0.866)  | 7,5 (16.54)  |
| 100 (3.937) | 250 (9.843) | 30 (1.181) | 200 (7.874) | 162 (6.378) | 2 (0.079) | 8 x ø 26 (1.024)  | 10,5 (23.15) |
| 125 (4.921) | 295 (11.61) | 34 (1.339) | 240 (9.449) | 188 (7.402) | 2 (0.079) | 8 x ø 30 (1.181)  | 16,5 (36.38) |
| 150 (5.906) | 345 (13.58) | 36 (1.417) | 280 (11.02) | 218 (8.583) | 2 (0.079) | 8 x ø 33 (1.299)  | 24,5 (54.01) |
| 200 (7.874) | 415 (16.34) | 42 (1.654) | 345 (13.58) | 285 (11.22) | 2 (0.079) | 12 x ø 36 (1.417) | 40,5 (89.29) |
| 250 (9.843) | 470 (18.5)  | 46 (1.811) | 400 (15.75) | 345 (13.58) | 3 (0.118) | 12 x ø 36 (1.417) | 58 (127.9)   |
| 300 (11.81) | 530 (20.87) | 52 (2.047) | 460 (18.11) | 410 (16.14) | 2 (0.079) | 16 x ø 36 (1.417) | 83,5 (184.1) |

Tab. 10: Maße - EN-Flansch PN 63. Alle Distanzwerte in Millimeter (in).

**PN 100**

| DN          | D           | b          | K           | d           | f         | L                 | ~ kg          |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|---------------|
| 25 (0.984)  | 140 (5.512) | 24 (0.945) | 100 (3.937) | 68 (2.677)  | 2 (0.079) | 4 x ø 18 (0.709)  | 2,5 (5.512)   |
| 32 (1.26)   | 155 (6.102) | 24 (0.945) | 110 (4.331) | 78 (3.071)  | 2 (0.079) | 4 x ø 22 (0.866)  | 3,5 (7.716)   |
| 40 (1.575)  | 170 (6.693) | 26 (1.024) | 125 (4.921) | 88 (3.465)  | 2 (0.079) | 4 x ø 22 (0.866)  | 4,5 (9.921)   |
| 50 (1.969)  | 195 (7.677) | 28 (1.102) | 145 (5.709) | 102 (4.016) | 2 (0.079) | 4 x ø 26 (1.024)  | 6 (13.23)     |
| 65 (2.56)   | 220 (8.661) | 30 (1.181) | 170 (6.693) | 122 (4.803) | 2 (0.079) | 8 x ø 26 (1.024)  | 8 (17.64)     |
| 80 (3.15)   | 230 (9.055) | 32 (1.26)  | 180 (7.087) | 138 (5.433) | 2 (0.079) | 8 x ø 26 (1.024)  | 9,5 (20.94)   |
| 100 (3.937) | 265 (10.43) | 36 (1.417) | 210 (8.268) | 162 (6.378) | 2 (0.079) | 8 x ø 30 (1.181)  | 14 (30.87)    |
| 125 (4.921) | 315 (12.4)  | 40 (1.575) | 250 (9.843) | 188 (7.402) | 2 (0.079) | 8 x ø 33 (1.299)  | 22,5 (49.6)   |
| 150 (5.906) | 355 (13.98) | 44 (1.732) | 290 (11.42) | 218 (8.583) | 2 (0.079) | 12 x ø 33 (1.299) | 30,5 (67.24)  |
| 200 (7.874) | 430 (16.93) | 52 (2.047) | 360 (14.17) | 285 (11.22) | 2 (0.079) | 12 x ø 36 (1.417) | 54,5 (120.2)  |
| 250 (9.843) | 505 (19.88) | 60 (2.362) | 430 (16.93) | 345 (13.58) | 2 (0.079) | 12 x ø 39 (1.535) | 87,5 (192.9)  |
| 300 (11.81) | 585 (23.03) | 68 (2.677) | 500 (19.69) | 410 (16.14) | 2 (0.079) | 16 x ø 42 (1.654) | 131,5 (289.9) |

Tab. 11: Maße - EN-Flansch PN 100. Alle Distanzwerte in Millimeter (in).

## 2.3 ASME-Flansche (ASME B 16.5)

(Freigegeben) printed: 22.09.2017

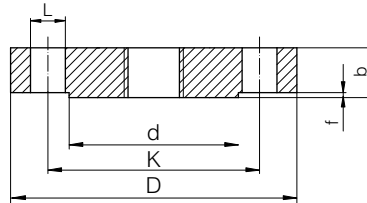


Abb. 13: Maße - ASME-Flansch B 16.5 (Dichtleiste RF)

L Bohrungsdurchmesser (Anzahl der Bohrungen)

d Durchmesser der Dichtleiste

K Lochkreisdurchmesser

D Flanschkreisdurchmesser

b Gesamtdicke des Flansches

f Dichtleistenhöhe 150 lb/300 lb: 1,6 mm (0.06 in) bzw. ab 600 lb: 6,4 mm (0.25 in)

### Class 150

| DN  | D             | b            | d             | K             | L                  | ~ kg         |
|-----|---------------|--------------|---------------|---------------|--------------------|--------------|
| 100 | 108 (4.252)   | 14,2 (0.559) | 50,8 (2)      | 79,2 (3.118)  | 4 x ø 15,7 (0.618) | 0,86 (1.896) |
| 125 | 117,3 (4.618) | 15,7 (0.618) | 63,5 (2.5)    | 88,9 (3.5)    | 4 x ø 15,7 (0.618) | 1,17 (2.579) |
| 150 | 127 (5)       | 17,5 (0.689) | 73,2 (2.882)  | 98,6 (3.882)  | 4 x ø 15,7 (0.618) | 1,53 (3.373) |
| 200 | 152,4 (6)     | 19,1 (0.752) | 91,9 (3.618)  | 120,7 (4.752) | 4 x ø 19,1 (0.752) | 2,42 (5.335) |
| 250 | 177,8 (7)     | 22,4 (0.882) | 104,6 (4.118) | 139,7 (5.5)   | 4 x ø 19,1 (0.752) | 3,94 (8.686) |
| 300 | 190,5 (7.5)   | 23,9 (0.941) | 127 (5)       | 152,4 (6)     | 4 x ø 19,1 (0.752) | 4,93 (10.87) |
| 350 | 215,9 (8.5)   | 23,9 (0.941) | 139,7 (5.5)   | 177,8 (7)     | 8 x ø 19,1 (0.752) | 6,17 (13.6)  |
| 400 | 228,6 (9)     | 23,9 (0.941) | 157,2 (6.189) | 190,5 (7.5)   | 8 x ø 19,1 (0.752) | 7 (15.43)    |
| 450 | 254 (10)      | 23,9 (0.941) | 185,7 (7.311) | 215,9 (8.5)   | 8 x ø 22,4 (0.882) | 8,63 (19.03) |
| 500 | 279,4 (11)    | 25,4 (1)     | 215,9 (8.5)   | 241,3 (9.5)   | 8 x ø 22,4 (0.882) | 11,3 (24.91) |
| 600 | 342,9 (13.5)  | 28,4 (1.118) | 269,7 (10.62) | 298,5 (11.75) | 8 x ø 22,4 (0.882) | 19,6 (43.21) |
| 700 | 406,4 (16)    | 30,2 (1.189) | 323,8 (12.75) | 362 (14.25)   | 12 x ø 25,4 (1)    | 28,8 (63.49) |

Tab. 12: Maße - ASME-Flansch Class 150. Alle Distanzwerte in Millimeter (in).

**Class 300**

| DN  | D             | b            | d             | K             | L                   | ~ kg         |
|-----|---------------|--------------|---------------|---------------|---------------------|--------------|
| 1"  | 124 (4.882)   | 17,5 (0.689) | 50,8 (2)      | 88,9 (3.5)    | 4 x ø 19,1 (0.752)  | 1,39 (3.064) |
| 1¼" | 133,4 (5.252) | 19,1 (0.752) | 63,5 (2.5)    | 98,6 (3.882)  | 4 x ø 19,1 (0.752)  | 1,79 (3.946) |
| 1½" | 155,4 (6.118) | 20,6 (0.811) | 73,2 (2.882)  | 114,3 (4.5)   | 4 x ø 22,4 (0.882)  | 2,66 (5.864) |
| 2"  | 165,1 (6.5)   | 22,4 (0.882) | 91,9 (3.618)  | 127 (5)       | 8 x ø 19,1 (0.752)  | 3,18 (7.011) |
| 2½" | 190,5 (7.5)   | 25,4 (1)     | 104,6 (4.118) | 149,4 (5.882) | 8 x ø 22,4 (0.882)  | 4,85 (10.69) |
| 3"  | 209,5 (8.248) | 28,4 (1.118) | 127 (5)       | 168,1 (6.618) | 8 x ø 22,4 (0.882)  | 6,81 (15.01) |
| 3½" | 228,6 (9)     | 30,2 (1.189) | 139,7 (5.5)   | 184,2 (7.252) | 8 x ø 22,4 (0.882)  | 8,71 (19.2)  |
| 4"  | 254 (10)      | 31,8 (1.252) | 157,2 (6.189) | 200,2 (7.882) | 8 x ø 22,4 (0.882)  | 11,5 (25.35) |
| 5"  | 279,4 (11)    | 35,1 (1.382) | 185,7 (7.311) | 235 (9.252)   | 8 x ø 22,4 (0.882)  | 15,6 (34.39) |
| 6"  | 317,5 (12.5)  | 36,6 (1.441) | 215,9 (8.5)   | 269,7 (10.62) | 12 x ø 22,4 (0.882) | 20,9 (46.08) |
| 8"  | 381 (15)      | 41,1 (1.618) | 269,7 (10.62) | 330,2 (13)    | 12 x ø 25,4 (1)     | 34,3 (75.62) |
| 10" | 444,5 (17.5)  | 47,8 (1.882) | 323,8 (12.75) | 387,4 (15.25) | 16 x ø 28,4 (1.118) | 53,3 (117.5) |

Tab. 13: Maße - ASME-Flansch Class 300. Alle Distanzwerte in Millimeter (in).

