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## BOLTING AND RING GASKET DATA FOR ANSI FLANGES

### CLASS 150

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |       | RING NO. |
|-------------------|------|----------|-----------------|-------|----------|
|                   |      |          | 1/16" RF        | RTJ   |          |
| 1/2               | 4    | 1/2      | 2 1/4           | —     | —        |
| 3/4               | 4    | 1/2      | 2 1/4           | —     | —        |
| 1                 | 4    | 1/2      | 2 1/2           | 3     | R15      |
| 1 1/4             | 4    | 1/2      | 2 1/2           | 3 1/4 | R17      |
| 1 1/2             | 4    | 1/2      | 2 3/4           | 3 1/4 | R19      |
| 2                 | 4    | 5/8      | 3 1/4           | 3 3/4 | R22      |
| 2 1/2             | 4    | 5/8      | 3 1/2           | 4     | R25      |
| 3                 | 4    | 5/8      | 3 1/2           | 4 1/4 | R29      |
| 3 1/2             | 8    | 5/8      | 3 1/2           | 4 1/4 | R33      |
| 4                 | 8    | 5/8      | 3 1/2           | 4 1/4 | R36      |
| 5                 | 8    | 3/4      | 3 3/4           | 4 1/2 | R40      |
| 6                 | 8    | 3/4      | 4               | 4 1/2 | R43      |
| 8                 | 8    | 3/4      | 4 1/4           | 4 3/4 | R48      |
| 10                | 12   | 7/8      | 4 3/4           | 5 1/4 | R52      |
| 12                | 12   | 7/8      | 4 3/4           | 5 1/2 | R56      |
| 14                | 12   | 1        | 5 1/4           | 6     | R59      |
| 16                | 16   | 1        | 5 1/2           | 6     | R64      |
| 18                | 16   | 1 1/8    | 6               | 6 1/2 | R68      |
| 20                | 20   | 1 1/8    | 6 1/4           | 7     | R72      |
| 24                | 20   | 1 1/4    | 7               | 7 3/4 | R76      |

### CLASS 400

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        |        | RING NO. |
|-------------------|------|----------|-----------------|--------|--------|----------|
|                   |      |          | 1/4 " RF        | M & F  | RTJ    |          |
| 1/2               | 4    | 1/2      | 3               | 2 3/4  | 3      | R11      |
| 3/4               | 4    | 5/8      | 3 1/2           | 3 1/4  | 3 1/2  | R13      |
| 1                 | 4    | 5/8      | 3 1/2           | 3 1/4  | 3 1/2  | R16      |
| 1 1/4             | 4    | 5/8      | 3 3/4           | 3 1/2  | 3 3/4  | R18      |
| 1 1/2             | 4    | 3/4      | 4 1/4           | 4      | 4 1/4  | R20      |
| 2                 | 8    | 5/8      | 4 1/4           | 4      | 4 1/2  | R23      |
| 2 1/2             | 8    | 3/4      | 4 3/4           | 4 1/2  | 5      | R26      |
| 3                 | 8    | 3/4      | 5               | 4 3/4  | 5 1/4  | R31      |
| 3 1/2             | 8    | 7/8      | 5 1/2           | 5 1/4  | 5 3/4  | R34      |
| 4                 | 8    | 7/8      | 5 1/2           | 5 1/4  | 5 3/4  | R37      |
| 5                 | 8    | 7/8      | 5 3/4           | 5 1/2  | 6      | R41      |
| 6                 | 12   | 7/8      | 6               | 5 3/4  | 6 1/4  | R45      |
| 8                 | 12   | 1        | 6 3/4           | 6 1/2  | 7      | R49      |
| 10                | 16   | 1 1/8    | 7 1/2           | 7 1/4  | 7 3/4  | R53      |
| 12                | 16   | 1 1/4    | 8               | 7 3/4  | 8 1/2  | R57      |
| 14                | 20   | 1 1/4    | 8 1/4           | 8      | 8 3/4  | R61      |
| 16                | 20   | 1 3/8    | 8 3/4           | 8 1/2  | 9 1/4  | R65      |
| 18                | 24   | 1 3/8    | 9               | 8 3/4  | 9 1/2  | R69      |
| 20                | 24   | 1 1/2    | 9 3/4           | 9 1/2  | 10 1/4 | R73      |
| 24                | 24   | 1 3/4    | 10 3/4          | 10 1/2 | 11 1/4 | R77      |

