

Ek kılavuz

DIN - EN - ASME - JIS - GOST geređince flanşlar

Teknik özellikler



Document ID: 31088



VEGA

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1 Ürün tanımı

1.1 Yönergeler

Tanımlanan flanşlar sızdırmazlık şeritli dişli flanşlardır ve G1 veya G1½ ile iç dişliler (ISO 228 T1) beraber verilebilir.

Bu ek kullanım kılavuzundaki bilgiler 316/316L maddesinden yapılmış flanşlarla ilgilidir. 316 maddesi 1.4401'e, 316L maddesi ise 1.4404'e tekabül etmektedir. Diğer maddeler talep üzerine.

Tüm uzaklık değerleri milimetre cinsinde.

Flanşlar şu standartlarda farklı modellerde mevcuttur:

DIN: Alman Standartlaştırma Enstitüsü (DIN 2501)

EN: Avrupa Normu (EN 1092-1)

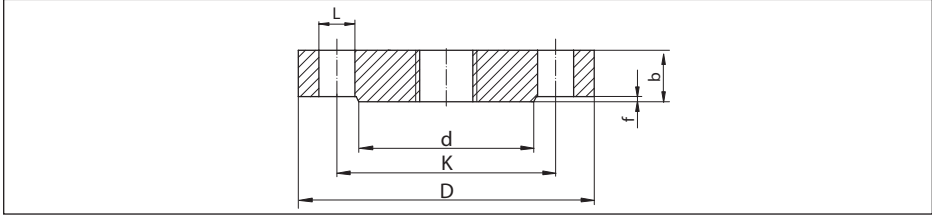
ASME: American Society of Mechanical Engineers (ASME B 16.5)

JIS: Japanese Industrial Standard (B 2210-1984)

GOST: Teknik Mevzuat ve Metroloji Federal Acentası - Rusya (12821-80)

2 Ebatlar

2.1 DIN flanşları (DIN 2501)



Res. 1: Ebatlar: DIN flanşı DIN 2501 (Sızdırmazlık şeridi DIN 2526 C Formu)

- L Delik çapı (Delik sayısı)
d Sızdırmazlık şeridinin çapı
K Cıvata halkası çapı
D Flanş çapı
b Flanşların toplam kalınlığı
f Sızdırmazlık şeridinin yüksekliği

PN 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) |
| 250 (9.843) | 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) |
| 300 (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: Ebatlar: DIN flanşı PN 10. Tüm uzaklık değerleri milimetre cinsinde (in).

PN 16

| 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) |
| 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 (2.559) | 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: Ebatlar: DIN flanşı PN 16. Tüm uzaklık değerleri milimetre cinsinde (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) |
| 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) | 110 (4.331) | 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) |

| DN | D | b | K | d | f | L | ~ kg |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 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: Ebatlar: DIN flanşı PN 25. Tüm uzaklık değerleri milimetre cinsinde (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 (5.101) |
| 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 (2.560) | 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) |
| 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. 4: Ebatlar: DIN flanşı PN 40. Tüm uzaklık değerleri milimetre cinsinde (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: Ebatlar: DIN flanşı PN 64. Tüm uzaklık değerleri milimetre cinsinde (in).

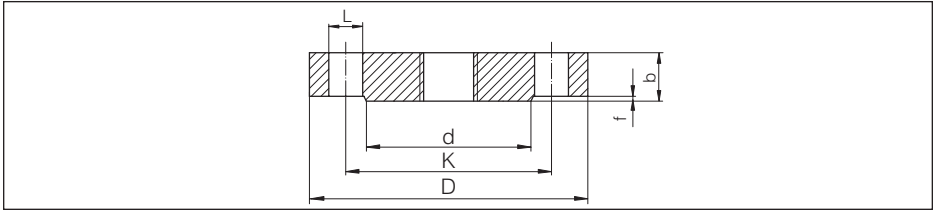
PN 100

| 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) |

| DN | D | b | K | d | f | L | ~ kg |
|-------------|-------------|------------|-------------|-------------|-----------|----------------------|--------------|
| 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: Ebatlar: DIN flanşı PN 100. Tüm uzaklık değerleri milimetre cinsinde (in).