**Class 600**

| DN  | D             | b            | d             | K             | L                  | ~ kg         |
|-----|---------------|--------------|---------------|---------------|--------------------|--------------|
| 1"  | 124 (4.882)   | 17,5 (0.689) | 50,8 (2)      | 88,9 (3.5)    | 4 x ø 19,1 (0.752) | 1,6 (3.527)  |
| 1¼" | 133,4 (5.252) | 20,6 (0.811) | 63,5 (2.5)    | 98,6 (3.882)  | 4 x ø 19,1 (0.752) | 2,23 (4.916) |
| 1½" | 155,4 (6.118) | 22,4 (0.882) | 73,2 (2.882)  | 114,3 (4.5)   | 4 x ø 22,4 (0.882) | 3,25 (7.165) |
| 2"  | 165,1 (6.5)   | 25,4 (1)     | 91,9 (3.618)  | 127 (5)       | 8 x ø 19,1 (0.752) | 4,15 (9.15)  |
| 2½" | 190,5 (7.5)   | 28,4 (1.118) | 104,6 (4.118) | 149,4 (5.882) | 8 x ø 22,4 (0.882) | 6,13 (13.51) |
| 3"  | 209,6 (8.252) | 31,8 (1.252) | 127 (5)       | 168,1 (6.618) | 8 x ø 22,4 (0.882) | 8,44 (18.61) |
| 3½" | 228,6 (9)     | 35,1 (1.382) | 139,7 (5.5)   | 184,2 (7.252) | 8 x ø 25,4 (1)     | 11 (24.25)   |

| DN     | D             | b            | d             | K             | L                      | ~ kg         |
|--------|---------------|--------------|---------------|---------------|------------------------|--------------|
| 20,17" | 273,1 (10.75) | 38,1 (1.5)   | 157,2 (6.189) | 215,9 (8.5)   | 8 x ø 25,4 (1)         | 17,3 (38.14) |
| 22,99" | 330,2 (13)    | 44,5 (1.752) | 185,7 (7.311) | 266,7 (10.5)  | 8 x ø 28,4<br>(1.118)  | 29,4 (64.82) |
| 25,91" | 355,6 (14)    | 47,8 (1.882) | 215,9 (8.5)   | 292,1 (11.5)  | 12 x ø 28,4<br>(1.118) | 36,1 (79.59) |
| 28,83" | 419,1 (16.5)  | 55,6 (2.189) | 269,7 (10.62) | 349,3 (13.75) | 12 x ø 31,8<br>(1.252) | 58,9 (129.9) |
| 31,75" | 508 (20)      | 63,5 (2.5)   | 323,8 (12.75) | 431,8 (17)    | 16 x ø 35,1<br>(1.382) | 97,5 (215)   |

Tab. 14: Maße - ASME-Flansch Class 600. Alle Distanzwerte in Millimeter (in).

### Class 900

| DN  | D             | b            | d             | K             | L                      | ~ kg         |
|-----|---------------|--------------|---------------|---------------|------------------------|--------------|
| 1"  | 149,4 (5.882) | 28,4 (1.118) | 50,8 (2)      | 101,6 (4)     | 4 x ø 25,4 (1)         | 3,57 (7.871) |
| 1¼" | 158,8 (6.252) | 28,4 (1.118) | 63,5 (2.5)    | 111,3 (4.382) | 4 x ø 25,4 (1)         | 4,14 (9.127) |
| 1½" | 177,8 (7)     | 31,8 (1.252) | 73,2 (2.882)  | 124 (4.882)   | 4 x ø 28,4<br>(1.118)  | 5,75 (12.68) |
| 2"  | 215,9 (8.5)   | 38,1 (1.5)   | 91,9 (3.618)  | 165,1 (6.5)   | 8 x ø 25,4 (1)         | 10,1 (22.27) |
| 2½" | 244,4 (9.622) | 41,1 (1.618) | 104,6 (4.118) | 190,5 (7.5)   | 8 x ø 28,4<br>(1.118)  | 14 (30.86)   |
| 3"  | 241,3 (9.5)   | 38,1 (1.5)   | 127 (5)       | 190,5 (7.5)   | 8 x ø 25,4 (1)         | 13,1 (28.9)  |
| 3½" | 292,1 (11.5)  | 44,5 (1.752) | 157,2 (6.19)  | 235 (9.252)   | 8 x ø 31,8<br>(1.252)  | 26,9 (59.3)  |
| 4"  | 349,3 (13.75) | 50,8 (2)     | 185,7 (7.311) | 279,4 (11)    | 8 x ø 35,1<br>(1.382)  | 36,5 (80.47) |
| 5"  | 381 (15)      | 55,6 (2.19)  | 215,9 (8.5)   | 317,5 (12.5)  | 12 x ø 31,8<br>(1.252) | 47,4 (104.5) |
| 6"  | 469,9 (18.5)  | 63,5 (2.5)   | 269,7 (10.62) | 393,7 (15.5)  | 12 x ø 38,1<br>(1.5)   | 82,5 (181.9) |
| 8"  | 546,1 (21.5)  | 69,9 (2.752) | 323,8 (12.75) | 469,9 (18.5)  | 16 x ø 38,1<br>(1.5)   | 122 (269)    |

Tab. 15: Maße - ASME-Flansch Class 900. Alle Distanzwerte in Millimeter (in).

### Class 1500

| DN  | D             | b            | d            | K             | L                     | ~ kg         |
|-----|---------------|--------------|--------------|---------------|-----------------------|--------------|
| 1"  | 149,4 (5.882) | 28,4 (1.118) | 50,8 (2)     | 101,6 (4)     | 4 x ø 25,4 (1)        | 3,57 (7.871) |
| 1¼" | 158,8 (6.252) | 28,4 (1.118) | 63,5 (2.5)   | 111,3 (4.382) | 4 x ø 25,4 (1)        | 4,14 (9.127) |
| 1½" | 177,8 (7)     | 31,8 (1.252) | 73,2 (2.882) | 124 (4.882)   | 4 x ø 28,4<br>(1.118) | 5,75 (12.68) |

| DN  | D             | b            | d             | K            | L                   | ~ kg         |
|-----|---------------|--------------|---------------|--------------|---------------------|--------------|
| 2"  | 215,9 (8.5)   | 38,1 (1.5)   | 91,9 (3.618)  | 165,1 (6.5)  | 8 x ø 25,4 (1)      | 10,1 (22.27) |
| 2½" | 244,4 (9.622) | 41,1 (1.618) | 104,6 (4.118) | 190,5 (7.5)  | 8 x ø 28,4 (1.118)  | 14 (30.87)   |
| 3"  | 266,7 (10.5)  | 47,8 (1.882) | 127 (5)       | 203,2 (8)    | 8 x ø 31,8 (1.252)  | 19,1 (42.11) |
| 4"  | 311,2 (12.25) | 53,8 (2.118) | 157,2 (6.19)  | 241,3 (9.5)  | 8 x ø 35,1 (1.382)  | 29,9 (65.92) |
| 5"  | 374,7 (14.75) | 73,2 (2.882) | 185,7 (7.311) | 292,1 (11.5) | 8 x ø 41,1 (1.618)  | 58,4 (128.8) |
| 6"  | 393,7 (15.5)  | 82,6 (3.252) | 215,9 (8.5)   | 317,5 (12.5) | 12 x ø 38,1 (1.5)   | 71,8 (158.3) |
| 8"  | 482,6 (19)    | 91,9 (3.618) | 269,7 (10.62) | 393,7 (15.5) | 12 x ø 44,5 (1.752) | 122 (269)    |
| 10" | 584,2 (23)    | 108 (4.252)  | 323,8 (12.75) | 482,6 (19)   | 16 x ø 50,8 (2)     | 210 (463)    |

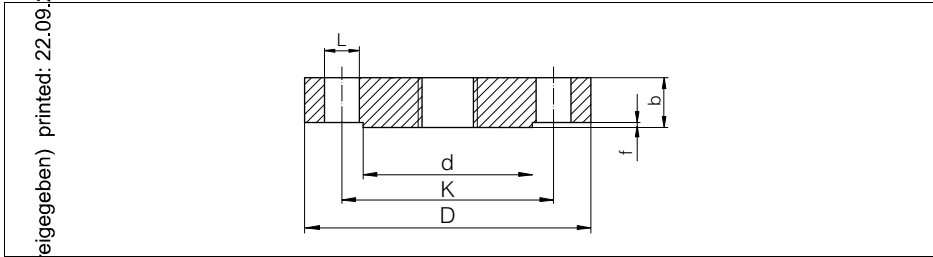
Tab. 16: Maße - ASME-Flansch Class 1500. Alle Distanzwerte in Millimeter (in).

**Class 2500**

| DN  | D             | b            | d             | K             | L                   | ~ kg         |
|-----|---------------|--------------|---------------|---------------|---------------------|--------------|
| 1"  | 158,8 (6.252) | 35,1 (1.382) | 50,8 (2)      | 108 (4.252)   | 4 x ø 25,4 (1)      | 4,96 (10.94) |
| 1¼" | 184,2 (7.252) | 38,1 (1.5)   | 63,5 (2.5)    | 130 (5.118)   | 4 x ø 28,4 (1.118)  | 7,35 (16.2)  |
| 1½" | 203,2 (8)     | 44,5 (1.752) | 73,2 (2.882)  | 146,1 (5.752) | 4 x ø 31,8 (1.252)  | 10,4 (22.93) |
| 2"  | 235 (9.252)   | 50,8 (2)     | 91,9 (3.618)  | 171,5 (6.752) | 8 x ø 28,4 (1.118)  | 15,6 (34.39) |
| 2½" | 266,7 (10.5)  | 57,2 (2.252) | 104,6 (4.118) | 196,9 (7.752) | 8 x ø 31,8 (1.252)  | 22,6 (49.83) |
| 3"  | 304,8 (12)    | 66,5 (2.618) | 127 (5)       | 228,6 (9)     | 8 x ø 35,1 (1.382)  | 34,8 (76.72) |
| 4"  | 355,6 (14)    | 76,2 (3)     | 157,2 (6.2)   | 273,1 (10.75) | 8 x ø 41,1 (1.618)  | 53,9 (118.8) |
| 5"  | 419,1 (16.5)  | 91,9 (3.618) | 185,7 (7.311) | 323,8 (12.75) | 8 x ø 47,8 (1.882)  | 90,8 (200.2) |
| 6"  | 482,6 (19)    | 108 (4.252)  | 215,9 (8.5)   | 368,3 (14.5)  | 12 x ø 53,8 (2.118) | 141 (310.9)  |
| 8"  | 552,5 (21.75) | 127 (5)      | 269,7 (10.62) | 438,2 (17.25) | 12 x ø 53,8 (2.118) | 214 (471.8)  |
| 10" | 673,1 (26.5)  | 165,1 (6.5)  | 323,8 (12.75) | 539,8 (21.25) | 12 x ø 66,5 (2.618) | 411 (906.1)  |

Tab. 17: Maße - ASME-Flansch Class 2500. Alle Distanzwerte in Millimeter (in).

