

# **ANSI FLANGES**

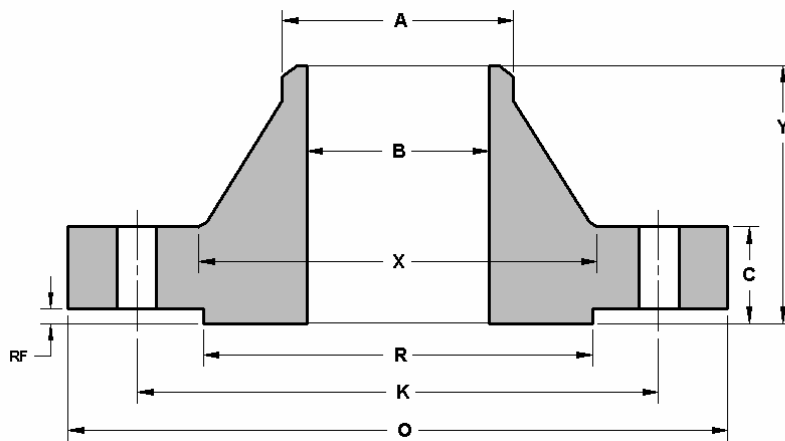
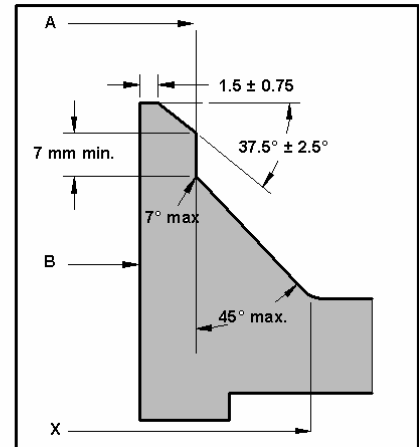
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**B 16.5**

# WELDING NECK FLANGES

**STD 150 Lbs**

**ANSI / ASME B 16.5**



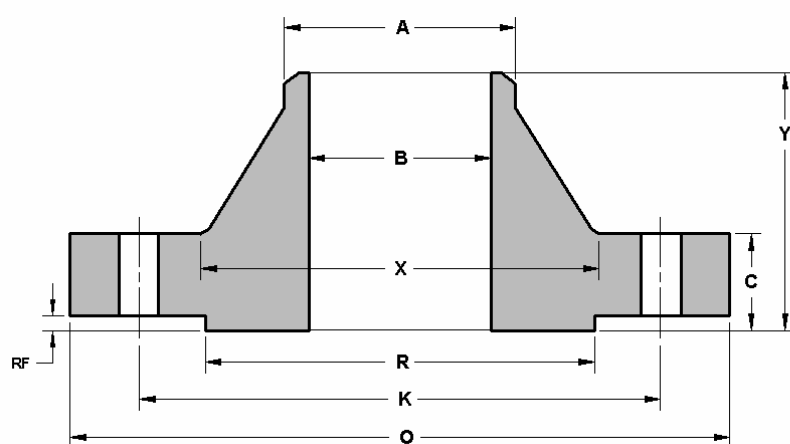
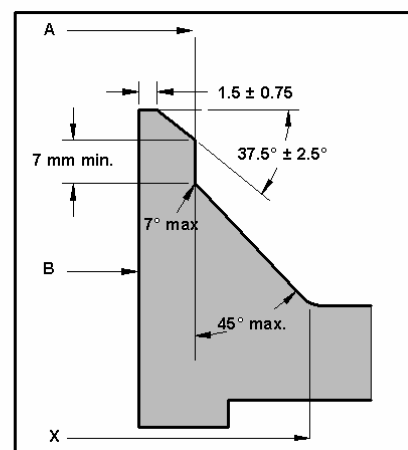
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | A     | K     | Y     | RF  | R     | B<br>STD | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|-----|-------|----------|--------------------|---------------------|---------------|
| FSWN15021 | 1/2   | 88.9  | 11.1 | 30.2  | 21.3  | 60.4  | 47.7  | 1.5 | 35.0  | 15.7     | 15.7               | 4                   | 0.5           |
| FSWN15027 | 3/4   | 98.5  | 12.7 | 38.1  | 26.6  | 69.8  | 52.3  | 1.5 | 42.9  | 20.8     | 15.7               | 4                   | 0.7           |
| FSWN15033 | 1"    | 107.9 | 14.2 | 49.2  | 33.5  | 79.2  | 55.6  | 1.5 | 50.8  | 26.6     | 15.7               | 4                   | 1.1           |
| FSWN15042 | 1"1/4 | 117.3 | 15.7 | 58.6  | 42.1  | 88.9  | 57.1  | 1.5 | 63.5  | 35.0     | 15.7               | 4                   | 1.5           |
| FSWN15048 | 1"1/2 | 127.0 | 17.5 | 65.0  | 48.2  | 98.5  | 61.9  | 1.5 | 73.1  | 40.8     | 15.7               | 4                   | 1.8           |
| FSWN15060 | 2"    | 152.4 | 19.0 | 77.7  | 60.4  | 120.6 | 63.5  | 1.5 | 91.9  | 52.4     | 19.0               | 4                   | 2.7           |
| FSWN15073 | 2"1/2 | 177.8 | 22.3 | 90.4  | 73.1  | 139.7 | 69.8  | 1.5 | 104.6 | 62.7     | 19.0               | 4                   | 4.4           |
| FSWN15089 | 3"    | 190.5 | 23.8 | 107.9 | 88.9  | 152.4 | 69.8  | 1.5 | 127.0 | 77.9     | 19.0               | 4                   | 5.2           |
| FSWN15114 | 4"    | 228.6 | 23.8 | 134.8 | 114.3 | 190.5 | 76.2  | 1.5 | 157.2 | 102.3    | 19.0               | 8                   | 7.5           |
| FSWN15141 | 5"    | 254.0 | 23.8 | 163.5 | 141.2 | 215.9 | 88.9  | 1.5 | 185.6 | 128.2    | 22.3               | 8                   | 9.2           |
| FSWN15168 | 6"    | 279.4 | 25.4 | 192.0 | 168.4 | 241.3 | 88.9  | 1.5 | 215.9 | 154.1    | 22.3               | 8                   | 11.0          |
| FSWN15219 | 8"    | 342.9 | 28.4 | 246.1 | 219.2 | 298.4 | 101.6 | 1.5 | 269.7 | 202.7    | 22.3               | 8                   | 18.3          |
| FSWN15273 | 10"   | 406.4 | 30.2 | 304.8 | 273.0 | 361.9 | 101.6 | 1.5 | 323.8 | 254.5    | 25.4               | 12                  | 25.0          |
| FSWN15323 | 12"   | 482.6 | 31.7 | 365.2 | 323.8 | 431.8 | 114.3 | 1.5 | 381.0 |          | 25.4               | 12                  | 39.0          |
| FSWN15355 | 14"   | 533.4 | 35.0 | 400.0 | 355.6 | 476.2 | 127.0 | 1.5 | 412.7 |          | 28.4               | 12                  | 51.0          |
| FSWN15406 | 16"   | 596.9 | 36.5 | 457.2 | 406.4 | 539.7 | 127.0 | 1.5 | 469.9 |          | 28.4               | 16                  | 60.0          |
| FSWN15455 | 18"   | 635.0 | 39.6 | 504.9 | 457.2 | 577.8 | 139.7 | 1.5 | 533.4 |          | 31.7               | 16                  | 71.0          |
| FSWN15508 | 20"   | 698.5 | 42.9 | 558.8 | 508.0 | 635.0 | 144.5 | 1.5 | 584.2 |          | 31.7               | 20                  | 88.0          |
| FSWN15609 | 24"   | 812.8 | 47.7 | 663.4 | 609.6 | 749.3 | 152.4 | 1.5 | 692.1 |          | 35.0               | 20                  | 119.0         |

# WELDING NECK FLANGES

**STD 300 Lbs**

**ANSI / ASME B 16.5**

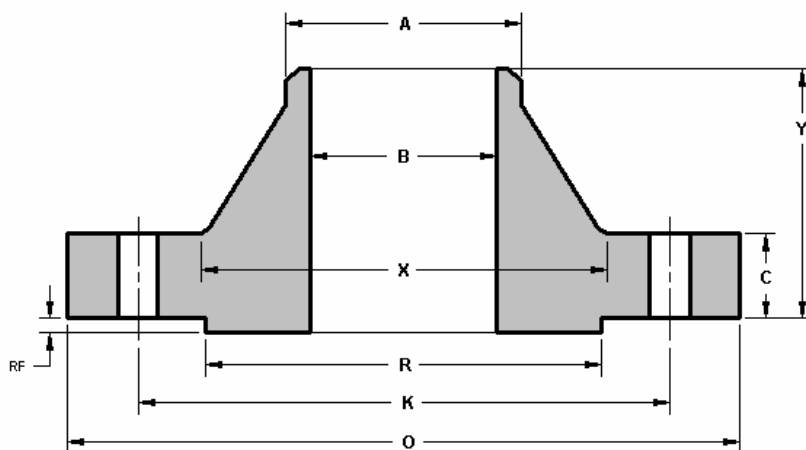
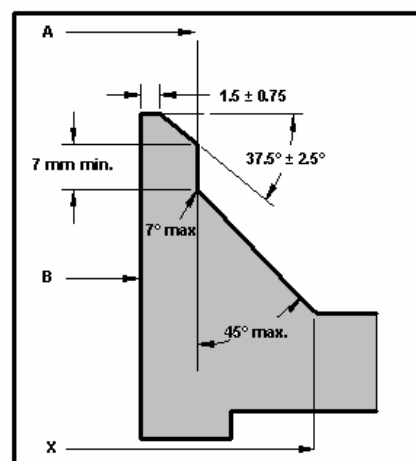


Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | A     | K     | Y     | RF  | R     | B<br>STD | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|-----|-------|----------|--------------------|---------------------|---------------|
| FSWN30021 | 1/2   | 95.2  | 14.2 | 38.1  | 21.3  | 66.5  | 52.3  | 1.5 | 35.0  | 15.7     | 15.7               | 4                   | 0.9           |
| FSWN30027 | 3/4   | 117.3 | 15.7 | 47.7  | 26.6  | 82.5  | 57.1  | 1.5 | 42.9  | 20.8     | 19.0               | 4                   | 1.5           |
| FSWN30033 | 1"    | 123.9 | 17.5 | 53.8  | 33.5  | 88.9  | 61.9  | 1.5 | 50.8  | 26.6     | 19.0               | 4                   | 1.9           |
| FSWN30042 | 1"1/4 | 133.3 | 19.0 | 63.5  | 42.1  | 98.5  | 65.0  | 1.5 | 63.5  | 35.0     | 19.0               | 4                   | 2.6           |
| FSWN30048 | 1"1/2 | 155.4 | 20.5 | 69.8  | 48.2  | 114.3 | 68.3  | 1.5 | 73.1  | 40.8     | 22.3               | 4                   | 3.3           |
| FSWN30060 | 2"    | 165.1 | 22.3 | 84.0  | 60.4  | 127.0 | 69.8  | 1.5 | 91.9  | 52.4     | 19.0               | 8                   | 3.6           |
| FSWN30073 | 2"1/2 | 190.5 | 25.4 | 100.0 | 73.1  | 149.3 | 76.2  | 1.5 | 104.6 | 62.7     | 22.3               | 8                   | 5.4           |
| FSWN30089 | 3"    | 209.5 | 28.4 | 117.3 | 88.9  | 168.1 | 79.2  | 1.5 | 127.0 | 77.9     | 22.3               | 8                   | 7.4           |
| FSWN30114 | 4"    | 254.0 | 31.7 | 146.0 | 114.3 | 200.1 | 85.8  | 1.5 | 157.2 | 102.3    | 22.3               | 8                   | 11.9          |
| FSWN30141 | 5"    | 279.4 | 35.0 | 177.8 | 141.2 | 234.9 | 98.5  | 1.5 | 185.6 | 128.2    | 22.3               | 8                   | 16.0          |
| FSWN30168 | 6"    | 317.5 | 36.5 | 206.2 | 168.4 | 269.7 | 98.5  | 1.5 | 215.9 | 154.1    | 22.3               | 12                  | 20.2          |
| FSWN30219 | 8"    | 381.0 | 41.1 | 260.3 | 219.2 | 330.2 | 111.2 | 1.5 | 269.7 | 202.7    | 25.4               | 12                  | 31.0          |
| FSWN30273 | 10"   | 444.5 | 47.7 | 320.5 | 273.0 | 387.3 | 117.3 | 1.5 | 323.8 | 254.5    | 28.4               | 16                  | 44.3          |
| FSWN30323 | 12"   | 520.7 | 50.8 | 374.6 | 323.8 | 450.8 | 130.0 | 1.5 | 381.0 |          | 31.7               | 16                  | 64.0          |
| FSWN30355 | 14"   | 584.2 | 53.8 | 425.4 | 355.6 | 514.3 | 142.7 | 1.5 | 412.7 |          | 31.7               | 20                  | 88.0          |
| FSWN30406 | 16"   | 647.7 | 57.1 | 482.6 | 406.4 | 571.5 | 146.0 | 1.5 | 469.9 |          | 35.0               | 20                  | 113.0         |
| FSWN30455 | 18"   | 711.2 | 60.4 | 533.4 | 457.2 | 628.6 | 158.7 | 1.5 | 533.4 |          | 35.0               | 24                  | 134.0         |
| FSWN30508 | 20"   | 774.7 | 63.5 | 587.2 | 508.0 | 685.8 | 162.0 | 1.5 | 584.2 |          | 35.0               | 24                  | 171.0         |
| FSWN30609 | 24"   | 914.4 | 69.8 | 701.5 | 609.6 | 812.8 | 168.1 | 1.5 | 692.1 |          | 41.1               | 24                  | 238.0         |

# WELDING NECK FLANGES

**STD 400 Lbs**  
**ANSI / ASME B 16.5**

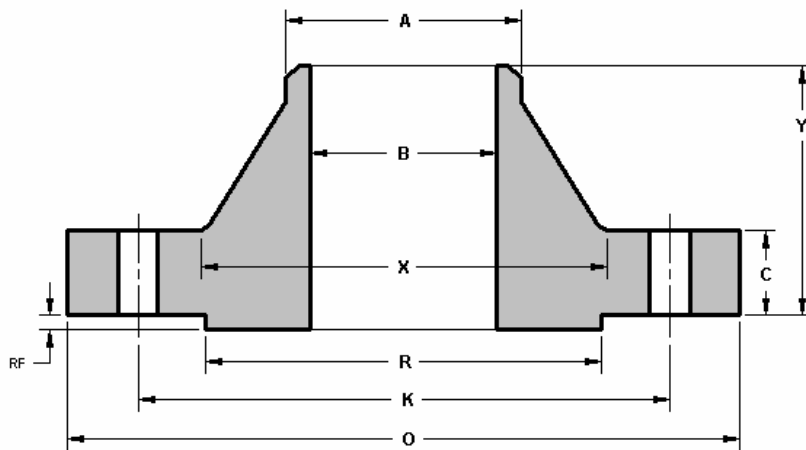
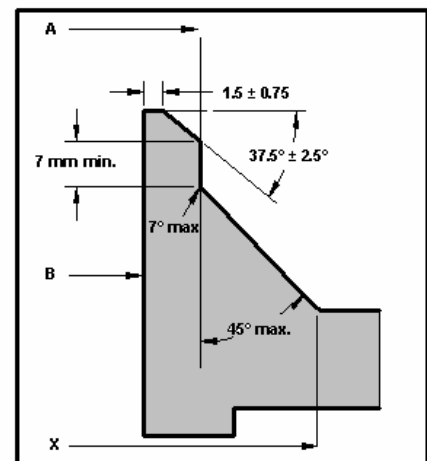


Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | A     | K     | Y     | RF  | R     | B<br>STD | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|-----|-------|----------|--------------------|---------------------|---------------|
| FSWN40021 | 1/2   |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40027 | 3/4   |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40033 | 1"    |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40042 | 1"1/4 |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40048 | 1"1/2 |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40060 | 2"    |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40073 | 2"1/2 |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40089 | 3"    |       |      |       |       |       |       |     |       |          |                    |                     |               |
| FSWN40114 | 4"    | 254.0 | 35.0 | 146.0 | 114.3 | 200.1 | 88.9  | 6.3 | 157.2 | 102.3    | 25.4               | 8                   | 14.0          |
| FSWN40141 | 5"    | 279.4 | 38.1 | 177.8 | 141.2 | 234.9 | 101.6 | 6.3 | 185.6 | 128.2    | 25.4               | 8                   | 19.0          |
| FSWN40168 | 6"    | 317.5 | 41.1 | 206.2 | 168.4 | 269.7 | 103.1 | 6.3 | 215.9 | 154.1    | 25.4               | 12                  | 25.5          |
| FSWN40219 | 8"    | 381.0 | 47.7 | 260.3 | 219.2 | 330.2 | 117.3 | 6.3 | 269.7 | 202.7    | 28.4               | 12                  | 39.5          |
| FSWN40273 | 10"   | 444.5 | 53.8 | 320.5 | 273.0 | 387.3 | 123.9 | 6.3 | 323.8 | 254.5    | 31.7               | 16                  | 54.0          |
| FSWN40323 | 12"   | 520.7 | 57.1 | 374.6 | 323.8 | 450.8 | 136.6 | 6.3 | 381.0 |          | 35.0               | 16                  | 78.0          |
| FSWN40355 | 14"   | 584.2 | 60.4 | 425.4 | 355.6 | 514.3 | 149.3 | 6.3 | 412.7 |          | 35.0               | 20                  | 105.0         |
| FSWN40406 | 16"   | 647.7 | 63.5 | 482.6 | 406.4 | 571.5 | 152.4 | 6.3 | 469.9 |          | 38.1               | 20                  | 131.0         |
| FSWN40455 | 18"   | 711.2 | 66.5 | 533.4 | 457.2 | 628.6 | 165.1 | 6.3 | 533.4 |          | 38.1               | 24                  | 159.0         |
| FSWN40508 | 20"   | 774.7 | 69.8 | 587.2 | 508.0 | 685.8 | 168.1 | 6.3 | 584.2 |          | 41.1               | 24                  | 190.0         |
| FSWN40609 | 24"   | 914.4 | 76.2 | 701.5 | 609.6 | 812.8 | 174.7 | 6.3 | 692.1 |          | 47.7               | 24                  | 275.0         |

# WELDING NECK FLANGES

**STD 600 Lbs**  
**ANSI / ASME B 16.5**

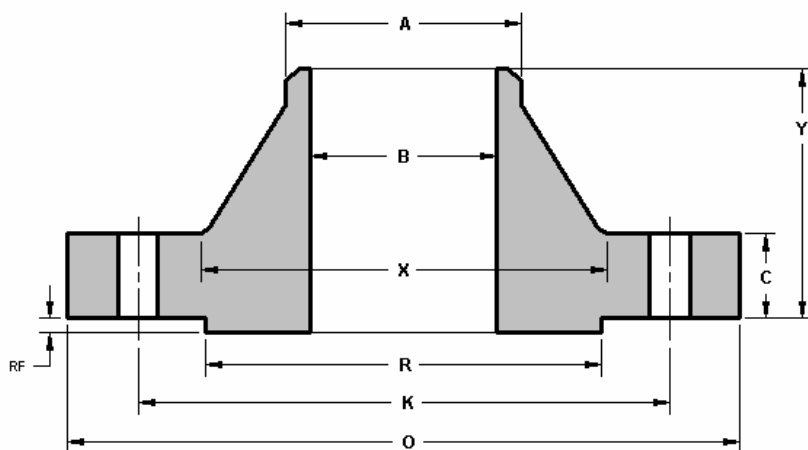
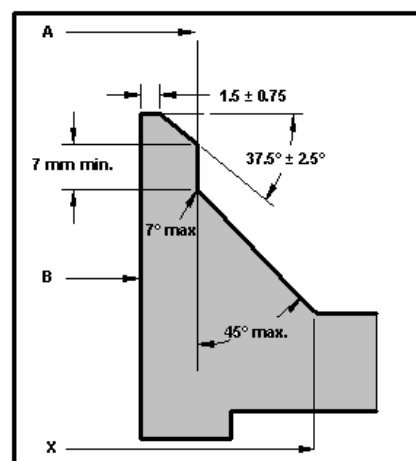


Dimensions are in mm.

| Cod.      | DN    | O     | C     | X     | A     | K     | Y     | RF  | R     | B<br>STD | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|-------|-------|-------|-------|-------|-----|-------|----------|--------------------|---------------------|---------------|
| FSWN60021 | 1/2   | 95.2  | 14.2  | 38.1  | 21.3  | 66.5  | 52.3  | 6.3 | 35.0  | 15.7     | 15.7               | 4                   | 0.9           |
| FSWN60027 | 3/4   | 117.3 | 15.7  | 47.7  | 26.6  | 82.5  | 57.1  | 6.3 | 42.9  | 20.8     | 19.0               | 4                   | 1.5           |
| FSWN60033 | 1"    | 123.9 | 17.5  | 53.8  | 33.5  | 88.9  | 61.9  | 6.3 | 50.8  | 26.6     | 19.0               | 4                   | 1.9           |
| FSWN60042 | 1"1/4 | 133.3 | 20.5  | 63.5  | 42.1  | 98.5  | 66.5  | 6.3 | 63.5  | 35.0     | 19.0               | 4                   | 2.6           |
| FSWN60048 | 1"1/2 | 155.4 | 22.3  | 69.8  | 48.2  | 114.3 | 69.8  | 6.3 | 73.1  | 40.8     | 22.3               | 4                   | 3.3           |
| FSWN60060 | 2"    | 165.1 | 25.4  | 84.0  | 60.4  | 127.0 | 73.1  | 6.3 | 91.9  | 52.4     | 19.0               | 8                   | 4.7           |
| FSWN60073 | 2"1/2 | 190.5 | 28.4  | 100.0 | 73.1  | 149.3 | 79.2  | 6.3 | 104.6 | 62.7     | 22.3               | 8                   | 6.5           |
| FSWN60089 | 3"    | 209.5 | 31.7  | 117.3 | 88.9  | 168.1 | 82.5  | 6.3 | 127.0 | 77.9     | 22.3               | 8                   | 8.7           |
| FSWN60114 | 4"    | 273.0 | 38.1  | 152.4 | 114.3 | 215.9 | 101.6 | 6.3 | 157.2 | 102.3    | 25.4               | 8                   | 18.1          |
| FSWN60141 | 5"    | 330.2 | 44.4  | 188.9 | 141.2 | 266.7 | 114.3 | 6.3 | 185.6 | 128.2    | 28.4               | 8                   | 30.5          |
| FSWN60168 | 6"    | 355.6 | 47.7  | 222.2 | 168.4 | 292.1 | 117.3 | 6.3 | 215.9 | 154.1    | 28.4               | 12                  | 36.2          |
| FSWN60219 | 8"    | 419.1 | 55.6  | 273.0 | 219.2 | 349.2 | 133.3 | 6.3 | 269.7 | 202.7    | 31.7               | 12                  | 56.5          |
| FSWN60273 | 10"   | 508.0 | 63.5  | 342.9 | 273.0 | 431.8 | 152.4 | 6.3 | 323.8 | 254.5    | 35.0               | 16                  | 91.0          |
| FSWN60323 | 12"   | 558.8 | 66.5  | 400.0 | 323.8 | 488.9 | 155.4 | 6.3 | 381.0 |          | 35.0               | 20                  | 105.0         |
| FSWN60355 | 14"   | 603.2 | 69.8  | 431.8 | 355.6 | 527.0 | 165.1 | 6.3 | 412.7 |          | 38.1               | 20                  | 127.0         |
| FSWN60406 | 16"   | 685.8 | 76.2  | 495.3 | 406.4 | 603.2 | 177.8 | 6.3 | 469.9 |          | 41.1               | 20                  | 178.0         |
| FSWN60455 | 18"   | 742.9 | 82.5  | 546.1 | 457.2 | 654.0 | 184.1 | 6.3 | 533.4 |          | 44.4               | 20                  | 216.0         |
| FSWN60508 | 20"   | 812.8 | 88.9  | 609.6 | 508.0 | 723.9 | 190.5 | 6.3 | 584.2 |          | 44.4               | 24                  | 268.0         |
| FSWN60609 | 24"   | 939.8 | 101.6 | 717.5 | 609.6 | 838.2 | 203.2 | 6.3 | 692.1 |          | 50.8               | 24                  | 380.0         |

# WELDING NECK FLANGES

**900 Lbs**  
**ANSI / ASME B 16.5**

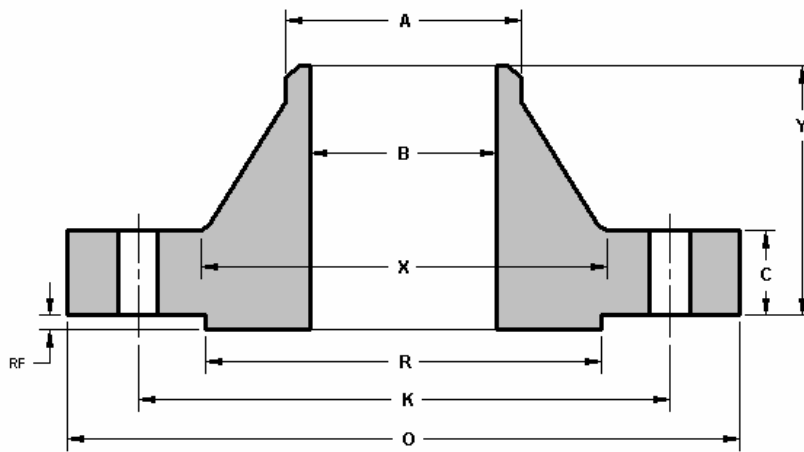
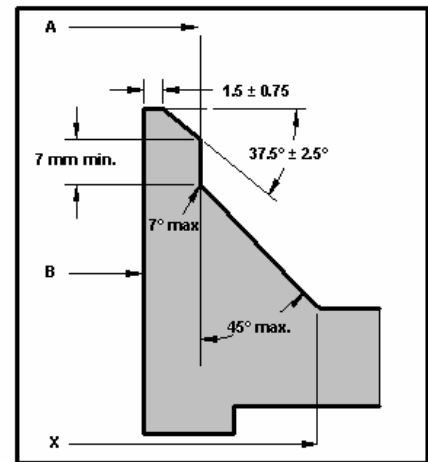


Dimensions are in mm.

