

# R-Series Gasket

| Ring              | ASME/ANSI B16.5 |         |       |       |       | API 6B  |       |       |       | Weight (lbs.) |
|-------------------|-----------------|---------|-------|-------|-------|---------|-------|-------|-------|---------------|
|                   | 150             | 300-600 | 900   | 1500  | 2500  | 720/960 | 2000  | 3000  | 5000  |               |
| R-11              |                 | 1/2     |       |       |       |         |       |       |       | 0.11          |
| R-12              |                 |         | 1/2   | 1/2   |       |         |       |       |       | 0.22          |
| R-13              |                 | 3/4     |       |       | 1/2   |         |       |       |       | 0.23          |
| R-14              |                 |         | 3/4   | 3/4   |       |         |       |       |       | 0.24          |
| R-15              | 1               |         |       |       |       |         |       |       |       | 0.26          |
| R-16              |                 | 1       | 1     | 1     | 3/4   | 1       | 1     | 1     | 1     | 0.28          |
| R-17              | 1-1/4           |         |       |       |       |         |       |       |       | 0.31          |
| R-18              |                 | 1-1/4   | 1-1/4 | 1-1/4 | 1     | 1-1/4   | 1-1/4 | 1-1/4 | 1-1/4 | 0.33          |
| R-19              | 1-1/2           |         |       |       |       |         |       |       |       | 0.35          |
| R-20              |                 | 1-1/2   | 1-1/2 | 1-1/2 |       | 1-1/2   | 1-1/2 | 1-1/2 | 1-1/2 | 0.37          |
| R-21              |                 |         |       |       | 1-1/4 |         |       |       |       | 0.66          |
| R-22              | 2               |         |       |       |       |         |       |       |       | 0.45          |
| R-23              |                 | 2       |       |       | 1-1/2 | 2       | 2     |       |       | 0.76          |
| R-24              |                 |         | 2     | 2     |       |         |       | 2     | 2     | 0.87          |
| R-25*             | 2-1/2           |         |       |       |       |         |       |       |       | 0.55          |
| R-26*             |                 | 2-1/2   |       |       | 2     | 2-1/2   | 2-1/2 |       |       | 0.93          |
| R-27              |                 |         | 2-1/2 | 2-1/2 |       |         |       | 2-1/2 | 2-1/2 | 1.05          |
| R-28*             |                 |         |       |       | 2-1/2 |         |       |       |       | 1.26          |
| R-29*             | 3               |         |       |       |       |         |       |       |       | 0.62          |
| R-30              |                 | 3       |       |       |       |         |       |       |       | 1.08          |
| R-31              |                 | 3       | 3     |       |       | 3       | 3     | 3     |       | 1.13          |
| R-32 <sup>2</sup> |                 |         |       |       | 3     |         |       |       |       | 1.44          |
| R-33*             | 3-1/2           |         |       |       |       |         |       |       |       | 0.72          |
| R-34              |                 | 3-1/2   |       |       |       |         |       |       |       | 1.20          |
| R-35              |                 |         |       | 3     |       |         |       |       | 3     | 1.25          |
| R-36              | 4               |         |       |       |       |         |       |       |       | 0.81          |
| R-37*             |                 | 4       | 4     |       |       | 4       | 4     | 4     | 3-1/2 | 1.36          |
| R-38              |                 |         |       |       | 4     |         |       |       |       | 2.56          |
| R-39*             |                 |         |       | 4     |       |         |       |       | 4     | 1.48          |
| R-40              | 5               |         |       |       |       |         |       |       |       | 0.94          |
| R-41*             |                 | 5       | 5     |       |       | 5       | 5     | 5     |       | 1.66          |
| R-42              |                 |         |       |       | 5     |         |       |       |       | 4.21          |
| R-43*             | 6               |         |       |       |       |         |       |       |       | 1.06          |
| R-44              |                 |         |       | 5     |       |         |       |       | 5     | 1.77          |
| R-45              |                 | 6       | 6     |       |       | 6       | 6     | 6     |       | 1.93          |
| R-46*             |                 |         |       | 6     |       |         |       |       | 6     | 2.39          |
| R-47*             |                 |         |       |       | 6     |         |       |       |       | 5.06          |
| R-48*             | 8               |         |       |       |       |         |       |       |       | 1.35          |
| R-49              |                 | 8       | 8     |       |       | 8       | 8     | 8     |       | 2.47          |
| R-50              |                 |         |       | 8     |       |         |       |       | 8     | 4.40          |
| R-51*             |                 |         |       |       | 8     |         |       |       |       | 8.05          |
| R-52*             | 10              |         |       |       |       |         |       |       |       | 1.68          |
| R-53              |                 | 10      | 10    |       |       | 10      | 10    | 10    |       | 3.00          |
| R-54              |                 |         |       | 10    |       |         |       |       | 10    | 5.29          |
| R-55*             |                 |         |       |       | 10    |         |       |       |       | 16.20         |
| R-56*             | 12              |         |       |       |       |         |       |       |       | 2.07          |