## 2.4 JIS-Flansche (B 2210-1984)



Abbild. Maße - JIS-Flansch (Regular Flange)

L Bohrungsdurchmesser (Anzahl der Bohrungen)

d Durchmesser der Dichtleiste

K Lochkreisdurchmesser

D Flanschdurchmesser

b Gesamtdicke des Flansches

f Dichtleistenhöhe

10

| DN          | D           | b          | K           | d           | f         | L                             |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------------------|
| 25 (0.984)  | 125 (4.921) | 14 (0.551) | 90 (3.543)  | 67 (2.638)  | 1 (0.039) | 4 x $\varnothing$ 19 (0.748)  |
| 40 (1.26)   | 135 (5.315) | 16 (0.63)  | 100 (3.937) | 76 (2.992)  | 2 (0.079) | 4 x $\varnothing$ 19 (0.748)  |
| 50 (1.575)  | 140 (5.512) | 16 (0.63)  | 105 (4.134) | 81 (3.189)  | 2 (0.079) | 4 x $\varnothing$ 19 (0.748)  |
| 65 (1.969)  | 155 (6.102) | 16 (0.63)  | 120 (4.724) | 96 (3.78)   | 2 (0.079) | 4 x $\varnothing$ 19 (0.748)  |
| 80 (2.56)   | 175 (6.89)  | 18 (0.709) | 140 (5.512) | 116 (4.567) | 2 (0.079) | 4 x $\varnothing$ 19 (0.748)  |
| 80 (3.15)   | 185 (7.284) | 18 (0.709) | 150 (5.906) | 126 (4.961) | 2 (0.079) | 8 x $\varnothing$ 19 (0.748)  |
| 100 (3.937) | 210 (8.268) | 18 (0.709) | 175 (6.9)   | 151 (5.945) | 2 (0.079) | 8 x $\varnothing$ 19 (0.748)  |
| 125 (4.921) | 250 (9.843) | 20 (0.787) | 210 (8.268) | 182 (7.165) | 2 (0.079) | 8 x $\varnothing$ 23 (0.906)  |
| 150 (5.906) | 280 (11.02) | 22 (0.866) | 240 (9.449) | 212 (8.347) | 2 (0.079) | 8 x $\varnothing$ 23 (0.906)  |
| 200 (7.874) | 330 (12.99) | 22 (0.866) | 290 (11.42) | 262 (10.32) | 2 (0.079) | 12 x $\varnothing$ 23 (0.906) |
| 250 (9.843) | 400 (15.75) | 24 (0.945) | 355 (13.98) | 324 (12.76) | 2 (0.079) | 12 x $\varnothing$ 25 (0.984) |
| 300 (11.81) | 445 (17.52) | 24 (0.945) | 400 (15.75) | 368 (14.49) | 3 (0.118) | 16 x $\varnothing$ 25 (0.984) |



Tab. 18: Maße - JIS-Flansch 10 K (B 2210 - 1984) Regular Flange. Alle Distanzwerte in Millimeter (in).

**2.5 GOST-Flansche (GOST 12815-80)**

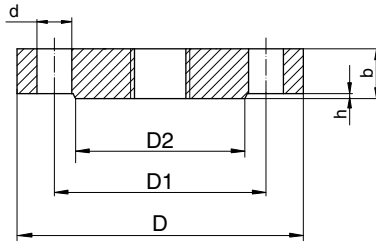


Abb. 5: Maße - GOST-Flansch (GOST 12815-80, Modification 1)

- $d$  Bohrungsdurchmesser (Anzahl der Bohrungen)
- $D2$  Durchmesser der Dichtleiste
- $D1$  Lochkreisdurchmesser
- $D$  Flanschdurchmesser
- $h$  Gesamtdicke des Flansches
- $b$  Dichtleistenhöhe

**EN 16**

| DN          | D           | D1          | D2          | b          | h         | d                             |
|-------------|-------------|-------------|-------------|------------|-----------|-------------------------------|
| 25 (0.984)  | 115 (4.528) | 85 (3.347)  | 68 (2.677)  | 12 (0.472) | 2 (0.079) | 4 x $\varnothing$ 14 (0.551)  |
| 32 (1.26)   | 135 (5.315) | 100 (3.937) | 78 (3.071)  | 13 (0.512) | 2 (0.079) | 4 x $\varnothing$ 18 (0.709)  |
| 40 (1.575)  | 145 (5.709) | 110 (4.331) | 88 (3.465)  | 13 (0.512) | 3 (0.118) | 4 x $\varnothing$ 18 (0.709)  |
| 50 (1.969)  | 160 (6.299) | 125 (4.921) | 102 (4.016) | 13 (0.512) | 3 (0.118) | 4 x $\varnothing$ 18 (0.709)  |
| 65 (2.56)   | 180 (7.087) | 145 (5.709) | 122 (4.803) | 15 (0.591) | 3 (0.118) | 4 x $\varnothing$ 18 (0.709)  |
| 80 (3.15)   | 195 (7.677) | 160 (6.299) | 133 (5.236) | 17 (0.669) | 3 (0.118) | 8 x $\varnothing$ 18 (0.709)  |
| 100 (3.937) | 215 (8.465) | 180 (7.087) | 158 (6.221) | 17 (0.669) | 3 (0.118) | 8 x $\varnothing$ 18 (0.709)  |
| 125 (4.921) | 245 (9.646) | 210 (8.268) | 184 (7.244) | 19 (0.748) | 3 (0.118) | 8 x $\varnothing$ 18 (0.709)  |
| 150 (5.906) | 280 (11.02) | 240 (9.449) | 212 (8.347) | 19 (0.748) | 3 (0.118) | 8 x $\varnothing$ 22 (0.866)  |
| 200 (7.874) | 335 (13.19) | 295 (11.61) | 268 (10.55) | 21 (0.827) | 3 (0.118) | 12 x $\varnothing$ 22 (0.866) |

| DN         | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                    |
|------------|-------------|----------------|----------------|------------|-----------|----------------------|
| 25 (9.843) | 405 (15.95) | 355 (13.98)    | 320 (12.6)     | 23 (0.906) | 3 (0.118) | 12 x ø 26<br>(1.024) |

Tab. 29: Maße - GOST-Flansch PN 16. Alle Distanzwerte in Millimeter (in).

## PN 25

| DN          | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                    |
|-------------|-------------|----------------|----------------|------------|-----------|----------------------|
| 20 (0.984)  | 115 (4.528) | 85 (3.347)     | 68 (2.677)     | 14 (0.551) | 2 (0.079) | 4 x ø 14<br>(0.551)  |
| 25 (1.26)   | 135 (5.315) | 100 (3.937)    | 78 (3.071)     | 16 (0.63)  | 2 (0.079) | 4 x ø 18<br>(0.709)  |
| 40 (1.575)  | 145 (5.709) | 110 (4.331)    | 88 (3.465)     | 16 (0.63)  | 3 (0.118) | 4 x ø 18<br>(0.709)  |
| 50 (1.969)  | 160 (6.299) | 125 (4.921)    | 102 (4.016)    | 17 (0.669) | 3 (0.118) | 4 x ø 18<br>(0.709)  |
| 65 (2.559)  | 180 (7.087) | 145 (5.709)    | 122 (4.803)    | 19 (0.748) | 3 (0.118) | 8 x ø 18<br>(0.709)  |
| 80 (3.15)   | 195 (7.677) | 160 (6.299)    | 133 (5.236)    | 19 (0.748) | 3 (0.118) | 8 x ø 18<br>(0.709)  |
| 100 (3.937) | 230 (9.055) | 190 (7.48)     | 158 (6.221)    | 21 (0.827) | 3 (0.118) | 8 x ø 22<br>(0.866)  |
| 125 (4.921) | 270 (10.63) | 220 (8.661)    | 184 (7.244)    | 23 (0.906) | 3 (0.118) | 8 x ø 26<br>(1.024)  |
| 150 (5.906) | 300 (11.81) | 250 (9.843)    | 212 (8.347)    | 25 (0.984) | 3 (0.118) | 8 x ø 26<br>(1.024)  |
| 200 (7.874) | 360 (14.17) | 310 (12.21)    | 278 (10.95)    | 27 (1.063) | 3 (0.118) | 12 x ø 26<br>(1.024) |
| 250 (9.843) | 425 (16.73) | 370 (14.57)    | 335 (13.19)    | 29 (1.142) | 3 (0.118) | 12 x ø 30<br>(1.181) |

Tab. 20: Maße - GOST-Flansch PN 25. Alle Distanzwerte in Millimeter (in).