| Cod.      | DN    | O      | C     | X     | A     | K     | Y     | RF  | R     | B | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|--------|-------|-------|-------|-------|-------|-----|-------|---|--------------|---------------|------------|
| FSWN90021 | 1/2   |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90027 | 3/4   |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90033 | 1"    |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90042 | 1"1/4 |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90048 | 1"1/2 |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90060 | 2"    |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90073 | 2"1/2 |        |       |       |       |       |       |     |       |   |              |               |            |
| FSWN90089 | 3"    | 241.3  | 38.1  | 127.0 | 88.9  | 190.5 | 101.6 | 6.3 | 127.0 |   | 25.4         | 8             | 15.0       |
| FSWN90114 | 4"    | 292.1  | 44.4  | 158.7 | 114.3 | 234.9 | 114.3 | 6.3 | 157.2 |   | 31.7         | 8             | 24.0       |
| FSWN90141 | 5"    | 349.2  | 50.8  | 190.5 | 141.2 | 279.4 | 127.0 | 6.3 | 185.6 |   | 35.0         | 8             | 37.0       |
| FSWN90168 | 6"    | 381.0  | 55.6  | 234.9 | 168.4 | 317.5 | 139.7 | 6.3 | 215.9 |   | 31.7         | 12            | 50.0       |
| FSWN90219 | 8"    | 469.9  | 63.5  | 298.4 | 219.2 | 393.7 | 162.0 | 6.3 | 269.7 |   | 38.1         | 12            | 85.0       |
| FSWN90273 | 10"   | 546.1  | 69.8  | 368.3 | 273.0 | 469.9 | 184.1 | 6.3 | 323.8 |   | 38.1         | 16            | 127.0      |
| FSWN90323 | 12"   | 609.6  | 79.2  | 419.1 | 323.8 | 533.4 | 200.1 | 6.3 | 381.0 |   | 38.1         | 20            | 170.0      |
| FSWN90355 | 14"   | 641.3  | 85.8  | 450.8 | 355.6 | 558.8 | 212.8 | 6.3 | 412.7 |   | 41.1         | 20            | 198.0      |
| FSWN90406 | 16"   | 704.8  | 88.9  | 508.0 | 406.4 | 615.9 | 215.9 | 6.3 | 469.9 |   | 44.4         | 20            | 224.0      |
| FSWN90455 | 18"   | 787.4  | 101.6 | 565.1 | 457.2 | 685.8 | 228.6 | 6.3 | 533.4 |   | 50.8         | 20            | 300.0      |
| FSWN90508 | 20"   | 857.2  | 107.9 | 622.3 | 508.0 | 749.3 | 247.6 | 6.3 | 584.2 |   | 53.8         | 20            | 374.0      |
| FSWN90609 | 24"   | 1041.4 | 139.7 | 749.3 | 609.6 | 901.7 | 292.1 | 6.3 | 692.1 |   | 66.5         | 20            | 680.0      |

# WELDING NECK FLANGES

**1500 Lbs**  
**ANSI / ASME B 16.5**



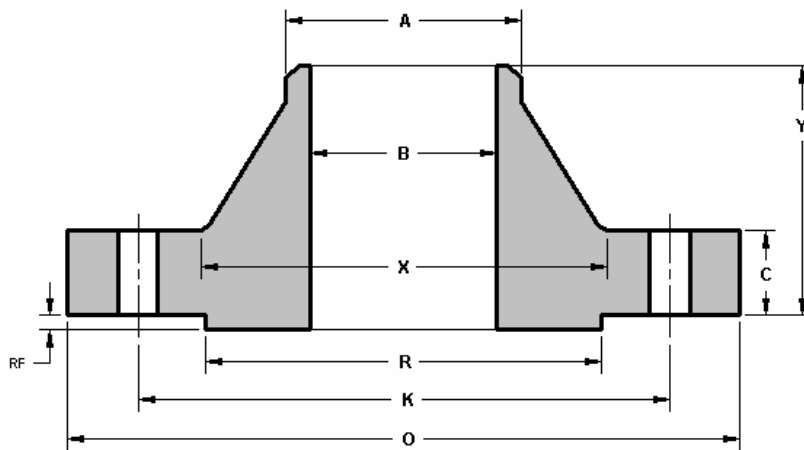
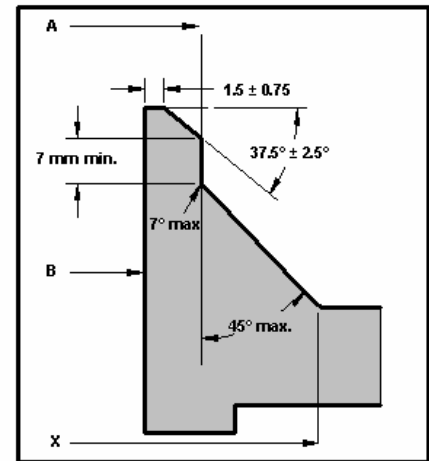
Dimensions are in mm.

| Cod.        | DN    | O      | C     | X     | A     | K     | Y     | RF  | R     | B | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-------------|-------|--------|-------|-------|-------|-------|-------|-----|-------|---|--------------|---------------|------------|
| FSWN150021  | 1/2   | 120.6  | 22.3  | 38.1  | 21.3  | 82.5  | 60.4  | 6.3 | 35.0  |   | 22.3         | 4             | 1.9        |
| FSWN150027  | 3/4   | 130.0  | 25.4  | 44.4  | 26.6  | 88.9  | 69.8  | 6.3 | 42.9  |   | 22.3         | 4             | 2.6        |
| FSWN150033  | 1"    | 149.3  | 28.4  | 52.3  | 33.5  | 101.6 | 73.1  | 6.3 | 50.8  |   | 25.4         | 4             | 3.8        |
| FSWN150042  | 1"1/4 | 158.7  | 28.4  | 63.5  | 42.1  | 111.2 | 73.1  | 6.3 | 63.5  |   | 25.4         | 4             | 4.4        |
| FSWN150048  | 1"1/2 | 177.8  | 31.7  | 69.8  | 48.2  | 123.9 | 82.5  | 6.3 | 73.1  |   | 28.4         | 4             | 6.1        |
| FSWN150060  | 2"    | 215.9  | 38.1  | 104.6 | 60.4  | 165.1 | 101.6 | 6.3 | 91.9  |   | 25.4         | 8             | 11.1       |
| FSWN150073  | 2"1/2 | 244.3  | 41.1  | 123.9 | 73.1  | 190.5 | 104.6 | 6.3 | 104.6 |   | 28.4         | 8             | 15.5       |
| FSWN150089  | 3"    | 266.7  | 47.7  | 133.3 | 88.9  | 203.2 | 117.3 | 6.3 | 127.0 |   | 31.7         | 8             | 20.4       |
| FSWN1500114 | 4"    | 311.1  | 53.8  | 162.0 | 114.3 | 241.3 | 123.9 | 6.3 | 157.2 |   | 35.0         | 8             | 30.5       |
| FSWN1500141 | 5"    | 374.6  | 73.1  | 196.8 | 141.2 | 292.1 | 155.4 | 6.3 | 185.6 |   | 41.1         | 8             | 58.0       |
| FSWN1500168 | 6"    | 393.7  | 82.5  | 228.6 | 168.4 | 317.5 | 171.4 | 6.3 | 215.9 |   | 38.1         | 12            | 70.0       |
| FSWN1500219 | 8"    | 482.6  | 91.9  | 292.1 | 219.2 | 393.7 | 212.8 | 6.3 | 269.7 |   | 44.4         | 12            | 125.0      |
| FSWN1500273 | 10"   | 584.2  | 107.9 | 368.3 | 273.0 | 482.6 | 254.0 | 6.3 | 323.8 |   | 50.8         | 12            | 204.0      |
| FSWN1500323 | 12"   | 673.1  | 123.9 | 450.8 | 323.8 | 571.5 | 282.4 | 6.3 | 381.0 |   | 53.8         | 16            | 303.0      |
| FSWN1500355 | 14"   | 749.3  | 133.3 | 495.3 | 355.6 | 635.0 | 298.4 | 6.3 | 412.7 |   | 60.4         | 16            | 427.0      |
| FSWN1500406 | 16"   | 825.5  | 146.0 | 552.4 | 406.4 | 704.8 | 311.1 | 6.3 | 469.9 |   | 66.5         | 16            | 570.0      |
| FSWN1500455 | 18"   | 914.4  | 162.0 | 596.9 | 457.2 | 774.7 | 327.1 | 6.3 | 533.4 |   | 73.1         | 16            | 740.0      |
| FSWN1500508 | 20"   | 984.2  | 177.8 | 641.3 | 508.0 | 831.8 | 355.6 | 6.3 | 584.2 |   | 79.2         | 16            | 935.0      |
| FSWN1500609 | 24"   | 1168.4 | 203.2 | 762.0 | 609.6 | 990.6 | 406.4 | 6.3 | 692.1 |   | 91.9         | 16            | 1515.0     |

# WELDING NECK FLANGES

**2500 Lbs**

**ANSI / ASME B 16.5**



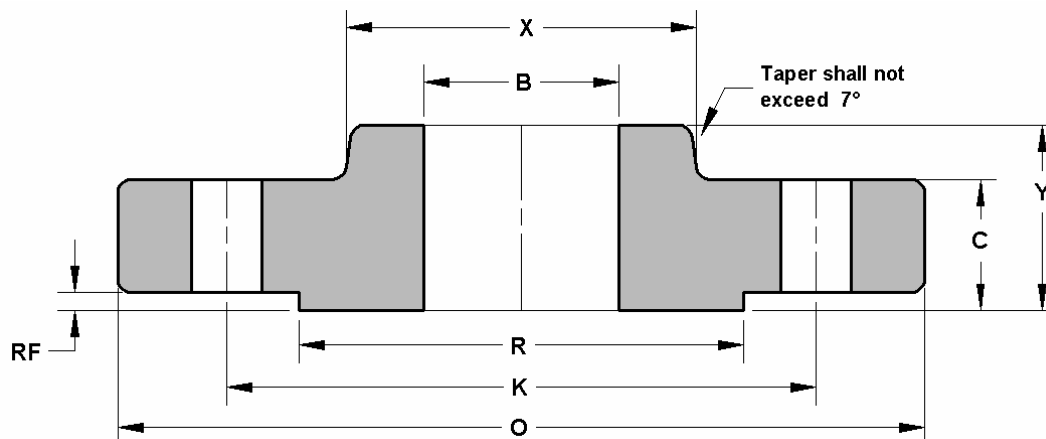
*Dimensions are in mm.*

[illegible]

# SLIP ON FLANGES

150 Lbs

ANSI / ASME B 16.5



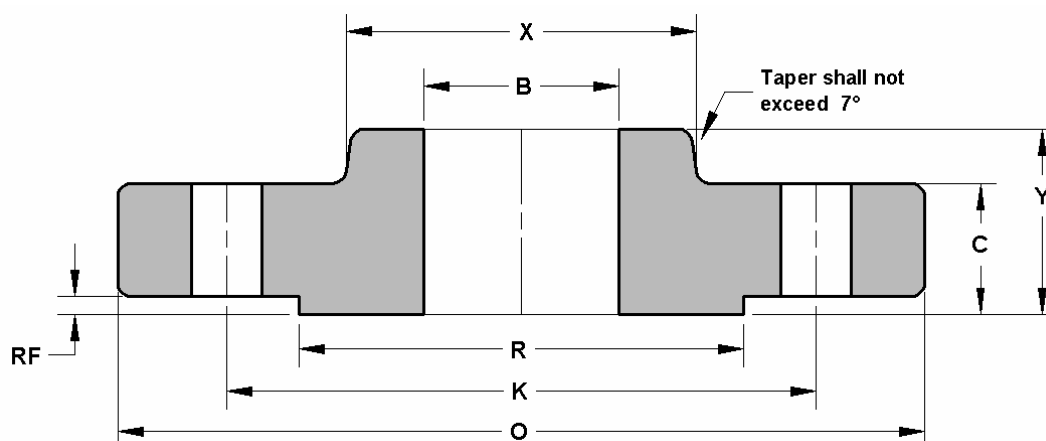
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y    | RF  | R     | B     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|------|-----|-------|-------|--------------------|---------------------|---------------|
| FSSO15021 | 1/2   | 88.9  | 11.1 | 30.2  | 60.4  | 15.7 | 1.5 | 35.0  | 22.3  | 15.7               | 4                   | 0.4           |
| FSSO15027 | 3/4   | 98.5  | 12.7 | 38.1  | 69.8  | 15.7 | 1.5 | 42.9  | 27.6  | 15.7               | 4                   | 0.7           |
| FSSO15033 | 1"    | 107.9 | 14.2 | 49.2  | 79.2  | 17.5 | 1.5 | 50.8  | 34.5  | 15.7               | 4                   | 0.8           |
| FSSO15042 | 1"1/4 | 117.3 | 15.7 | 58.6  | 88.9  | 20.5 | 1.5 | 63.5  | 43.1  | 15.7               | 4                   | 1.1           |
| FSSO15048 | 1"1/2 | 127.0 | 17.5 | 65.0  | 98.5  | 22.3 | 1.5 | 73.1  | 49.5  | 15.7               | 4                   | 1.4           |
| FSSO15060 | 2"    | 152.4 | 19.0 | 77.7  | 120.6 | 25.4 | 1.5 | 91.9  | 61.9  | 19.0               | 4                   | 2.2           |
| FSSO15073 | 2"1/2 | 177.8 | 22.3 | 90.4  | 139.7 | 28.4 | 1.5 | 104.6 | 74.6  | 19.0               | 4                   | 3.6           |
| FSSO15089 | 3"    | 190.5 | 23.8 | 107.9 | 152.4 | 30.2 | 1.5 | 127.0 | 90.6  | 19.0               | 4                   | 4.1           |
| FSSO15114 | 4"    | 228.6 | 23.8 | 134.8 | 190.5 | 33.2 | 1.5 | 157.2 | 116.0 | 19.0               | 8                   | 5.6           |
| FSSO15141 | 5"    | 254.0 | 23.8 | 163.5 | 215.9 | 36.5 | 1.5 | 185.6 | 143.7 | 22.3               | 8                   | 6.3           |
| FSSO15168 | 6"    | 279.4 | 25.4 | 192.0 | 241.3 | 39.6 | 1.5 | 215.9 | 170.6 | 22.3               | 8                   | 7.5           |
| FSSO15219 | 8"    | 342.9 | 28.4 | 246.1 | 298.4 | 44.4 | 1.5 | 269.7 | 221.4 | 22.3               | 8                   | 12.6          |
| FSSO15273 | 10"   | 406.4 | 30.2 | 304.8 | 361.9 | 49.2 | 1.5 | 323.8 | 276.3 | 25.4               | 12                  | 18.5          |
| FSSO15323 | 12"   | 482.6 | 31.7 | 365.2 | 431.8 | 55.6 | 1.5 | 381.0 | 327.1 | 25.4               | 12                  | 28.0          |
| FSSO15355 | 14"   | 533.4 | 35.0 | 400.0 | 476.2 | 57.1 | 1.5 | 412.7 | 359.1 | 28.4               | 12                  | 36.0          |
| FSSO15406 | 16"   | 596.9 | 36.5 | 457.2 | 539.7 | 63.5 | 1.5 | 469.9 | 410.4 | 28.4               | 16                  | 46.0          |
| FSSO15455 | 18"   | 635.0 | 39.6 | 504.9 | 577.8 | 68.3 | 1.5 | 533.4 | 461.7 | 31.7               | 16                  | 50.0          |
| FSSO15508 | 20"   | 698.5 | 42.9 | 558.8 | 635.0 | 73.1 | 1.5 | 584.2 | 513.0 | 31.7               | 20                  | 64.0          |
| FSSO15609 | 24"   | 812.8 | 47.7 | 663.4 | 749.3 | 82.5 | 1.5 | 692.1 | 615.9 | 35.0               | 20                  | 89.0          |

# SLIP ON FLANGES

300 Lbs

ANSI / ASME B 16.5



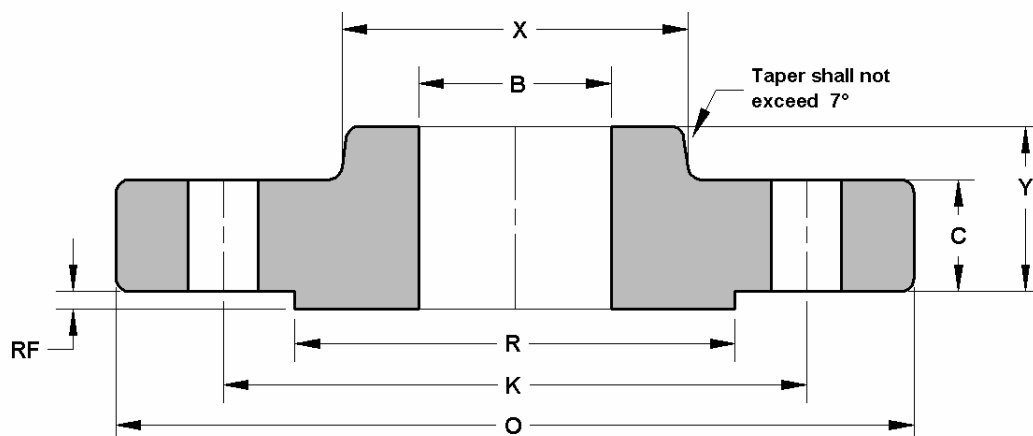
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | RF  | R     | B     | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-------|-------|-----|-------|-------|--------------|---------------|------------|
| FSSO30021 | 1/2   | 95.2  | 14.2 | 38.1  | 66.5  | 22.3  | 1.5 | 35.0  | 22.3  | 15.7         | 4             | 0.7        |
| FSSO30027 | 3/4   | 117.3 | 15.7 | 47.7  | 82.5  | 25.4  | 1.5 | 42.9  | 27.6  | 19.0         | 4             | 1.1        |
| FSSO30033 | 1"    | 123.9 | 17.5 | 53.8  | 88.9  | 26.9  | 1.5 | 50.8  | 34.5  | 19.0         | 4             | 1.4        |
| FSSO30042 | 1"1/4 | 133.3 | 19.0 | 63.5  | 98.5  | 26.9  | 1.5 | 63.5  | 43.1  | 19.0         | 4             | 1.8        |
| FSSO30048 | 1"1/2 | 155.4 | 20.5 | 69.8  | 114.3 | 30.2  | 1.5 | 73.1  | 49.5  | 22.3         | 4             | 2.6        |
| FSSO30060 | 2"    | 165.1 | 22.3 | 84.0  | 127.0 | 33.2  | 1.5 | 91.9  | 61.9  | 19.0         | 8             | 3.4        |
| FSSO30073 | 2"1/2 | 190.5 | 25.4 | 100.0 | 149.3 | 38.1  | 1.5 | 104.6 | 74.6  | 22.3         | 8             | 4.4        |
| FSSO30089 | 3"    | 209.5 | 28.4 | 117.3 | 168.1 | 42.9  | 1.5 | 127.0 | 90.6  | 22.3         | 8             | 6.1        |
| FSSO30114 | 4"    | 254.0 | 31.7 | 146.0 | 200.1 | 47.7  | 1.5 | 157.2 | 116.0 | 22.3         | 8             | 10.1       |
| FSSO30141 | 5"    | 279.4 | 35.0 | 177.8 | 234.9 | 50.8  | 1.5 | 185.6 | 143.7 | 22.3         | 8             | 12.5       |
| FSSO30168 | 6"    | 317.5 | 36.5 | 206.2 | 269.7 | 52.3  | 1.5 | 215.9 | 170.6 | 22.3         | 12            | 14.1       |
| FSSO30219 | 8"    | 381.0 | 41.1 | 260.3 | 330.2 | 61.9  | 1.5 | 269.7 | 221.4 | 25.4         | 12            | 24.6       |
| FSSO30273 | 10"   | 444.5 | 47.7 | 320.5 | 387.3 | 66.5  | 1.5 | 323.8 | 276.3 | 28.4         | 16            | 37.1       |
| FSSO30323 | 12"   | 520.7 | 50.8 | 374.6 | 450.8 | 73.1  | 1.5 | 381.0 | 327.1 | 31.7         | 16            | 50.0       |
| FSSO30355 | 14"   | 584.2 | 53.8 | 425.4 | 514.3 | 76.2  | 1.5 | 412.7 | 359.1 | 31.7         | 20            | 70.0       |
| FSSO30406 | 16"   | 647.7 | 57.1 | 482.6 | 571.5 | 82.5  | 1.5 | 469.9 | 410.4 | 35.0         | 20            | 90.0       |
| FSSO30455 | 18"   | 711.2 | 60.4 | 533.4 | 628.6 | 88.9  | 1.5 | 533.4 | 461.7 | 35.0         | 24            | 112.0      |
| FSSO30508 | 20"   | 774.7 | 63.5 | 587.2 | 685.8 | 95.2  | 1.5 | 584.2 | 513.0 | 35.0         | 24            | 133.0      |
| FSSO30609 | 24"   | 914.4 | 69.8 | 701.5 | 812.8 | 106.4 | 1.5 | 692.1 | 615.9 | 41.1         | 24            | 208.0      |

# SLIP ON FLANGES

400 Lbs

ANSI / ASME B 16.5



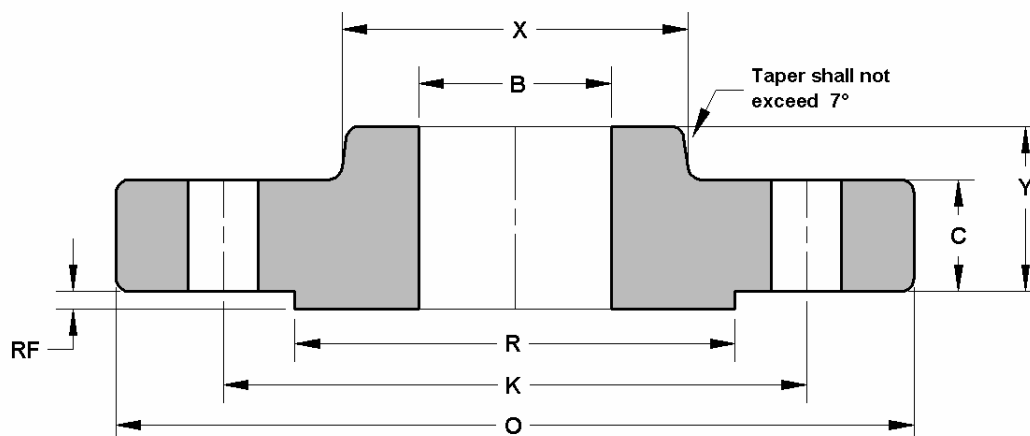
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | RF  | R     | B     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-----|-------|-------|--------------------|---------------------|---------------|
| FSSO40021 | 1/2   |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40027 | 3/4   |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40033 | 1"    |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40042 | 1"1/4 |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40048 | 1"1/2 |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40060 | 2"    |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40073 | 2"1/2 |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40089 | 3"    |       |      |       |       |       |     |       |       |                    |                     |               |
| FSSO40114 | 4"    | 254.0 | 35.0 | 146.0 | 200.1 | 50.8  | 6.3 | 157.2 | 116.0 | 25.4               | 8                   | 11.5          |
| FSSO40141 | 5"    | 279.4 | 38.1 | 177.8 | 234.9 | 53.8  | 6.3 | 185.6 | 143.7 | 25.4               | 8                   | 14.5          |
| FSSO40168 | 6"    | 317.5 | 41.1 | 206.2 | 269.7 | 57.1  | 6.3 | 215.9 | 170.6 | 25.4               | 12                  | 19.0          |
| FSSO40219 | 8"    | 381.0 | 47.7 | 260.3 | 330.2 | 68.3  | 6.3 | 269.7 | 221.4 | 28.4               | 12                  | 29.0          |
| FSSO40273 | 10"   | 444.5 | 53.8 | 320.5 | 387.3 | 73.1  | 6.3 | 323.8 | 276.3 | 31.7               | 16                  | 39.5          |
| FSSO40323 | 12"   | 520.7 | 57.1 | 374.6 | 450.8 | 79.2  | 6.3 | 381.0 | 327.1 | 35.0               | 16                  | 58.0          |
| FSSO40355 | 14"   | 584.2 | 60.4 | 425.4 | 514.3 | 84.0  | 6.3 | 412.7 | 359.1 | 35.0               | 20                  | 82.0          |
| FSSO40406 | 16"   | 647.7 | 63.5 | 482.6 | 571.5 | 93.7  | 6.3 | 469.9 | 410.4 | 38.1               | 20                  | 105.0         |
| FSSO40455 | 18"   | 711.2 | 66.5 | 533.4 | 628.6 | 98.5  | 6.3 | 533.4 | 461.7 | 38.1               | 24                  | 126.0         |
| FSSO40508 | 20"   | 774.7 | 69.8 | 587.2 | 685.8 | 101.6 | 6.3 | 584.2 | 513.0 | 41.1               | 24                  | 152.0         |
| FSSO40609 | 24"   | 914.4 | 76.2 | 701.5 | 812.8 | 114.3 | 6.3 | 692.1 | 615.9 | 47.7               | 24                  | 232.0         |

# SLIP ON FLANGES

600 Lbs

ANSI / ASME B 16.5



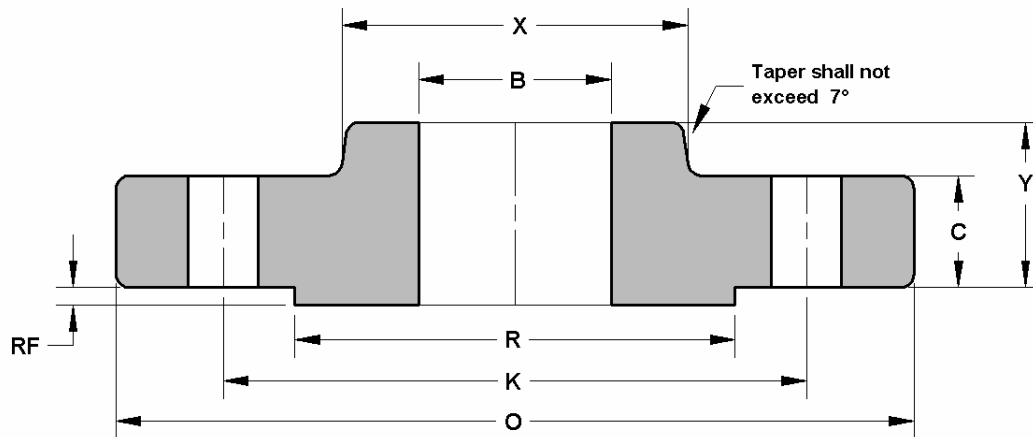
Dimensions are in mm.

| Cod.      | DN    | O     | C     | X     | K     | Y     | RF  | R     | B     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|-------|-------|-------|-------|-----|-------|-------|--------------------|---------------------|---------------|
| FSSO60021 | 1/2   | 95.2  | 14.2  | 38.1  | 66.5  | 22.3  | 6.3 | 35.0  | 22.3  | 15.7               | 4                   | 0.8           |
| FSSO60027 | 3/4   | 117.3 | 15.7  | 47.7  | 82.5  | 25.4  | 6.3 | 42.9  | 27.6  | 19.0               | 4                   | 1.4           |
| FSSO60033 | 1"    | 123.9 | 17.5  | 53.8  | 88.9  | 26.9  | 6.3 | 50.8  | 34.5  | 19.0               | 4                   | 1.6           |
| FSSO60042 | 1"1/4 | 133.3 | 20.5  | 63.5  | 98.5  | 28.4  | 6.3 | 63.5  | 43.1  | 19.0               | 4                   | 2.1           |
| FSSO60048 | 1"1/2 | 155.4 | 22.3  | 69.8  | 114.3 | 31.7  | 6.3 | 73.1  | 49.5  | 22.3               | 4                   | 3.1           |
| FSSO60060 | 2"    | 165.1 | 25.4  | 84.0  | 127.0 | 36.5  | 6.3 | 91.9  | 61.9  | 19.0               | 8                   | 3.7           |
| FSSO60073 | 2"1/2 | 190.5 | 28.4  | 100.0 | 149.3 | 41.1  | 6.3 | 104.6 | 74.6  | 22.3               | 8                   | 5.4           |
| FSSO60089 | 3"    | 209.5 | 31.7  | 117.3 | 168.1 | 45.9  | 6.3 | 127.0 | 90.6  | 22.3               | 8                   | 7.3           |
| FSSO60114 | 4"    | 273.0 | 38.1  | 152.4 | 215.9 | 53.8  | 6.3 | 157.2 | 116.0 | 25.4               | 8                   | 15.8          |
| FSSO60141 | 5"    | 330.2 | 44.4  | 188.9 | 266.7 | 60.4  | 6.3 | 185.6 | 143.7 | 28.4               | 8                   | 24.5          |
| FSSO60168 | 6"    | 355.6 | 47.7  | 222.2 | 292.1 | 66.5  | 6.3 | 215.9 | 170.6 | 28.4               | 12                  | 29.5          |
| FSSO60219 | 8"    | 419.1 | 55.6  | 273.0 | 349.2 | 76.2  | 6.3 | 269.7 | 221.4 | 31.7               | 12                  | 43.0          |
| FSSO60273 | 10"   | 508.0 | 63.5  | 342.9 | 431.8 | 85.8  | 6.3 | 323.8 | 276.3 | 35.0               | 16                  | 70.0          |
| FSSO60323 | 12"   | 558.8 | 66.5  | 400.0 | 488.9 | 91.9  | 6.3 | 381.0 | 327.1 | 35.0               | 20                  | 86.0          |
| FSSO60355 | 14"   | 603.2 | 69.8  | 431.8 | 527.0 | 93.7  | 6.3 | 412.7 | 359.1 | 38.1               | 20                  | 100.0         |
| FSSO60406 | 16"   | 685.8 | 76.2  | 495.3 | 603.2 | 106.4 | 6.3 | 469.9 | 410.4 | 41.1               | 20                  | 142.0         |
| FSSO60455 | 18"   | 742.9 | 82.5  | 546.1 | 654.0 | 117.3 | 6.3 | 533.4 | 461.7 | 44.4               | 20                  | 175.0         |
| FSSO60508 | 20"   | 812.8 | 88.9  | 609.6 | 723.9 | 127.0 | 6.3 | 584.2 | 513.0 | 44.4               | 24                  | 232.0         |
| FSSO60609 | 24"   | 939.8 | 101.6 | 717.5 | 838.2 | 139.7 | 6.3 | 692.1 | 615.9 | 50.8               | 24                  | 330.0         |