2.2 EN flanşları (EN 1092-1)



Res. 2: Ebatlar: EN flanşı EN 1092-1 (Sızdırmazlık şeridi B1)

- L Delik çapı (Delik sayısı)
d Sızdırmazlık şeridinin çapı
K Cıvata halkası çapı
D Flanş çapı
b Flanşların toplam kalınlığı
f Sızdırmazlık şeridinin yüksekliği

PN 16

| 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 (1.26) | 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 (5.512) |
| 50 (1.969) | 165 (6.496) | 18 (0.709) | 125 (4.921) | 102 (4.016) | 2 (0.079) | 4 x ø 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 ø 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 ø 18 (0.709) | 4,5 (9.921) |

| DN | D | b | K | d | f | L | ~ kg |
|-------------|-------------|------------|-------------|-------------|-----------|-------------------|--------------|
| 100 (3.937) | 220 (8.661) | 20 (0.787) | 180 (7.087) | 158 (6.221) | 2 (0.079) | 8 x ø 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 ø 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 ø 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 ø 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 ø 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 ø 26 (1.024) | 35 (77.16) |

Tab. 7: Ebatlar :EN flanşı PN 16. Tüm uzaklık değerleri milimetre cinsinde (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: Ebatlar: EN flanşı PN 25. Tüm uzaklık değerleri milimetre cinsinde (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) | 3 (0.118) | 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) | 3 (0.118) | 4 x ø 18 (0.709) | 3 (6.614) |
| 65 (2.559) | 185 (7.283) | 22 (0.866) | 145 (5.709) | 122 (4.803) | 3 (0.118) | 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) | 3 (0.118) | 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) | 3 (0.118) | 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) | 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) | 14,5 (31.97) |
| 200 (7.874) | 375 (14.76) | 36 (1.417) | 320 (12.6) | 285 (11.22) | 3 (0.118) | 12 x ø 30 (1.181) | 29 (63.93) |
| 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 (141.1) |

Tab. 9: Ebatlar: EN flanşı PN 40. Tüm uzaklık değerleri milimetre cinsinde (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) |
| 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) | 180 (7.087) | 26 (1.024) | 135 (5.315) | 102 (4.016) | 2 (0.079) | 4 x ø 22 (0.866) | 5 (11.02) |
| 65 (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) |

| DN | D | b | K | d | f | L | ~ kg |
|-------------|-------------|------------|-------------|-------------|-----------|----------------------|--------------|
| 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) |

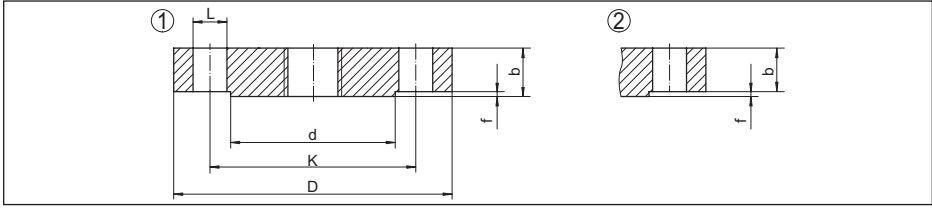
Tab. 10: Ebatlar: EN flanşı PN 63. Tüm uzaklık değerleri milimetre cinsinde (in).

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: Ebatlar: EN flanşı PN 100. Tüm uzaklık değerleri milimetre cinsinde (in).

2.3 ASME flanşları (ASME B 16.5)



Res. 3: Ebatlar: ASME flanşı B 16.5 (Sızdırmazlık şeridi RF)

1 Class 400'e kadar ölçüm

2 Class 400'den itibaren ölçüm

L Delik çapı (Delik sayısı)

d Sızdırmazlık şeridinin çapı

K Cıvata halkası çapı

D Flanş çapı

b Flanşların toplam kalınlığı

f Sızdırmazlık şeridi yüksekliği 150 lb/300 lb: 1,6 mm (0.06 in) veya 600 lb üzeri: 6,4 mm (0.25 in)

