

**BOLT, STUD, SEALING, GASKETING AND NUT SIZES FOR PIPING**

| CLASS 150 STEEL AND 125 CAST IRON |                |          |        |       |             |        |           |        |             |             |          |
|-----------------------------------|----------------|----------|--------|-------|-------------|--------|-----------|--------|-------------|-------------|----------|
| NPS                               | STUDS OR BOLTS |          |        |       | GASKETING   |        |           |        | RING GASKET |             | Nut Size |
|                                   | Quantity       | Diameter | Length |       | Raised Face |        | Flat face |        | Stud Length | Ring Number |          |
|                                   |                |          | Stud   | Bolt  | I.D         | O.D    | I.D.      | O.D.   |             |             |          |
| 1/2                               | 4              | 1/2      | 2 1/4  | 1 3/4 | 1/2         | 1 7/8  |           |        |             |             | 7/8      |
| 3/4                               | 4              | 1/2      | 2 1/4  | 2     | 3/4         | 2 1/4  |           |        |             |             | 7/8      |
| 1                                 | 4              | 1/2      | 2 1/2  | 2     | 1           | 2 5/8  | 1         | 4 1/4  | 3           | R15         | 7/8      |
| 1 1/2                             | 4              | 1/2      | 2 3/4  | 2 1/4 | 1 1/2       | 3 3/8  | 1 1/2     | 5      | 3 1/4       | R19         | 7/8      |
| 2                                 | 4              | 5/8      | 3 1/4  | 2 1/2 | 2           | 4 1/8  | 2         | 6      | 3 3/4       | R22         | 1 1/16   |
| 3                                 | 4              | 5/8      | 3 1/2  | 3     | 3           | 5 3/8  | 3         | 7 1/2  | 4 1/4       | R29         | 1 1/16   |
| 4                                 | 8              | 5/8      | 3 1/2  | 3     | 4           | 6 7/8  | 4         | 9      | 4 1/4       | R36         | 1 1/16   |
| 6                                 | 8              | 3/4      | 4      | 3 1/4 | 6           | 8 3/4  | 6         | 11     | 4 1/2       | R43         | 1 1/4    |
| 8                                 | 8              | 3/4      | 4 1/4  | 3 1/2 | 8           | 11     | 8         | 13 1/2 | 4 3/4       | R48         | 1 1/4    |
| 10                                | 12             | 7/8      | 4 3/4  | 3 3/4 | 10          | 13 3/8 | 10        | 16     | 5 1/4       | R52         | 1 7/16   |
| 12                                | 12             | 7/8      | 4 3/4  | 3 3/4 | 12          | 16 1/8 | 12        | 19     | 5 1/2       | R56         | 1 7/16   |
| 14                                | 12             | 7/8      | 5 1/4  | 4 1/4 | 13 1/4      | 17 3/4 | 14        | 21     | 6           | R59         | 1 5/8    |
| 16                                | 16             | 1        | 5 1/2  | 4 1/2 | 15 1/4      | 20 1/4 | 16        | 23 1/2 | 6           | R64         | 1 5/8    |
| 18                                | 16             | 1 1/8    | 6      | 4 3/4 | 17 1/4      | 21 5/8 | 18        | 25     | 6 1/2       | R68         | 1 13/16  |
| 20                                | 20             | 1 1/8    | 6 1/4  | 5     | 19 1/4      | 23 7/8 | 20        | 27 1/2 | 7           | R72         | 1 13/16  |
| 24                                | 20             | 1 1/4    | 7      | 5 1/2 | 23 1/4      | 28 1/4 | 24        | 32     | 7 3/4       | R76         | 2        |
| CLASS 300 STEEL AND 250 CAST IRON |                |          |        |       |             |        |           |        |             |             |          |
| NPS                               | STUDS OR BOLTS |          |        |       | GASKETING   |        |           |        | RING GASKET |             | Nut Size |
|                                   | Quantity       | Diameter | Length |       | Raised Face |        | Flat face |        | Stud Length | Ring Number |          |
|                                   |                |          | Stud   | Bolt  | I.D         | O.D    | I.D.      | O.D.   |             |             |          |
| 1/2                               | 4              | 1/2      | 2 1/2  | 2     | 1/2         | 2 1/8  |           |        | 3           | R11         | 7/8      |
| 3/4                               | 4              | 5/8      | 3      | 2 1/4 | 3/4         | 2 5/8  |           |        | 3 1/2       | R13         | 1 1/16   |
| 1                                 | 4              | 5/8      | 3      | 2 1/2 | 1           | 2 7/8  |           |        | 3 1/2       | R16         | 1 1/16   |
| 1 1/2                             | 4              | 3/4      | 3 1/2  | 2 3/4 | 1 1/2       | 3 3/4  | 1 1/2     | 6 1/8  | 4           | R20         | 1 1/4    |
| 2                                 | 8              | 3/4      | 3 1/2  | 2 3/4 | 2           | 4 3/8  | 2         | 6 1/2  | 4 1/4       | R23         | 1 1/16   |
| 3                                 | 8              | 3/4      | 4 1/4  | 3 1/2 | 3           | 5 7/8  | 3         | 8 1/4  | 5           | R31         | 1 1/4    |
| 4                                 | 8              | 3/4      | 4 1/2  | 3 3/4 | 4           | 7 1/8  | 4         | 10     | 5 1/4       | R37         | 1 1/4    |
| 6                                 | 12             | 3/4      | 4 3/4  | 4     | 6           | 9 7/8  | 6         | 12 1/2 | 5 3/4       | R45         | 1 1/4    |
| 8                                 | 12             | 7/8      | 5 1/2  | 4 1/2 | 8           | 12 1/8 | 8         | 15     | 6 1/4       | R49         | 1 7/16   |
| 10                                | 16             | 1        | 6 1/4  | 5 1/4 | 10          | 14 1/4 | 10        | 17 1/2 | 7 1/4       | R53         | 1 5/8    |
| 12                                | 16             | 1 1/8    | 6 3/4  | 5 1/2 | 12          | 16 5/8 | 12        | 20 1/2 | 7 1/2       | R57         | 1 13/16  |
| 14                                | 20             | 1 1/8    | 7      | 6     | 13 1/4      | 19 1/8 | 13 1/4    | 23     | 7 3/4       | R61         | 1 13/16  |
| 16                                | 20             | 1 1/4    | 7 1/2  | 6 1/4 | 15 1/4      | 21 1/4 | 15 1/4    | 25 1/2 | 8 1/2       | R65         | 2        |
| 18                                | 24             | 1 1/4    | 7 3/4  | 6 1/2 | 17          | 23 1/2 | 17        | 28     | 8 3/4       | R69         | 2        |
| 20                                | 24             | 1 1/4    | 8 1/4  | 6 3/4 | 19          | 25 3/4 | 19        | 30 1/2 | 9 1/4       | R73         | 2        |
| 24                                | 24             | 1 1/2    | 9 1/4  | 7 3/4 | 23          | 30 1/2 | 23        | 36     | 10 1/4      | R77         | 2 3/8    |