# SLIP ON FLANGES

900 Lbs

ANSI / ASME B 16.5



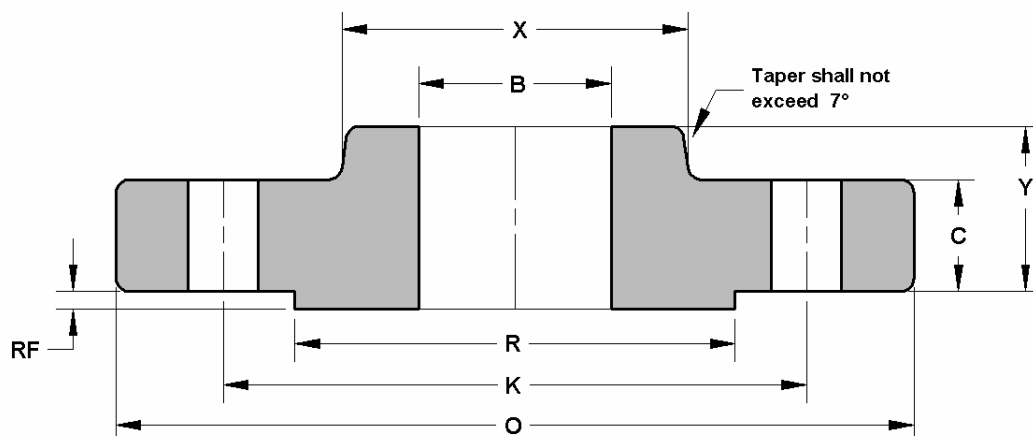
Dimensions are in mm.

| Cod.      | DN    | O      | C     | X     | K     | Y     | RF  | R     | B     | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|--------|-------|-------|-------|-------|-----|-------|-------|--------------|---------------|------------|
| FSSO90021 | 1/2   |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90027 | 3/4   |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90033 | 1"    |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90042 | 1"1/4 |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90048 | 1"1/2 |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90060 | 2"    |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90073 | 2"1/2 |        |       |       |       |       |     |       |       |              |               |            |
| FSSO90089 | 3"    | 241.3  | 38.1  | 127.0 | 190.5 | 53.8  | 6.3 | 127.0 | 90.6  | 25.4         | 8             | 11.6       |
| FSSO90114 | 4"    | 292.1  | 44.4  | 158.7 | 234.9 | 69.8  | 6.3 | 157.2 | 116.0 | 31.7         | 8             | 19.8       |
| FSSO90141 | 5"    | 349.2  | 50.8  | 190.5 | 279.4 | 79.2  | 6.3 | 185.6 | 143.7 | 35.0         | 8             | 32.0       |
| FSSO90168 | 6"    | 381.0  | 55.6  | 234.9 | 317.5 | 85.8  | 6.3 | 215.9 | 170.6 | 31.7         | 12            | 41.2       |
| FSSO90219 | 8"    | 469.9  | 63.5  | 298.4 | 393.7 | 101.6 | 6.3 | 269.7 | 221.4 | 38.1         | 12            | 78.0       |
| FSSO90273 | 10"   | 546.1  | 69.8  | 368.3 | 469.9 | 107.9 | 6.3 | 323.8 | 276.3 | 38.1         | 16            | 110.0      |
| FSSO90323 | 12"   | 609.6  | 79.2  | 419.1 | 533.4 | 117.3 | 6.3 | 381.0 | 327.1 | 38.1         | 20            | 149.0      |
| FSSO90355 | 14"   | 641.3  | 85.8  | 450.8 | 558.8 | 130.0 | 6.3 | 412.7 | 359.1 | 41.1         | 20            | 181.0      |
| FSSO90406 | 16"   | 704.8  | 88.9  | 508.0 | 615.9 | 133.3 | 6.3 | 469.9 | 410.4 | 44.4         | 20            | 194.0      |
| FSSO90455 | 18"   | 787.4  | 101.6 | 565.1 | 685.8 | 152.4 | 6.3 | 533.4 | 461.7 | 50.8         | 20            | 274.0      |
| FSSO90508 | 20"   | 857.2  | 107.9 | 622.3 | 749.3 | 158.7 | 6.3 | 584.2 | 513.0 | 53.8         | 20            | 332.0      |
| FSSO90609 | 24"   | 1041.4 | 139.7 | 749.3 | 901.7 | 203.2 | 6.3 | 692.1 | 615.9 | 66.5         | 20            | 637.0      |

# SLIP ON FLANGES

1500 Lbs

ANSI / ASME B 16.5



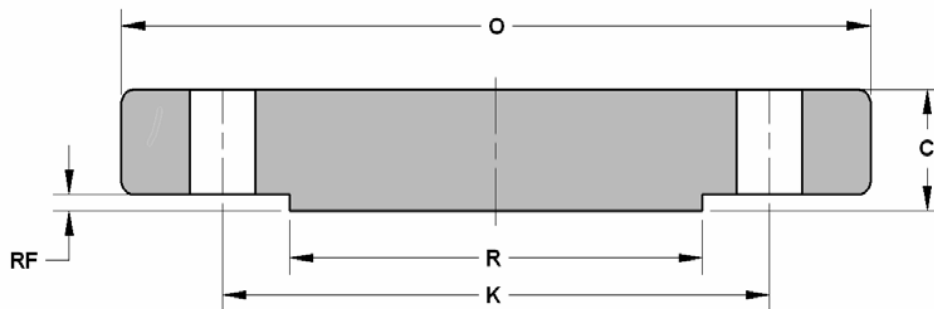
Dimensions are in mm.

| Cod.        | DN    | O      | C     | X     | K     | Y    | RF  | R     | B    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-------------|-------|--------|-------|-------|-------|------|-----|-------|------|--------------|---------------|------------|
| FSSO150021  | 1/2   | 120.6  | 22.3  | 38.1  | 82.5  | 31.7 | 6.3 | 35.0  | 22.3 | 22.3         | 4             | 1.7        |
| FSSO150027  | 3/4   | 130.0  | 25.4  | 44.4  | 88.9  | 35.0 | 6.3 | 42.9  | 27.6 | 22.3         | 4             | 2.3        |
| FSSO150033  | 1"    | 149.3  | 28.4  | 52.3  | 101.6 | 41.1 | 6.3 | 50.8  | 34.5 | 25.4         | 4             | 3.4        |
| FSSO150042  | 1"1/4 | 158.7  | 28.4  | 63.5  | 111.2 | 41.1 | 6.3 | 63.5  | 43.1 | 25.4         | 4             | 3.9        |
| FSSO150048  | 1"1/2 | 177.8  | 31.7  | 69.8  | 123.9 | 44.4 | 6.3 | 73.1  | 49.5 | 28.4         | 4             | 5.4        |
| FSSO150060  | 2"    | 215.9  | 38.1  | 104.6 | 165.1 | 57.1 | 6.3 | 91.9  | 61.9 | 25.4         | 8             | 9.8        |
| FSSO150073  | 2"1/2 | 244.3  | 41.1  | 123.9 | 190.5 | 63.5 | 6.3 | 104.6 | 74.6 | 28.4         | 8             | 13.7       |
| FSSO150089  | 3"    | 266.7  | 47.7  | 133.3 | 203.2 |      | 6.3 | 127.0 |      | 31.7         | 8             | 18.0       |
| FSSO1500114 | 4"    | 311.1  | 53.8  | 162.0 | 241.3 |      | 6.3 | 157.2 |      | 35.0         | 8             | 27.8       |
| FSSO1500141 | 5"    | 374.6  | 73.1  | 196.8 | 292.1 |      | 6.3 | 185.6 |      | 41.1         | 8             | 52.0       |
| FSSO1500168 | 6"    | 393.7  | 82.5  | 228.6 | 317.5 |      | 6.3 | 215.9 |      | 38.1         | 12            | 61.0       |
| FSSO1500219 | 8"    | 482.6  | 91.9  | 292.1 | 393.7 |      | 6.3 | 269.7 |      | 44.4         | 12            | 104.0      |
| FSSO1500273 | 10"   | 584.2  | 107.9 | 368.3 | 482.6 |      | 6.3 | 323.8 |      | 50.8         | 12            | 175.0      |
| FSSO1500323 | 12"   | 673.1  | 123.9 | 450.8 | 571.5 |      | 6.3 | 381.0 |      | 53.8         | 16            | 264.0      |
| FSSO1500355 | 14"   | 749.3  | 133.3 | 495.3 | 635.0 |      | 6.3 | 412.7 |      | 60.4         | 16            |            |
| FSSO1500406 | 16"   | 825.5  | 146.0 | 552.4 | 704.8 |      | 6.3 | 469.9 |      | 66.5         | 16            |            |
| FSSO1500455 | 18"   | 914.4  | 162.0 | 596.9 | 774.7 |      | 6.3 | 533.4 |      | 73.1         | 16            |            |
| FSSO1500508 | 20"   | 984.2  | 177.8 | 641.3 | 831.8 |      | 6.3 | 584.2 |      | 79.2         | 16            |            |
| FSSO1500609 | 24"   | 1168.4 | 203.2 | 762.0 | 990.6 |      | 6.3 | 692.1 |      | 91.9         | 16            |            |

# BLIND FLANGES

150 Lbs

ANSI / ASME B 16.5



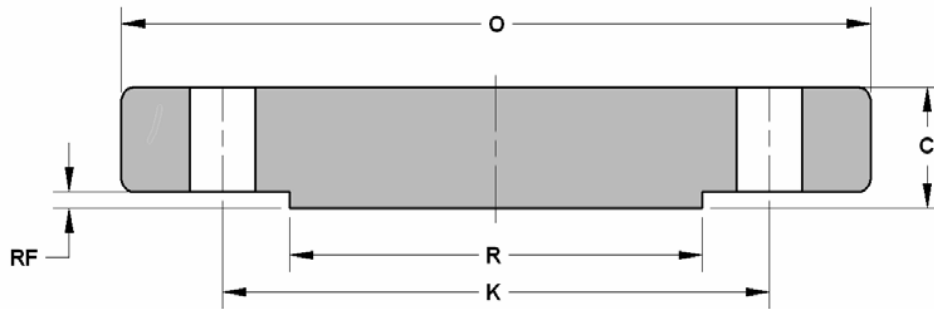
Dimensions are in mm.

| Cod.      | DN    | O     | C    | K     | RF  | R     | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-----|-------|--------------|---------------|------------|
| FSBL15021 | 1/2   | 88.9  | 11.1 | 60.4  | 1.5 | 35.0  | 15.7         | 4             | 0.4        |
| FSBL15027 | 3/4   | 98.5  | 12.7 | 69.8  | 1.5 | 42.9  | 15.7         | 4             | 0.7        |
| FSBL15033 | 1"    | 107.9 | 14.2 | 79.2  | 1.5 | 50.8  | 15.7         | 4             | 0.9        |
| FSBL15042 | 1"1/4 | 117.3 | 15.7 | 88.9  | 1.5 | 63.5  | 15.7         | 4             | 1.3        |
| FSBL15048 | 1"1/2 | 127.0 | 17.5 | 98.5  | 1.5 | 73.1  | 15.7         | 4             | 1.6        |
| FSBL15060 | 2"    | 152.4 | 19.0 | 120.6 | 1.5 | 91.9  | 19.0         | 4             | 2.6        |
| FSBL15073 | 2"1/2 | 177.8 | 22.3 | 139.7 | 1.5 | 104.6 | 19.0         | 4             | 4.1        |
| FSBL15089 | 3"    | 190.5 | 23.8 | 152.4 | 1.5 | 127.0 | 19.0         | 4             | 5.0        |
| FSBL15114 | 4"    | 228.6 | 23.8 | 190.5 | 1.5 | 157.2 | 19.0         | 8             | 7.1        |
| FSBL15141 | 5"    | 254.0 | 23.8 | 215.9 | 1.5 | 185.6 | 22.3         | 8             | 9.0        |
| FSBL15168 | 6"    | 279.4 | 25.4 | 241.3 | 1.5 | 215.9 | 22.3         | 8             | 11.8       |
| FSBL15219 | 8"    | 342.9 | 28.4 | 298.4 | 1.5 | 269.7 | 22.3         | 8             | 21.0       |
| FSBL15273 | 10"   | 406.4 | 30.2 | 361.9 | 1.5 | 323.8 | 25.4         | 12            | 30.0       |
| FSBL15323 | 12"   | 482.6 | 31.7 | 431.8 | 1.5 | 381.0 | 25.4         | 12            | 45.0       |
| FSBL15355 | 14"   | 533.4 | 35.0 | 476.2 | 1.5 | 412.7 | 28.4         | 12            | 59.0       |
| FSBL15406 | 16"   | 596.9 | 36.5 | 539.7 | 1.5 | 469.9 | 28.4         | 16            | 79.0       |
| FSBL15455 | 18"   | 635.0 | 39.6 | 577.8 | 1.5 | 533.4 | 31.7         | 16            | 97.0       |
| FSBL15508 | 20"   | 698.5 | 42.9 | 635.0 | 1.5 | 584.2 | 31.7         | 20            | 124.0      |
| FSBL15609 | 24"   | 812.8 | 47.7 | 749.3 | 1.5 | 692.1 | 35.0         | 20            | 188.0      |

# BLIND FLANGES

300 Lbs

ANSI / ASME B 16.5



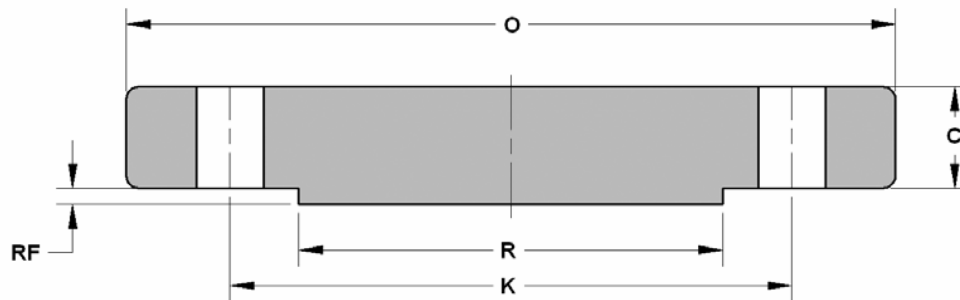
Dimensions are in mm.

| Cod.      | DN    | O     | C    | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL30021 | 1/2   | 95.2  | 14.2 | 66.5  | 1.5 | 35.0  | 15.7               | 4                   | 0.7           |
| FSBL30027 | 3/4   | 117.3 | 15.7 | 82.5  | 1.5 | 42.9  | 19.0               | 4                   | 1.2           |
| FSBL30033 | 1"    | 123.9 | 17.5 | 88.9  | 1.5 | 50.8  | 19.0               | 4                   | 1.5           |
| FSBL30042 | 1"1/4 | 133.3 | 19.0 | 98.5  | 1.5 | 63.5  | 19.0               | 4                   | 2.0           |
| FSBL30048 | 1"1/2 | 155.4 | 20.5 | 114.3 | 1.5 | 73.1  | 22.3               | 4                   | 2.9           |
| FSBL30060 | 2"    | 165.1 | 22.3 | 127.0 | 1.5 | 91.9  | 19.0               | 8                   | 3.4           |
| FSBL30073 | 2"1/2 | 190.5 | 25.4 | 149.3 | 1.5 | 104.6 | 22.3               | 8                   | 5.1           |
| FSBL30089 | 3"    | 209.5 | 28.4 | 168.1 | 1.5 | 127.0 | 22.3               | 8                   | 7.0           |
| FSBL30114 | 4"    | 254.0 | 31.7 | 200.1 | 1.5 | 157.2 | 22.3               | 8                   | 11.8          |
| FSBL30141 | 5"    | 279.4 | 35.0 | 234.9 | 1.5 | 185.6 | 22.3               | 8                   | 15.5          |
| FSBL30168 | 6"    | 317.4 | 36.5 | 269.7 | 1.5 | 215.9 | 22.3               | 12                  | 21.3          |
| FSBL30219 | 8"    | 381.0 | 41.1 | 330.2 | 1.5 | 269.7 | 25.4               | 12                  | 35.2          |
| FSBL30273 | 10"   | 444.5 | 47.7 | 387.3 | 1.5 | 323.8 | 28.4               | 16                  | 57.0          |
| FSBL30323 | 12"   | 520.7 | 50.8 | 450.8 | 1.5 | 381.0 | 31.7               | 16                  | 82.0          |
| FSBL30355 | 14"   | 584.2 | 53.8 | 514.3 | 1.5 | 412.7 | 31.7               | 20                  | 106.0         |
| FSBL30406 | 16"   | 647.7 | 57.1 | 571.5 | 1.5 | 469.9 | 35.0               | 20                  | 140.0         |
| FSBL30455 | 18"   | 711.2 | 60.4 | 628.6 | 1.5 | 533.4 | 35.0               | 24                  | 178.0         |
| FSBL30508 | 20"   | 774.7 | 63.5 | 685.8 | 1.5 | 584.2 | 35.0               | 24                  | 223.0         |
| FSBL30609 | 24"   | 914.4 | 69.8 | 812.8 | 1.5 | 692.1 | 41.1               | 24                  | 345.0         |

# BLIND FLANGES

400 Lbs

ANSI / ASME B 16.5



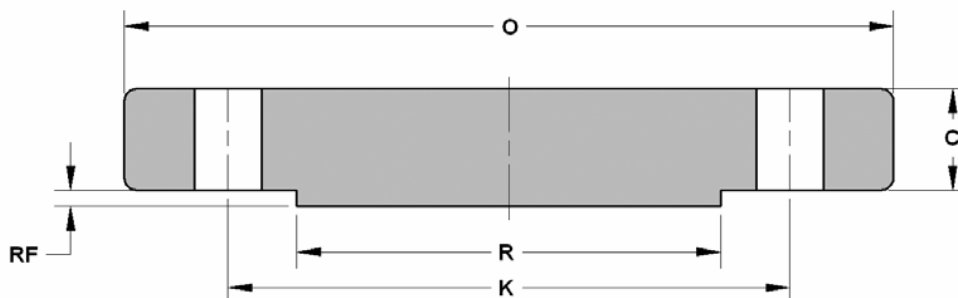
Dimensions are in mm.

| Cod.      | DN    | O     | C    | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL40021 | 1/2   |       |      |       |     |       |                    |                     |               |
| FSBL40027 | 3/4   |       |      |       |     |       |                    |                     |               |
| FSBL40033 | 1"    |       |      |       |     |       |                    |                     |               |
| FSBL40042 | 1"1/4 |       |      |       |     |       |                    |                     |               |
| FSBL40048 | 1"1/2 |       |      |       |     |       |                    |                     |               |
| FSBL40060 | 2"    |       |      |       |     |       |                    |                     |               |
| FSBL40073 | 2"1/2 |       |      |       |     |       |                    |                     |               |
| FSBL40089 | 3"    |       |      |       |     |       |                    |                     |               |
| FSBL40114 | 4"    | 254.0 | 35.0 | 200.1 | 6.3 | 157.2 | 25.4               | 8                   | 14.0          |
| FSBL40141 | 5"    | 279.4 | 38.1 | 234.9 | 6.3 | 185.6 | 25.4               | 8                   | 19.0          |
| FSBL40168 | 6"    | 317.5 | 41.1 | 269.7 | 6.3 | 215.9 | 25.4               | 12                  | 26.0          |
| FSBL40219 | 8"    | 381.0 | 47.7 | 330.2 | 6.3 | 269.7 | 28.4               | 12                  | 43.0          |
| FSBL40273 | 10"   | 444.5 | 53.8 | 387.3 | 6.3 | 323.8 | 31.7               | 16                  | 65.0          |
| FSBL40323 | 12"   | 520.7 | 57.1 | 450.8 | 6.3 | 381.0 | 35.0               | 16                  | 95.0          |
| FSBL40355 | 14"   | 584.2 | 60.4 | 514.3 | 6.3 | 412.7 | 35.0               | 20                  | 126.0         |
| FSBL40406 | 16"   | 647.7 | 63.5 | 571.5 | 6.3 | 469.9 | 38.1               | 20                  | 163.0         |
| FSBL40455 | 18"   | 711.2 | 66.5 | 628.6 | 6.3 | 533.4 | 38.1               | 24                  | 206.0         |
| FSBL40508 | 20"   | 774.7 | 69.8 | 685.8 | 6.3 | 584.2 | 41.1               | 24                  | 270.0         |
| FSBL40609 | 24"   | 914.4 | 76.2 | 812.8 | 6.3 | 692.1 | 42.7               | 24                  | 410.0         |

# BLIND FLANGES

600 Lbs

ANSI / ASME B 16.5



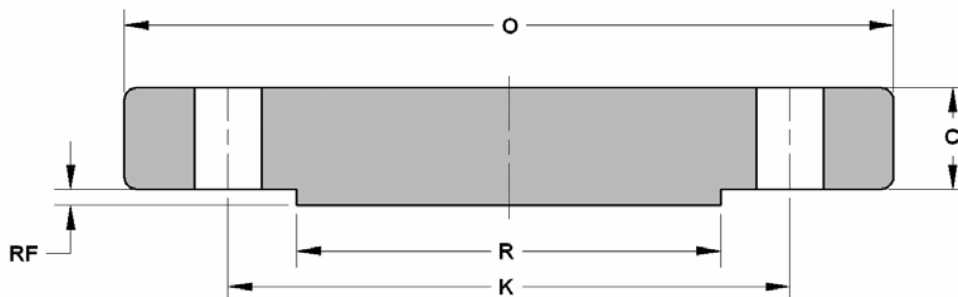
Dimensions are in mm.

| Cod.      | DN    | O     | C     | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|-------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL60021 | 1/2   | 95.2  | 14.2  | 66.5  | 6.3 | 35.0  | 15.7               | 4                   | 0.7           |
| FSBL60027 | 3/4   | 117.3 | 15.7  | 82.5  | 6.3 | 42.9  | 19.0               | 4                   | 1.2           |
| FSBL60033 | 1"    | 123.9 | 17.5  | 88.9  | 6.3 | 50.8  | 19.0               | 4                   | 1.5           |
| FSBL60042 | 1"1/4 | 133.3 | 20.5  | 98.5  | 6.3 | 63.5  | 19.0               | 4                   | 2.0           |
| FSBL60048 | 1"1/2 | 155.4 | 22.3  | 114.3 | 6.3 | 73.1  | 22.3               | 4                   | 3.2           |
| FSBL60060 | 2"    | 165.1 | 25.4  | 127.0 | 6.3 | 91.9  | 19.0               | 8                   | 4.3           |
| FSBL60073 | 2"1/2 | 190.5 | 28.4  | 149.3 | 6.3 | 104.6 | 22.3               | 8                   | 6.0           |
| FSBL60089 | 3"    | 209.5 | 31.7  | 168.1 | 6.3 | 127.0 | 22.3               | 8                   | 8.0           |
| FSBL60114 | 4"    | 273.0 | 38.1  | 215.9 | 6.3 | 157.2 | 25.4               | 8                   | 18.0          |
| FSBL60141 | 5"    | 330.2 | 44.4  | 266.7 | 6.3 | 185.6 | 28.4               | 8                   | 28.5          |
| FSBL60168 | 6"    | 355.6 | 47.7  | 292.1 | 6.3 | 215.9 | 28.4               | 12                  | 35.5          |
| FSBL60219 | 8"    | 419.1 | 55.6  | 349.2 | 6.3 | 269.7 | 31.7               | 12                  | 58.0          |
| FSBL60273 | 10"   | 508.0 | 63.5  | 431.8 | 6.3 | 323.8 | 35.0               | 16                  | 98.0          |
| FSBL60323 | 12"   | 558.8 | 66.5  | 488.9 | 6.3 | 381.0 | 35.0               | 20                  | 125.0         |
| FSBL60355 | 14"   | 603.2 | 69.8  | 527.0 | 6.3 | 412.7 | 38.1               | 20                  | 151.0         |
| FSBL60406 | 16"   | 685.8 | 76.2  | 603.2 | 6.3 | 469.9 | 41.1               | 20                  | 215.0         |
| FSBL60455 | 18"   | 742.9 | 82.5  | 654.0 | 6.3 | 533.4 | 44.4               | 20                  | 287.0         |
| FSBL60508 | 20"   | 812.8 | 88.9  | 723.9 | 6.3 | 584.2 | 44.4               | 24                  | 366.0         |
| FSBL60609 | 24"   | 939.8 | 101.6 | 838.2 | 6.3 | 692.1 | 50.8               | 24                  | 532.0         |

# BLIND FLANGES

900 Lbs

ANSI / ASME B 16.5



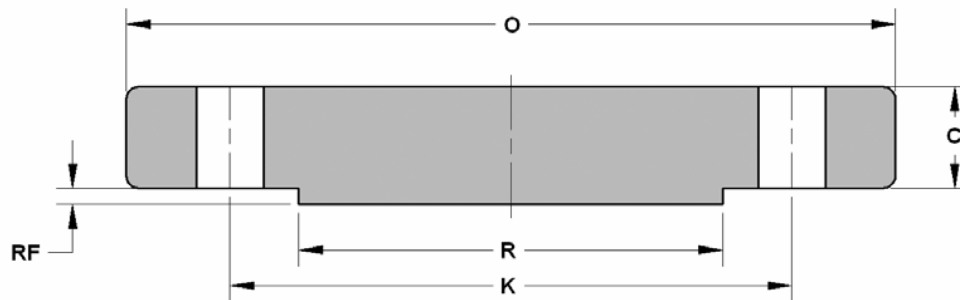
Dimensions are in mm.