Class 150

| DN | D | b | d | K | L | ~ kg |
|-----|---------------|--------------|---------------|---------------|--------------------|--------------|
| 1" | 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) |
| 1¼" | 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) |
| 1½" | 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) |
| 2" | 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) |
| 2½" | 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) |
| 3" | 190,5 (7.5) | 23,9 (0.941) | 127 (5) | 152,4 (6) | 4 x ø 19,1 (0.752) | 4,93 (10.87) |
| 3½" | 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) |
| 4" | 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) |
| 5" | 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) |
| 6" | 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) |
| 8" | 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) |
| 10" | 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: Ebatlar: ASME flanşı Class 150. Tüm uzaklık değerleri milimetre cinsinde (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: Ebatlar: ASME flanşı Class 300. Tüm uzaklık değerleri milimetre cinsinde (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) |
| 4" | 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) |
| 5" | 330,2 (13) | 44,5 (1.752) | 185,7 (7.311) | 266,7 (10.5) | 8 x ø 28,4 (1.118) | 29,4 (64.82) |

| DN | D | b | d | K | L | ~ kg |
|-----|--------------|--------------|---------------|---------------|---------------------|--------------|
| 6" | 355,6 (14) | 47,8 (1.882) | 215,9 (8.5) | 292,1 (11.5) | 12 x ø 28,4 (1.118) | 36,1 (79.59) |
| 8" | 419,1 (16.5) | 55,6 (2.189) | 269,7 (10.62) | 349,3 (13.75) | 12 x ø 31,8 (1.252) | 58,9 (129.9) |
| 10" | 508 (20) | 63,5 (2.5) | 323,8 (12.75) | 431,8 (17) | 16 x ø 35,1 (1.382) | 97,5 (215) |

Tab. 14: Ebatlar: ASME flanşı Class 600. Tüm uzaklık değerleri milimetre cinsinde (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 (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 (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) |
| 4" | 292,1 (11.5) | 44,5 (1.752) | 157,2 (6.189) | 235 (9.252) | 8 x ø 31,8 (1.252) | 26,9 (59.3) |
| 5" | 349,3 (13.75) | 50,8 (2) | 185,7 (7.311) | 279,4 (11) | 8 x ø 35,1 (1.382) | 36,5 (80.47) |
| 6" | 381 (15) | 55,6 (2.189) | 215,9 (8.5) | 317,5 (12.5) | 12 x ø 31,8 (1.252) | 47,4 (104.5) |
| 8" | 469,9 (18.5) | 63,5 (2.5) | 269,7 (10.62) | 393,7 (15.5) | 12 x ø 38,1 (1.5) | 82,5 (181.9) |
| 10" | 546,1 (21.5) | 69,9 (2.752) | 323,8 (12.75) | 469,9 (18.5) | 16 x ø 38,1 (1.5) | 122 (269) |

Tab. 15: Ebatlar: ASME flanşı Class 900. Tüm uzaklık değerleri milimetre cinsinde (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 (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 (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 (6.189) | 241,3 (9.5) | 8 x ø 35,1 (1.382) | 29,9 (65.92) |

| DN | D | b | d | K | L | ~ kg |
|-----|---------------|--------------|---------------|--------------|------------------------|--------------|
| 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) |

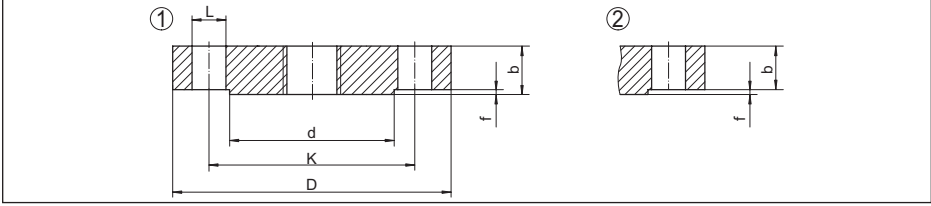
Tab. 16: Ebatlar: ASME flanşı Class 1500. Tüm uzaklık değerleri milimetre cinsinde (in).

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 (49.82) |
| 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 (6.189) | 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: Ebatlar: ASME flanşı Class 2500. Tüm uzaklık değerleri milimetre cinsinde (in).