## PN 40

| DN         | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                   |
|------------|-------------|----------------|----------------|------------|-----------|---------------------|
| 25 (0.984) | 115 (4.528) | 85 (3.347)     | 68 (2.677)     | 14 (0.551) | 2 (0.079) | 4 x ø 14<br>(0.551) |
| 32 (1.26)  | 135 (5.315) | 100 (3.937)    | 78 (3.071)     | 16 (0.63)  | 2 (0.079) | 4 x ø 18<br>(0.709) |
| 40 (1.575) | 145 (5.709) | 110 (4.331)    | 88 (3.465)     | 16 (0.63)  | 3 (0.118) | 4 x ø 18<br>(0.709) |
| 50 (1.969) | 160 (6.3)   | 125 (4.921)    | 102 (4.016)    | 17 (0.669) | 3 (0.118) | 4 x ø 18<br>(0.709) |

| DN          | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                    |
|-------------|-------------|----------------|----------------|------------|-----------|----------------------|
| 65 (2.559)  | 180 (7.087) | 145 (5.709)    | 122 (4.803)    | 19 (0.748) | 3 (0.118) | 8 x ø 18<br>(0.709)  |
| 80 (3.15)   | 195 (7.677) | 160 (6.299)    | 133 (5.236)    | 21 (0.827) | 3 (0.118) | 8 x ø 18<br>(0.709)  |
| 100 (3.937) | 230 (9.055) | 190 (7.480)    | 158 (6.221)    | 23 (0.906) | 3 (0.118) | 8 x ø 22<br>(0.866)  |
| 125 (4.921) | 270 (10.63) | 220 (8.661)    | 184 (7.244)    | 25 (0.984) | 3 (0.118) | 8 x ø 26<br>(1.024)  |
| 150 (5.906) | 300 (11.81) | 250 (9.843)    | 212 (8.347)    | 27 (1.063) | 3 (0.118) | 8 x ø 26<br>(1.024)  |
| 200 (7.874) | 375 (14.76) | 320 (12.6)     | 285 (11.22)    | 35 (1.378) | 3 (0.118) | 12 x ø 30<br>(1.181) |
| 250 (9.843) | 445 (17.52) | 385 (15.16)    | 345 (13.58)    | 39 (1.535) | 3 (0.118) | 12 x ø 33<br>(1.299) |

Tab. 21: Maße - GOST-Flansch PN 40. Alle Distanzwerte in Millimeter (in).

**PN 63**

| DN          | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                    |
|-------------|-------------|----------------|----------------|------------|-----------|----------------------|
| 25 (0.984)  | 135 (5.315) | 100 (3.937)    | 68 (2.677)     | 20 (0.787) | 2 (0.079) | 4 x ø 18<br>(0.709)  |
| 32 (1.26)   | 150 (5.906) | 110 (4.331)    | 78 (3.071)     | 21 (0.827) | 2 (0.079) | 4 x ø 22<br>(0.866)  |
| 40 (1.575)  | 165 (6.496) | 125 (4.921)    | 88 (3.465)     | 21 (0.827) | 3 (0.118) | 4 x ø 22<br>(0.866)  |
| 50 (1.969)  | 175 (6.89)  | 135 (5.315)    | 102 (4.016)    | 23 (0.906) | 3 (0.118) | 4 x ø 22<br>(0.866)  |
| 65 (2.559)  | 200 (7.874) | 160 (6.299)    | 122 (4.803)    | 25 (0.984) | 3 (0.118) | 8 x ø 22<br>(0.866)  |
| 80 (3.15)   | 210 (8.268) | 170 (6.693)    | 133 (5.236)    | 27 (1.063) | 3 (0.118) | 8 x ø 22<br>(0.866)  |
| 100 (3.937) | 250 (9.843) | 200 (7.874)    | 158 (6.221)    | 29 (1.142) | 3 (0.118) | 8 x ø 26<br>(1.024)  |
| 125 (4.921) | 295 (11.61) | 240 (9.449)    | 184 (7.244)    | 33 (1.3)   | 3 (0.118) | 8 x ø 30<br>(1.181)  |
| 150 (5.906) | 340 (13.39) | 280 (11.02)    | 212 (8.347)    | 35 (1.378) | 3 (0.118) | 8 x ø 33<br>(1.299)  |
| 200 (7.874) | 405 (15.95) | 345 (13.58)    | 285 (11.22)    | 41 (1.614) | 3 (0.118) | 12 x ø 36<br>(1.417) |
| 250 (9.843) | 470 (18.5)  | 400 (15.75)    | 345 (13.58)    | 45 (1.772) | 3 (0.118) | 12 x ø 36<br>(1.417) |

Tab. 22: Maße - GOST-Flansch PN 63. Alle Distanzwerte in Millimeter (in).

## PN 100

| DN          | D           | D <sub>1</sub> | D <sub>2</sub> | b          | h         | d                 |
|-------------|-------------|----------------|----------------|------------|-----------|-------------------|
| 100 (0.984) | 135 (5.315) | 100 (3.937)    | 68 (2.677)     | 22 (0.866) | 2 (0.079) | 4 x ø 18 (0.709)  |
| 125 (1.26)  | 150 (5.906) | 110 (4.331)    | 78 (3.071)     | 22 (0.866) | 2 (0.079) | 4 x ø 22 (0.866)  |
| 150 (1.575) | 165 (6.496) | 125 (4.921)    | 88 (3.465)     | 23 (0.906) | 3 (0.118) | 4 x ø 22 (0.866)  |
| 175 (1.969) | 195 (7.677) | 145 (5.709)    | 102 (4.016)    | 25 (0.984) | 3 (0.118) | 4 x ø 26 (1.024)  |
| 200 (2.56)  | 220 (8.661) | 170 (6.693)    | 122 (4.803)    | 29 (1.142) | 3 (0.118) | 8 x ø 26 (1.024)  |
| 225 (3.15)  | 230 (9.055) | 180 (7.087)    | 133 (5.236)    | 31 (1.221) | 3 (0.118) | 8 x ø 26 (1.024)  |
| 250 (3.937) | 265 (10.43) | 210 (8.268)    | 158 (6.221)    | 35 (1.378) | 3 (0.118) | 8 x ø 30 (1.181)  |
| 275 (4.921) | 310 (12.21) | 250 (9.843)    | 184 (7.244)    | 39 (1.535) | 3 (0.118) | 8 x ø 33 (1.299)  |
| 300 (5.906) | 350 (13.78) | 290 (11.42)    | 212 (8.347)    | 43 (1.693) | 3 (0.118) | 12 x ø 33 (1.299) |
| 325 (7.874) | 430 (16.93) | 360 (14.17)    | 285 (11.22)    | 51 (2.008) | 3 (0.118) | 12 x ø 36 (1.417) |
| 350 (9.843) | 500 (19.69) | 430 (16.93)    | 345 (13.58)    | 57 (2.244) | 3 (0.118) | 12 x ø 39 (1.535) |

Tab. 23: Maße - GOST-Flansch PN 100. Alle Distanzwerte in Millimeter (in).

### 3 Druck-Temperatur-Tabellen

#### 3.1 Druck-Temperatur-Tabelle - EN-Flansche

Die Werte beziehen sich auf Flansche aus dem Werkstoff 316L.

MAH 16000251976 ML Version: RT (released / freigegeben) printed: 22.09.2017

| PN              | 16           | 25           | 40           | 63           | 100          |
|-----------------|--------------|--------------|--------------|--------------|--------------|
| RT              | 16 (232.1)   | 25 (362.6)   | 40 (580.2)   | 63 (913.7)   | 100 (1450)   |
| 50 °C (122 °F)  | 15,6 (226.3) | 24,4 (353.9) | 39,1 (567.1) | 61,1 (886.2) | 97,8 (1419)  |
| 100 °C (212 °F) | 14,2 (206)   | 22,2 (322)   | 35,6 (516.3) | 56 (812.2)   | 88,9 (1289)  |
| 150 °C (302 °F) | 12,8 (185.7) | 20 (290.1)   | 32 (464.1)   | 50,4 (731)   | 80 (1160)    |
| 200 °C (392 °F) | 11,7 (169.7) | 18,3 (265.4) | 29,3 (425)   | 46,2 (670.1) | 73,3 (1063)  |
| 250 °C (482 °F) | 10,9 (158.1) | 17 (246.6)   | 27,2 (394.5) | 42,8 (620.8) | 68 (986.3)   |
| 300 °C (572 °F) | 10,3 (149.4) | 16,1 (233.5) | 25,8 (374.2) | 40,6 (588.9) | 64,4 (934)   |
| 350 °C (662 °F) | 9,9 (143.6)  | 15,4 (223.4) | 24,7 (358.2) | 38,9 (564.2) | 61,8 (896.3) |
| 400 °C (752 °F) | 9,6 (139.2)  | 15 (217.6)   | 24 (348.1)   | 37,8 (548.2) | 60 (870.2)   |

Tab. 24: Druck-Temperatur-Tabelle - EN-Flansche. Alle Angaben in bar (psig).

Temperaturbereich -10 ... +50 °C

#### 3.2 Druck-Temperatur-Tabelle - ASME-Flansche

Die Werte beziehen sich auf Flansche aus dem Werkstoff 316L.

| Class           | 150          | 300          | 600          | 900          | 1500         | 2500         |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| RT              | 15,9 (230.6) | 41,4 (600.5) | 82,7 (1200)  | 124,1 (1800) | 206,8 (2999) | 344,7 (5000) |
| 50 °C (122 °F)  | 15,3 (221.9) | 40 (580.2)   | 80 (1160)    | 120,1 (1742) | 200,1 (2902) | 333,5 (4837) |
| 100 °C (212 °F) | 13,3 (192.9) | 34,8 (504.7) | 69,6 (1010)  | 104,4 (1514) | 173,9 (2522) | 289,9 (4205) |
| 150 °C (302 °F) | 12 (174.1)   | 31,4 (455.4) | 62,8 (910.8) | 94,2 (1366)  | 157 (2277)   | 261,6 (3794) |
| 200 °C (392 °F) | 11,2 (162.4) | 29,2 (423.5) | 58,3 (845.6) | 87,5 (1269)  | 145,8 (2115) | 243 (3524)   |
| 250 °C (482 °F) | 10,5 (152.3) | 27,5 (398.9) | 54,9 (796.3) | 82,4 (1195)  | 137,3 (1991) | 228,9 (3320) |
| 300 °C (572 °F) | 10 (145)     | 26,1 (378.6) | 52,1 (755.7) | 78,2 (1134)  | 130,3 (1890) | 217,2 (3150) |
| 325 °C (617 °F) | 9,3 (134.9)  | 25,5 (369.9) | 51 (739.7)   | 76,4 (1108)  | 127,4 (1848) | 212,3 (3079) |
| 350 °C (662 °F) | 8,4 (121.8)  | 25,1 (364.1) | 50,1 (726.6) | 75,2 (1091)  | 125,4 (1819) | 208,9 (3030) |

| Class              | 150         | 300          | 600          | 900         | 1500         | 2500         |
|--------------------|-------------|--------------|--------------|-------------|--------------|--------------|
| 75 °C<br>(107 °F)  | 7,4 (107.3) | 24,8 (359.7) | 49,5 (717.9) | 74,3 (1078) | 123,8 (1796) | 206,3 (2992) |
| 100 °C<br>(152 °F) | 6,5 (94.28) | 24,3 (352.4) | 48,6 (704.9) | 72,9 (1057) | 121,5 (1762) | 202,5 (2937) |

Tab. 25: Druck-Temperatur-Tabelle - ASME-Flansche. Alle Angaben in bar (psig).