### CLASS 300

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        | RING NO. |
|-------------------|------|----------|-----------------|--------|----------|
|                   |      |          | 1/16" RF        | RTJ    |          |
| 1/2               | 4    | 1/2      | 2 1/2           | 3      | R11      |
| 3/4               | 4    | 5/8      | 3               | 3 1/4  | R13      |
| 1                 | 4    | 5/8      | 3               | 3 1/4  | R16      |
| 1 1/4             | 4    | 5/8      | 3 1/4           | 3 3/4  | R18      |
| 1 1/2             | 4    | 3/4      | 3 1/2           | 4      | R20      |
| 2                 | 8    | 5/8      | 3 1/2           | 4 1/4  | R23      |
| 2 1/2             | 8    | 3/4      | 4               | 4 3/4  | R26      |
| 3                 | 8    | 3/4      | 4 1/4           | 5      | R31      |
| 3 1/2             | 8    | 3/4      | 4 1/4           | 5 1/4  | R34      |
| 4                 | 8    | 3/4      | 4 1/2           | 5 1/4  | R37      |
| 5                 | 8    | 3/4      | 4 3/4           | 5 1/2  | R41      |
| 6                 | 12   | 3/4      | 4 3/4           | 5 3/4  | R45      |
| 8                 | 12   | 7/8      | 5 1/2           | 6 1/4  | R49      |
| 10                | 16   | 1        | 6 1/4           | 7 1/4  | R53      |
| 12                | 16   | 1 1/8    | 6 3/4           | 7 1/2  | R57      |
| 14                | 20   | 1 1/8    | 7               | 7 3/4  | R61      |
| 16                | 20   | 1 1/4    | 7 1/2           | 8 1/2  | R65      |
| 18                | 24   | 1 1/4    | 7 3/4           | 8 3/4  | R69      |
| 20                | 24   | 1 1/4    | 8 1/4           | 9 1/4  | R73      |
| 24                | 24   | 1 1/2    | 9 1/4           | 10 1/4 | R77      |

### CLASS 600

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        |        | RING NO. |
|-------------------|------|----------|-----------------|--------|--------|----------|
|                   |      |          | 1/4 " RF        | M & F  | RTJ    |          |
| 1/2               | 4    | 1/2      | 3               | 2 3/4  | 3      | R11      |
| 3/4               | 4    | 5/8      | 3 1/2           | 3 1/4  | 3 1/2  | R13      |
| 1                 | 4    | 5/8      | 3 1/2           | 3 1/4  | 3 1/2  | R16      |
| 1 1/4             | 4    | 5/8      | 3 3/4           | 3 1/2  | 3 3/4  | R18      |
| 1 1/2             | 4    | 3/4      | 4 1/4           | 4      | 4 1/4  | R20      |
| 2                 | 8    | 5/8      | 4 1/4           | 4      | 4 1/2  | R23      |
| 2 1/2             | 8    | 3/4      | 4 3/4           | 4 1/2  | 5      | R26      |
| 3                 | 8    | 3/4      | 5               | 4 3/4  | 5 1/4  | R31      |
| 3 1/2             | 8    | 7/8      | 5 1/2           | 5 1/4  | 5 3/4  | R34      |
| 4                 | 8    | 7/8      | 5 3/4           | 5 1/2  | 6      | R37      |
| 5                 | 8    | 1        | 6 1/2           | 6 1/4  | 6 3/4  | R41      |
| 6                 | 12   | 1        | 6 3/4           | 6 1/2  | 6 3/4  | R45      |
| 8                 | 12   | 1 1/8    | 7 3/4           | 7 1/2  | 7      | R49      |
| 10                | 16   | 1 1/4    | 8 1/2           | 8 1/4  | 8 3/4  | R53      |
| 12                | 20   | 1 1/4    | 8 3/4           | 8 1/2  | 9      | R57      |
| 14                | 20   | 1 3/8    | 9 1/4           | 9      | 9 1/2  | R61      |
| 16                | 20   | 1 1/2    | 10              | 9 3/4  | 10 1/4 | R65      |
| 18                | 20   | 1 5/8    | 10 3/4          | 10 1/2 | 11     | R69      |
| 20                | 24   | 1 5/8    | 11 1/2          | 11 1/4 | 11 3/4 | R73      |
| 24                | 24   | 1 7/8    | 13              | 12 3/4 | 13 1/2 | R77      |