2.4 JIS flanşları (B 2210-1984)



Res. 4: Ebatlar: JIS flanşı (Regular Flange)

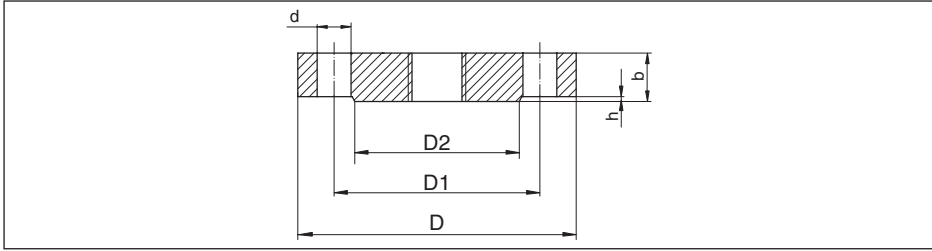
- L Delik çapı (Delik sayısı)
 d Sızdırmazlık şeridinin çapı
 K Cıvata halkası çapı
 D Flanş çapı
 b Flanşların toplam kalınlığı
 f Sızdırmazlık şeridinin yüksekliği

10 K

| 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 ø 19 (0.748) |
| 32 (1.26) | 135 (5.315) | 16 (0.63) | 100 (3.937) | 76 (2.992) | 2 (0.079) | 4 x ø 19 (0.748) |
| 40 (1.575) | 140 (5.512) | 16 (0.63) | 105 (4.134) | 81 (3.189) | 2 (0.079) | 4 x ø 19 (0.748) |
| 50 (1.969) | 155 (6.102) | 16 (0.63) | 120 (4.724) | 96 (3.78) | 2 (0.079) | 4 x ø 19 (0.748) |
| 65 (2.56) | 175 (6.89) | 18 (0.709) | 140 (5.512) | 116 (4.567) | 2 (0.079) | 4 x ø 19 (0.748) |
| 80 (3.15) | 185 (7.284) | 18 (0.709) | 150 (5.906) | 126 (4.961) | 2 (0.079) | 8 x ø 19 (0.748) |
| 100 (3.937) | 210 (8.268) | 18 (0.709) | 175 (6.9) | 151 (5.945) | 2 (0.079) | 8 x ø 19 (0.748) |
| 125 (4.921) | 250 (9.843) | 20 (0.787) | 210 (8.268) | 182 (7.165) | 2 (0.079) | 8 x ø 23 (0.906) |
| 150 (5.906) | 280 (11.02) | 22 (0.866) | 240 (9.449) | 212 (8.347) | 2 (0.079) | 8 x ø 23 (0.906) |
| 200 (7.874) | 330 (12.99) | 22 (0.866) | 290 (11.42) | 262 (10.32) | 2 (0.079) | 12 x ø 23 (0.906) |
| 250 (9.843) | 400 (15.75) | 24 (0.945) | 355 (13.98) | 324 (12.76) | 2 (0.079) | 12 x ø 25 (0.984) |
| 300 (11.81) | 445 (17.52) | 24 (0.945) | 400 (15.75) | 368 (14.49) | 3 (0.118) | 16 x ø 25 (0.984) |

Tab. 18: Ebatlar: JIS flanşı 10 K (B 2210-1984) Regular Flange. Tüm uzaklık değerleri milimetre cinsinde (in).

2.5 GOST flanşları (GOST 12815-80)



Res. 5: Ebatlar: GOST flanşı (GOST 12815-80, Modification 1)

- d* Delik çapı (Delik sayısı)
D2 Sızdırmazlık şeridinin çapı
D1 Cıvata halkası çapı
D Flanş çapı
b Flanşların toplam kalınlığı
h Sızdırmazlık şeridinin yüksekliği