\* API 6A

<sup>1</sup> Class 720 and 960 flanges to API 6B are obsolete. Data are for information only.

<sup>2</sup>R-30 is for lapped joint only

# R-Series Gasket

| Ring  | ASME/ANSI B16.5 |         |     |      |      | API 6B  |      |      |       | Weight (lbs.) |
|-------|-----------------|---------|-----|------|------|---------|------|------|-------|---------------|
|       | 150             | 300-600 | 900 | 1500 | 2500 | 720/960 | 2000 | 3000 | 5000  |               |
| R-57  |                 | 12      | 12  |      |      | 12      | 12   | 12   |       | 3.48          |
| R-58  |                 |         |     | 12   |      |         |      |      |       | 11.00         |
| R-59  | 14              |         |     |      |      |         |      |      |       | 2.16          |
| R-60  |                 |         |     |      | 12   |         |      |      |       | 23.10         |
| R-61  |                 | 14      |     |      |      | 14      | 14   | 14   |       | 3.83          |
| R-62  |                 |         | 14  |      |      |         |      |      |       | 5.84          |
| R-63  |                 |         |     | 14   |      |         |      |      |       | 16.20         |
| R-64  | 16              |         |     |      |      |         |      |      |       | 2.47          |
| R-65  |                 | 16      |     |      |      | 16      | 16   |      |       | 4.30          |
| R-66  |                 |         | 16  |      |      |         |      | 16   |       | 7.67          |
| R-67  |                 |         |     | 16   |      |         |      |      |       | 22.30         |
| R-68  | 18              |         |     |      |      |         |      |      |       | 2.82          |
| R-69  |                 | 18      |     |      |      | 18      | 18   |      |       | 4.87          |
| R-70  |                 |         | 18  |      |      |         |      | 18   |       | 11.80         |
| R-71  |                 |         |     | 18   |      |         |      |      |       | 25.20         |
| R-72  | 20              |         |     |      |      |         |      |      |       | 3.04          |
| R-73  |                 | 20      |     |      |      | 20      | 20   |      |       | 6.60          |
| R-74  |                 |         | 20  |      |      |         |      | 20   |       | 12.95         |
| R-75  |                 |         |     | 20   |      |         |      |      |       | 33.3          |
| R-76  | 24              |         |     |      |      |         |      |      |       | 3.66          |
| R-77  |                 | 24      |     |      |      |         |      |      |       | 11.30         |
| R-78  |                 |         | 24  |      |      |         |      |      |       | 27.10         |
| R-79  |                 |         |     | 24   |      |         |      |      |       | 48.70         |
| R-80  | 22              |         |     |      |      |         |      |      |       | 3.11          |
| R-81  |                 | 22      |     |      |      |         |      |      |       | 8.56          |
| R-82  |                 |         |     |      |      |         |      |      | 1     | 0.56          |
| R-84  |                 |         |     |      |      |         |      |      | 1-1/2 | 0.50          |
| R-85  |                 |         |     |      |      |         |      |      | 2     | 0.97          |
| R-86  |                 |         |     |      |      |         |      |      | 2-1/2 | 1.46          |
| R-87  |                 |         |     |      |      |         |      |      | 3     | 1.59          |
| R-88  |                 |         |     |      |      |         |      |      | 4     | 2.73          |
| R-89  |                 |         |     |      |      |         |      |      | 3-1/2 | 2.52          |
| R-90  |                 |         |     |      |      |         |      |      | 5     | 4.55          |
| R-91  |                 |         |     |      |      |         |      |      | 10    | 15.10         |
| R-92  |                 |         |     |      |      |         |      |      |       | 2.07          |
| R-93  |                 | 26      |     |      |      |         |      |      |       | 16.30         |
| R-94  |                 | 28      |     |      |      |         |      |      |       | 17.40         |
| R-95  |                 | 30      |     |      |      |         |      |      |       | 18.70         |
| R-96  |                 | 32      |     |      |      |         |      |      |       | 26.70         |
| R-97  |                 | 34      |     |      |      |         |      |      |       | 28.10         |
| R-98  |                 | 36      |     |      |      |         |      |      |       | 29.80         |
| R-99  |                 |         |     |      |      |         | 8    | 8    |       | 2.10          |
| R-100 |                 |         | 26  |      |      |         |      |      |       | 38.70         |
| R-101 |                 |         | 28  |      |      |         |      |      |       | 49.00         |
| R-102 |                 |         | 30  |      |      |         |      |      |       | 53.60         |
| R-103 |                 |         | 32  |      |      |         |      |      |       | 57.00         |
| R-104 |                 |         | 34  |      |      |         |      |      |       | 71.60         |
| R-105 |                 |         | 36  |      |      |         |      |      |       | 105.00        |