| Cod.      | DN    | O      | C     | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|--------|-------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL90021 | 1/2   |        |       |       |     |       |                    |                     |               |
| FSBL90027 | 3/4   |        |       |       |     |       |                    |                     |               |
| FSBL90033 | 1"    |        |       |       |     |       |                    |                     |               |
| FSBL90042 | 1"1/4 |        |       |       |     |       |                    |                     |               |
| FSBL90048 | 1"1/2 |        |       |       |     |       |                    |                     |               |
| FSBL90060 | 2"    |        |       |       |     |       |                    |                     |               |
| FSBL90073 | 2"1/2 |        |       |       |     |       |                    |                     |               |
| FSBL90089 | 3"    | 241.3  | 38.1  | 190.5 | 6.3 | 127.0 | 25.4               | 8                   | 13.1          |
| FSBL90114 | 4"    | 292.1  | 44.4  | 234.9 | 6.3 | 157.2 | 31.7               | 8                   | 22.1          |
| FSBL90141 | 5"    | 349.2  | 50.8  | 279.4 | 6.3 | 185.6 | 35.0               | 8                   | 36.5          |
| FSBL90168 | 6"    | 381.0  | 55.6  | 317.5 | 6.3 | 215.9 | 31.7               | 12                  | 47.4          |
| FSBL90219 | 8"    | 469.9  | 63.5  | 393.7 | 6.3 | 269.7 | 38.1               | 12                  | 82.5          |
| FSBL90273 | 10"   | 546.1  | 69.8  | 469.9 | 6.3 | 323.8 | 38.1               | 16                  | 123.0         |
| FSBL90323 | 12"   | 609.6  | 79.2  | 533.4 | 6.3 | 381.0 | 38.1               | 20                  | 174.0         |
| FSBL90355 | 14"   | 641.3  | 85.8  | 558.8 | 6.3 | 412.7 | 41.1               | 20                  | 213.0         |
| FSBL90406 | 16"   | 704.8  | 88.9  | 615.9 | 6.3 | 469.9 | 44.4               | 20                  | 280.0         |
| FSBL90455 | 18"   | 787.4  | 101.6 | 685.8 | 6.3 | 533.4 | 50.8               | 20                  | 400.0         |
| FSBL90508 | 20"   | 857.2  | 107.9 | 749.3 | 6.3 | 584.2 | 53.8               | 20                  | 503.0         |
| FSBL90609 | 24"   | 1041.4 | 139.7 | 901.7 | 6.3 | 692.1 | 66.5               | 20                  | 950.0         |

# BLIND FLANGES

1500 Lbs

ANSI / ASME B 16.5



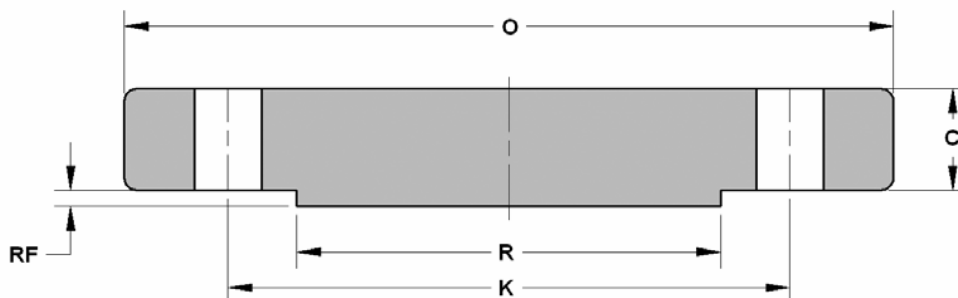
Dimensions are in mm.

| Cod.        | DN    | O      | C     | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-------------|-------|--------|-------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL1500021 | 1/2   | 120.6  | 22.3  | 82.5  | 6.3 | 35.0  | 22.3               | 4                   | 1.8           |
| FSBL1500027 | 3/4   | 130.0  | 25.4  | 88.9  | 6.3 | 42.9  | 22.3               | 4                   | 2.4           |
| FSBL1500033 | 1"    | 149.3  | 28.4  | 101.6 | 6.3 | 50.8  | 25.4               | 4                   | 3.6           |
| FSBL1500042 | 1"1/4 | 158.7  | 28.4  | 111.2 | 6.3 | 63.5  | 25.4               | 4                   | 4.1           |
| FSBL1500048 | 1"1/2 | 177.8  | 31.7  | 123.9 | 6.3 | 73.1  | 28.4               | 4                   | 5.8           |
| FSBL1500060 | 2"    | 215.9  | 38.1  | 165.1 | 6.3 | 91.9  | 25.4               | 8                   | 10.1          |
| FSBL1500073 | 2"1/2 | 244.3  | 41.1  | 190.5 | 6.3 | 104.6 | 28.4               | 8                   | 14.0          |
| FSBL1500089 | 3"    | 266.7  | 47.7  | 203.2 | 6.3 | 127.0 | 31.7               | 8                   | 19.0          |
| FSBL1500114 | 4"    | 311.1  | 53.8  | 241.3 | 6.3 | 157.2 | 35.0               | 8                   | 30.0          |
| FSBL1500141 | 5"    | 374.6  | 73.1  | 292.1 | 6.3 | 185.6 | 41.1               | 8                   | 58.0          |
| FSBL1500168 | 6"    | 393.7  | 82.5  | 317.5 | 6.3 | 215.9 | 38.1               | 12                  | 72.0          |
| FSBL1500219 | 8"    | 482.6  | 91.9  | 393.7 | 6.3 | 269.7 | 44.4               | 12                  | 122.0         |
| FSBL1500273 | 10"   | 584.2  | 107.9 | 482.6 | 6.3 | 323.8 | 50.8               | 12                  | 210.0         |
| FSBL1500323 | 12"   | 673.1  | 123.9 | 571.5 | 6.3 | 381.0 | 53.8               | 16                  | 315.0         |
| FSBL1500355 | 14"   | 749.3  | 133.3 | 635.0 | 6.3 | 412.7 | 60.4               | 16                  | 423.0         |
| FSBL1500406 | 16"   | 825.5  | 146.0 | 704.8 | 6.3 | 469.9 | 66.5               | 16                  | 590.0         |
| FSBL1500455 | 18"   | 914.4  | 162.0 | 774.7 | 6.3 | 533.4 | 73.1               | 16                  | 795.0         |
| FSBL1500508 | 20"   | 984.2  | 177.8 | 831.8 | 6.3 | 584.2 | 79.2               | 16                  | 1030.0        |
| FSBL1500609 | 24"   | 1168.4 | 203.2 | 990.6 | 6.3 | 692.1 | 91.9               | 16                  | 1650.0        |

# BLIND FLANGES

2500 Lbs

ANSI / ASME B 16.5



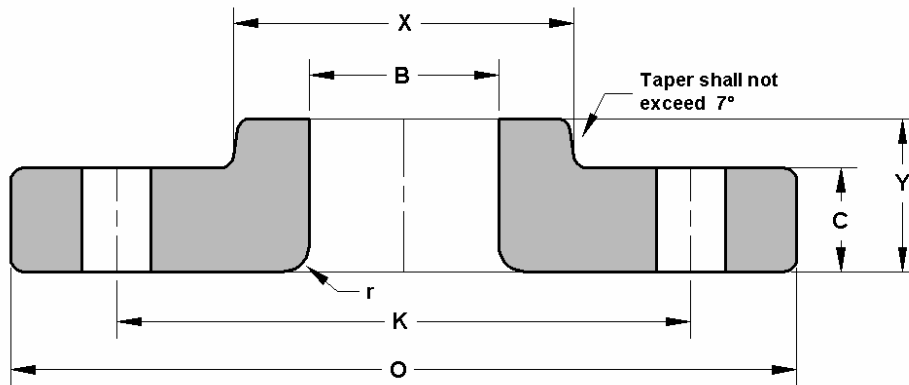
Dimensions are in mm.

| Cod.        | DN    | O     | C     | K     | RF  | R     | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-------------|-------|-------|-------|-------|-----|-------|--------------------|---------------------|---------------|
| FSBL2500021 | 1/2   | 133.3 | 30.2  | 88.9  | 6.3 | 35.0  | 22.3               | 4                   | 3.0           |
| FSBL2500027 | 3/4   | 139.7 | 31.7  | 95.2  | 6.3 | 42.9  | 22.3               | 4                   | 4.5           |
| FSBL2500033 | 1"    | 158.7 | 35.0  | 107.9 | 6.3 | 50.8  | 25.4               | 4                   | 5.0           |
| FSBL2500042 | 1"1/4 | 184.1 | 38.1  | 130.0 | 6.3 | 63.5  | 28.4               | 4                   | 8.0           |
| FSBL2500048 | 1"1/2 | 203.2 | 44.4  | 146.0 | 6.3 | 73.1  | 31.7               | 4                   | 11.0          |
| FSBL2500060 | 2"    | 234.9 | 50.8  | 171.4 | 6.3 | 91.9  | 28.4               | 8                   | 17.0          |
| FSBL2500073 | 2"1/2 | 266.7 | 57.1  | 196.8 | 6.3 | 104.6 | 31.7               | 8                   | 25.0          |
| FSBL2500089 | 3"    | 304.8 | 66.5  | 228.6 | 6.3 | 127.0 | 35.0               | 8                   | 39.0          |
| FSBL2500114 | 4"    | 355.6 | 76.2  | 273.0 | 6.3 | 157.2 | 41.1               | 8                   | 60.0          |
| FSBL2500141 | 5"    | 419.1 | 91.9  | 323.8 | 6.3 | 185.6 | 47.7               | 8                   | 101.0         |
| FSBL2500168 | 6"    | 482.6 | 107.9 | 368.3 | 6.3 | 215.9 | 53.8               | 8                   | 156.0         |
| FSBL2500219 | 8"    | 552.4 | 127.0 | 438.1 | 6.3 | 269.7 | 53.8               | 12                  | 242.0         |
| FSBL2500273 | 10"   | 673.1 | 165.1 | 539.7 | 6.3 | 323.8 | 66.5               | 12                  | 465.0         |
| FSBL2500323 | 12"   | 762.0 | 184.1 | 619.2 | 6.3 | 381.0 | 73.1               | 12                  | 665.0         |
| FSBL2500355 | 14"   |       |       |       |     |       |                    |                     |               |
| FSBL2500406 | 16"   |       |       |       |     |       |                    |                     |               |
| FSBL2500455 | 18"   |       |       |       |     |       |                    |                     |               |
| FSBL2500508 | 20"   |       |       |       |     |       |                    |                     |               |
| FSBL2500609 | 24"   |       |       |       |     |       |                    |                     |               |

# LAPPED FLANGES

150 Lbs

ANSI / ASME B 16.5



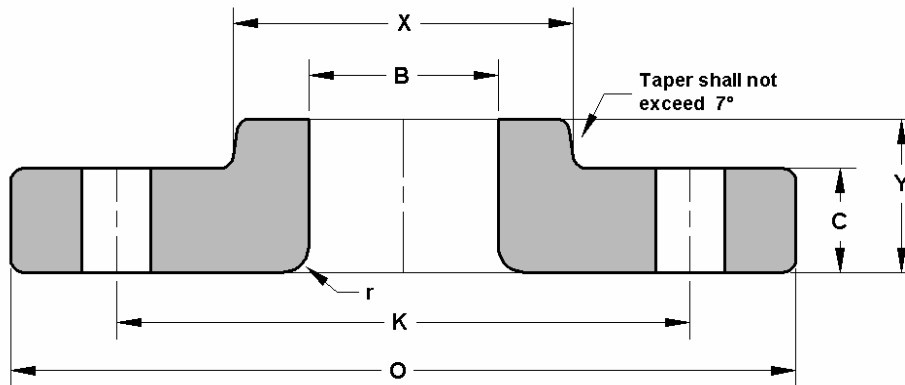
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | B     | r    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|------|--------------------|---------------------|---------------|
| FSLJ15021 | 1/2   | 88.9  | 11.1 | 30.2  | 60.4  | 15.7  | 22.8  | 3.0  | 15.7               | 4                   | 0.4           |
| FSLJ15027 | 3/4   | 98.5  | 12.7 | 38.1  | 69.8  | 15.7  | 28.2  | 3.0  | 15.7               | 4                   | 0.7           |
| FSLJ15033 | 1"    | 107.9 | 14.2 | 49.2  | 79.2  | 17.5  | 35.0  | 3.0  | 15.7               | 4                   | 0.8           |
| FSLJ15042 | 1"1/4 | 117.3 | 15.7 | 58.6  | 88.9  | 20.5  | 43.6  | 4.8  | 15.7               | 4                   | 1.1           |
| FSLJ15048 | 1"1/2 | 127.0 | 17.5 | 65.0  | 98.5  | 22.3  | 50.0  | 6.3  | 15.7               | 4                   | 1.4           |
| FSLJ15060 | 2"    | 152.4 | 19.0 | 77.7  | 120.6 | 25.4  | 62.4  | 7.8  | 19.0               | 4                   | 2.2           |
| FSLJ15073 | 2"1/2 | 177.8 | 22.3 | 90.4  | 139.7 | 28.4  | 75.4  | 7.8  | 19.0               | 4                   | 3.6           |
| FSLJ15089 | 3"    | 190.5 | 23.8 | 107.9 | 152.4 | 30.2  | 91.4  | 9.6  | 19.0               | 4                   | 4.1           |
| FSLJ15114 | 4"    | 228.6 | 23.8 | 134.8 | 190.5 | 33.2  | 116.8 | 11.1 | 19.0               | 8                   | 5.6           |
| FSLJ15141 | 5"    | 254.0 | 23.8 | 163.5 | 215.9 | 36.5  | 144.5 | 11.1 | 22.3               | 8                   | 6.3           |
| FSLJ15168 | 6"    | 279.4 | 25.4 | 192.0 | 241.3 | 39.6  | 171.4 | 12.7 | 22.3               | 8                   | 7.5           |
| FSLJ15219 | 8"    | 342.9 | 28.4 | 246.1 | 298.4 | 44.4  | 222.2 | 12.7 | 22.3               | 8                   | 12.6          |
| FSLJ15273 | 10"   | 406.4 | 30.2 | 304.8 | 361.9 | 49.2  | 277.3 | 12.7 | 25.4               | 12                  | 18.5          |
| FSLJ15323 | 12"   | 482.6 | 31.7 | 365.2 | 431.8 | 55.6  | 328.1 | 12.7 | 25.4               | 12                  | 28.0          |
| FSLJ15355 | 14"   | 533.4 | 35.0 | 400.0 | 476.2 | 79.2  | 360.1 | 12.7 | 28.4               | 12                  | 42.0          |
| FSLJ15406 | 16"   | 596.9 | 36.5 | 457.2 | 539.7 | 87.3  | 411.2 | 12.7 | 28.4               | 16                  | 52.0          |
| FSLJ15455 | 18"   | 635.0 | 39.6 | 504.9 | 577.8 | 96.7  | 462.2 | 12.7 | 31.7               | 16                  | 58.0          |
| FSLJ15508 | 20"   | 698.5 | 42.9 | 558.8 | 635.0 | 103.1 | 514.3 | 12.7 | 31.7               | 20                  | 74.0          |
| FSLJ15609 | 24"   | 812.8 | 47.7 | 663.4 | 749.3 | 111.2 | 615.9 | 12.7 | 35.0               | 20                  | 101.0         |

# LAPPED FLANGES

300 Lbs

ANSI / ASME B 16.5



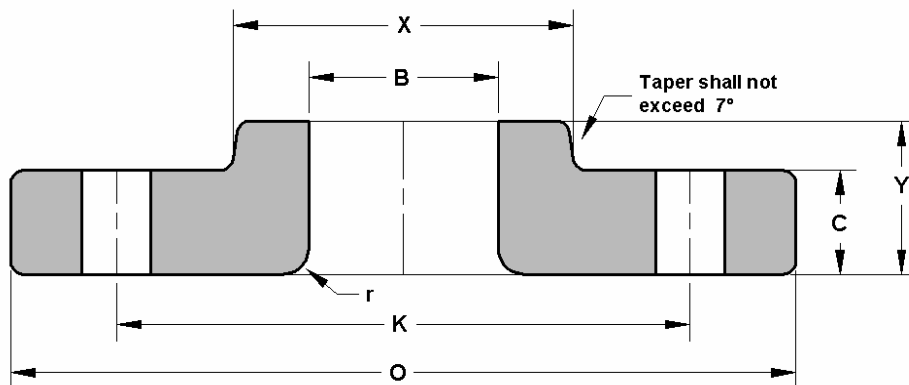
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | B     | r    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|------|--------------|---------------|------------|
| FSLJ30021 | 1/2   | 95.2  | 14.2 | 38.1  | 66.5  | 22.3  | 22.8  | 3.0  | 15.7         | 4             | 0.7        |
| FSLJ30027 | 3/4   | 117.3 | 15.7 | 47.7  | 82.5  | 25.4  | 28.2  | 3.0  | 19.0         | 4             | 1.1        |
| FSLJ30033 | 1"    | 123.9 | 17.5 | 53.8  | 88.9  | 26.9  | 35.0  | 3.0  | 19.0         | 4             | 1.4        |
| FSLJ30042 | 1"1/4 | 133.3 | 19.0 | 63.5  | 98.5  | 26.9  | 43.6  | 4.8  | 19.0         | 4             | 1.8        |
| FSLJ30048 | 1"1/2 | 155.4 | 20.5 | 69.8  | 114.3 | 30.2  | 50.0  | 6.3  | 22.3         | 4             | 2.6        |
| FSLJ30060 | 2"    | 165.1 | 22.3 | 84.0  | 127.0 | 33.2  | 62.4  | 7.8  | 19.0         | 8             | 3.4        |
| FSLJ30073 | 2"1/2 | 190.5 | 25.4 | 100.0 | 149.3 | 38.1  | 75.4  | 7.8  | 22.3         | 8             | 4.4        |
| FSLJ30089 | 3"    | 209.5 | 28.4 | 117.3 | 168.1 | 42.9  | 91.4  | 9.6  | 22.3         | 8             | 6.1        |
| FSLJ30114 | 4"    | 254.0 | 31.7 | 146.0 | 200.1 | 47.7  | 116.8 | 11.1 | 22.3         | 8             | 10.1       |
| FSLJ30141 | 5"    | 279.4 | 35.0 | 177.8 | 234.9 | 50.8  | 144.5 | 11.1 | 22.3         | 8             | 12.5       |
| FSLJ30168 | 6"    | 317.5 | 36.5 | 206.2 | 269.7 | 52.3  | 171.4 | 12.7 | 22.3         | 12            | 14.1       |
| FSLJ30219 | 8"    | 381.0 | 41.1 | 260.3 | 330.2 | 61.9  | 222.2 | 12.7 | 25.4         | 12            | 24.8       |
| FSLJ30273 | 10"   | 444.5 | 47.7 | 320.5 | 387.3 | 95.2  | 277.3 | 12.7 | 28.4         | 16            | 42.0       |
| FSLJ30323 | 12"   | 520.7 | 50.8 | 374.6 | 450.8 | 101.6 | 328.1 | 12.7 | 31.7         | 16            | 64.0       |
| FSLJ30355 | 14"   | 584.2 | 53.8 | 425.4 | 514.3 | 111.2 | 360.1 | 12.7 | 31.7         | 20            | 87.0       |
| FSLJ30406 | 16"   | 647.7 | 57.1 | 482.6 | 571.5 | 120.6 | 411.2 | 12.7 | 35.0         | 20            | 114.0      |
| FSLJ30455 | 18"   | 711.2 | 60.4 | 533.4 | 628.6 | 130.0 | 462.2 | 12.7 | 35.0         | 24            | 134.0      |
| FSLJ30508 | 20"   | 774.7 | 63.5 | 587.2 | 685.8 | 139.7 | 514.3 | 12.7 | 35.0         | 24            | 168.0      |
| FSLJ30609 | 24"   | 914.4 | 69.8 | 701.5 | 812.8 | 152.4 | 615.9 | 12.7 | 41.1         | 24            | 250.0      |

# LAPPED FLANGES

400 Lbs

ANSI / ASME B 16.5



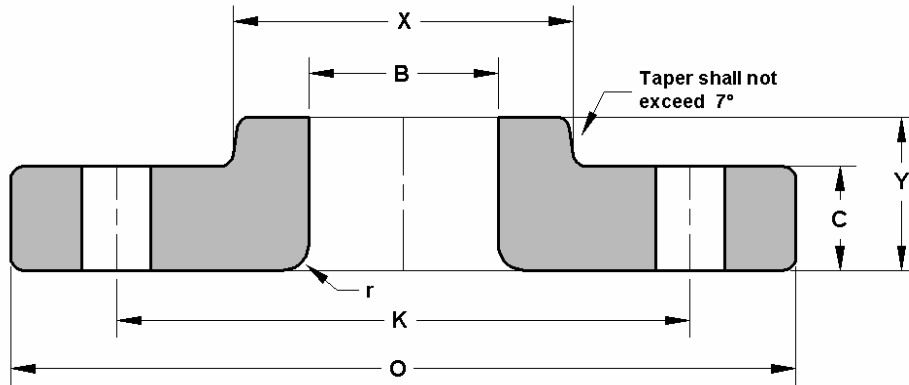
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | B     | r    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-------|------|--------------------|---------------------|---------------|
| FSLJ40021 | 1/2   |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40027 | 3/4   |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40033 | 1"    |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40042 | 1"1/4 |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40048 | 1"1/2 |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40060 | 2"    |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40073 | 2"1/2 |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40089 | 3"    |       |      |       |       |       |       |      |                    |                     |               |
| FSLJ40114 | 4"    | 254.0 | 35.0 | 146.0 | 200.1 | 50.8  | 116.8 | 11.1 | 25.4               | 8                   | 11.5          |
| FSLJ40141 | 5"    | 279.4 | 38.1 | 177.8 | 234.9 | 53.8  | 144.5 | 11.1 | 25.4               | 8                   | 14.5          |
| FSLJ40168 | 6"    | 317.5 | 41.1 | 206.2 | 269.7 | 57.1  | 171.4 | 12.7 | 25.4               | 12                  | 19.0          |
| FSLJ40219 | 8"    | 381.0 | 47.7 | 260.3 | 330.2 | 68.3  | 222.2 | 12.7 | 28.4               | 12                  | 32.0          |
| FSLJ40273 | 10"   | 444.5 | 53.8 | 320.5 | 387.3 | 101.6 | 277.3 | 12.7 | 31.7               | 16                  | 44.0          |
| FSLJ40323 | 12"   | 520.7 | 57.1 | 374.6 | 450.8 | 107.9 | 328.1 | 12.7 | 35.0               | 16                  | 65.0          |
| FSLJ40355 | 14"   | 584.2 | 60.4 | 425.4 | 514.3 | 117.3 | 360.1 | 12.7 | 35.0               | 20                  | 91.0          |
| FSLJ40406 | 16"   | 647.7 | 63.5 | 482.6 | 571.5 | 127.0 | 411.2 | 12.7 | 38.1               | 20                  | 115.0         |
| FSLJ40455 | 18"   | 711.2 | 66.5 | 533.4 | 628.6 | 136.6 | 462.2 | 12.7 | 38.1               | 24                  | 139.0         |
| FSLJ40508 | 20"   | 774.7 | 69.8 | 587.2 | 685.8 | 146.0 | 514.3 | 12.7 | 41.1               | 24                  | 170.0         |
| FSLJ40609 | 24"   | 914.4 | 76.2 | 701.5 | 812.8 | 158.7 | 615.9 | 12.7 | 47.7               | 24                  | 260.0         |

# LAPPED FLANGES

600 Lbs

ANSI / ASME B 16.5



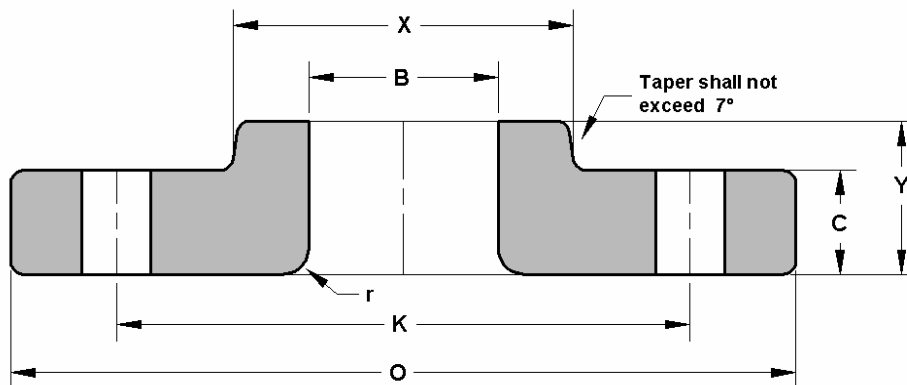
Dimensions are in mm.

| Cod.      | DN    | O     | C     | X     | K     | Y     | B     | r    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|-------|-------|-------|-------|-------|------|--------------------|---------------------|---------------|
| FSLJ60021 | 1/2   | 95.2  | 14.2  | 38.1  | 66.5  | 22.3  | 22.8  | 3.0  | 15.7               | 4                   | 0.8           |
| FSLJ60027 | 3/4   | 117.3 | 15.7  | 47.7  | 82.5  | 25.4  | 28.2  | 3.0  | 19.0               | 4                   | 1.4           |
| FSLJ60033 | 1"    | 123.9 | 17.5  | 53.8  | 88.9  | 26.9  | 35.0  | 3.0  | 19.0               | 4                   | 1.6           |
| FSLJ60042 | 1"1/4 | 133.3 | 20.5  | 63.5  | 98.5  | 28.4  | 43.6  | 4.8  | 19.0               | 4                   | 2.1           |
| FSLJ60048 | 1"1/2 | 155.4 | 22.3  | 69.8  | 114.3 | 31.7  | 50.0  | 6.3  | 22.3               | 4                   | 3.1           |
| FSLJ60060 | 2"    | 165.1 | 25.4  | 84.0  | 127.0 | 36.5  | 62.4  | 7.8  | 19.0               | 8                   | 3.7           |
| FSLJ60073 | 2"1/2 | 190.5 | 28.4  | 100.0 | 149.3 | 41.1  | 75.4  | 7.8  | 22.3               | 8                   | 5.4           |
| FSLJ60089 | 3"    | 209.5 | 31.7  | 117.3 | 168.1 | 45.9  | 91.4  | 9.6  | 22.3               | 8                   | 7.3           |
| FSLJ60114 | 4"    | 273.0 | 38.1  | 152.4 | 215.9 | 53.8  | 116.8 | 11.1 | 25.4               | 8                   | 15.8          |
| FSLJ60141 | 5"    | 330.2 | 44.4  | 188.9 | 266.7 | 60.4  | 144.5 | 11.1 | 28.4               | 8                   | 24.5          |
| FSLJ60168 | 6"    | 355.6 | 47.7  | 222.2 | 292.1 | 66.5  | 171.4 | 12.7 | 28.4               | 12                  | 29.5          |
| FSLJ60219 | 8"    | 419.1 | 55.6  | 273.0 | 349.2 | 76.2  | 222.2 | 12.7 | 31.7               | 12                  | 43.0          |
| FSLJ60273 | 10"   | 508.0 | 63.5  | 342.9 | 431.8 | 111.2 | 277.3 | 12.7 | 35.0               | 16                  | 77.0          |
| FSLJ60323 | 12"   | 558.8 | 66.5  | 400.0 | 488.9 | 117.3 | 328.1 | 12.7 | 35.0               | 20                  | 92.0          |
| FSLJ60355 | 14"   | 603.2 | 69.8  | 431.8 | 527.0 | 127.0 | 360.1 | 12.7 | 38.1               | 20                  | 114.0         |
| FSLJ60406 | 16"   | 685.8 | 76.2  | 495.3 | 603.2 | 139.7 | 411.2 | 12.7 | 41.1               | 20                  | 160.0         |
| FSLJ60455 | 18"   | 742.9 | 82.5  | 546.1 | 654.0 | 152.4 | 462.2 | 12.7 | 44.4               | 20                  | 192.0         |
| FSLJ60508 | 20"   | 812.8 | 88.9  | 609.6 | 723.9 | 165.1 | 514.3 | 12.7 | 44.4               | 24                  | 260.0         |
| FSLJ60609 | 24"   | 939.8 | 101.6 | 717.5 | 838.2 | 184.1 | 615.9 | 12.7 | 50.8               | 24                  | 368.0         |