PN 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 ø 14 (0.551) |
| 32 (1.26) | 135 (5.315) | 100 (3.937) | 78 (3.071) | 13 (0.512) | 2 (0.079) | 4 x ø 18 (0.709) |
| 40 (1.575) | 145 (5.709) | 110 (4.331) | 88 (3.465) | 13 (0.512) | 3 (0.118) | 4 x ø 18 (0.709) |
| 50 (1.969) | 160 (6.299) | 125 (4.921) | 102 (4.016) | 13 (0.512) | 3 (0.118) | 4 x ø 18 (0.709) |
| 65 (2.56) | 180 (7.087) | 145 (5.709) | 122 (4.803) | 15 (0.591) | 3 (0.118) | 4 x ø 18 (0.709) |
| 80 (3.15) | 195 (7.677) | 160 (6.299) | 133 (5.236) | 17 (0.669) | 3 (0.118) | 8 x ø 18 (0.709) |
| 100 (3.937) | 215 (8.465) | 180 (7.087) | 158 (6.221) | 17 (0.669) | 3 (0.118) | 8 x ø 18 (0.709) |
| 125 (4.921) | 245 (9.646) | 210 (8.268) | 184 (7.244) | 19 (0.748) | 3 (0.118) | 8 x ø 18 (0.709) |
| 150 (5.906) | 280 (11.02) | 240 (9.449) | 212 (8.347) | 19 (0.748) | 3 (0.118) | 8 x ø 22 (0.866) |
| 200 (7.874) | 335 (13.19) | 295 (11.61) | 268 (10.55) | 21 (0.827) | 3 (0.118) | 12 x ø 22 (0.866) |
| 250 (9.843) | 405 (15.95) | 355 (13.98) | 320 (12.6) | 23 (0.906) | 3 (0.118) | 12 x ø 26 (1.024) |

Tab. 19: Ebatlar: GOST flanşı PN 16. Tüm uzaklık değerleri milimetre cinsinde (in).

PN 25

| DN | D | D1 | D2 | 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 (0.551) |
| 32 (1.26) | 135 (5.315) | 100 (3.937) | 78 (3.071) | 16 (0.63) | 2 (0.079) | 4 x ø 18 (0.709) |
| 40 (1.575) | 145 (5.709) | 110 (4.331) | 88 (3.465) | 16 (0.63) | 3 (0.118) | 4 x ø 18 (0.709) |
| 50 (1.969) | 160 (6.299) | 125 (4.921) | 102 (4.016) | 17 (0.669) | 3 (0.118) | 4 x ø 18 (0.709) |
| 65 (2.559) | 180 (7.087) | 145 (5.709) | 122 (4.803) | 19 (0.748) | 3 (0.118) | 8 x ø 18 (0.709) |
| 80 (3.15) | 195 (7.677) | 160 (6.299) | 133 (5.236) | 19 (0.748) | 3 (0.118) | 8 x ø 18 (0.709) |
| 100 (3.937) | 230 (9.055) | 190 (7.48) | 158 (6.221) | 21 (0.827) | 3 (0.118) | 8 x ø 22 (0.866) |
| 125 (4.921) | 270 (10.63) | 220 (8.661) | 184 (7.244) | 23 (0.906) | 3 (0.118) | 8 x ø 26 (1.024) |
| 150 (5.906) | 300 (11.81) | 250 (9.843) | 212 (8.347) | 25 (0.984) | 3 (0.118) | 8 x ø 26 (1.024) |
| 200 (7.874) | 360 (14.17) | 310 (12.21) | 278 (10.95) | 27 (1.063) | 3 (0.118) | 12 x ø 26 (1.024) |
| 250 (9.843) | 425 (16.73) | 370 (14.57) | 335 (13.19) | 29 (1.142) | 3 (0.118) | 12 x ø 30 (1.181) |

Tab. 20: Ebatlar: GOST flanşı PN 25. Tüm uzaklık değerleri milimetre cinsinde (in).

PN 40

| DN | D | D1 | D2 | 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 (0.551) |
| 32 (1.26) | 135 (5.315) | 100 (3.937) | 78 (3.071) | 16 (0.63) | 2 (0.079) | 4 x ø 18 (0.709) |
| 40 (1.575) | 145 (5.709) | 110 (4.331) | 88 (3.465) | 16 (0.63) | 3 (0.118) | 4 x ø 18 (0.709) |
| 50 (1.969) | 160 (6.3) | 125 (4.921) | 102 (4.016) | 17 (0.669) | 3 (0.118) | 4 x ø 18 (0.709) |
| 65 (2.559) | 180 (7.087) | 145 (5.709) | 122 (4.803) | 19 (0.748) | 3 (0.118) | 8 x ø 18 (0.709) |
| 80 (3.15) | 195 (7.677) | 160 (6.299) | 133 (5.236) | 21 (0.827) | 3 (0.118) | 8 x ø 18 (0.709) |
| 100 (3.937) | 230 (9.055) | 190 (7.480) | 158 (6.221) | 23 (0.906) | 3 (0.118) | 8 x ø 22 (0.866) |
| 125 (4.921) | 270 (10.63) | 220 (8.661) | 184 (7.244) | 25 (0.984) | 3 (0.118) | 8 x ø 26 (1.024) |
| 150 (5.906) | 300 (11.81) | 250 (9.843) | 212 (8.347) | 27 (1.063) | 3 (0.118) | 8 x ø 26 (1.024) |