**CLASS 900**

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        |        | RING NO. |
|-------------------|------|----------|-----------------|--------|--------|----------|
|                   |      |          | 1/4 " RF        | M & F  | RTJ    |          |
| 1/2               | 4    | 3/4      | 4 1/4           | 4      | 4 1/4  | R12      |
| 3/4               | 4    | 3/4      | 4 1/2           | 4 1/4  | 4 1/2  | R14      |
| 1                 | 4    | 7/8      | 5               | 4 3/4  | 5      | R16      |
| 1 1/4             | 4    | 7/8      | 5               | 4 3/4  | 5      | R18      |
| 1 1/2             | 4    | 1        | 5 1/2           | 5 1/4  | 5 1/2  | R20      |
| 2                 | 8    | 7/8      | 5 3/4           | 5 1/2  | 6      | R24      |
| 2 1/2             | 8    | 1        | 6 1/4           | 6      | 6 1/2  | R27      |
| 3                 | 8    | 7/8      | 5 3/4           | 5 1/2  | 6      | R31      |
| 3 1/2             | 8    | —        | —               | —      | —      | —        |
| 4                 | 8    | 1 1/8    | 6 3/4           | 6 1/2  | 7      | R37      |
| 5                 | 8    | 1 1/4    | 7 1/2           | 7 1/4  | 7 3/4  | R41      |
| 6                 | 12   | 1 1/8    | 7 3/4           | 7 1/2  | 8      | R45      |
| 8                 | 12   | 1 3/8    | 8 3/4           | 8 1/2  | 9      | R49      |
| 10                | 16   | 1 3/8    | 9 1/4           | 9      | 9 1/2  | R53      |
| 12                | 20   | 1 3/8    | 10              | 9 3/4  | 10 1/4 | R57      |
| 14                | 20   | 1 1/2    | 10 3/4          | 10 1/2 | 11 1/4 | R62      |
| 16                | 20   | 1 5/8    | 11 1/4          | 11     | 11 3/4 | R66      |
| 18                | 20   | 1 7/8    | 13              | 12 3/4 | 13 1/2 | R70      |
| 20                | 24   | 2        | 13 3/4          | 13 1/2 | 14 1/2 | R74      |
| 24                | 24   | 2 1/2    | 17 1/4          | 17     | 18 1/2 | R78      |