RT Temperaturbereich -29 ... +38 °C

### 3.3 Druck-Temperatur-Tabelle - GOST-Flansche

Die Werte beziehen sich auf Flansche aus dem Werkstoff 316L.

#### PN 25

| Temperatur | 250 °C (482 °F) | 300 °C (572 °F) | 350 °C (662 °F) | 400 °C (752 °F) |
|------------|-----------------|-----------------|-----------------|-----------------|
| DN 100     | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      |
| DN 125     | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      |
| DN 150     | 25 (362.6)      | 39,4 (571.5)    | 25 (362.6)      | 25 (362.6)      |
| DN 200     | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      |
| DN 250     | 25 (362.6)      | 25 (362.6)      | 25 (362.6)      | 24,9 (361.1)    |

Tab. 26: Druck-Temperatur-Tabelle - GOST-Flansche PN 25. Alle Angaben in bar (psig).

#### PN 40

| Temperatur | 250 °C (482 °F) | 300 °C (572 °F) | 350 °C (662 °F) | 400 °C (752 °F) |
|------------|-----------------|-----------------|-----------------|-----------------|
| DN 100     | 40 (580.2)      | 40 (580.2)      | 40 (580.2)      | 39,5 (572.9)    |
| DN 125     | 40 (580.2)      | 40 (580.2)      | 39,5 (572.9)    | 38,4 (557)      |
| DN 150     | 40 (580.2)      | 39,4 (571.5)    | 37,7 (546.8)    | 36,7 (532.3)    |
| DN 200     | 40 (580.2)      | 40 (580.2)      | 40 (580.2)      | 40 (580.2)      |
| DN 250     | 39,2 (568.6)    | 37,2 (539.5)    | 35,7 (517.8)    | 34,6 (501.8)    |

Tab. 27: Druck-Temperatur-Tabelle - GOST-Flansche PN 40. Alle Angaben in bar (psig).

#### PN 63

| Temperatur | 250 °C (482 °F) | 300 °C (572 °F) | 350 °C (662 °F) | 400 °C (752 °F) |
|------------|-----------------|-----------------|-----------------|-----------------|
| DN 100     | 63 (913.7)      | 63 (913.7)      | 63 (913.7)      | 63 (913.7)      |
| DN 125     | 63 (913.7)      | 63 (913.7)      | 63 (913.7)      | 63 (913.7)      |
| DN 150     | 63 (913.7)      | 63 (913.7)      | 63 (913.7)      | 62,5 (906.5)    |
| DN 200     | 63 (913.7)      | 63 (913.7)      | 60,7 (880.4)    | 59 (855.7)      |
| DN 250     | 63 (913.7)      | 60,3 (874.6)    | 57,8 (838.3)    | 56,2 (815.1)    |

Tab. 28: Druck-Temperatur-Tabelle - GOST-Flansche PN 63. Alle Angaben in bar (psig).

**PN 100**

| Temperatur | 250 °C (482 °F) | 300 °C (572 °F) | 350 °C (662 °F) | 400 °C (752 °F) |
|------------|-----------------|-----------------|-----------------|-----------------|
| DN 100     | 100 (1450)      | 100 (1450)      | 100 (1450)      | 98 (1421)       |
| DN 125     | 100 (1450)      | 100 (1450)      | 97,8 (1419)     | 94,9 (1376)     |
| DN 150     | 99,7 (1446)     | 94,5 (1371)     | 90,6 (1314)     | 88 (1276)       |
| DN 200     | 100 (1450)      | 96,6 (1401)     | 92,6 (1343)     | 90 (1305)       |
| DN 250     | 94,3 (1368)     | 89,4 (1297)     | 85,7 (1243)     | 83,2 (1207)     |

Tab. 29: Druck-Temperatur-Tabelle - GOST-Flansche PN 100. Alle Angaben in bar (psig).

**PN 160**

| Temperatur | 100 °C (212 °F) | 150 °C (302 °F) | 200 °C (392 °F) | 250 °C (482 °F) | 300 °C (572 °F) | 350 °C (662 °F) | 400 °C (752 °F) |
|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| DN 50      | 160 (2321)      | 160 (2321)      | 153,5 (2226)    | 142,3 (2064)    | 134,9 (1957)    | 129,3 (1875)    | 125,6 (1822)    |
| DN 65      | 160 (2321)      | 160 (2321)      | 152,8 (2216)    | 141,7 (2055)    | 134,2 (1946)    | 128,7 (1867)    | 125 (1813)      |
| DN 80      | 160 (2321)      | 160 (2321)      | 154,6 (2242)    | 143,4 (2080)    | 135,9 (1971)    | 130,3 (1890)    | 125,6 (1822)    |
| DN 100     | 160 (2321)      | 146,2 (2121)    | 134,0 (1944)    | 124,3 (1803)    | 117,8 (1709)    | 112,9 (1638)    | 109,7 (1591)    |
| DN 125     | 155 (2248)      | 140,2 (2033)    | 128,5 (1864)    | 119,2 (1729)    | 112,9 (1638)    | 108,3 (1571)    | 105,1 (1524)    |
| DN 150     | 160 (2321)      | 151 (2190)      | 138,4 (2007)    | 128,3 (1861)    | 121,6 (1764)    | 116,6 (1691)    | 113,2 (1642)    |
| DN 200     | 160 (2321)      | 150,6 (2184)    | 138 (2002)      | 128 (1857)      | 121,3 (1759)    | 116,3 (1687)    | 112,9 (1638)    |
| DN 250     | 157,8 (2289)    | 142,7 (2070)    | 130,8 (1897)    | 121,3 (1759)    | 115 (1668)      | 110,2 (1598)    | 107 (1552)      |

Tab. 30: Druck-Temperatur-Tabelle - GOST-Flansche PN 160. Alle Angaben in bar (psig).

MAN 1000251976 ML Version: - Status: RL (replaced) freigegeben printed: 22.09.2017

MAN 1000251976 ML Version: - Status: RL (released | freigegeben) printed: 22.09.2017

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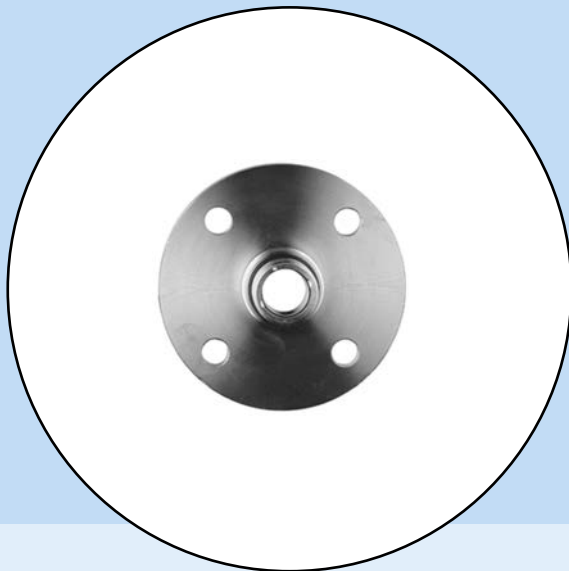
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**Technische Änderungen vorbehalten**

**33784-DE-080509**



# Notice complémentaire



**Brides selon DIN - EN -  
ASME - JIS**

Caractéristiques techniques

# 1 Description de l'appareil

## 1.1 Spécifications

Les brides décrites ici sont des brides filetées avec portée de joint et peuvent être livrées avec un taraudage de G 1 ou de G 1½.

Les indications de cette notice se rapportent à des brides en 316L. Ce matériau 316L correspond à 1.4404 ou à 1.4435.