| DN | D | D1 | D2 | b | h | d |
|-------------|-------------|-------------|-------------|------------|-----------|----------------------|
| 200 (7.874) | 375 (14.76) | 320 (12.6) | 285 (11.22) | 35 (1.378) | 3 (0.118) | 12 x ø 30 (1.181) |
| 250 (9.843) | 445 (17.52) | 385 (15.16) | 345 (13.58) | 39 (1.535) | 3 (0.118) | 12 x ø 33 (1.299) |

Tab. 21: Ebatlar: GOST flanşı PN 40. Tüm uzaklık değerleri milimetre cinsinde (in).

PN 63

| DN | D | D1 | D2 | 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 (0.709) |
| 32 (1.26) | 150 (5.906) | 110 (4.331) | 78 (3.071) | 21 (0.827) | 2 (0.079) | 4 x ø 22 (0.866) |
| 40 (1.575) | 165 (6.496) | 125 (4.921) | 88 (3.465) | 21 (0.827) | 3 (0.118) | 4 x ø 22 (0.866) |
| 50 (1.969) | 175 (6.89) | 135 (5.315) | 102 (4.016) | 23 (0.906) | 3 (0.118) | 4 x ø 22 (0.866) |
| 65 (2.559) | 200 (7.874) | 160 (6.299) | 122 (4.803) | 25 (0.984) | 3 (0.118) | 8 x ø 22 (0.866) |
| 80 (3.15) | 210 (8.268) | 170 (6.693) | 133 (5.236) | 27 (1.063) | 3 (0.118) | 8 x ø 22 (0.866) |
| 100 (3.937) | 250 (9.843) | 200 (7.874) | 158 (6.221) | 29 (1.142) | 3 (0.118) | 8 x ø 26 (1.024) |
| 125 (4.921) | 295 (11.61) | 240 (9.449) | 184 (7.244) | 33 (1.3) | 3 (0.118) | 8 x ø 30 (1.181) |
| 150 (5.906) | 340 (13.39) | 280 (11.02) | 212 (8.347) | 35 (1.378) | 3 (0.118) | 8 x ø 33 (1.299) |
| 200 (7.874) | 405 (15.95) | 345 (13.58) | 285 (11.22) | 41 (1.614) | 3 (0.118) | 12 x ø 36 (1.417) |
| 250 (9.843) | 470 (18.5) | 400 (15.75) | 345 (13.58) | 45 (1.772) | 3 (0.118) | 12 x ø 36 (1.417) |

Tab. 22: Ebatlar: GOST flanşı PN 63. Tüm uzaklık değerleri milimetre cinsinde (in).

PN 100

| DN | D | D1 | D2 | b | h | d |
|------------|-------------|-------------|-------------|------------|-----------|---------------------|
| 25 (0.984) | 135 (5.315) | 100 (3.937) | 68 (2.677) | 22 (0.866) | 2 (0.079) | 4 x ø 18 (0.709) |
| 32 (1.26) | 150 (5.906) | 110 (4.331) | 78 (3.071) | 22 (0.866) | 2 (0.079) | 4 x ø 22 (0.866) |
| 40 (1.575) | 165 (6.496) | 125 (4.921) | 88 (3.465) | 23 (0.906) | 3 (0.118) | 4 x ø 22 (0.866) |
| 50 (1.969) | 195 (7.677) | 145 (5.709) | 102 (4.016) | 25 (0.984) | 3 (0.118) | 4 x ø 26 (1.024) |
| 65 (2.56) | 220 (8.661) | 170 (6.693) | 122 (4.803) | 29 (1.142) | 3 (0.118) | 8 x ø 26 (1.024) |