# LAPPED FLANGES

900 Lbs

ANSI / ASME B 16.5



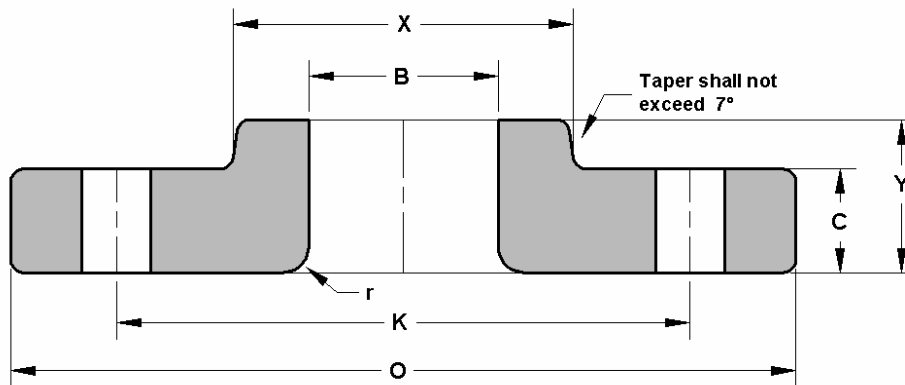
Dimensions are in mm.

| Cod.      | DN    | O      | C     | X     | K     | Y     | B     | r    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|--------|-------|-------|-------|-------|-------|------|--------------------|---------------------|---------------|
| FSLJ90021 | 1/2   |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90027 | 3/4   |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90033 | 1"    |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90042 | 1"1/4 |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90048 | 1"1/2 |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90060 | 2"    |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90073 | 2"1/2 |        |       |       |       |       |       |      |                    |                     |               |
| FSLJ90089 | 3"    | 241.3  | 38.1  | 127.0 | 190.5 | 53.8  | 91.4  | 9.6  | 25.4               | 8                   | 11.6          |
| FSLJ90114 | 4"    | 292.1  | 44.4  | 158.7 | 234.9 | 69.8  | 116.8 | 11.1 | 31.7               | 8                   | 19.8          |
| FSLJ90141 | 5"    | 349.2  | 50.8  | 190.5 | 279.4 | 79.2  | 144.5 | 11.1 | 35.0               | 8                   | 32.0          |
| FSLJ90168 | 6"    | 381.0  | 55.6  | 234.9 | 317.5 | 85.8  | 171.4 | 12.7 | 31.7               | 12                  | 41.2          |
| FSLJ90219 | 8"    | 469.9  | 63.5  | 298.4 | 393.7 | 114.3 | 222.2 | 12.7 | 38.1               | 12                  | 75.0          |
| FSLJ90273 | 10"   | 546.1  | 69.8  | 368.3 | 469.9 | 127.0 | 277.3 | 12.7 | 38.1               | 16                  | 115.0         |
| FSLJ90323 | 12"   | 609.6  | 79.2  | 419.1 | 533.4 | 142.7 | 328.1 | 12.7 | 38.1               | 20                  | 155.0         |
| FSLJ90355 | 14"   | 641.3  | 85.8  | 450.8 | 558.8 | 155.4 | 360.1 | 12.7 | 41.1               | 20                  | 170.0         |
| FSLJ90406 | 16"   | 704.8  | 88.9  | 508.0 | 615.9 | 165.1 | 411.2 | 12.7 | 44.4               | 20                  | 210.0         |
| FSLJ90455 | 18"   | 787.4  | 101.6 | 565.1 | 685.8 | 190.5 | 462.2 | 12.7 | 50.8               | 20                  | 298.0         |
| FSLJ90508 | 20"   | 857.2  | 107.9 | 622.3 | 749.3 | 209.5 | 514.3 | 12.7 | 53.8               | 20                  | 370.0         |
| FSLJ90609 | 24"   | 1041.4 | 139.7 | 749.3 | 901.7 | 266.7 | 615.9 | 12.7 | 66.5               | 20                  | 710.0         |

# LAPPED FLANGES

1500 Lbs

ANSI / ASME B 16.5



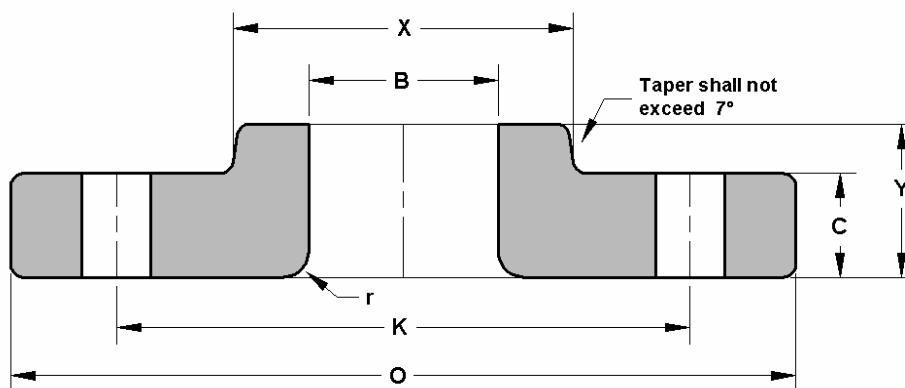
Dimensions are in mm.

| Cod.        | DN    | O      | C     | X     | K     | Y     | B     | r    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-------------|-------|--------|-------|-------|-------|-------|-------|------|--------------|---------------|------------|
| FSLJ150021  | 1/2   | 120.6  | 22.3  | 38.1  | 82.5  | 31.7  | 22.8  | 3.0  | 22.3         | 4             | 1.7        |
| FSLJ150027  | 3/4   | 130.0  | 25.4  | 44.4  | 88.9  | 35.0  | 28.2  | 3.0  | 22.3         | 4             | 2.3        |
| FSLJ150033  | 1"    | 149.3  | 28.4  | 52.3  | 101.6 | 41.1  | 35.0  | 3.0  | 25.4         | 4             | 3.4        |
| FSLJ150042  | 1"1/4 | 158.7  | 28.4  | 63.5  | 111.2 | 41.1  | 43.6  | 4.8  | 25.4         | 4             | 3.9        |
| FSLJ150048  | 1"1/2 | 177.8  | 31.7  | 69.8  | 123.9 | 44.4  | 50.0  | 6.3  | 28.4         | 4             | 5.4        |
| FSLJ150060  | 2"    | 215.9  | 38.1  | 104.6 | 165.1 | 57.1  | 62.4  | 7.8  | 25.4         | 8             | 9.8        |
| FSLJ150073  | 2"1/2 | 244.3  | 41.1  | 123.9 | 190.5 | 63.5  | 75.4  | 7.8  | 28.4         | 8             | 13.7       |
| FSLJ150089  | 3"    | 266.7  | 47.7  | 133.3 | 203.2 | 73.1  | 91.4  | 9.6  | 31.7         | 8             | 18.0       |
| FSLJ1500114 | 4"    | 311.1  | 53.8  | 162.0 | 241.3 | 90.4  | 116.8 | 11.1 | 35.0         | 8             | 27.8       |
| FSLJ1500141 | 5"    | 374.6  | 73.1  | 196.8 | 292.1 | 104.6 | 144.5 | 11.1 | 41.1         | 8             | 52.0       |
| FSLJ1500168 | 6"    | 393.7  | 82.5  | 228.6 | 317.5 | 119.1 | 171.4 | 12.7 | 38.1         | 12            | 61.0       |
| FSLJ1500219 | 8"    | 482.6  | 91.9  | 292.1 | 393.7 | 142.7 | 222.2 | 12.7 | 44.4         | 12            | 104.0      |
| FSLJ1500273 | 10"   | 584.2  | 107.9 | 368.3 | 482.6 | 177.8 | 277.3 | 12.7 | 50.8         | 12            | 220.0      |
| FSLJ1500323 | 12"   | 673.1  | 123.9 | 450.8 | 571.5 | 218.9 | 328.1 | 12.7 | 53.8         | 16            | 287.0      |
| FSLJ1500355 | 14"   | 749.3  | 133.3 | 495.3 | 635.0 | 241.3 | 360.1 | 12.7 | 60.4         | 16            | 405.0      |
| FSLJ1500406 | 16"   | 825.5  | 146.0 | 552.4 | 704.8 | 260.3 | 411.2 | 12.7 | 66.5         | 16            | 525.0      |
| FSLJ1500455 | 18"   | 914.4  | 162.0 | 596.9 | 774.7 | 276.3 | 462.2 | 12.7 | 73.1         | 16            | 670.0      |
| FSLJ1500508 | 20"   | 984.2  | 177.8 | 641.3 | 831.8 | 292.1 | 514.3 | 12.7 | 79.2         | 16            | 810.0      |
| FSLJ1500609 | 24"   | 1168.4 | 203.2 | 762.0 | 990.6 | 330.2 | 615.9 | 12.7 | 91.9         | 16            | 1290.0     |

## LAPPED FLANGES

**2500 Lbs**

## ANSI / ASME B 16.5

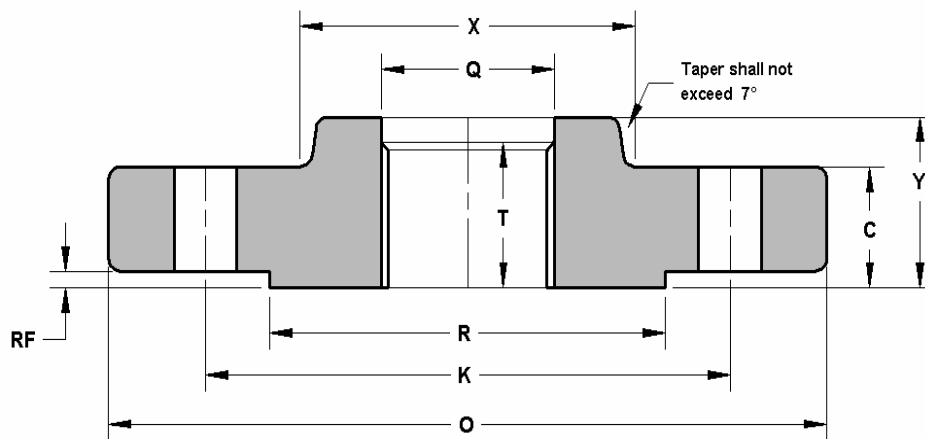


*Dimensions are in mm.*

[illegible]

# THREADED FLANGES

**150 Lbs**  
**ANSI / ASME B 16.5**

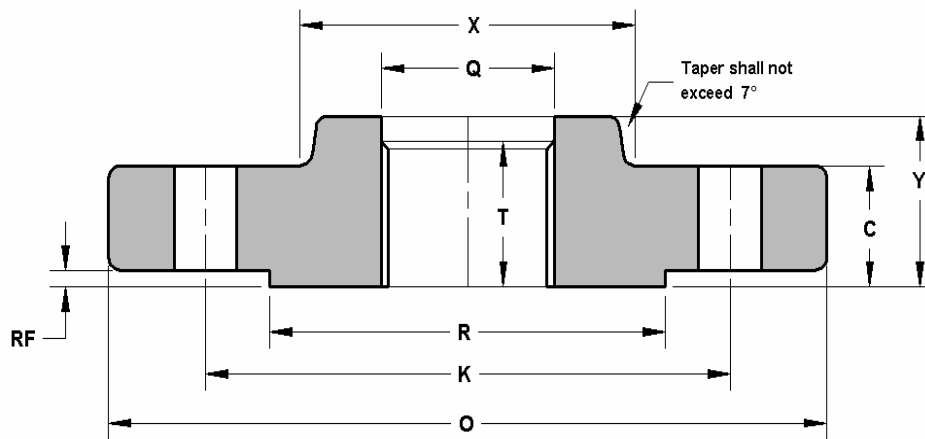


Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y    | RF  | R     | Q | T    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-------|------|-----|-------|---|------|--------------|---------------|------------|
| FSTH15021 | 1/2   | 88.9  | 11.1 | 30.2  | 60.4  | 15.7 | 1.5 | 35.0  |   | 15.7 | 15.7         | 4             | 0.4        |
| FSTH15027 | 3/4   | 98.5  | 12.7 | 38.1  | 69.8  | 15.7 | 1.5 | 42.9  |   | 15.7 | 15.7         | 4             | 0.7        |
| FSTH15033 | 1"    | 107.9 | 14.2 | 49.2  | 79.2  | 17.5 | 1.5 | 50.8  |   | 17.5 | 15.7         | 4             | 0.9        |
| FSTH15042 | 1"1/4 | 117.3 | 15.7 | 58.6  | 88.9  | 20.5 | 1.5 | 63.5  |   | 20.5 | 15.7         | 4             | 1.2        |
| FSTH15048 | 1"1/2 | 127.0 | 17.5 | 65.0  | 98.5  | 22.3 | 1.5 | 73.1  |   | 22.3 | 15.7         | 4             | 1.5        |
| FSTH15060 | 2"    | 152.4 | 19.0 | 77.7  | 120.6 | 25.4 | 1.5 | 91.9  |   | 25.4 | 19.0         | 4             | 2.3        |
| FSTH15073 | 2"1/2 | 177.8 | 22.3 | 90.4  | 139.7 | 28.4 | 1.5 | 104.6 |   | 28.4 | 19.0         | 4             | 3.7        |
| FSTH15089 | 3"    | 190.5 | 23.8 | 107.9 | 152.4 | 30.2 | 1.5 | 127.0 |   | 30.2 | 19.0         | 4             | 4.2        |
| FSTH15114 | 4"    | 228.6 | 23.8 | 134.8 | 190.5 | 33.2 | 1.5 | 157.2 |   | 33.2 | 19.0         | 8             | 5.9        |
| FSTH15141 | 5"    | 254.0 | 23.8 | 163.5 | 215.9 | 36.5 | 1.5 | 185.6 |   | 36.5 | 22.3         | 8             | 7.0        |
| FSTH15168 | 6"    | 279.4 | 25.4 | 192.0 | 241.3 | 39.6 | 1.5 | 215.9 |   | 39.6 | 22.3         | 8             | 8.4        |
| FSTH15219 | 8"    | 342.9 | 28.4 | 246.1 | 298.4 | 44.4 | 1.5 | 269.7 |   | 44.4 | 22.3         | 8             | 13.0       |
| FSTH15273 | 10"   | 406.4 | 30.2 | 304.8 | 361.9 | 49.2 | 1.5 | 323.8 |   | 49.2 | 25.4         | 12            | 17.8       |
| FSTH15323 | 12"   | 482.6 | 31.7 | 365.2 | 431.8 | 55.6 | 1.5 | 381.0 |   | 55.6 | 25.4         | 12            | 29.5       |
| FSTH15355 | 14"   | 533.4 | 35.0 | 400.0 | 476.2 | 57.1 | 1.5 | 412.7 |   | 57.1 | 28.4         | 12            | 39.0       |
| FSTH15406 | 16"   | 596.9 | 36.5 | 457.2 | 539.7 | 63.5 | 1.5 | 469.9 |   | 63.5 | 28.4         | 16            | 42.0       |
| FSTH15455 | 18"   | 635.0 | 39.6 | 504.9 | 577.8 | 68.3 | 1.5 | 533.4 |   | 68.3 | 31.7         | 16            | 54.0       |
| FSTH15508 | 20"   | 698.5 | 42.9 | 558.8 | 635.0 | 73.1 | 1.5 | 584.2 |   | 73.1 | 31.7         | 20            | 68.0       |
| FSTH15609 | 24"   | 812.8 | 47.7 | 663.4 | 749.3 | 82.5 | 1.5 | 692.1 |   | 82.5 | 35.0         | 20            | 93.0       |

# THREADED FLANGES

**300 Lbs**  
**ANSI / ASME B 16.5**



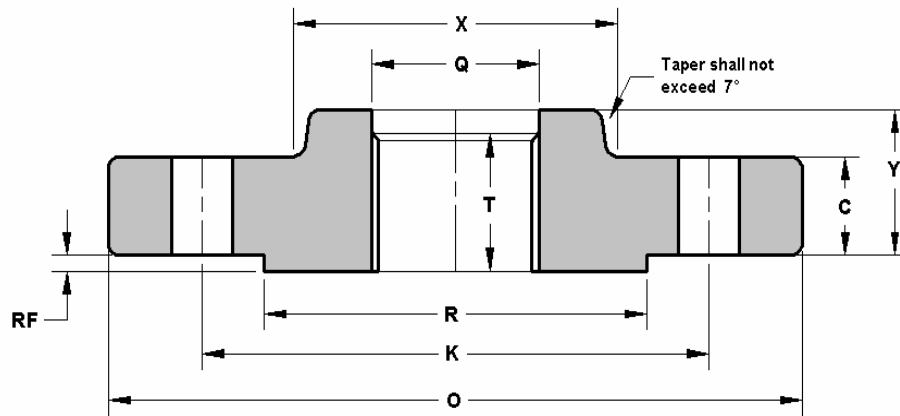
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | RF  | R     | Q     | T    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-----|-------|-------|------|--------------------|---------------------|---------------|
| FSTH30021 | 1/2   | 95.2  | 14.2 | 38.1  | 66.5  | 22.3  | 1.5 | 35.0  | 23.6  | 15.7 | 15.7               | 4                   | 0.7           |
| FSTH30027 | 3/4   | 117.3 | 15.7 | 47.7  | 82.5  | 25.4  | 1.5 | 42.9  | 28.9  | 15.7 | 19.0               | 4                   | 1.2           |
| FSTH30033 | 1"    | 123.9 | 17.5 | 53.8  | 88.9  | 26.9  | 1.5 | 50.8  | 35.8  | 17.5 | 19.0               | 4                   | 1.4           |
| FSTH30042 | 1"1/4 | 133.3 | 19.0 | 63.5  | 98.5  | 26.9  | 1.5 | 63.5  | 44.4  | 20.5 | 19.0               | 4                   | 1.9           |
| FSTH30048 | 1"1/2 | 155.4 | 20.5 | 69.8  | 114.3 | 30.2  | 1.5 | 73.1  | 50.5  | 22.3 | 22.3               | 4                   | 2.8           |
| FSTH30060 | 2"    | 165.1 | 22.3 | 84.0  | 127.0 | 33.2  | 1.5 | 91.9  | 63.5  | 28.4 | 19.0               | 8                   | 3.3           |
| FSTH30073 | 2"1/2 | 190.5 | 25.4 | 100.0 | 149.3 | 38.1  | 1.5 | 104.6 | 76.2  | 31.7 | 22.3               | 8                   | 4.6           |
| FSTH30089 | 3"    | 209.5 | 28.4 | 117.3 | 168.1 | 42.9  | 1.5 | 127.0 | 92.2  | 31.7 | 22.3               | 8                   | 6.3           |
| FSTH30114 | 4"    | 254.0 | 31.7 | 146.0 | 200.1 | 47.7  | 1.5 | 157.2 | 117.6 | 36.5 | 22.3               | 8                   | 10.2          |
| FSTH30141 | 5"    | 279.4 | 35.0 | 177.8 | 234.9 | 50.8  | 1.5 | 185.6 | 144.5 | 42.9 | 22.3               | 8                   | 12.9          |
| FSTH30168 | 6"    | 317.5 | 36.5 | 206.2 | 269.7 | 52.3  | 1.5 | 215.9 | 171.4 | 45.9 | 22.3               | 12                  | 18.0          |
| FSTH30219 | 8"    | 381.0 | 41.1 | 260.3 | 330.2 | 61.9  | 1.5 | 269.7 | 222.2 | 50.8 | 25.4               | 12                  | 26.0          |
| FSTH30273 | 10"   | 444.5 | 47.7 | 320.5 | 387.3 | 66.5  | 1.5 | 323.8 | 276.3 | 55.6 | 28.4               | 16                  | 37.5          |
| FSTH30323 | 12"   | 520.7 | 50.8 | 374.6 | 450.8 | 73.1  | 1.5 | 381.0 | 328.6 | 60.4 | 31.7               | 16                  | 52.0          |
| FSTH30355 | 14"   | 584.2 | 53.8 | 425.4 | 514.3 | 76.2  | 1.5 | 412.7 | 360.4 | 63.5 | 31.7               | 20                  | 72.0          |
| FSTH30406 | 16"   | 647.7 | 57.1 | 482.6 | 571.5 | 82.5  | 1.5 | 469.9 | 411.2 | 68.3 | 35.0               | 20                  | 100.0         |
| FSTH30455 | 18"   | 711.2 | 60.4 | 533.4 | 628.6 | 88.9  | 1.5 | 533.4 | 462.0 | 69.8 | 35.0               | 24                  | 126.0         |
| FSTH30508 | 20"   | 774.7 | 63.5 | 587.2 | 685.8 | 95.2  | 1.5 | 584.2 | 512.8 | 73.1 | 35.0               | 24                  | 148.0         |
| FSTH30609 | 24"   | 914.4 | 69.8 | 701.5 | 812.8 | 106.4 | 1.5 | 692.1 | 614.4 | 82.5 | 41.1               | 24                  | 222.0         |

# THREADED FLANGES

400 Lbs

ANSI / ASME B 16.5



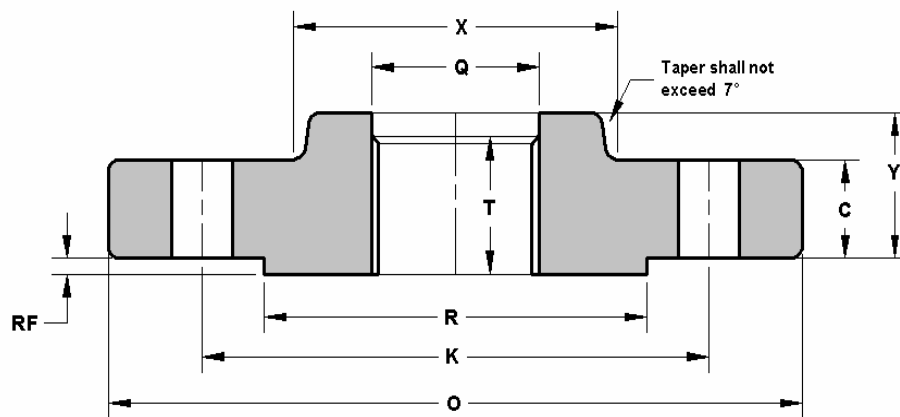
Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y     | RF  | R     | Q     | T    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|------|-------|-------|-------|-----|-------|-------|------|--------------------|---------------------|---------------|
| FSTH40021 | 1/2   |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40027 | 3/4   |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40033 | 1"    |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40042 | 1"1/4 |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40048 | 1"1/2 |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40060 | 2"    |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40073 | 2"1/2 |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40089 | 3"    |       |      |       |       |       |     |       |       |      |                    |                     |               |
| FSTH40114 | 4"    | 254.0 | 35.0 | 146.0 | 200.1 | 50.8  | 6.3 | 157.2 | 117.6 | 36.5 | 25.4               | 8                   | 12.5          |
| FSTH40141 | 5"    | 279.4 | 38.1 | 177.8 | 234.9 | 53.8  | 6.3 | 185.6 | 144.5 | 42.9 | 25.4               | 8                   | 15.5          |
| FSTH40168 | 6"    | 317.5 | 41.1 | 206.2 | 269.7 | 57.1  | 6.3 | 215.9 | 171.4 | 45.9 | 25.4               | 12                  | 21.0          |
| FSTH40219 | 8"    | 381.0 | 47.7 | 260.3 | 330.2 | 68.3  | 6.3 | 269.7 | 222.2 | 50.8 | 28.4               | 12                  | 31.0          |
| FSTH40273 | 10"   | 444.5 | 53.8 | 320.5 | 387.3 | 73.1  | 6.3 | 323.8 | 276.3 | 55.6 | 31.7               | 16                  | 42.0          |
| FSTH40323 | 12"   | 520.7 | 57.1 | 374.6 | 450.8 | 79.2  | 6.3 | 381.0 | 328.6 | 60.4 | 35.0               | 16                  | 61.0          |
| FSTH40355 | 14"   | 584.2 | 60.4 | 425.4 | 514.3 | 84.0  | 6.3 | 412.7 | 360.4 | 63.5 | 35.0               | 20                  | 85.0          |
| FSTH40406 | 16"   | 647.7 | 63.5 | 482.6 | 571.5 | 93.7  | 6.3 | 469.9 | 411.2 | 68.3 | 38.1               | 20                  | 110.0         |
| FSTH40455 | 18"   | 711.2 | 66.5 | 533.4 | 628.6 | 98.5  | 6.3 | 533.4 | 462.0 | 69.8 | 38.1               | 24                  | 131.0         |
| FSTH40508 | 20"   | 774.7 | 69.8 | 587.2 | 685.8 | 101.6 | 6.3 | 584.2 | 512.8 | 73.1 | 41.1               | 24                  | 157.0         |
| FSTH40609 | 24"   | 914.4 | 76.2 | 701.5 | 812.8 | 114.3 | 6.3 | 692.1 | 614.4 | 82.5 | 47.7               | 24                  | 225.0         |

# THREADED FLANGES

600 Lbs

ANSI / ASME B 16.5

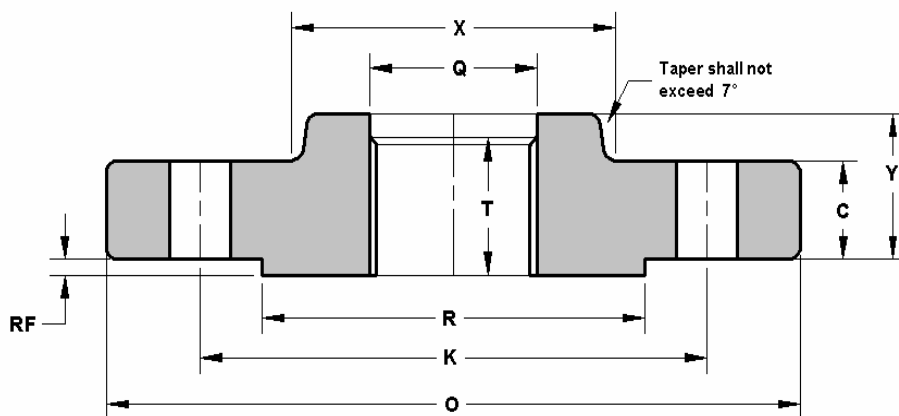


Dimensions are in mm.