Les brides sont disponibles dans plusieurs versions selon les standards suivants :

**DIN** - Deutsches Institut für Normung (DIN 2501) - Institut allemand de normalisation

**EN** - Norme européenne (NE 1092-1)

**ASME** - American Society of Mechanical Engineers (ANSI B 16.5)

**JIS** - Japanese Industrial Standard (B 2210-1984)

## 2 Encombrement

### 2.1 Brides DIN (DIN 2501)

revised | freigegeben) printed: 22.09.2017

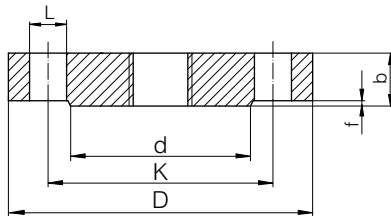


Fig. 1: Encombrement - bride DIN DIN 2501 (portée de joint DIN 2526 forme C)

L Diamètre du perçage (nombre de perçages)

d Diamètre de la portée de joint

K Diamètre de perçage des trous

D Diamètre de la bride

b Epaisseur totale de la bride

f Hauteur de la portée de joint

### PN10

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 16 | 85  | 68  | 2 | 4xø14  | 1,23 |
| 32  | 140 | 16 | 100 | 78  | 2 | 4xø18  | 1,80 |
| 40  | 150 | 16 | 110 | 88  | 3 | 4xø18  | 2,09 |
| 50  | 165 | 18 | 125 | 102 | 3 | 4xø18  | 2,88 |
| 65  | 185 | 18 | 145 | 122 | 3 | 4xø18  | 3,66 |
| 80  | 200 | 20 | 160 | 138 | 3 | 8xø18  | 4,83 |
| 100 | 220 | 20 | 180 | 158 | 3 | 8xø18  | 5,75 |
| 125 | 250 | 22 | 210 | 188 | 3 | 8xø18  | 8,59 |
| 150 | 285 | 22 | 240 | 212 | 3 | 8xø22  | 10,6 |
| 175 | 316 | 24 | 270 | 242 | 3 | 8xø22  | 14,3 |
| 200 | 340 | 24 | 295 | 268 | 3 | 8xø22  | 16,9 |
| 250 | 395 | 26 | 350 | 320 | 3 | 12xø22 | 24,7 |
| 300 | 445 | 26 | 400 | 370 | 4 | 12xø22 | 31,9 |

Fig. 2: Encombrement - Bride DIN PN 10

## PN16

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 16 | 85  | 68  | 2 | 4xø14  | 1,23 |
| 32  | 140 | 16 | 100 | 78  | 2 | 4xø18  | 1,80 |
| 40  | 150 | 16 | 110 | 88  | 3 | 4xø18  | 2,09 |
| 50  | 165 | 18 | 125 | 102 | 3 | 4xø18  | 2,88 |
| 65  | 185 | 18 | 145 | 122 | 3 | 4xø18  | 3,66 |
| 80  | 200 | 20 | 160 | 138 | 3 | 8xø18  | 4,83 |
| 100 | 220 | 20 | 180 | 158 | 3 | 8xø18  | 5,75 |
| 125 | 250 | 22 | 210 | 188 | 3 | 8xø18  | 8,59 |
| 150 | 285 | 22 | 240 | 212 | 3 | 8xø22  | 10,6 |
| 175 | 316 | 24 | 270 | 242 | 3 | 8xø22  | 14,3 |
| 200 | 340 | 24 | 295 | 268 | 3 | 12xø22 | 16,5 |
| 250 | 405 | 26 | 355 | 320 | 3 | 12xø26 | 25,6 |
| 300 | 460 | 28 | 410 | 378 | 4 | 12xø26 | 36,1 |

Fig. 3: Encombrement - Bride DIN PN 16

## PN25

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,38 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,03 |
| 40  | 150 | 18 | 100 | 88  | 3 | 4xø18  | 2,35 |
| 50  | 165 | 20 | 125 | 102 | 3 | 4xø18  | 3,20 |
| 65  | 185 | 22 | 145 | 122 | 3 | 8xø18  | 4,33 |
| 80  | 200 | 24 | 160 | 138 | 3 | 8xø18  | 5,94 |
| 100 | 235 | 24 | 190 | 162 | 3 | 8xø22  | 7,64 |
| 125 | 270 | 26 | 220 | 188 | 3 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 3 | 8xø26  | 14,7 |
| 175 | 330 | 28 | 280 | 248 | 3 | 12xø26 | 17,6 |
| 200 | 360 | 30 | 310 | 278 | 3 | 12xø26 | 22,7 |
| 250 | 425 | 32 | 370 | 335 | 3 | 16xø30 | 34,2 |
| 300 | 485 | 34 | 430 | 395 | 4 | 16xø30 | 47,3 |

Fig. 4: Encombrement - Bride DIN PN 25

**PN40**

| 22.09.20<br>printed<br>freigegeben<br>(released)<br>Status:<br>-<br>Version: | DN  | D  | b   | K   | d | f      | L    | ~kg |
|--|-----|----|-----|-----|---|--------|------|-----|
| 25   | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,38 |     |
| 32   | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,03 |     |
| 40   | 150 | 18 | 110 | 88  | 3 | 4xø18  | 2,35 |     |
| 50   | 165 | 20 | 125 | 102 | 3 | 4xø18  | 3,20 |     |
| 65   | 185 | 22 | 145 | 122 | 3 | 8xø18  | 4,33 |     |
| 80   | 200 | 24 | 160 | 138 | 3 | 8xø18  | 5,94 |     |
| 100  | 235 | 24 | 190 | 162 | 3 | 8xø22  | 7,64 |     |
| 125  | 270 | 26 | 220 | 188 | 3 | 8xø26  | 11,0 |     |
| 150  | 300 | 28 | 250 | 218 | 3 | 8xø26  | 14,7 |     |
| 175  | 350 | 32 | 295 | 260 | 3 | 12xø30 | 22,4 |     |
| 200  | 375 | 34 | 320 | 285 | 3 | 12xø30 | 27,6 |     |
| 250  | 450 | 38 | 385 | 345 | 3 | 12xø33 | 44,5 |     |
| 300  | 515 | 42 | 450 | 410 | 4 | 16xø33 | 64,3 |     |

Fig. 5: Encombremment - Bride DIN PN 40

**PN64**

| 100025<br>MAN | DN  | D  | b   | K   | d | f      | L    | ~kg |
|---------------|-----|----|-----|-----|---|--------|------|-----|
| 25            | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,65 |     |
| 32            | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,24 |     |
| 40            | 170 | 26 | 125 | 88  | 3 | 4xø22  | 4,09 |     |
| 50            | 180 | 26 | 135 | 102 | 3 | 4xø22  | 4,51 |     |
| 65            | 205 | 26 | 160 | 122 | 3 | 8xø22  | 5,71 |     |
| 80            | 215 | 28 | 170 | 138 | 3 | 8xø22  | 6,92 |     |
| 100           | 250 | 30 | 200 | 162 | 3 | 8xø26  | 10,1 |     |
| 125           | 295 | 34 | 240 | 188 | 3 | 8xø30  | 16,0 |     |
| 150           | 345 | 36 | 280 | 218 | 3 | 8xø33  | 23,5 |     |
| 175           | 375 | 40 | 310 | 260 | 3 | 12xø33 | 30,8 |     |
| 200           | 415 | 42 | 345 | 285 | 3 | 12xø36 | 39,7 |     |
| 250           | 470 | 46 | 400 | 345 | 3 | 12xø36 | 57,4 |     |
| 300           | 530 | 52 | 460 | 410 | 4 | 16xø36 | 81,0 |     |

Fig. 6: Encombremment - Bride DIN PN 64

**PN100**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,65 |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,24 |
| 40  | 170 | 26 | 125 | 88  | 3 | 4xø22  | 4,09 |
| 50  | 195 | 28 | 145 | 102 | 3 | 4xø26  | 5,84 |
| 65  | 220 | 30 | 170 | 122 | 3 | 8xø26  | 8,03 |
| 80  | 230 | 32 | 180 | 138 | 3 | 8xø26  | 9,43 |
| 100 | 265 | 36 | 210 | 162 | 3 | 8xø30  | 14,3 |
| 125 | 315 | 40 | 250 | 188 | 3 | 8xø33  | 22,6 |
| 150 | 355 | 44 | 290 | 218 | 3 | 12xø33 | 31,8 |
| 175 | 385 | 48 | 320 | 260 | 3 | 12xø33 | 41,3 |
| 200 | 430 | 52 | 360 | 285 | 3 | 12xø36 | 56,1 |
| 250 | 505 | 60 | 430 | 345 | 3 | 12xø39 | 89,6 |
| 300 | 585 | 68 | 500 | 410 | 4 | 16xø42 | 119  |

Fig. 7. Encombrement - Bride DIN PN 100

**2.2 Brides EN (EN 1092-1)**

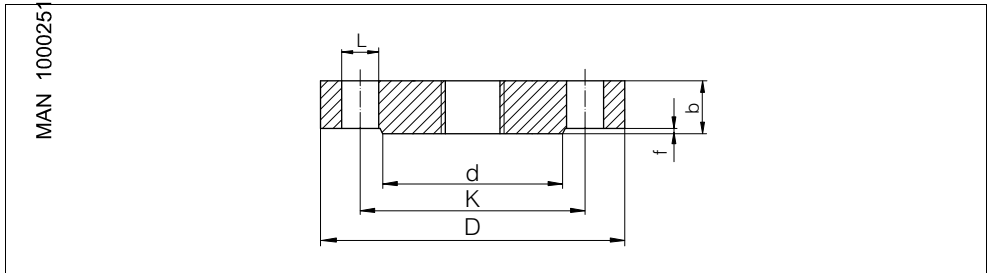


Fig. 8. Encombrement - Bride EN EN 1092-1 (portée de joint B1)

- L Diamètre du perçage (nombre de perçages)
- d Diamètre de la portée de joint
- K Diamètre de perçage des trous
- D Diamètre de la bride
- b Epaisseur totale de la bride
- f Hauteur de la portée de joint

**PN16**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 110 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 18 | 125 | 102 | 2 | 4xø18  | 2,90 |
| 65  | 185 | 18 | 145 | 122 | 2 | 8xø18  | 3,50 |
| 80  | 200 | 20 | 160 | 138 | 2 | 8xø18  | 4,50 |
| 100 | 220 | 20 | 180 | 158 | 2 | 8xø18  | 5,50 |
| 125 | 250 | 22 | 210 | 188 | 2 | 8xø18  | 8,00 |
| 150 | 285 | 22 | 240 | 212 | 2 | 8xø22  | 10,5 |
| 200 | 340 | 24 | 295 | 268 | 2 | 12xø22 | 16,5 |
| 250 | 405 | 26 | 355 | 320 | 2 | 12xø26 | 25,0 |
| 300 | 460 | 28 | 410 | 378 | 2 | 12xø26 | 35,0 |

Fig. 9: Encombremment - Bride EN PN 16

**PN25**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 100 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 20 | 125 | 102 | 2 | 4xø18  | 3,00 |
| 65  | 185 | 22 | 145 | 122 | 2 | 8xø18  | 4,50 |
| 80  | 200 | 24 | 160 | 138 | 2 | 8xø18  | 5,50 |
| 100 | 235 | 24 | 190 | 162 | 2 | 8xø22  | 7,50 |
| 125 | 270 | 26 | 220 | 188 | 2 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 2 | 8xø26  | 14,5 |
| 200 | 360 | 30 | 310 | 278 | 2 | 12xø26 | 22,5 |
| 250 | 425 | 32 | 370 | 335 | 2 | 12xø30 | 33,5 |
| 300 | 485 | 34 | 430 | 395 | 2 | 16xø30 | 46,5 |