| DN | D | D1 | D2 | b | h | d |
|-------------|-------------|-------------|-------------|------------|-----------|----------------------|
| 80 (3.15) | 230 (9.055) | 180 (7.087) | 133 (5.236) | 31 (1.221) | 3 (0.118) | 8 x ø 26 (1.024) |
| 100 (3.937) | 265 (10.43) | 210 (8.268) | 158 (6.221) | 35 (1.378) | 3 (0.118) | 8 x ø 30 (1.181) |
| 125 (4.921) | 310 (12.21) | 250 (9.843) | 184 (7.244) | 39 (1.535) | 3 (0.118) | 8 x ø 33 (1.299) |
| 150 (5.906) | 350 (13.78) | 290 (11.42) | 212 (8.347) | 43 (1.693) | 3 (0.118) | 12 x ø 33 (1.299) |
| 200 (7.874) | 430 (16.93) | 360 (14.17) | 285 (11.22) | 51 (2.008) | 3 (0.118) | 12 x ø 36 (1.417) |
| 250 (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: Ebatlar: GOST flanşı PN 100. Tüm uzaklık değerleri milimetre cinsinde (in).

3 Basınç - Sıcaklık Tabloları

3.1 Basınç - Sıcaklık Tablosu - EN flanşları

Değerler 316/316L malzeme flanşlardan yararlanılarak çıkarılmıştır.

| PN | 16 | 25 | 40 | 63 | 100 |
|-----------------|--------------|--------------|--------------|--------------|---------------|
| RT | 16 (232.1) | 25 (362.6) | 40 (580.2) | 63 (913.7) | 100 (1450.4) |
| 50 °C (122 °F) | 16 (232.1) | 25 (362.6) | 40 (580.2) | 63 (913.7) | 100 (1450.4) |
| 100 °C (212 °F) | 16 (232.1) | 25 (362.6) | 40 (580.2) | 63 (913.7) | 100 (1450.4) |
| 150 °C (302 °F) | 14,5 (210.3) | 22,7 (329.2) | 36,3 (526.5) | 57,3 (831.1) | 90,9 (1318.4) |
| 200 °C (392 °F) | 13,4 (194.4) | 21 (304.6) | 33,7 (488.8) | 53,1 (670.1) | 84,2 (1221.2) |
| 250 °C (482 °F) | 12,7 (184.2) | 19,8 (287.2) | 31,8 (461.2) | 50,1 (770.2) | 79,5 (1153.1) |
| 300 °C (572 °F) | 11,8 (171.1) | 18,5 (268.3) | 29,7 (430.8) | 46,8 (678.8) | 74,2 (1076.2) |
| 350 °C (662 °F) | 11,4 (165.3) | 17,8 (258.2) | 28,5 (413.4) | 45 (652.7) | 71,4 (1035.6) |
| 400 °C (752 °F) | 10,9 (158.1) | 17,1 (248) | 27,4 (397.4) | 43,2 (626.6) | 68,5 (993.6) |
| 450 °C (842 °F) | 10,7 (155.2) | 16,8 (243.7) | 26,9 (390.2) | 42,4 (615) | 67,3 (976.1) |

Tab. 24: Basınç - Sıcaklık Tablosu - EN flanşları. Tüm veriler bar cinsinde (psig).

RT Sıcaklık aralığı -10 ... +50 °C

3.2 Basınç - Sıcaklık Tablosu - ASME flanşları

Değerler 316/316L malzeme flanşlardan yararlanılarak çıkarılmıştır.