**CLASS 2500**

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        |        | RING NO. |
|-------------------|------|----------|-----------------|--------|--------|----------|
|                   |      |          | 1/4 " RF        | M & F  | RTJ    |          |
| 1/2               | 4    | 3/4      | 4 3/4           | 4 1/2  | 4 3/4  | R13      |
| 3/4               | 4    | 3/4      | 5               | 4 3/4  | 5      | R16      |
| 1                 | 4    | 7/8      | 5 1/2           | 5 1/4  | 5 1/2  | R18      |
| 1 1/4             | 4    | 1        | 6               | 5 3/4  | 6 1/4  | R21      |
| 1 1/2             | 4    | 1 1/8    | 6 3/4           | 6 1/2  | 7      | R23      |
| 2                 | 8    | 1        | 7               | 6 3/4  | 7 1/4  | R26      |
| 2 1/2             | 8    | 1 1/8    | 7 3/4           | 7 1/2  | 8      | R28      |
| 3                 | 8    | 1 1/4    | 8 3/4           | 8 1/2  | 9 1/4  | R32      |
| 3 1/2             | —    | —        | —               | —      | —      | —        |
| 4                 | 8    | 1 1/2    | 10              | 9 3/4  | 10 1/2 | R38      |
| 5                 | 8    | 1 3/4    | 12              | 11 3/4 | 12 1/2 | R42      |
| 6                 | 8    | 2        | 13 3/4          | 13 1/2 | 14 1/4 | R47      |
| 8                 | 12   | 2        | 15 1/4          | 15     | 16     | R51      |
| 10                | 12   | 2 1/2    | 19 1/4          | 19     | 20 1/4 | R55      |
| 12                | 12   | 2 3/4    | 21 1/4          | 21     | 22 1/4 | R60      |
| 14                | —    | —        | —               | —      | —      | —        |
| 16                | —    | —        | —               | —      | —      | —        |
| 18                | —    | —        | —               | —      | —      | —        |
| 20                | —    | —        | —               | —      | —      | —        |
| 24                | —    | —        | —               | —      | —      | —        |

**CLASS 1500**

| NOMINAL PIPE SIZE | QTY. | DIAMETER | LENGTH OF STUDS |        |        | RING NO. |
|-------------------|------|----------|-----------------|--------|--------|----------|
|                   |      |          | 1/4 " RF        | M & F  | RTJ    |          |
| 1/2               | 4    | 3/4      | 4 1/4           | 4      | 4 1/4  | R12      |
| 3/4               | 4    | 3/4      | 4 1/2           | 4 1/4  | 4 1/2  | R14      |
| 1                 | 4    | 7/8      | 5               | 4 3/4  | 5      | R16      |
| 1 1/4             | 4    | 7/8      | 5               | 4 3/4  | 5      | R18      |
| 1 1/2             | 4    | 1        | 5 1/2           | 5 1/4  | 5 1/2  | R20      |
| 2                 | 8    | 7/8      | 5 3/4           | 5 1/2  | 6      | R24      |
| 2 1/2             | 8    | 1        | 6 1/4           | 6      | 6 1/2  | R27      |
| 3                 | 8    | 1 1/8    | 7               | 6 3/4  | 7 1/4  | R35      |
| 3 1/2             | —    | —        | —               | —      | —      | —        |
| 4                 | 8    | 1 1/4    | 7 3/4           | 7 1/2  | 8      | R39      |
| 5                 | 8    | 1 1/2    | 9 3/4           | 9 1/2  | 10     | R44      |
| 6                 | 12   | 1 3/8    | 10 1/4          | 10     | 10 3/4 | R46      |
| 8                 | 12   | 1 5/8    | 11 1/2          | 11 1/4 | 12     | R50      |
| 10                | 16   | 1 7/8    | 13 1/2          | 13 1/4 | 13 3/4 | R54      |
| 12                | 16   | 2        | 15              | 14 3/4 | 15 3/4 | R58      |
| 14                | 16   | 2 1/4    | 16 1/4          | 16     | 17 1/4 | R63      |
| 16                | 16   | 2 1/2    | 17 3/4          | 17 1/2 | 19     | R67      |
| 18                | 16   | 2 3/4    | 19 1/2          | 19 1/4 | 20 3/4 | R71      |
| 20                | 16   | 3        | 21 1/2          | 21 1/4 | 22 3/4 | R75      |
| 24                | 16   | 3 1/2    | 24 1/4          | 24     | 26     | R79      |



**PRECISION**  
FLOW, INC.

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