Fig. 10: Encombremment - Bride EN PN 25

**PN40**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 115 | 18 | 85  | 68  | 2 | 4xø14  | 1,50 |
| 32  | 140 | 18 | 100 | 78  | 2 | 4xø18  | 2,00 |
| 40  | 150 | 18 | 110 | 88  | 2 | 4xø18  | 2,50 |
| 50  | 165 | 20 | 125 | 102 | 2 | 4xø18  | 3,00 |
| 65  | 185 | 22 | 145 | 122 | 2 | 8xø18  | 4,50 |
| 80  | 200 | 24 | 160 | 138 | 2 | 8xø18  | 5,50 |
| 100 | 235 | 24 | 190 | 162 | 2 | 8xø22  | 7,50 |
| 125 | 270 | 26 | 220 | 188 | 2 | 8xø26  | 11,0 |
| 150 | 300 | 28 | 250 | 218 | 2 | 8xø26  | 14,5 |
| 200 | 375 | 36 | 320 | 285 | 2 | 12xø30 | 29,0 |
| 250 | 450 | 38 | 385 | 345 | 2 | 12xø33 | 44,5 |
| 300 | 515 | 42 | 450 | 410 | 2 | 16xø33 | 64,0 |

Fig. 11: Encombrement - Bride EN PN 40

**PN63**

| DN  | D   | b  | K   | d   | f | L      | ~kg  |
|-----|-----|----|-----|-----|---|--------|------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,50 |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,50 |
| 40  | 170 | 26 | 125 | 88  | 2 | 4xø22  | 4,50 |
| 50  | 180 | 26 | 135 | 102 | 2 | 4xø22  | 5,00 |
| 65  | 205 | 26 | 160 | 122 | 2 | 8xø22  | 6,00 |
| 80  | 215 | 28 | 170 | 138 | 2 | 8xø22  | 7,50 |
| 100 | 250 | 30 | 200 | 162 | 2 | 8xø26  | 10,5 |
| 125 | 295 | 34 | 240 | 188 | 2 | 8xø30  | 16,5 |
| 150 | 345 | 36 | 280 | 218 | 2 | 8xø33  | 24,5 |
| 200 | 415 | 42 | 345 | 285 | 2 | 12xø36 | 40,5 |
| 250 | 470 | 46 | 400 | 345 | 2 | 12xø36 | 58,0 |
| 300 | 530 | 52 | 460 | 410 | 2 | 16xø36 | 83,5 |

Fig. 12: Encombrement - Bride EN PN 63



**PN100**

| DN  | D   | b  | K   | d   | f | L      | ~kg   |
|-----|-----|----|-----|-----|---|--------|-------|
| 25  | 140 | 24 | 100 | 68  | 2 | 4xø18  | 2,50  |
| 32  | 155 | 24 | 110 | 78  | 2 | 4xø22  | 3,50  |
| 40  | 170 | 26 | 125 | 88  | 2 | 4xø22  | 4,50  |
| 50  | 195 | 28 | 145 | 102 | 2 | 4xø26  | 6,00  |
| 65  | 220 | 30 | 170 | 122 | 2 | 8xø26  | 8,00  |
| 80  | 230 | 32 | 180 | 138 | 2 | 8xø26  | 9,50  |
| 100 | 265 | 36 | 210 | 162 | 2 | 8xø30  | 14,0  |
| 125 | 315 | 40 | 250 | 188 | 2 | 8xø33  | 22,5  |
| 150 | 355 | 44 | 290 | 218 | 2 | 12xø33 | 30,5  |
| 200 | 430 | 52 | 360 | 285 | 2 | 12xø36 | 54,5  |
| 250 | 505 | 60 | 430 | 345 | 2 | 12xø39 | 87,5  |
| 300 | 585 | 68 | 500 | 410 | 2 | 16xø42 | 131,5 |

Fig. 13: Encombremment - Bride EN PN 100

**2.3 Brides ASME (ASME B 16.5)**

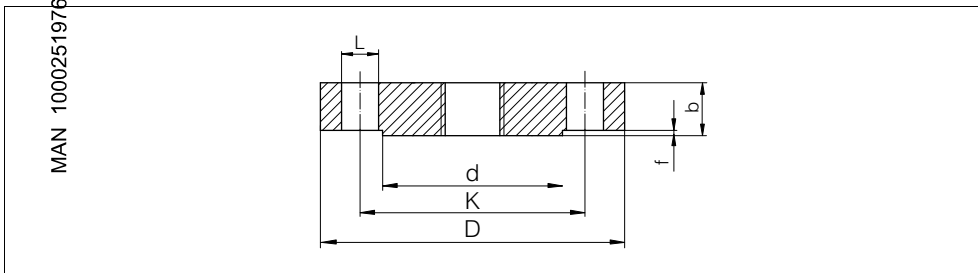


Fig. 14: Encombremment - Bride ASME B 16.5 (portée de joint RF)

L Diamètre du perçage (nombre de perçages)

d Diamètre de la portée de joint

K Diamètre de perçage des trous

D Diamètre de la bride

b Epaisseur totale de la bride

f Hauteur de la portée de joint 150 lb/300 lb : 1,6 mm (0.06 in) ou à partir de 600 lb : 6,4 mm (0.25 in)

**Class 150**

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 108,0 | 14,2 | 50,8  | 79,2  | 4xø15,7  | 0,86 |
| 1¼" | 117,3 | 15,7 | 63,5  | 88,9  | 4xø15,7  | 1,17 |
| 1½" | 127,0 | 17,5 | 73,2  | 98,6  | 4xø15,7  | 1,53 |
| 2"  | 152,4 | 19,1 | 91,9  | 120,7 | 4xø19,1  | 2,42 |
| 2½" | 177,8 | 22,4 | 104,6 | 139,7 | 4xø19,1  | 3,94 |
| 3"  | 190,5 | 23,9 | 127,0 | 152,4 | 4xø19,1  | 4,93 |
| 3½" | 215,9 | 23,9 | 139,7 | 177,8 | 8xø19,1  | 6,17 |
| 4"  | 228,6 | 23,9 | 157,2 | 190,5 | 8xø19,1  | 7,00 |
| 5"  | 254,0 | 23,9 | 185,7 | 215,9 | 8xø22,4  | 8,63 |
| 6"  | 279,4 | 25,4 | 215,9 | 241,3 | 8xø22,4  | 11,3 |
| 8"  | 342,9 | 28,4 | 269,7 | 298,5 | 8xø22,4  | 19,6 |
| 10" | 406,4 | 30,2 | 323,8 | 362,0 | 12xø25,4 | 28,8 |

Fig. 15: Encombremment - Bride ASME Class 150

**Class 300**

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 124,0 | 17,5 | 50,8  | 88,9  | 4xø19,1  | 1,39 |
| 1¼" | 133,4 | 19,1 | 63,5  | 98,6  | 4xø19,1  | 1,79 |
| 1½" | 155,4 | 20,6 | 73,2  | 114,3 | 4xø22,4  | 2,66 |
| 2"  | 165,1 | 22,4 | 91,9  | 127,0 | 8xø19,1  | 3,18 |
| 2½" | 190,5 | 25,4 | 104,6 | 149,4 | 8xø22,4  | 4,85 |
| 3"  | 209,5 | 28,4 | 127,0 | 168,1 | 8xø22,4  | 6,81 |
| 3½" | 228,6 | 30,2 | 139,7 | 184,2 | 8xø22,4  | 8,71 |
| 4"  | 254,0 | 31,8 | 157,2 | 200,2 | 8xø22,4  | 11,5 |
| 5"  | 279,4 | 35,1 | 185,7 | 235,0 | 8xø22,4  | 15,6 |
| 6"  | 317,5 | 36,6 | 215,9 | 269,7 | 12xø22,4 | 20,9 |
| 8"  | 381,0 | 41,1 | 269,7 | 330,2 | 12xø25,4 | 34,3 |
| 10" | 444,5 | 47,8 | 323,8 | 387,4 | 16xø28,4 | 53,3 |

Fig. 16: Encombremment - Bride ASME Class 300

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**Class 600**

| DN  | D     | b    | d     | K     | L        | ~kg  |
|-----|-------|------|-------|-------|----------|------|
| 1"  | 124,0 | 17,5 | 50,8  | 88,9  | 4xø19,1  | 1,60 |
| 1¼" | 133,4 | 20,6 | 63,5  | 98,6  | 4xø19,1  | 2,23 |
| 1½" | 155,4 | 22,4 | 73,2  | 114,3 | 4xø22,4  | 3,25 |
| 2"  | 165,1 | 25,4 | 91,9  | 127,0 | 8xø19,1  | 4,15 |
| 2½" | 190,5 | 28,4 | 104,6 | 149,4 | 8xø22,4  | 6,13 |
| 3"  | 209,6 | 31,8 | 127,0 | 168,1 | 8xø22,4  | 8,44 |
| 3½" | 228,6 | 35,1 | 139,7 | 184,2 | 8xø25,4  | 11,0 |
| 4"  | 273,1 | 38,1 | 157,2 | 215,9 | 8xø25,4  | 17,3 |
| 5"  | 330,2 | 44,5 | 185,7 | 266,7 | 8xø28,4  | 29,4 |
| 6"  | 355,6 | 47,8 | 215,9 | 292,1 | 12xø28,4 | 36,1 |
| 8"  | 419,1 | 55,6 | 269,7 | 349,3 | 12xø31,8 | 58,9 |
| 10" | 508,0 | 63,5 | 323,8 | 431,8 | 16xø35,1 | 97,5 |