| Class | 150 | 300 | 400 | 600 | 900 | 1500 | 2500 |
|--------------------|--------------|--------------|--------------|------------------|-------------------|-------------------|-------------------|
| RT | 19 (275.6) | 49,6 (719.4) | 66,2 (960.1) | 99,3 (1440.2) | 148,9 (2159.6) | 248,2 (3599.8) | 413,7 (6000.2) |
| 50 °C (122 °F) | 18,4 (266.9) | 48,1 (697.6) | 64,2 (931.1) | 96,2 (1395.3) | 144,3 (2092.9) | 240,6 (3489.6) | 400,9 (5814.6) |
| 100 °C (212 °F) | 16,2 (235) | 42,2 (612.1) | 56,3 (816.6) | 84,4 (1224.1) | 126,6 (1836.2) | 211 (3060.3) | 351,6 (5099.5) |
| 150 °C (302 °F) | 14,8 (214.7) | 38,5 (558.4) | 51,3 (744) | 77 (1116.8) | 115,5 (1675.2) | 192,5 (2792) | 320,8 (4652.8) |
| 200 °C (392 °F) | 13,7 (198.7) | 35,7 (517.8) | 47,6 (690.4) | 71,3 (1034.1) | 107 (1551.9) | 178,3 (2586) | 297,2 (4310.5) |
| 250 °C (482 °F) | 12,1 (175.5) | 33,4 (484.4) | 44,5 (645.4) | 66,8 (968.9) | 101,1 (1466.3) | 166,9 (2420.7) | 278,1 (4033.5) |
| 300 °C (572 °F) | 10,2 (147.9) | 31,6 (458.3) | 42,2 (612.1) | 63,2 (916.6) | 94,9 (1376.4) | 158,1 (2293) | 263,5 (3821.7) |
| 325 °C (617 °F) | 9,3 (134.9) | 30,9 (448.2) | 41,2 (597.6) | 61,8 (896.3) | 92,7 (1344.5) | 154,4 (2239.4) | 257,4 (3733.3) |
| 350 °C (662 °F) | 8,4 (121.8) | 30,3 (439.5) | 40,4 (586) | 60,7 (867.3) | 91 (1319.8) | 151,6 (2198.8) | 252,7 (3665.1) |
| 375 °C (707 °F) | 7,4 (107.3) | 29,9 (433.7) | 39,8 (577.3) | 59,8 (867.3) | 89,6 (1299.5) | 149,4 (2166.9) | 249 (3611.4) |

| Class | 150 | 300 | 400 | 600 | 900 | 1500 | 2500 |
|--------------------|------------|--------------|--------------|--------------|------------------|-------------------|-------------------|
| 400 °C (752 °F) | 6,5 (94.3) | 29,4 (426.4) | 39,3 (570) | 58,9 (854.3) | 88,3 (1280.7) | 147,2 (2135) | 245,3 (3557.8) |
| 425 °C (797 °F) | 5,5 (79,8) | 29,1 (422.1) | 38,9 (564.2) | 58,3 (845.6) | 87,4 (1267.6) | 145,7 (2113.2) | 242,9 (3523) |
| 450 °C (842 °F) | 4,6 (66,7) | 28,8 (417.7) | 38,5 (558.4) | 57,7 (836.9) | 86,5 (1254.6) | 144,2 (2091.4) | 240,4 (3486.7) |

Tab. 25: Basınç-Sıcaklık Tablosu - ASME Flanşları. Tüm veriler bar cinsinde (psig).

RT Sıcaklık aralığı -29 ... +38 °C

3.3 Basınç - Sıcaklık Tablosu - GOST flanşları

Değerler 316L malzeme flanşlardan yararlanılarak çıkarılmıştır.

PN 25

| Sıcaklık | 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: Basınç - Sıcaklık Tablosu - GOST flanşları PN 25. Tüm veriler bar cinsinde (psig).

PN 40

| Sıcaklık | 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: Basınç - Sıcaklık Tablosu GOST flanşları PN 40. Tüm veriler bar cinsinde (psig).

PN 63

| Sıcaklık | 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: Basınç - Sıcaklık Tablosu GOST flanşları PN 63. Tüm veriler bar cinsinde (psig).

PN 100

| Sıcaklık | 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 (1376.4) |
| 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: Basınç - Sıcaklık Tablosu GOST flanşları PN 100. Tüm veriler bar cinsinde (psig).

PN 160

| Sıcaklık | 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 (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: Basınç - Sıcaklık Tablosu GOST flanşları PN 160. Tüm veriler bar cinsinde (psig).

VEGA

Baskı tarihi:

Sensörlerin ve değerlendirme sistemlerinin teslimat kapsamı, uygulanması, kullanımı ve işletme talimatları hakkındaki bilgiler basımın yapıldığı zamandaki mevcut bilgilere uygundur.

Teknik değişiklikler yapma hakkı mahfuzdur

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