| Cod.      | DN    | O     | C     | X     | K     | Y     | RF  | R     | Q     | T    | Ø<br>FORI<br>HOLES | N.<br>FORI<br>HOLES | Kg.<br>APPROX |
|-----------|-------|-------|-------|-------|-------|-------|-----|-------|-------|------|--------------------|---------------------|---------------|
| FSTH60021 | 1/2   | 95.2  | 14.2  | 38.1  | 66.5  | 22.3  | 6.3 | 35.0  | 23.6  | 15.7 | 15.7               | 4                   | 1.0           |
| FSTH60027 | 3/4   | 117.3 | 15.7  | 47.7  | 82.5  | 25.4  | 6.3 | 42.9  | 28.9  | 15.7 | 19.0               | 4                   | 1.6           |
| FSTH60033 | 1"    | 123.9 | 17.5  | 53.8  | 88.9  | 26.9  | 6.3 | 50.8  | 35.8  | 17.5 | 19.0               | 4                   | 1.8           |
| FSTH60042 | 1"1/4 | 133.3 | 20.5  | 63.5  | 98.5  | 28.4  | 6.3 | 63.5  | 44.4  | 20.5 | 19.0               | 4                   | 2.6           |
| FSTH60048 | 1"1/2 | 155.4 | 22.3  | 69.8  | 114.3 | 31.7  | 6.3 | 73.1  | 50.5  | 22.3 | 22.3               | 4                   | 3.3           |
| FSTH60060 | 2"    | 165.1 | 25.4  | 84.0  | 127.0 | 36.5  | 6.3 | 91.9  | 63.5  | 28.4 | 19.0               | 8                   | 3.9           |
| FSTH60073 | 2"1/2 | 190.5 | 28.4  | 100.0 | 149.3 | 41.1  | 6.3 | 104.6 | 76.2  | 31.7 | 22.3               | 8                   | 6.0           |
| FSTH60089 | 3"    | 209.5 | 31.7  | 117.3 | 168.1 | 45.9  | 6.3 | 127.0 | 92.2  | 35.0 | 22.3               | 8                   | 7.4           |
| FSTH60114 | 4"    | 273.0 | 38.1  | 152.4 | 215.9 | 53.8  | 6.3 | 157.2 | 117.6 | 41.1 | 25.4               | 8                   | 17.0          |
| FSTH60141 | 5"    | 330.2 | 44.4  | 188.9 | 266.7 | 60.4  | 6.3 | 185.6 | 144.5 | 47.7 | 28.4               | 8                   | 26.5          |
| FSTH60168 | 6"    | 355.6 | 47.7  | 222.2 | 292.1 | 66.5  | 6.3 | 215.9 | 171.4 | 50.8 | 28.4               | 12                  | 32.0          |
| FSTH60219 | 8"    | 419.1 | 55.6  | 273.0 | 349.2 | 76.2  | 6.3 | 269.7 | 222.2 | 57.1 | 31.7               | 12                  | 46.0          |
| FSTH60273 | 10"   | 508.0 | 63.5  | 342.9 | 431.8 | 85.8  | 6.3 | 323.8 | 276.3 | 65.0 | 35.0               | 16                  | 74.0          |
| FSTH60323 | 12"   | 558.8 | 66.5  | 400.0 | 488.9 | 91.9  | 6.3 | 381.0 | 328.6 | 69.8 | 35.0               | 20                  | 90.0          |
| FSTH60355 | 14"   | 603.2 | 69.8  | 431.8 | 527.0 | 93.7  | 6.3 | 412.7 | 360.4 | 73.1 | 38.1               | 20                  | 108.0         |
| FSTH60406 | 16"   | 685.8 | 76.2  | 495.3 | 603.2 | 106.4 | 6.3 | 469.9 | 411.2 | 77.7 | 41.1               | 20                  | 150.0         |
| FSTH60455 | 18"   | 742.9 | 82.5  | 546.1 | 654.0 | 117.3 | 6.3 | 533.4 | 462.0 | 79.2 | 44.4               | 20                  | 188.0         |
| FSTH60508 | 20"   | 812.8 | 88.9  | 609.6 | 723.9 | 127.0 | 6.3 | 584.2 | 512.8 | 82.5 | 44.4               | 24                  | 230.0         |
| FSTH60609 | 24"   | 939.8 | 101.6 | 717.5 | 838.2 | 139.7 | 6.3 | 692.1 | 614.4 | 91.9 | 50.8               | 24                  | 325.0         |

# THREADED FLANGES

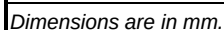
**900 Lbs**  
**ANSI / ASME B 16.5**



Dimensions are in mm.

| Cod.      | DN     | O      | C     | X     | K     | Y     | RF  | R     | Q     | T     | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|--------|--------|-------|-------|-------|-------|-----|-------|-------|-------|--------------|---------------|------------|
| FSTH90021 | 1/2    |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90027 | 3/4    |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90033 | 1"     |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90042 | 1" 1/4 |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90048 | 1" 1/2 |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90060 | 2"     |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90073 | 2" 1/2 |        |       |       |       |       |     |       |       |       |              |               |            |
| FSTH90089 | 3"     | 241.3  | 38.1  | 127.0 | 190.5 | 53.8  | 6.3 | 127.0 | 92.2  | 41.1  | 25.4         | 8             | 11.9       |
| FSTH90114 | 4"     | 292.1  | 44.4  | 158.7 | 234.9 | 69.8  | 6.3 | 157.2 | 117.6 | 47.7  | 31.7         | 8             | 20.0       |
| FSTH90141 | 5"     | 349.2  | 50.8  | 190.5 | 279.4 | 79.2  | 6.3 | 185.6 | 144.5 | 53.8  | 35.0         | 8             | 32.5       |
| FSTH90168 | 6"     | 381.0  | 55.6  | 234.9 | 317.5 | 85.8  | 6.3 | 215.9 | 171.4 | 57.1  | 31.7         | 12            | 41.7       |
| FSTH90219 | 8"     | 469.9  | 63.5  | 298.4 | 393.7 | 101.6 | 6.3 | 269.7 | 222.2 | 63.5  | 38.1         | 12            | 77.5       |
| FSTH90273 | 10"    | 546.1  | 69.8  | 368.3 | 469.9 | 107.9 | 6.3 | 323.8 | 276.3 | 71.3  | 38.1         | 16            | 110.0      |
| FSTH90323 | 12"    | 609.6  | 79.2  | 419.1 | 533.4 | 117.3 | 6.3 | 381.0 | 328.6 | 76.2  | 38.1         | 20            | 149.0      |
| FSTH90355 | 14"    | 641.3  | 85.8  | 450.8 | 558.8 | 130.0 | 6.3 | 412.7 | 360.4 | 82.5  | 41.1         | 20            | 181.0      |
| FSTH90406 | 16"    | 704.8  | 88.9  | 508.0 | 615.9 | 133.3 | 6.3 | 469.9 | 411.2 | 85.8  | 44.4         | 20            | 194.0      |
| FSTH90455 | 18"    | 787.4  | 101.6 | 565.1 | 685.8 | 152.4 | 6.3 | 533.4 | 462.0 | 88.9  | 50.8         | 20            | 274.0      |
| FSTH90508 | 20"    | 857.2  | 107.9 | 622.3 | 749.3 | 158.7 | 6.3 | 584.2 | 512.8 | 91.9  | 53.8         | 20            | 332.0      |
| FSTH90609 | 24"    | 1041.4 | 139.7 | 749.3 | 901.7 | 203.2 | 6.3 | 692.1 | 614.4 | 101.6 | 66.5         | 20            | 637.0      |

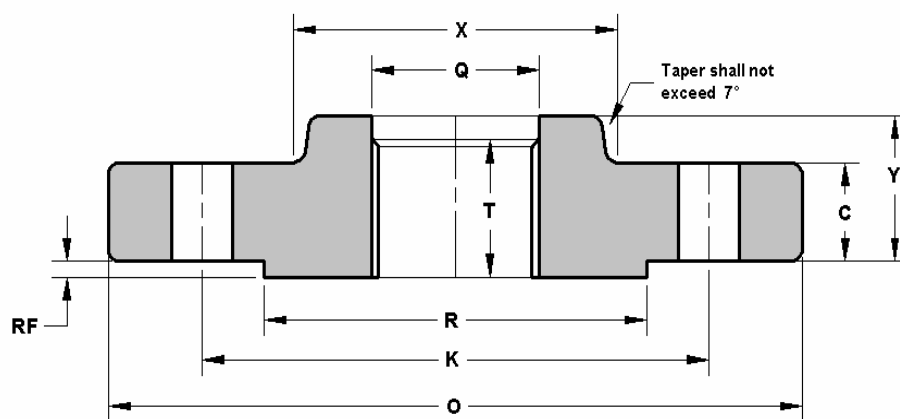
**1500 Lbs**  
**ANSI / ASME B 16.5**

[illegible]

## THREADED FLANGES

**2500 Lbs**

**ANSI / ASME B 16.5**



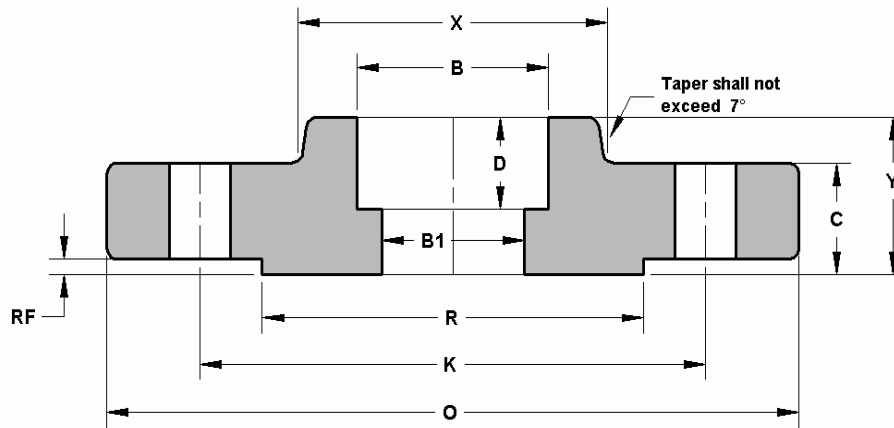
*Dimensions are in mm.*

[illegible]

# SOCKET WELDING FLANGES

**STD 150 Lbs**

**ANSI / ASME B 16.5**



Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y    | RF  | R     | B    | B1   | D    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-------|------|-----|-------|------|------|------|--------------|---------------|------------|
| FSSW15021 | 1/2   | 88.9  | 11.1 | 30.2  | 60.4  | 15.7 | 1.5 | 35.0  | 22.3 | 15.7 | 9.6  | 15.7         | 4             | 0.4        |
| FSSW15027 | 3/4   | 98.5  | 12.7 | 38.1  | 69.8  | 15.7 | 1.5 | 42.9  | 27.6 | 20.8 | 11.1 | 15.7         | 4             | 0.7        |
| FSSW15033 | 1"    | 107.9 | 14.2 | 49.2  | 79.2  | 17.5 | 1.5 | 50.8  | 34.5 | 26.6 | 12.7 | 15.7         | 4             | 0.8        |
| FSSW15042 | 1"1/4 | 117.3 | 15.7 | 58.6  | 88.9  | 20.5 | 1.5 | 63.5  | 43.1 | 35.0 | 14.2 | 15.7         | 4             | 1.1        |
| FSSW15048 | 1"1/2 | 127.0 | 17.5 | 65.0  | 98.5  | 22.3 | 1.5 | 73.1  | 49.5 | 40.8 | 15.7 | 15.7         | 4             | 1.4        |
| FSSW15060 | 2"    | 152.4 | 19.0 | 77.7  | 120.6 | 25.4 | 1.5 | 91.9  | 61.9 | 52.5 | 17.5 | 19.0         | 4             | 2.2        |
| FSSW15073 | 2"1/2 | 177.8 | 22.3 | 90.4  | 139.7 | 28.4 | 1.5 | 104.6 | 74.6 | 62.7 | 19.0 | 19.0         | 4             | 3.6        |
| FSSW15089 | 3"    | 190.5 | 23.8 | 107.9 | 152.4 | 30.2 | 1.5 | 127.0 | 90.6 | 77.9 | 20.5 | 19.0         | 4             | 4.1        |

# SOCKET WELDING FLANGES

**STD 300 Lbs**

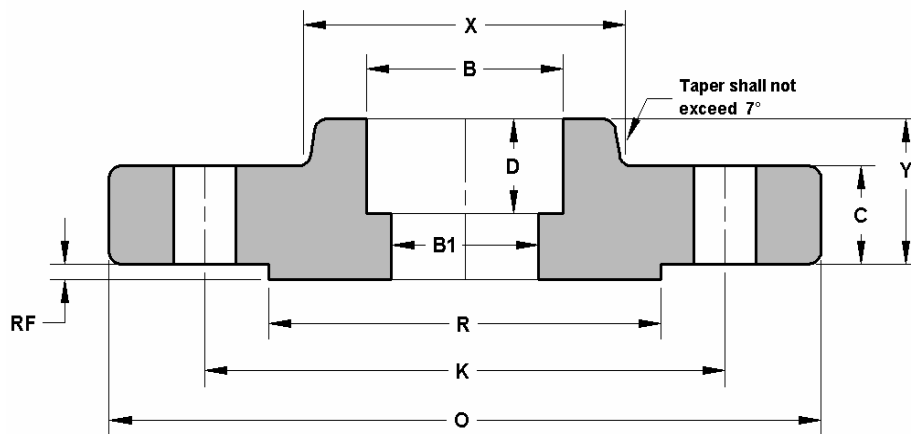
**ANSI / ASME B 16.5**

|           |       |       |      |       |       |      |     |       |      |      |      |      |   |     |
|-----------|-------|-------|------|-------|-------|------|-----|-------|------|------|------|------|---|-----|
| FSSW30021 | 1/2   | 95.2  | 14.2 | 38.1  | 66.5  | 22.3 | 1.5 | 35.0  | 22.3 | 15.7 | 9.6  | 15.7 | 4 | 0.7 |
| FSSW30027 | 3/4   | 117.3 | 15.7 | 47.7  | 82.5  | 25.4 | 1.5 | 42.9  | 27.6 | 20.8 | 11.1 | 19.0 | 4 | 1.2 |
| FSSW30033 | 1"    | 123.9 | 17.5 | 53.8  | 88.9  | 26.9 | 1.5 | 50.8  | 34.5 | 26.6 | 12.7 | 19.0 | 4 | 1.4 |
| FSSW30042 | 1"1/4 | 133.3 | 19.0 | 63.5  | 98.5  | 26.9 | 1.5 | 63.5  | 43.1 | 35.0 | 14.2 | 19.0 | 4 | 1.9 |
| FSSW30048 | 1"1/2 | 155.4 | 20.5 | 69.8  | 114.3 | 30.2 | 1.5 | 73.1  | 49.5 | 40.8 | 15.7 | 22.3 | 4 | 2.8 |
| FSSW30060 | 2"    | 165.1 | 22.3 | 84.0  | 127.0 | 33.2 | 1.5 | 91.9  | 61.9 | 52.5 | 17.5 | 19.0 | 8 | 3.3 |
| FSSW30073 | 2"1/2 | 190.5 | 25.4 | 100.0 | 149.3 | 38.1 | 1.5 | 104.6 | 74.6 | 62.7 | 19.0 | 22.3 | 8 | 4.6 |
| FSSW30089 | 3"    | 209.5 | 28.4 | 117.3 | 168.1 | 42.9 | 1.5 | 127.0 | 90.6 | 77.9 | 20.5 | 22.3 | 8 | 6.3 |

# SOCKET WELDING FLANGES

**STD 600 Lbs**

**ANSI / ASME B 16.5**



Dimensions are in mm.

| Cod.      | DN    | O     | C    | X     | K     | Y    | RF  | R     | B    | B1   | D    | Ø FORI HOLES | N. FORI HOLES | Kg. APPROX |
|-----------|-------|-------|------|-------|-------|------|-----|-------|------|------|------|--------------|---------------|------------|
| FSSW60021 | 1/2   | 95.2  | 14.2 | 38.1  | 66.5  | 22.3 | 6.3 | 35.0  | 22.3 | 15.7 | 9.6  | 15.7         | 4             | 1.0        |
| FSSW60027 | 3/4   | 117.3 | 15.7 | 47.7  | 82.5  | 25.4 | 6.3 | 42.9  | 27.6 | 20.8 | 11.1 | 19.0         | 4             | 1.6        |
| FSSW60033 | 1"    | 123.9 | 17.5 | 53.8  | 88.9  | 26.9 | 6.3 | 50.8  | 34.5 | 26.6 | 12.7 | 19.0         | 4             | 1.8        |
| FSSW60042 | 1"1/4 | 133.3 | 20.5 | 63.5  | 98.5  | 28.4 | 6.3 | 63.5  | 43.1 | 35.0 | 14.2 | 19.0         | 4             | 2.6        |
| FSSW60048 | 1"1/2 | 155.4 | 22.3 | 69.8  | 114.3 | 31.7 | 6.3 | 73.1  | 49.5 | 40.8 | 15.7 | 22.3         | 4             | 3.3        |
| FSSW60060 | 2"    | 165.1 | 25.4 | 84.0  | 127.0 | 36.5 | 6.3 | 91.9  | 61.9 | 52.5 | 17.5 | 19.0         | 8             | 3.9        |
| FSSW60073 | 2"1/2 | 190.5 | 28.4 | 100.0 | 149.3 | 41.1 | 6.3 | 104.6 | 74.6 | 62.7 | 19.0 | 22.3         | 8             | 6.0        |
| FSSW60089 | 3"    | 209.5 | 31.7 | 117.3 | 168.1 | 45.9 | 6.3 | 127.0 | 90.6 | 77.9 | 20.5 | 22.3         | 8             | 7.4        |

# SOCKET WELDING FLANGES

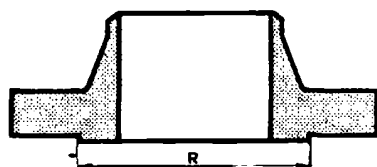
**1500 Lbs**

**ANSI / ASME B 16.5**

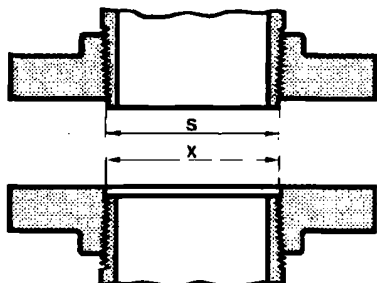
|            |       |       |      |       |       |      |     |       |      |  |      |      |   |      |
|------------|-------|-------|------|-------|-------|------|-----|-------|------|--|------|------|---|------|
| FSSW150021 | 1/2   | 120.6 | 22.3 | 38.1  | 82.5  | 31.7 | 6.3 | 35.0  | 22.3 |  | 9.6  | 22.3 | 4 | 1.7  |
| FSSW150027 | 3/4   | 130.0 | 25.4 | 44.4  | 88.9  | 35.0 | 6.3 | 42.9  | 27.6 |  | 11.1 | 22.3 | 4 | 2.4  |
| FSSW150033 | 1"    | 149.3 | 28.4 | 52.3  | 101.6 | 41.1 | 6.3 | 50.8  | 34.5 |  | 12.7 | 25.4 | 4 | 3.5  |
| FSSW150042 | 1"1/4 | 158.7 | 28.4 | 63.5  | 111.2 | 41.1 | 6.3 | 63.5  | 43.1 |  | 14.2 | 25.4 | 4 | 4.0  |
| FSSW150048 | 1"1/2 | 177.8 | 31.7 | 69.8  | 123.9 | 44.4 | 6.3 | 73.1  | 49.5 |  | 15.7 | 28.4 | 4 | 5.5  |
| FSSW150060 | 2"    | 215.9 | 38.1 | 104.6 | 165.1 | 57.1 | 6.3 | 91.9  | 61.9 |  | 17.5 | 25.4 | 8 | 10.0 |
| FSSW150073 | 2"1/2 | 244.3 | 41.1 | 123.9 | 190.5 | 63.5 | 6.3 | 104.6 | 74.6 |  | 19.0 | 28.4 | 8 | 13.9 |
| FSSW150089 | 3"    | 266.7 | 47.7 | 133.3 | 203.2 |      | 6.3 | 127.0 |      |  | 31.7 |      | 8 |      |

## FINITURA FACCE DI CONTATTO FLANGES FACINGS

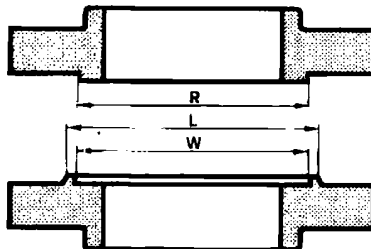
## ANSI / ASME B 16.5



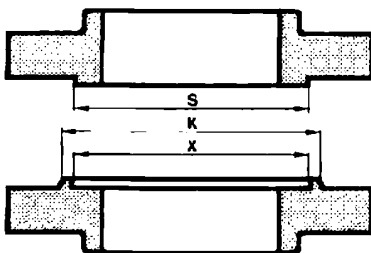
FACCIA A SEMPLICE RISALTO  
RAISED FACE



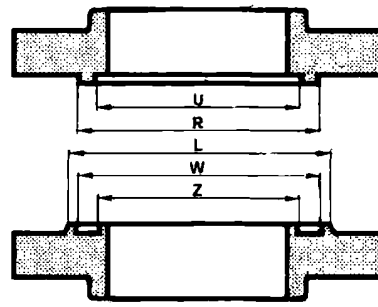
INCAMERATURA SEMPLICE STRETTA  
(sulla estremità del tubo)  
SMALL MALE AND FEMALE  
(on end of pipe)



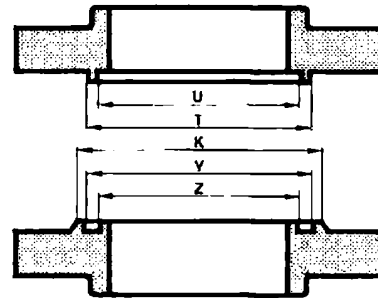
INCAMERATURA SEMPLICE LARGA  
LARGE MALE AND FEMALE



INCAMERATURA SEMPLICE STRETTA  
SMALL MALE AND FEMALE



INCAMERATURA DOPPIA LARGA  
LARGE TONGUE AND GROOVE



INCAMERATURA DOPPIA STRETTA  
SMALL TONGUE AND GROOVE

Dimensions in mm.

| DN     | R     | S     | T     | U     | W     | X     | Y     | Z     | K   | L   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1/2    | 34.9  | 18.3  | 35.1  | 25.4  | 36.5  | 19.9  | 36.5  | 23.8  | 44  | 46  |
| 3/4    | 42.4  | 23.8  | 42.9  | 33.3  | 44.4  | 25.4  | 44.4  | 31.8  | 52  | 54  |
| 1"     | 50.8  | 30.2  | 47.8  | 38.1  | 52.4  | 31.8  | 49.2  | 36.5  | 57  | 62  |
| 1 1/4" | 63.5  | 38.1  | 57.2  | 47.6  | 65.1  | 39.7  | 58.7  | 46.0  | 67  | 75  |
| 1 1/2" | 73.0  | 44.4  | 63.5  | 54.0  | 74.6  | 46.0  | 65.1  | 52.4  | 73  | 84  |
| 2"     | 92.1  | 57.2  | 82.6  | 73.0  | 93.7  | 58.8  | 84.1  | 71.4  | 92  | 103 |
| 2 1/2" | 104.8 | 68.3  | 95.2  | 85.7  | 106.4 | 69.8  | 96.8  | 84.1  | 105 | 116 |
| 3"     | 127.0 | 84.1  | 117.5 | 108.0 | 128.6 | 85.7  | 119.1 | 106.4 | 127 | 138 |
| 3 1/2" | 139.7 | 96.8  | 130.2 | 120.6 | 141.3 | 98.4  | 131.8 | 119.1 | 140 | 151 |
| 4"     | 157.2 | 109.5 | 144.5 | 131.8 | 158.8 | 111.1 | 146.0 | 130.2 | 157 | 168 |
| 5"     | 185.7 | 136.5 | 173.0 | 160.3 | 187.3 | 138.1 | 174.6 | 158.8 | 186 | 197 |
| 6"     | 215.9 | 161.9 | 203.2 | 190.5 | 217.5 | 163.5 | 204.8 | 188.9 | 216 | 227 |
| 8"     | 269.9 | 212.7 | 254.0 | 238.1 | 271.5 | 214.3 | 255.6 | 236.5 | 270 | 281 |
| 10"    | 323.8 | 266.7 | 304.8 | 285.8 | 325.4 | 268.3 | 306.4 | 284.2 | 324 | 335 |
| 12"    | 381.0 | 317.5 | 362.0 | 342.9 | 382.6 | 319.1 | 363.5 | 341.3 | 381 | 392 |
| 14"    | 412.8 | 349.2 | 393.7 | 374.6 | 414.3 | 350.8 | 395.3 | 373.1 | 413 | 424 |
| 16"    | 469.9 | 400.0 | 447.5 | 425.4 | 471.5 | 401.6 | 449.3 | 423.9 | 470 | 481 |
| 18"    | 533.4 | 450.8 | 511.2 | 489.0 | 535.0 | 452.4 | 512.8 | 487.4 | 533 | 544 |
| 20"    | 584.2 | 501.6 | 558.8 | 533.4 | 585.8 | 503.2 | 560.4 | 531.8 | 584 | 595 |
| 24"    | 692.2 | 603.2 | 666.8 | 641.4 | 693.7 | 604.8 | 668.3 | 639.8 | 692 | 703 |

Le flange classe 150 e 300 sono normalmente fornite con mm. 2 di risalto incluso nello spessore minimo della flangia.

Le flange classe 400-600-900-1500-2500 sono normalmente fornite con mm. 7 di risalto aggiunto allo spessore minimo della flangia.

L'altezza del maschio è mm. 7

La profondità dell'incameratura femmina è mm. 5

L'incameratura larga non è applicabile alle flange classe 150.

Class 150 and 300 are regularly furnished with 2 mm. raised face which is included in the minimum flange thickness.

Class 400-600-900-1500-2500 flanges are regularly furnished with 7 mm. raised faces which is additional to the minimum flange thickness.

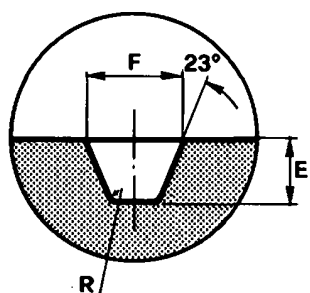
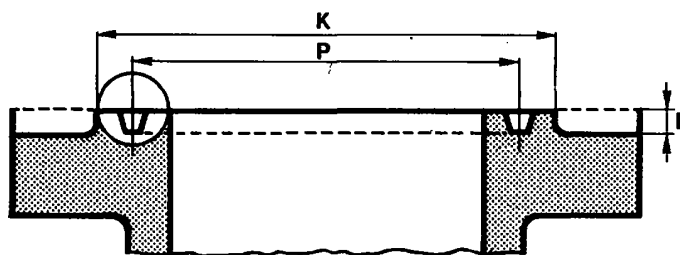
Height of large or small male and tongues is 7 mm.

Depth of groove or female is 5 mm.

Large male and female faces and large tongue and groove are not applicable to 150 class flanges .