Fig. 17: Encombremment - Bride ASME Class 600

**Class 900**

| DN  | D     | b    | d     | K     | L        | ~kg   |
|-----|-------|------|-------|-------|----------|-------|
| 1"  | 149,4 | 28,4 | 50,8  | 101,6 | 4xø25,4  | 3,57  |
| 1¼" | 158,8 | 28,4 | 63,5  | 111,3 | 4xø25,4  | 4,14  |
| 1½" | 177,8 | 31,8 | 73,2  | 124,0 | 4xø28,4  | 5,75  |
| 2"  | 215,9 | 38,1 | 91,9  | 165,1 | 8xø25,4  | 10,1  |
| 2½" | 244,4 | 41,1 | 104,6 | 190,5 | 8xø28,4  | 14,0  |
| 3"  | 241,3 | 38,1 | 127,0 | 190,5 | 8xø25,4  | 13,1  |
| 4"  | 292,1 | 44,5 | 157,2 | 235,0 | 8xø31,8  | 26,9  |
| 5"  | 349,3 | 50,8 | 185,7 | 279,4 | 8xø35,1  | 36,5  |
| 6"  | 381,0 | 55,6 | 215,9 | 317,5 | 12xø31,8 | 47,4  |
| 8"  | 469,9 | 63,5 | 269,7 | 393,7 | 12xø38,1 | 82,5  |
| 10" | 546,1 | 69,9 | 323,8 | 469,9 | 16xø38,1 | 122,0 |

Fig. 18: Encombremment - Bride ASME Class 900

### Class 1500

| DN  | D     | b     | d     | K     | L        | ~kg   |
|-----|-------|-------|-------|-------|----------|-------|
| 1"  | 149,4 | 28,4  | 50,8  | 101,6 | 4xø25,4  | 3,57  |
| 1¼" | 158,8 | 28,4  | 63,5  | 111,3 | 4xø25,4  | 4,14  |
| 1½" | 177,8 | 31,8  | 73,2  | 124,0 | 4xø28,4  | 5,75  |
| 2"  | 215,9 | 38,1  | 91,9  | 165,1 | 8xø25,4  | 10,1  |
| 2½" | 244,4 | 41,1  | 104,6 | 190,5 | 8xø28,4  | 14,0  |
| 3"  | 266,7 | 47,8  | 127,0 | 203,2 | 8xø31,8  | 19,1  |
| 4"  | 311,2 | 53,8  | 157,2 | 241,3 | 8xø35,1  | 29,9  |
| 5"  | 374,7 | 73,2  | 185,7 | 292,1 | 8xø41,1  | 58,4  |
| 6"  | 393,7 | 82,6  | 215,9 | 317,5 | 12xø38,1 | 71,8  |
| 8"  | 482,6 | 91,9  | 269,7 | 393,7 | 12xø44,5 | 122,0 |
| 10" | 584,2 | 108,0 | 323,8 | 482,6 | 12xø50,8 | 210,0 |

Fig. 19: Encombremment - Bride ASME Class 1500

### Class 2500

| DN  | D     | b     | d     | K     | L        | ~kg   |
|-----|-------|-------|-------|-------|----------|-------|
| 1"  | 158,8 | 35,1  | 50,8  | 108,0 | 4xø25,4  | 4,96  |
| 1¼" | 184,2 | 38,1  | 63,5  | 130,0 | 4xø28,4  | 7,35  |
| 1½" | 203,2 | 44,5  | 73,2  | 146,1 | 4xø31,8  | 10,4  |
| 2"  | 235,0 | 50,8  | 91,9  | 171,5 | 8xø28,4  | 15,6  |
| 2½" | 266,7 | 57,2  | 104,6 | 196,9 | 8xø31,8  | 22,6  |
| 3"  | 304,8 | 66,5  | 127,0 | 228,6 | 8xø35,1  | 34,8  |
| 4"  | 355,6 | 76,2  | 157,2 | 273,1 | 8xø41,1  | 53,9  |
| 5"  | 419,1 | 91,9  | 185,7 | 323,8 | 8xø47,8  | 90,8  |
| 6"  | 482,6 | 108,0 | 215,9 | 368,3 | 8xø53,8  | 141,0 |
| 8"  | 552,5 | 127,0 | 269,7 | 438,2 | 12xø53,8 | 214,0 |
| 10" | 673,1 | 165,1 | 323,8 | 539,8 | 12xø66,5 | 411,0 |

Fig. 20: Encombremment - Bride ASME Class 2500

### 2.4 Brides JIS (B 2210-1984)

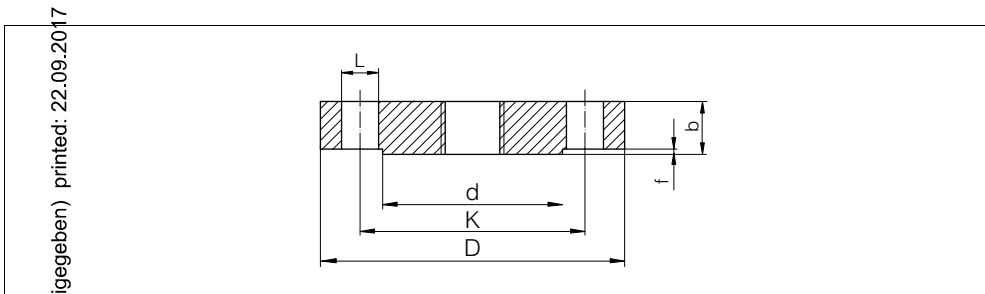


Fig. 21: Encombrement - Bride JIS (Regular Flange)

- $L$  Hauteur du perçage (nombre de perçages)
- $D$  Diamètre de la bride
- $d$  Diamètre de la portée de joint
- $K$  Diamètre de perçage des trous
- $D$  Diamètre de la bride
- $b$  Epaisseur totale de la bride
- $f$  Hauteur de la portée de joint

#### 10 K

| MAN     | 1000 | 25  | 32  | 40 | 50  | 65  | 80 | 100    | 125 | 150 | 200 | 250 | 300 |
|---------|------|-----|-----|----|-----|-----|----|--------|-----|-----|-----|-----|-----|
| Version | ML   | DN  | D   | b  | K   | d   | f  | L      |     |     |     |     |     |
|         |      | 25  | 125 | 14 | 90  | 67  | 1  | 4xø19  |     |     |     |     |     |
|         |      | 32  | 135 | 16 | 100 | 76  | 2  | 4xø19  |     |     |     |     |     |
|         |      | 40  | 140 | 16 | 105 | 81  | 2  | 4xø19  |     |     |     |     |     |
|         |      | 50  | 155 | 16 | 120 | 96  | 2  | 4xø19  |     |     |     |     |     |
|         |      | 65  | 175 | 18 | 140 | 116 | 2  | 4xø19  |     |     |     |     |     |
|         |      | 80  | 185 | 18 | 150 | 126 | 2  | 8xø19  |     |     |     |     |     |
|         |      | 100 | 210 | 18 | 175 | 151 | 2  | 8xø19  |     |     |     |     |     |
|         |      | 125 | 250 | 20 | 210 | 182 | 2  | 8xø23  |     |     |     |     |     |
|         |      | 150 | 280 | 22 | 240 | 212 | 2  | 8xø23  |     |     |     |     |     |
|         |      | 200 | 330 | 22 | 290 | 262 | 2  | 12xø23 |     |     |     |     |     |
|         |      | 250 | 400 | 24 | 355 | 324 | 2  | 12xø25 |     |     |     |     |     |
|         |      | 300 | 445 | 24 | 400 | 368 | 3  | 16xø25 |     |     |     |     |     |

Fig. 22: Encombrement - Bride JIS 10 K (B 2210 - 1984) Regular Flange

### 3 Tableaux de pression et de température

#### 3.1 Tableau de pression et de température - brides EN

Les valeurs se rapportent à des brides en matériau 316L.

| PN    | 16   | 25   | 40   | 63   | 100   |
|-------|------|------|------|------|-------|
| RT    | 16,0 | 25,0 | 40,0 | 63,0 | 100,0 |
| 50°C  | 15,6 | 24,4 | 39,1 | 61,1 | 97,8  |
| 100°C | 14,2 | 22,2 | 35,6 | 56,0 | 88,9  |
| 150°C | 12,8 | 20,0 | 32,0 | 50,4 | 80,0  |
| 200°C | 11,7 | 18,3 | 29,3 | 46,2 | 73,3  |
| 250°C | 10,9 | 17,0 | 27,2 | 42,8 | 68,0  |
| 300°C | 10,3 | 16,1 | 25,8 | 40,6 | 64,4  |
| 350°C | 9,90 | 15,4 | 24,7 | 38,9 | 61,8  |
| 400°C | 9,60 | 15,0 | 24,0 | 37,8 | 60,0  |

Fig. 23: Tableau de pression et de température - brides EN (indications en bar)

RT Plage de température -10 ... +50°C

#### 3.2 Tableau de pression et de température - brides ASME

Les valeurs se rapportent à des brides en matériau 316L.

| Class | 150  | 300  | 600  | 900   | 1500  | 2500  |
|-------|------|------|------|-------|-------|-------|
| RT    | 15,9 | 41,4 | 82,7 | 124,1 | 206,8 | 344,7 |
| 50°C  | 15,3 | 40,0 | 80,0 | 120,1 | 200,1 | 333,5 |
| 100°C | 13,3 | 34,8 | 69,6 | 104,4 | 173,9 | 289,9 |
| 150°C | 12,0 | 31,4 | 62,8 | 94,2  | 157,0 | 261,6 |
| 200°C | 11,2 | 29,2 | 58,3 | 87,5  | 145,8 | 243,0 |
| 250°C | 10,5 | 27,5 | 54,9 | 82,4  | 137,3 | 228,9 |
| 300°C | 10,0 | 26,1 | 52,1 | 78,2  | 130,3 | 217,2 |
| 325°C | 9,30 | 25,5 | 51,0 | 76,4  | 127,4 | 212,3 |
| 350°C | 8,40 | 25,1 | 50,1 | 75,2  | 125,4 | 208,9 |
| 375°C | 7,40 | 24,8 | 49,5 | 74,3  | 123,8 | 206,3 |
| 400°C | 6,50 | 24,3 | 48,6 | 72,9  | 121,5 | 202,5 |

Fig. 24 Tableau de pression et de température - brides ASME (indications en bar)  
 RT Plage de température -29 ... +38°C

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