# DIMENSIONI SCANALATURE RING-JOINT DIMENSIONS OF RING-JOINT FACINGS

ANSI / ASME B 16.5

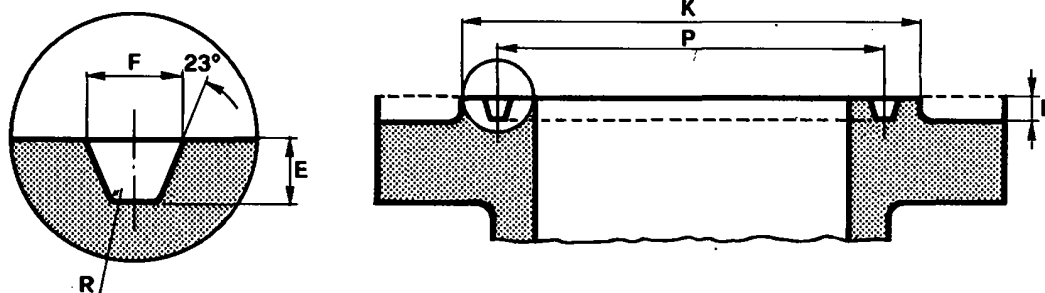


Dimensions in mm.

|        | 150 Lbs |        |      |      |     |      | 300 - 400 - 600 - 900 Lbs |        |       |       |     |      | 900 Lbs |        |       |       |     |     |
|--------|---------|--------|------|------|-----|------|---------------------------|--------|-------|-------|-----|------|---------|--------|-------|-------|-----|-----|
| DN     | RING    | P      | E    | F    | R   | K    | RING                      | P      | E     | F     | R   | K    | RING    | P      | E     | F     | R   | K   |
| 1/2    |         |        |      |      |     |      | R11                       | 34.11  | 5.56  | 7.14  | 0.8 | 51.0 |         |        |       |       |     |     |
| 3/4    |         |        |      |      |     |      | R13                       | 42.86  | 6.35  | 8.74  | 0.8 | 63.5 |         |        |       |       |     |     |
| 1"     | R15     | 47.63  | 6.35 | 8.74 | 0.8 | 63.5 | R16                       | 50.80  | 6.35  | 8.74  | 0.8 | 70.0 |         |        |       |       |     |     |
| 1" 1/4 | R17     | 57.15  | 6.35 | 8.74 | 0.8 | 73.0 | R18                       | 60.33  | 6.35  | 8.74  | 0.8 | 79.5 |         |        |       |       |     |     |
| 1" 1/2 | R19     | 65.09  | 6.35 | 8.74 | 0.8 | 82.5 | R20                       | 68.26  | 6.35  | 8.74  | 0.8 | 90.5 |         |        |       |       |     |     |
| 2"     | R22     | 82.55  | 6.35 | 8.74 | 0.8 | 102  | R23                       | 82.55  | 7.92  | 11.91 | 0.8 | 108  |         |        |       |       |     |     |
| 2" 1/2 | R25     | 101.60 | 6.35 | 8.74 | 0.8 | 121  | R26                       | 101.60 | 7.92  | 11.91 | 0.8 | 127  |         |        |       |       |     |     |
| 3"     | R29     | 114.30 | 6.35 | 8.74 | 0.8 | 133  | R31                       | 123.83 | 7.92  | 11.91 | 0.8 | 146  | R31     | 123.83 | 7.92  | 11.91 | 0.8 | 156 |
| 3" 1/2 | R33     | 131.76 | 6.35 | 8.74 | 0.8 | 154  | R34                       | 131.76 | 7.92  | 11.91 | 0.8 | 159  |         |        |       |       |     |     |
| 4"     | R36     | 149.23 | 6.35 | 8.74 | 0.8 | 171  | R37                       | 149.23 | 7.92  | 11.91 | 0.8 | 175  | R37     | 149.23 | 7.92  | 11.91 | 0.8 | 181 |
| 5"     | R40     | 171.45 | 6.35 | 8.74 | 0.8 | 194  | R41                       | 180.98 | 7.92  | 11.91 | 0.8 | 210  | R41     | 180.98 | 7.92  | 11.91 | 0.8 | 216 |
| 6"     | R43     | 193.68 | 6.35 | 8.74 | 0.8 | 219  | R45                       | 211.13 | 7.92  | 11.91 | 0.8 | 241  | R45     | 211.13 | 7.92  | 11.91 | 0.8 | 241 |
| 8"     | R48     | 247.65 | 6.35 | 8.74 | 0.8 | 273  | R49                       | 269.88 | 7.92  | 11.91 | 0.8 | 302  | R49     | 269.88 | 7.92  | 11.91 | 0.8 | 308 |
| 10"    | R52     | 304.80 | 6.35 | 8.74 | 0.8 | 330  | R53                       | 323.85 | 7.92  | 11.91 | 0.8 | 356  | R53     | 323.85 | 7.92  | 11.91 | 0.8 | 362 |
| 12"    | R56     | 381.00 | 6.35 | 8.74 | 0.8 | 406  | R57                       | 381.00 | 7.92  | 11.91 | 0.8 | 413  | R57     | 381.00 | 7.92  | 11.91 | 0.8 | 419 |
| 14"    | R59     | 396.88 | 6.35 | 8.74 | 0.8 | 425  | R61                       | 419.10 | 7.92  | 11.91 | 0.8 | 457  | R62     | 419.10 | 11.13 | 16.66 | 1.5 | 467 |
| 16"    | R64     | 454.03 | 6.35 | 8.74 | 0.8 | 483  | R65                       | 469.90 | 7.92  | 11.91 | 0.8 | 508  | R66     | 469.90 | 11.13 | 16.66 | 1.5 | 524 |
| 18"    | R68     | 517.53 | 6.35 | 8.74 | 0.8 | 546  | R69                       | 533.40 | 7.92  | 11.91 | 0.8 | 575  | R70     | 533.40 | 12.70 | 19.84 | 1.5 | 594 |
| 20"    | R72     | 558.80 | 6.35 | 8.74 | 0.8 | 597  | R73                       | 584.20 | 9.52  | 13.49 | 1.5 | 635  | R74     | 584.20 | 12.70 | 19.84 | 1.5 | 648 |
| 24"    | R76     | 673.10 | 6.35 | 8.74 | 0.8 | 711  | R77                       | 692.15 | 11.13 | 16.66 | 1.5 | 749  | R78     | 692.15 | 15.88 | 26.97 | 2.4 | 772 |

# **DIMENSIONI SCANALATURE RING-JOINT DIMENSIONS OF RING-JOINT FACINGS**

**ANSI / ASME B 16.5**



Dimensions in mm.

| DN    | 1500 Lbs |        |       |       |     |      | 2500 Lbs |        |       |       |     |      |
|-------|----------|--------|-------|-------|-----|------|----------|--------|-------|-------|-----|------|
|       | RING     | P      | E     | F     | R   | K    | RING     | P      | E     | F     | R   | K    |
| 1/2   | R12      | 39.69  | 6.35  | 8.74  | 0.8 | 60.5 | R13      | 42.86  | 6.35  | 8.74  | 0.8 | 65.0 |
| 3/4   | R14      | 44.45  | 6.35  | 8.74  | 0.8 | 66.5 | R16      | 50.80  | 6.35  | 8.74  | 0.8 | 73.0 |
| 1"    | R16      | 50.80  | 6.35  | 8.74  | 0.8 | 71.5 | R18      | 60.33  | 6.35  | 8.74  | 0.8 | 82.5 |
| 1"1/4 | R18      | 60.33  | 6.35  | 8.74  | 0.8 | 81.0 | R21      | 72.23  | 7.92  | 11.91 | 0.8 | 102  |
| 1"1/2 | R20      | 68.26  | 6.35  | 8.74  | 0.8 | 92.0 | R23      | 82.55  | 7.92  | 11.91 | 0.8 | 114  |
| 2"    | R24      | 95.25  | 7.92  | 11.91 | 0.8 | 124  | R26      | 101.60 | 7.92  | 11.91 | 0.8 | 133  |
| 2"1/2 | R27      | 107.95 | 7.92  | 11.91 | 0.8 | 137  | R28      | 111.13 | 9.52  | 13.49 | 0.8 | 149  |
| 3"    | R35      | 136.53 | 7.92  | 11.91 | 0.8 | 168  | R32      | 127.00 | 9.52  | 13.49 | 1.5 | 168  |
| 3"1/2 |          |        |       |       |     |      |          |        |       |       |     |      |
| 4"    | R39      | 161.93 | 7.92  | 11.91 | 0.8 | 194  | R38      | 157.16 | 11.13 | 16.66 | 1.5 | 203  |
| 5"    | R44      | 193.68 | 7.92  | 11.91 | 0.8 | 229  | R42      | 190.50 | 12.70 | 19.84 | 1.5 | 241  |
| 6"    | R46      | 211.14 | 9.52  | 13.49 | 1.5 | 248  | R47      | 228.60 | 12.70 | 19.84 | 1.5 | 279  |
| 8"    | R50      | 269.88 | 11.13 | 16.66 | 1.5 | 318  | R51      | 279.40 | 14.27 | 23.01 | 1.5 | 340  |
| 10"   | R54      | 323.85 | 11.13 | 16.66 | 1.5 | 371  | R55      | 342.91 | 17.48 | 30.18 | 2.4 | 425  |
| 12"   | R58      | 381.00 | 14.27 | 23.01 | 1.5 | 438  | R60      | 406.40 | 17.48 | 33.32 | 2.4 | 495  |
| 14"   | R63      | 419.10 | 15.88 | 26.97 | 2.4 | 489  |          |        |       |       |     |      |
| 16"   | R67      | 469.90 | 17.48 | 30.18 | 2.4 | 546  |          |        |       |       |     |      |
| 18"   | R71      | 533.40 | 17.48 | 30.18 | 2.4 | 613  |          |        |       |       |     |      |
| 20"   | R75      | 584.20 | 17.48 | 33.32 | 2.4 | 673  |          |        |       |       |     |      |
| 24"   | R79      | 692.15 | 20.62 | 36.53 | 2.4 | 794  |          |        |       |       |     |      |

La profondità della scanalatura è in aggiunta allo spessore minimo della flangia.

L'altezza del risalto è uguale alla profondità della scanalatura ma non è soggetta alla sua tolleranza.

Se non indicato in ordine può essere fornito il risalto oppure la superficie intera.

Nel 3" con flange libere il ring Joint sarà R30 anziché r31.

Depth of groove is added to the minimum flange thickness.

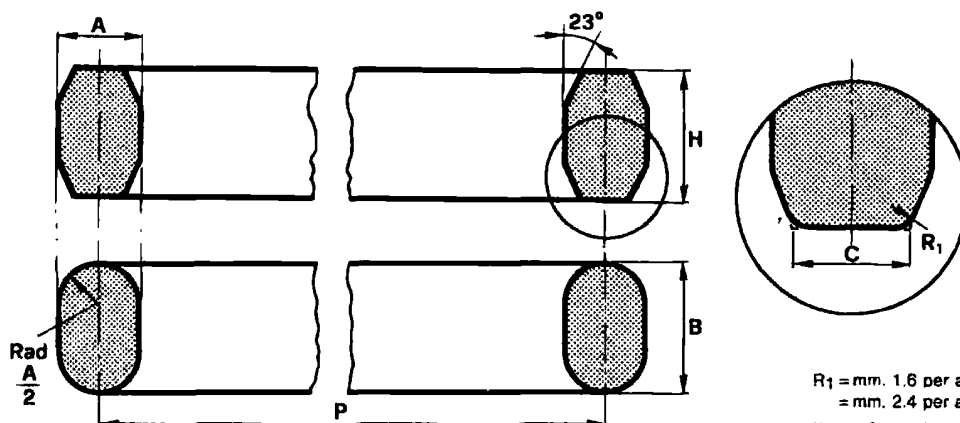
Raised face is equal to the groove dimension but is not subject at his tolerance.

Raised portion or full-face may be supplied unless specified in the order.

In 3" lapped flanges the ring number shall be R30 instead R31.

**NUMERO E DIMENSIONI DELLE GUARNIZIONI RING JOINT**  
**NUMBERS AND DIMENSIONS OF RING-JOINT GASKETS**

**ANSI B 16.20**  
**BS 1560/2**



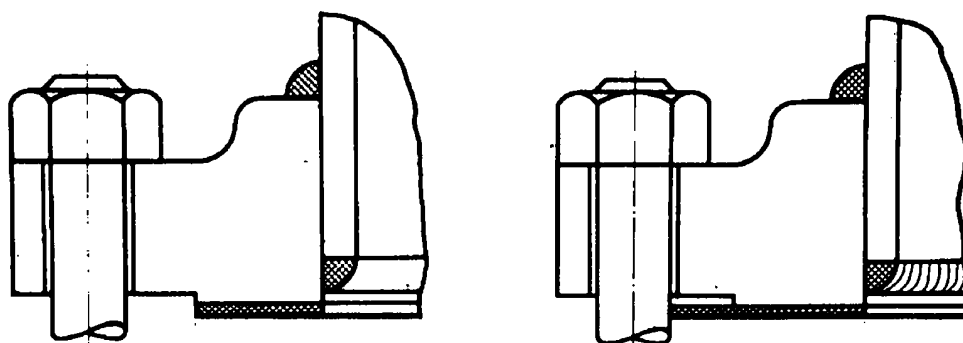
$R_1$  = mm. 1.6 per anelli ampi mm. 22.2 ed minori  
 = mm. 2.4 per anelli ampi mm. 25.4 ed oltre  
 $R_1$  = 1.6 mm. for ring widths 22.2 mm. and smaller  
 = 2.4 mm. for ring widths 25.4 mm. and larger

Dimensions in mm.

| RING | P     | A    | B    | H    | C    | RING | P     | A    | B    | H    | C    |
|------|-------|------|------|------|------|------|-------|------|------|------|------|
| R11  | 34.1  | 6.4  | 11.1 | 9.5  | 4.3  | R46  | 211.1 | 12.7 | 19.0 | 17.5 | 8.7  |
| R12  | 39.7  | 7.9  | 14.3 | 12.7 | 5.2  | R47  | 228.6 | 19.0 | 25.4 | 23.8 | 12.3 |
| R13  | 42.9  | 7.9  | 14.3 | 12.7 | 5.2  | R48  | 247.6 | 7.9  | 14.3 | 12.7 | 5.2  |
| R14  | 44.4  | 7.9  | 14.3 | 12.7 | 5.2  | R49  | 269.9 | 11.1 | 17.5 | 15.9 | 7.7  |
| R15  | 47.6  | 7.9  | 14.3 | 12.7 | 5.2  | R50  | 269.9 | 15.9 | 22.2 | 20.6 | 10.5 |
| R16  | 50.8  | 7.9  | 14.3 | 12.7 | 5.2  | R51  | 279.4 | 22.2 | 28.6 | 27.0 | 14.8 |
| R17  | 57.2  | 7.9  | 14.3 | 12.7 | 5.2  | R52  | 304.8 | 7.9  | 14.3 | 12.7 | 5.2  |
| R18  | 60.3  | 7.9  | 14.3 | 12.7 | 5.2  | R53  | 323.8 | 11.1 | 17.5 | 15.9 | 7.7  |
| R19  | 65.1  | 7.9  | 14.3 | 12.7 | 5.2  | R54  | 323.8 | 15.9 | 22.2 | 20.6 | 10.5 |
| R20  | 68.3  | 7.9  | 14.3 | 12.7 | 5.2  | R55  | 342.9 | 28.6 | 36.5 | 34.9 | 19.8 |
| R21  | 72.2  | 11.1 | 17.5 | 15.9 | 7.7  | R56  | 381.0 | 7.9  | 14.3 | 12.7 | 5.2  |
| R22  | 82.6  | 7.9  | 14.3 | 12.7 | 5.2  | R57  | 381.0 | 11.1 | 17.5 | 15.9 | 7.7  |
| R23  | 82.6  | 11.1 | 17.5 | 15.9 | 7.7  | R58  | 381.0 | 22.2 | 28.6 | 27.0 | 14.8 |
| R24  | 95.2  | 11.1 | 17.5 | 15.9 | 7.7  | R59  | 396.9 | 7.9  | 14.3 | 12.7 | 5.2  |
| R25  | 101.6 | 7.9  | 14.3 | 12.7 | 5.2  | R60  | 406.4 | 31.8 | 39.7 | 38.1 | 22.3 |
| R26  | 101.6 | 11.1 | 17.5 | 15.9 | 7.7  | R61  | 419.1 | 11.1 | 17.5 | 15.9 | 7.7  |
| R27  | 108.0 | 11.1 | 17.5 | 15.9 | 7.7  | R62  | 419.1 | 15.9 | 22.2 | 20.6 | 10.5 |
| R28  | 111.1 | 12.7 | 19.0 | 17.5 | 8.7  | R63  | 419.1 | 25.4 | 33.3 | 31.8 | 17.3 |
| R29  | 114.3 | 7.9  | 14.3 | 12.7 | 5.2  | R64  | 454.0 | 7.9  | 14.3 | 12.7 | 5.2  |
| R30  | 117.5 | 11.1 | 17.5 | 15.9 | 7.7  | R65  | 469.9 | 11.1 | 17.5 | 15.9 | 7.7  |
| R31  | 123.8 | 11.1 | 17.5 | 15.9 | 7.7  | R66  | 469.9 | 15.9 | 22.2 | 20.6 | 10.5 |
| R32  | 127.0 | 12.7 | 19.0 | 17.5 | 8.7  | R67  | 469.9 | 28.6 | 36.5 | 34.9 | 19.8 |
| R33  | 131.8 | 7.9  | 14.3 | 12.7 | 5.2  | R68  | 517.5 | 7.9  | 14.3 | 12.7 | 5.2  |
| R34  | 131.8 | 11.1 | 17.5 | 15.9 | 7.7  | R69  | 533.4 | 11.1 | 17.5 | 15.9 | 7.7  |
| R35  | 136.5 | 11.1 | 17.5 | 15.9 | 7.7  | R70  | 533.4 | 19.0 | 25.4 | 23.8 | 12.3 |
| R36  | 149.2 | 7.9  | 14.3 | 12.7 | 5.2  | R71  | 533.4 | 28.6 | 36.5 | 34.9 | 19.8 |
| R37  | 149.2 | 11.1 | 17.5 | 15.9 | 7.7  | R72  | 558.8 | 7.9  | 14.3 | 12.7 | 5.2  |
| R38  | 157.2 | 15.9 | 22.2 | 20.6 | 10.5 | R73  | 584.2 | 12.7 | 19.0 | 17.5 | 8.7  |
| R39  | 161.9 | 11.1 | 17.5 | 15.9 | 7.7  | R74  | 584.2 | 19.1 | 25.4 | 23.8 | 12.3 |
| R40  | 171.4 | 7.9  | 14.3 | 12.7 | 5.2  | R75  | 584.2 | 31.8 | 39.7 | 38.1 | 22.3 |
| R41  | 181.0 | 11.1 | 17.5 | 15.9 | 7.7  | R76  | 673.1 | 7.9  | 14.3 | 12.7 | 5.2  |
| R42  | 190.5 | 19.0 | 25.4 | 23.8 | 12.3 | R77  | 692.2 | 15.9 | 22.2 | 20.6 | 10.5 |
| R43  | 193.7 | 7.9  | 14.3 | 12.7 | 5.2  | R78  | 692.2 | 25.4 | 33.3 | 31.8 | 17.3 |
| R44  | 193.7 | 11.1 | 17.5 | 15.9 | 7.7  | R79  | 692.2 | 34.9 | 44.4 | 41.3 | 24.8 |
| R45  | 211.1 | 11.1 | 17.5 | 15.9 | 7.7  |      |       |      |      |      |      |

**GUARNIZIONE GRUPPO 1a e 1b**  
**GASKETS 1a and 1b GROUP**

**ANSI / ASME B 16.5**



*Dimensions in mm.*

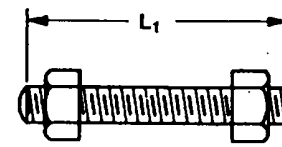
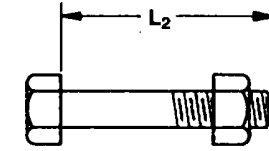
| DN    | DIAMETRO ESTERNO       |               |     |     |     | OUTSIDE DIAMETER |     |      |      |  |
|-------|------------------------|---------------|-----|-----|-----|------------------|-----|------|------|--|
|       | INTERNO<br>INSIDE<br>Ø | AUTOCENTRANTE |     |     |     | SELF CENTERING   |     |      |      |  |
|       |                        | RF            | 150 | 300 | 400 | 600              | 900 | 1500 | 2500 |  |
| 1/2   | 21                     | 35            | 48  | 54  | 54  | 54               | 64  | 64   | 70   |  |
| 3/4   | 27                     | 43            | 57  | 67  | 67  | 67               | 70  | 70   | 76   |  |
| 1"    | 33                     | 51            | 67  | 73  | 73  | 73               | 79  | 79   | 86   |  |
| 1"1/4 | 42                     | 64            | 76  | 83  | 83  | 83               | 89  | 89   | 105  |  |
| 1"1/2 | 49                     | 73            | 86  | 95  | 95  | 95               | 98  | 98   | 117  |  |
| 2"    | 60                     | 92            | 105 | 111 | 111 | 111              | 143 | 143  | 146  |  |
| 2"1/2 | 73                     | 105           | 124 | 130 | 130 | 130              | 165 | 165  | 168  |  |
| 3"    | 89                     | 127           | 137 | 149 | 149 | 149              | 168 | 175  | 197  |  |
| 3"1/2 | 102                    | 140           | 162 | 165 | 162 | 162              |     |      |      |  |
| 4"    | 114                    | 157           | 175 | 181 | 178 | 194              | 206 | 210  | 235  |  |
| 5"    | 141                    | 185           | 197 | 216 | 213 | 241              | 248 | 254  | 279  |  |
| 6"    | 168                    | 216           | 222 | 251 | 248 | 267              | 289 | 283  | 318  |  |
| 8"    | 219                    | 270           | 279 | 308 | 305 | 321              | 359 | 352  | 387  |  |
| 10"   | 273                    | 324           | 340 | 362 | 359 | 400              | 435 | 435  | 476  |  |
| 12"   | 324                    | 381           | 410 | 422 | 419 | 457              | 498 | 520  | 550  |  |
| 14"   | 356                    | 413           | 451 | 486 | 483 | 492              | 520 | 580  |      |  |
| 16"   | 406                    | 470           | 515 | 540 | 535 | 565              | 575 | 640  |      |  |
| 18"   | 457                    | 533           | 550 | 595 | 595 | 615              | 640 | 705  |      |  |
| 20"   | 508                    | 584           | 605 | 655 | 650 | 685              | 700 | 755  |      |  |
| 24"   | 610                    | 692           | 720 | 775 | 770 | 790              | 840 | 900  |      |  |

# TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: UNI 5737  
Tiranti – Stud Bolts: ANSI B16.5  
Dadi – Nuts: UNI 5587  
Filettatura - Threads: UNI 4534

Dimensions in mm.

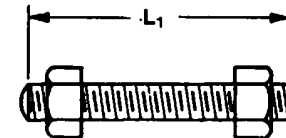


| DN<br>NPS | 150 Lbs. |     |      |      |      | 300 Lbs. |     |      |      |      | 400 Lbs. |     |      |           |      | 600 Lbs. |     |      |          |      |
|-----------|----------|-----|------|------|------|----------|-----|------|------|------|----------|-----|------|-----------|------|----------|-----|------|----------|------|
|           | N°       | Ø   | L1   |      | L2   | N°       | Ø   | L1   |      | L2   | N°       | Ø   | L1   |           |      | N°       | Ø   | L1   |          |      |
|           |          |     | R.F. | R.J. | R.F. |          |     | R.F. | R.J. | R.F. |          |     | R.F. | MF<br>GT. | R.J. |          |     | R.F. | MF<br>GT | R.J. |
| 1/2       | 4        | M14 | 60   | -    | 45   | 4        | M14 | 65   | 75   | 55   |          |     |      |           |      | 4        | M14 | 80   | 70       | 75   |
| 3/4       | 4        | M14 | 65   | -    | 50   | 4        | M18 | 75   | 90   | 60   |          |     |      |           |      | 4        | M18 | 90   | 80       | 90   |
| 1"        | 4        | M14 | 65   | 80   | 55   | 4        | M18 | 80   | 90   | 65   |          |     |      |           |      | 4        | M18 | 90   | 85       | 90   |
| 1" 1/4    | 4        | M14 | 70   | 80   | 55   | 4        | M18 | 80   | 95   | 65   |          |     |      |           |      | 4        | M18 | 100  | 90       | 100  |
| 1" 1/2    | 4        | M14 | 70   | 95   | 60   | 4        | M20 | 90   | 105  | 75   |          |     |      |           |      | 4        | M20 | 105  | 100      | 105  |
| 2"        | 4        | M18 | 80   | 95   | 65   | 8        | M18 | 90   | 105  | 75   |          |     |      |           |      | 8        | M18 | 105  | 100      | 110  |
| 2" 1/2    | 4        | M18 | 90   | 100  | 75   | 8        | M20 | 100  | 115  | 85   |          |     |      |           |      | 8        | M20 | 120  | 115      | 125  |
| 3"        | 4        | M18 | 90   | 105  | 75   | 8        | M20 | 110  | 125  | 90   |          |     |      |           |      | 8        | M20 | 125  | 120      | 130  |
| 3" 1/2    | 8        | M18 | 90   | 105  | 75   | 8        | M20 | 110  | 125  | 95   |          |     |      |           |      | 8        | M24 | 140  | 130      | 140  |
| 4"        | 8        | M18 | 90   | 105  | 75   | 8        | M20 | 110  | 130  | 95   | 8        | M24 | 140  | 130       | 140  | 8        | M24 | 145  | 140      | 150  |
| 5"        | 8        | M20 | 90   | 110  | 80   | 8        | M20 | 120  | 135  | 100  | 8        | M24 | 145  | 140       | 150  | 8        | M27 | 165  | 160      | 165  |
| 6"        | 8        | M20 | 100  | 115  | 85   | 12       | M20 | 125  | 140  | 105  | 12       | M24 | 150  | 145       | 155  | 12       | M27 | 170  | 165      | 175  |
| 8"        | 8        | M20 | 110  | 120  | 90   | 12       | M24 | 140  | 155  | 110  | 12       | M27 | 170  | 165       | 175  | 12       | M30 | 195  | 185      | 195  |
| 10"       | 12       | M24 | 115  | 130  | 95   | 16       | M27 | 155  | 170  | 130  | 16       | M30 | 190  | 185       | 195  | 16       | M33 | 215  | 210      | 220  |
| 12"       | 12       | M24 | 120  | 135  | 100  | 16       | M30 | 170  | 185  | 145  | 16       | M33 | 205  | 195       | 205  | 20       | M33 | 220  | 215      | 225  |
| 14"       | 12       | M27 | 130  | 150  | 110  | 20       | M30 | 175  | 195  | 150  | 20       | M33 | 210  | 205       | 210  | 20       | M36 | 235  | 230      | 235  |
| 16"       | 16       | M27 | 135  | 150  | 115  | 20       | M33 | 190  | 205  | 160  | 20       | M36 | 220  | 215       | 225  | 20       | M39 | 255  | 245      | 255  |
| 18"       | 16       | M30 | 150  | 160  | 125  | 24       | M33 | 195  | 210  | 170  | 24       | M36 | 230  | 220       | 230  | 20       | M42 | 275  | 265      | 275  |
| 20"       | 20       | M30 | 160  | 170  | 135  | 24       | M33 | 205  | 225  | 180  | 24       | M39 | 245  | 240       | 250  | 24       | M42 | 290  | 280      | 305  |
| 24"       | 20       | M33 | 175  | 185  | 145  | 24       | M39 | 230  | 255  | 195  | 24       | M45 | 270  | 265       | 280  | 24       | M48 | 330  | 320      | 330  |

# TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: UNI 5737  
Tiranti – Stud Bolts: ANSI B16.5  
Dadi – Nuts: UNI 5587



Filettatura - Threads: UNI 4534

Dimensions in mm.

| DN<br>NPS | 900 Lbs. |     |      |           |      | 1500 Lbs. |     |      |           |      | 2500 Lbs. |     |      |           |      |
|-----------|----------|-----|------|-----------|------|-----------|-----|------|-----------|------|-----------|-----|------|-----------|------|
|           | N°       | Ø   | L1   |           |      | N°        | Ø   | L1   |           |      | N°        | Ø   | L1   |           |      |
|           |          |     | R.F. | MF<br>GT. | R.J. |           |     | R.F. | MF<br>GT. | R.J. |           |     | R.F. | MF<br>GT. | R.J. |
| 1/2       |          |     |      |           |      | 4         | M20 | 105  | 100       | 105  | 4         | M20 | 125  | 115       | 125  |
| 3/4       |          |     |      |           |      | 4         | M20 | 115  | 105       | 115  | 4         | M20 | 125  | 120       | 125  |
| 1"        |          |     |      |           |      | 4         | M24 | 125  | 120       | 125  | 4         | M24 | 140  | 130       | 140  |
| 1"1/4     |          |     |      |           |      | 4         | M24 | 125  | 120       | 125  | 4         | M27 | 150  | 145       | 155  |
| 1"1/2     |          |     |      |           |      | 4         | M27 | 140  | 135       | 140  | 4         | M30 | 170  | 165       | 175  |
| 2"        |          |     |      |           |      | 8         | M24 | 145  | 140       | 145  | 8         | M27 | 175  | 170       | 180  |
| 2"1/2     |          |     |      |           |      | 8         | M27 | 160  | 150       | 160  | 8         | M30 | 195  | 190       | 205  |
| 3"        | 8        | M24 | 145  | 140       | 150  | 8         | M30 | 180  | 170       | 180  | 8         | M33 | 220  | 215       | 230  |
| 3"1/2     |          |     |      |           |      |           |     |      |           |      |           |     |      |           |      |
| 4"        | 8        | M30 | 170  | 165       | 175  | 8         | M33 | 195  | 190       | 200  | 8         | M39 | 255  | 245       | 265  |
| 5"        | 8        | M33 | 190  | 185       | 195  | 8         | M39 | 250  | 240       | 250  | 8         | M45 | 300  | 290       | 310  |
| 6"        | 12       | M30 | 195  | 185       | 195  | 12        | M36 | 260  | 255       | 265  | 8         | M52 | 345  | 335       | 355  |
| 8"        | 12       | M36 | 220  | 215       | 225  | 12        | M42 | 290  | 285       | 300  | 12        | M52 | 380  | 375       | 395  |
| 10"       | 16       | M36 | 235  | 230       | 235  | 12        | M48 | 335  | 330       | 345  | 12        | M64 | 485  | 480       | 510  |
| 12"       | 20       | M36 | 255  | 250       | 255  | 16        | M52 | 375  | 370       | 390  | 12        | 72  | 540  | 530       | 560  |
| 14"       | 20       | M39 | 275  | 265       | 280  | 16        | M56 | 405  | 400       | 425  |           |     |      |           |      |
| 16"       | 20       | M42 | 285  | 280       | 295  | 16        | M64 | 445  | 440       | 470  |           |     |      |           |      |
| 18"       | 20       | M48 | 325  | 320       | 340  | 16        | 72  | 495  | 485       | 515  |           |     |      |           |      |
| 20"       | 20       | M52 | 345  | 340       | 360  | 16        | 76  | 540  | 525       | 565  |           |     |      |           |      |
| 24"       | 20       | M68 | 435  | 430       | 455  | 16        | 90  | 615  | 610       | 645  |           |     |      |           |      |

| VITI – BOLTS<br>TIRANTI – STUD BOLTS   |                                        |              |                          |
|----------------------------------------|----------------------------------------|--------------|--------------------------|
| Classe<br>Class                        |                                        | ASTM spec.   |                          |
|                                        |                                        | Design.      | Grade                    |
| Acciaio a basso C.<br>Low carbon steel |                                        | A307         | B                        |
| Acciai Legati<br>Alloy steels          | Acciai Ferritici<br>Ferritic Steels    | A193         | B7<br>B16                |
| Acciai Inossidabili<br>Stainless Steel | Acciai Austenitici<br>Austenitic Steel | A193<br>A320 | B8<br>B8A<br>B8M<br>B8MA |
| Acciai Legati<br>Alloy Steel           | Acciai Ferritici<br>Ferritic Steel     | A320         | L7<br>L43                |
| DADI – NUTS                            |                                        |              |                          |
| Classe<br>Class                        |                                        | ASTM spec.   |                          |
|                                        |                                        | Design.      | Design.                  |
| Acciaio a basso C.<br>Low carbon steel |                                        | A307         | B                        |
| Acciai Legati<br>Alloy steels          | Acciai Ferritici<br>Ferritic Steels    | A194         | 2H<br>3<br>4             |
| Acciai Inossidabili<br>Stainless Steel | Acciai Austenitici<br>Austenitic Steel | A194         | 8<br>8A<br>8M<br>8MA     |

# TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

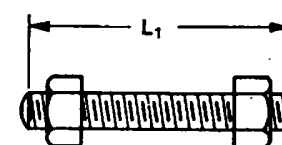
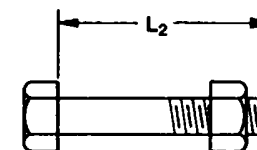
ANSI / ASME B 16.5

Viti – Bolts: ANSI B18.2.1

Tiranti – Stud Bolts: ANSI B18.2.1

Dadi – Nuts: ANSI B18.2.2

Filettatura - Threads: ASA B1.1 up to/ fino a 1" – 8UN 1.1/8" oltre/over

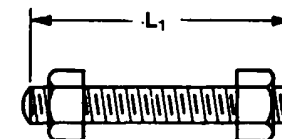


| DN<br>NPS | 150 Lbs. |       |       |       |       | 300 Lbs. |       |       |       |       | 400 Lbs. |       |        |           |       | 600 Lbs. |       |        |           |        |
|-----------|----------|-------|-------|-------|-------|----------|-------|-------|-------|-------|----------|-------|--------|-----------|-------|----------|-------|--------|-----------|--------|
|           | N°       | Ø     | L1    |       | L2    | N°       | Ø     | L1    |       | L2    | N°       | Ø     | L1     |           |       | N°       | Ø     | L1     |           |        |
|           |          |       | R.F.  | R.J.  | R.F.  |          |       | R.F.  | R.J.  | R.F.  |          |       | R.F.   | MF<br>GT. | R.J.  |          |       | R.F.   | MF<br>GT. | R.J.   |
| 1/2       | 4        | 1/2   | 2 1/4 | -     | 2     | 4        | 1/2   | 2 1/2 | 3     | 2 1/4 |          |       |        |           |       | 4        | 1/2   | 3      | 2 3/4     | 3      |
| 3/4       | 4        | 1/2   | 2 1/2 | -     | 2     | 4        | 5/8   | 3     | 3 1/2 | 2 1/2 |          |       |        |           |       | 4        | 5/8   | 3 1/2  | 3 1/4     | 3 1/2  |
| 1"        | 4        | 1/2   | 2 1/2 | 3     | 2 1/4 | 4        | 5/8   | 3     | 3 1/2 | 2 1/2 |          |       |        |           |       | 4        | 5/8   | 3 1/2  | 3 1/4     | 3 1/2  |
| 1" 1/4    | 4        | 1/2   | 2 3/4 | 3 1/4 | 2 1/4 | 4        | 5/8   | 3 1/4 | 3 3/4 | 2 3/4 |          |       |        |           |       | 4        | 5/8   | 3 3/4  | 3 1/2     | 3 3/4  |
| 1" 1/2    | 4        | 1/2   | 2 3/4 | 3 1/4 | 2 1/2 | 4        | 3/4   | 3 1/2 | 4     | 3     |          |       |        |           |       | 4        | 3/4   | 4 1/4  | 4         | 4 1/4  |
| 2"        | 4        | 5/8   | 3 1/4 | 3 3/4 | 2 3/4 | 8        | 5/8   | 3 1/2 | 4     | 3     |          |       |        |           |       | 8        | 5/8   | 4 1/4  | 4         | 4 1/4  |
| 2" 1/2    | 4        | 5/8   | 3 1/2 | 4     | 3     | 8        | 3/4   | 4     | 4 1/2 | 3 1/4 |          |       |        |           |       | 8        | 3/4   | 4 3/4  | 4 1/2     | 4 3/4  |
| 3"        | 4        | 5/8   | 3 1/2 | 4     | 3     | 8        | 3/4   | 4 1/4 | 4 3/4 | 3 1/2 |          |       |        |           |       | 8        | 3/4   | 5      | 4 3/4     | 5      |
| 3" 1/2    | 8        | 5/8   | 3 1/2 | 4     | 3     | 8        | 3/4   | 4 1/4 | 5     | 3 3/4 |          |       |        |           |       | 8        | 7/8   | 5 1/2  | 5 1/4     | 5 1/2  |
| 4"        | 8        | 5/8   | 3 1/2 | 4     | 3     | 8        | 3/4   | 4 1/2 | 5     | 3 3/4 | 8        | 7/8   | 5 1/2  | 5 1/4     | 5 1/2 | 8        | 7/8   | 5 3/4  | 5 1/2     | 5 3/4  |
| 5"        | 8        | 3/4   | 3 3/4 | 4 1/4 | 3 1/4 | 8        | 3/4   | 4 3/4 | 5 1/4 | 4 1/4 | 8        | 7/8   | 5 3/4  | 5 1/2     | 5 3/4 | 8        | 1     | 6 1/2  | 6 1/4     | 6 1/2  |
| 6"        | 8        | 3/4   | 4     | 4 1/2 | 3 1/4 | 12       | 3/4   | 4 3/4 | 5 1/2 | 4 1/4 | 12       | 7/8   | 6      | 5 3/4     | 6     | 12       | 1     | 6 3/4  | 6 1/2     | 6 3/4  |
| 8"        | 8        | 3/4   | 4 1/4 | 4 3/4 | 3 1/2 | 12       | 7/8   | 5 1/2 | 6     | 4 3/4 | 12       | 1     | 6 3/4  | 6 1/2     | 6 3/4 | 12       | 1 1/8 | 7 1/2  | 7 1/4     | 7 3/4  |
| 10"       | 12       | 7/8   | 4 1/2 | 5     | 4     | 16       | 1     | 6 1/4 | 6 3/4 | 5 1/2 | 16       | 1 1/8 | 7 1/2  | 7 1/4     | 7 1/2 | 16       | 1 1/4 | 8 1/2  | 8 1/4     | 8 1/2  |
| 12"       | 12       | 7/8   | 4 3/4 | 5 1/4 | 4     | 16       | 1 1/8 | 6 3/4 | 7 1/4 | 5 3/4 | 16       | 1 1/4 | 8      | 7 3/4     | 8     | 20       | 1 1/4 | 8 3/4  | 8 1/2     | 8 3/4  |
| 14"       | 12       | 1     | 5 1/4 | 5 3/4 | 4 1/2 | 20       | 1 1/8 | 7     | 7 1/2 | 6 1/4 | 20       | 1 1/4 | 8 1/4  | 8         | 8 1/4 | 20       | 1 3/8 | 9 1/4  | 9         | 9 1/4  |
| 16"       | 16       | 1     | 5 1/4 | 5 3/4 | 4 1/2 | 20       | 1 1/4 | 7 1/2 | 8     | 6 1/2 | 20       | 1 3/8 | 8 3/4  | 8 1/2     | 8 3/4 | 20       | 1 1/2 | 10     | 9 3/4     | 10     |
| 18"       | 16       | 1 1/8 | 5 3/4 | 6 1/4 | 5     | 24       | 1 1/4 | 7 3/4 | 8 1/4 | 6 3/4 | 24       | 1 3/8 | 9      | 8 3/4     | 9     | 20       | 1 5/8 | 10 3/4 | 10 1/2    | 10 3/4 |
| 20"       | 20       | 1 1/8 | 6 1/4 | 6 3/4 | 5 1/2 | 24       | 1 1/4 | 8     | 8 3/4 | 7 1/4 | 24       | 1 1/2 | 9 1/2  | 9 1/4     | 9 3/4 | 24       | 1 5/8 | 11 1/4 | 11        | 11 1/2 |
| 24"       | 20       | 1 1/4 | 6 3/4 | 7 1/4 | 6     | 24       | 1 1/2 | 9     | 10    | 8     | 24       | 1 3/4 | 10 1/2 | 10 1/4    | 11    | 24       | 1 7/8 | 13     | 12 3/4    | 13 1/4 |

# TIRANTI E VITI DI ACCOPPIAMENTO PER FLANGE STUB BOLTS AND BOLTS FOR FLANGES

ANSI / ASME B 16.5

Viti – Bolts: ANSI B18.2.1  
Tiranti – Stud Bolts: ANSI B18.2.1  
Dadi – Nuts: ANSI B18.2.2



Filettatura - Threads: ASA B1.1 up to fino a 1" – 8UN 1.1/8" oltre/over

Dimensions in mm.

| DN<br>NPS | 900 Lbs. |       |        |           |        | 1500 Lbs. |       |        |           |        | 2500 Lbs. |       |        |           |        |
|-----------|----------|-------|--------|-----------|--------|-----------|-------|--------|-----------|--------|-----------|-------|--------|-----------|--------|
|           | N°       | Ø     | L1     |           |        | N°        | Ø     | L1     |           |        | N°        | Ø     | L1     |           |        |
|           |          |       | R.F.   | MF<br>GT. | R.J.   |           |       | R.F.   | MF<br>GT. | R.J.   |           |       | R.F.   | MF<br>GT. | R.J.   |
| 1/2       |          |       |        |           |        | 4         | 3/4   | 4 1/4  | 4         | 4 1/4  | 4         | 3/4   | 4 3/4  | 4 1/2     | 4 3/4  |
| 3/4       |          |       |        |           |        | 4         | 3/4   | 4 1/2  | 4 1/4     | 4 1/2  | 4         | 3/4   | 5      | 4 3/4     | 5      |
| 1"        |          |       |        |           |        | 4         | 7/8   | 5      | 4 3/4     | 5      | 4         | 7/8   | 5 1/2  | 5 1/4     | 5 1/2  |
| 1" 1/4    |          |       |        |           |        | 4         | 7/8   | 5      | 4 3/4     | 5      | 4         | 1     | 6      | 5 3/4     | 6      |
| 1" 1/2    |          |       |        |           |        | 4         | 1     | 5 1/2  | 5 1/4     | 5 1/2  | 4         | 1 1/8 | 6 3/4  | 6 1/2     | 6 3/4  |
| 2"        |          |       |        |           |        | 8         | 1 1/8 | 5 3/4  | 5 1/2     | 5 3/4  | 8         | 1     | 7      | 6 3/4     | 7      |
| 2" 1/2    |          |       |        |           |        | 8         | 1     | 6 3/4  | 6         | 6 1/4  | 8         | 1 1/8 | 7 3/4  | 7 1/2     | 8      |
| 3"        | 8        | 7/8   | 5 3/4  | 5 1/2     | 5 3/4  | 8         | 1 1/8 | 7      | 6 3/4     | 7      | 8         | 1 1/4 | 8 3/4  | 8 1/2     | 9      |
| 3" 1/2    |          |       |        |           |        |           |       |        |           |        |           |       |        |           |        |
| 4"        | 8        | 1 1/8 | 6 3/4  | 6 1/2     | 6 3/4  | 8         | 1 1/4 | 7 3/4  | 7 1/2     | 7 3/4  | 8         | 1 1/2 | 10     | 9 3/4     | 10 1/4 |
| 5"        | 8        | 1 1/4 | 7 1/2  | 7 1/4     | 7 1/2  | 8         | 1 1/2 | 9 3/4  | 9 1/2     | 9 3/4  | 8         | 1 3/4 | 11 3/4 | 11 1/2    | 12 1/4 |
| 6"        | 12       | 1 1/8 | 7 1/2  | 7 1/4     | 7 3/4  | 12        | 1 3/8 | 10 1/4 | 10        | 10 1/2 | 8         | 2     | 13 1/2 | 13 1/4    | 14     |
| 8"        | 12       | 1 3/8 | 8 3/4  | 8 1/2     | 8 3/4  | 12        | 1 5/8 | 11 1/2 | 11 1/4    | 12 3/4 | 12        | 2     | 15     | 14 3/4    | 15 1/2 |
| 10"       | 16       | 1 3/4 | 9 1/4  | 9         | 9 1/4  | 12        | 1 7/8 | 13 1/4 | 13        | 13 1/2 | 12        | 2 1/2 | 19 1/4 | 19        | 20     |
| 12"       | 20       | 1 3/4 | 10     | 9 3/4     | 10     | 16        | 2     | 14 3/4 | 14 1/2    | 15 1/4 | 12        | 2 3/4 | 21 1/4 | 21        | 22     |
| 14"       | 20       | 1 1/2 | 10 3/4 | 10 1/2    | 11     | 16        | 2 1/4 | 16     | 15 3/4    | 16 3/4 |           |       |        |           |        |
| 16"       | 20       | 1 5/8 | 11 1/4 | 11        | 11 1/2 | 16        | 2 1/2 | 17 1/2 | 17 1/4    | 18 1/2 |           |       |        |           |        |
| 18"       | 20       | 1 7/8 | 12 3/4 | 12 1/2    | 13 1/4 | 16        | 2 3/4 | 19 1/2 | 19 1/4    | 20 3/4 |           |       |        |           |        |
| 20"       | 20       | 2     | 13 3/4 | 13 1/2    | 14 1/4 | 16        | 3     | 21 1/4 | 21        | 22 1/4 |           |       |        |           |        |
| 24"       | 20       | 2 1/2 | 17 1/4 | 17        | 18     | 16        | 3 1/2 | 24 1/4 | 24        | 25 1/2 |           |       |        |           |        |

| VITI – BOLTS<br>TIRANTI – STUD BOLTS   |                                        |              |                          |
|----------------------------------------|----------------------------------------|--------------|--------------------------|
| Classe<br>Class                        |                                        | ASTM spec.   |                          |
|                                        |                                        | Design       | Grade                    |
| Acciaio a basso C.<br>Low carbon steel |                                        | A307         | B                        |
| Acciai Legati<br>Alloy steels          | Acciai Ferritici<br>Ferritic Steels    | A193         | B7<br>B16                |
| Acciai Inossidabili<br>Stainless Steel | Acciai Austenitici<br>Austenitic Steel | A193<br>A320 | B8<br>B8A<br>B8M<br>B8MA |
| Acciai Legati<br>Alloy Steel           | Acciai Ferritici<br>Ferritic Steel     | A320         | L7<br>L43                |
| DADI – NUTS                            |                                        |              |                          |
| Classe<br>Class                        |                                        | ASTM spec.   |                          |
|                                        |                                        | Design       | Grade                    |
| Acciaio a basso C.<br>Low carbon steel |                                        | A307         | B                        |
| Acciai Legati<br>Alloy steels          | Acciai Ferritici<br>Ferritic Steels    | A194         | 2H<br>3<br>4             |
| Acciai Inossidabili<br>Stainless Steel | Acciai Austenitici<br>Austenitic Steel | A194         | 8<br>8A<br>8M<br>8MA     |

# FINITURA SUPERFICI DI CONTATTO TYPES OF FINISH FOR MATING SURFACES

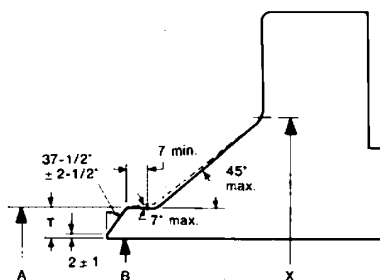
ANSI / ASME B 16.5

| RIF.<br>INDEX | DESCRIZIONE<br>NOMINATION | NW                                          | TIPO<br>TYPE | PROFILO<br>PROFILE |
|---------------|---------------------------|---------------------------------------------|--------------|--------------------|
| 1             | STOCK FINISH              | DN<br>NPS $\leq 12''$                       | Spiral       |                    |
| 2             | STOCK FINISH              | DN<br>NPS $\geq 14''$                       | Spiral       |                    |
| 3             | SPIRAL SERRATED           | Per tutti<br>i diametri<br>For all<br>sizes | Spiral       |                    |
| 4             | CONCENTRIC-SERRATED       | Per tutti<br>i diametri<br>For all<br>sizes | Concentric   |                    |
| 5             | SMOOTH FINISH             | Per tutti<br>i diametri<br>For all<br>sizes |              |                    |
| 6             | COLD WATER FINISH         | Per tutti<br>i diametri<br>For all<br>sizes |              |                    |

## ESTREMITÀ DA SALDARE DI TESTA WELDING BEVEL STANDARDS

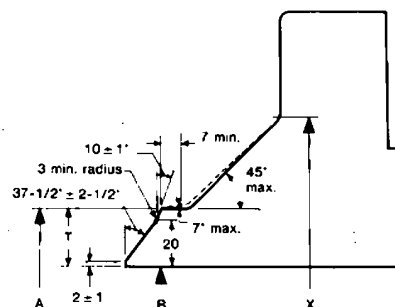
ESECUZIONE PER ACCOPPIAMENTO A TUBI DI  
SPESSORE T DA 5 A 22 mm. INCLUSO.

FOR WALL THICKNESSES T 5 mm TO 22 mm. INCLUSIVE.



ESECUZIONE PER ACCOPPIAMENTO A TUBI DI  
SPESSORE T MAGGIORE DI 22 mm.

FOR WALL THICKNESSES T GREATER THAN 22 mm.



LE FLANGE CON SPESSORE T < 5 mm SONO FORNITE CON ESTREMITÀ TRONCA SE NON ALTRIMENTI  
SPECIFICATO DAL CLIENTE.

FLANGES HAVING A WALL THICKNESSES T < 5 mm ARE FURNISHED WITH SQUARE ENDS UNLESS OTHERWISE  
SPECIFIED BY THE CUSTOMER.

# TOLLERANZE FLANGE FLANGES TOLLERANCES

ANSI / ASME B 16.5

| SLIP-ON, BLIND               |                                                                                   |                  |
|------------------------------|-----------------------------------------------------------------------------------|------------------|
| Diametro Esterno             | Diametro $\leq 610$                                                               | $\pm 2$          |
|                              | Diametro $> 610$                                                                  | $\pm 3$          |
| Diametro Interno             | FILETTATE: secondo i calibri                                                      |                  |
|                              | DN $\leq 10''$                                                                    | $+1$<br>$-0$     |
|                              | DN $\geq 12''$                                                                    | $+2$<br>$-0$     |
| Diametro collare alla base   | DN $\leq 12''$                                                                    | $+2,4$<br>$-1,6$ |
|                              | DN $\geq 14''$                                                                    | $\pm 3,2$        |
| Diametro Rialto              | Rialto da 2                                                                       | $\pm 1$          |
|                              | Rialto da 7 incameratura M-F                                                      | $\pm 0,5$        |
| Imbocco Filettatura          | DN $\leq 10''$                                                                    | $+1$<br>$-0$     |
|                              | DN $\geq 12''$                                                                    | $+2$<br>$-0$     |
| Fori                         | Diametro cerchio fori                                                             | $\pm 2$          |
|                              | Distanza tra i fori                                                               | $\pm 0,8$        |
|                              | Eccentricità dei fori riferita al diametro interno ed alla superficie di contatto | MAX.<br>0,8      |
| Spessore Flangia             | DN $\leq 18''$                                                                    | $+3$<br>$-0$     |
|                              | DN $\geq 20''$                                                                    | $+5$<br>$-0$     |
| Altezza totale della flangia | DN $\leq 10''$                                                                    | $\pm 2$          |
|                              | DN $\geq 12''$                                                                    | $\pm 3$          |

| SLIP-ON, BLIND                         |                                                                                     |                  |
|----------------------------------------|-------------------------------------------------------------------------------------|------------------|
| Outside Diameter                       | Diameter $\leq 610$                                                                 | $\pm 2$          |
|                                        | Diameter $> 610$                                                                    | $\pm 3$          |
| Inside Diameter                        | THREADED: standard sizes limited                                                    |                  |
|                                        | 10" and less                                                                        | $+1$<br>$-0$     |
|                                        | 12" and more                                                                        | $+2$<br>$-0$     |
| Outside Diameter of neck in the bottom | 12" and less                                                                        | $+2,4$<br>$-1,6$ |
|                                        | 14" and more                                                                        | $\pm 3,2$        |
| Raised face Diameter                   | Raised face of 2 RF                                                                 | $\pm 1$          |
|                                        | Raised face of 7 RF Male-Female "angular" insert                                    | $\pm 0,5$        |
| Wide mouthed Diameter                  | 10" and less                                                                        | $+1$<br>$-0$     |
|                                        | 12" and more                                                                        | $+2$<br>$-0$     |
| Hole                                   | Hole diameter                                                                       | $\pm 2$          |
|                                        | Distance between holes                                                              | $\pm 0,8$        |
|                                        | Excentricity of holes in reference to the interior diameter and to the contact face | MAX.<br>0,8      |
| Base Thickness                         | 18" and less                                                                        | $+3$<br>$-0$     |
|                                        | 20" and more                                                                        | $+5$<br>$-0$     |
| Total height of flange                 | 10" and less                                                                        | $\pm 2$          |
|                                        | 12" and more                                                                        | $\pm 3$          |

| WELDING NECK                 |                                                                                   |                  |
|------------------------------|-----------------------------------------------------------------------------------|------------------|
| Diametro Esterno             | Diametro $\leq 610$                                                               | $\pm 2$          |
|                              | Diametro $> 610$                                                                  | $\pm 3$          |
| Diametro Interno             | DN $\leq 10''$                                                                    | $\pm 0,8$        |
|                              | DN 12" a 18"                                                                      | $\pm 1,6$        |
|                              | DN $\geq 20''$                                                                    | $+3,2$<br>$-1,6$ |
| Diametro collare alla base   | $\leq 610$                                                                        | $\pm 1,6$        |
|                              | $> 610$                                                                           | $\pm 3,2$        |
| Diametro collare             | DN $\leq 5''$                                                                     | $+2,4$<br>$-0,8$ |
|                              | DN $\geq 6''$                                                                     | $+4$<br>$-0,8$   |
| Diametro Rialto              | Rialto da 2                                                                       | $\pm 1$          |
|                              | Rialto da 7 incameratura M-F                                                      | $\pm 0,5$        |
| Fori                         | Diametro cerchio fori                                                             | $\pm 2$          |
|                              | Distanza tra i fori                                                               | $\pm 0,8$        |
|                              | Eccentricità dei fori riferita al diametro interno ed alla superficie di contatto | MAX.<br>0,8      |
| Spessore Flangia             | DN $\leq 18''$                                                                    | $+3$<br>$-0$     |
|                              | DN $\geq 20''$                                                                    | $+5$<br>$-0$     |
| Altezza totale della flangia | DN $\leq 10''$                                                                    | $\pm 2$          |
|                              | DN $\geq 12''$                                                                    | $\pm 3$          |

| WELDING NECK                           |                                                                                     |                  |
|----------------------------------------|-------------------------------------------------------------------------------------|------------------|
| Outside Diameter                       | Diameter $\leq 610$                                                                 | $\pm 2$          |
|                                        | Diameter $> 610$                                                                    | $\pm 3$          |
| Inside Diameter                        | 10" and less                                                                        | $\pm 0,8$        |
|                                        | 12" to 18"                                                                          | $\pm 1,6$        |
|                                        | 20" and more                                                                        | $+3,2$<br>$-1,6$ |
| Outside Diameter of neck in the bottom | $\leq 610$                                                                          | $\pm 1,6$        |
|                                        | $> 610$                                                                             | $\pm 3,2$        |
| Neck Diameter                          | 5" and less                                                                         | $+2,4$<br>$-0,8$ |
|                                        | 6" and more                                                                         | $+4$<br>$-0,8$   |
| Raised face Diameter                   | Raised face of 2 RF                                                                 | $\pm 1$          |
|                                        | Raised face of 7 RF Male-Female "angular" insert                                    | $\pm 0,5$        |
| Hole                                   | Hole diameter                                                                       | $\pm 2$          |
|                                        | Distance between holes                                                              | $\pm 0,8$        |
|                                        | Excentricity of holes in reference to the interior diameter and to the contact face | MAX.<br>0,8      |
| Base Thickness                         | 18" and less                                                                        | $+3$<br>$-0$     |
|                                        | 20" and more                                                                        | $+5$<br>$-0$     |
| Total height of flange                 | 10" and less                                                                        | $\pm 2$          |
|                                        | 12" and more                                                                        | $\pm 3$          |

Dimensioni in mm