\* API 6A

<sup>1</sup> Class 720 and 960 flanges to API 6B are obsolete. Data are for information only.

<sup>2</sup>R-30 is for lapped joint only

## Bolting and Ring Gasket Data for API and ANSI Flanges

| API Pressure Rating | Flange Size & Bore | Ring Gasket | Number of Studs | Dimensions of Studs |         |
|---------------------|--------------------|-------------|-----------------|---------------------|---------|
|                     |                    |             |                 | Diameter            | Length  |
| 2000 lb             | 2 1/16"            | R-23        | 5/8"            | 8                   | 4 3/4"  |
|                     | 2 9/16"            | R-26        | 3/4"            | 8                   | 5 1/4"  |
|                     | 3 1/8"             | R-31        | 3/4"            | 8                   | 5 1/4"  |
|                     | 4 1/16"            | R-37        | 7/8"            | 8                   | 6 1/4"  |
|                     | 5 1/8"             | R-41        | 1"              | 8                   | 7 1/4"  |
|                     | 7 1/16"            | R-45        | 1"              | 12                  | 7 1/2"  |
|                     | 9"                 | R-49        | 1 1/8"          | 12                  | 8 1/2"  |
|                     | 11"                | R-53        | 1 1/4"          | 16                  | 9 1/4"  |
|                     | 13 5/8"            | R-57        | 1 1/4"          | 20                  | 9 1/2"  |
|                     | 16 3/4"            | R-65        | 1 1/2"          | 20                  | 10 3/4" |
|                     | 21 1/4"            | R-73        | 1 5/8"          | 24                  | 12 1/2" |
| 3000 lb             | 2 1/16"            | R-24        | 8               | 7/8"                | 6"      |
|                     | 2 9/16"            | R-27        | 8               | 1"                  | 7"      |
|                     | 3 1/8"             | R-31        | 8               | 7/8"                | 6 1/4"  |
|                     | 4 1/16"            | R-37        | 8               | 1 1/8"              | 7 1/2"  |
|                     | 5 1/8"             | R-41        | 8               | 1 1/4"              | 8 1/4"  |
|                     | 7 1/16"            | R-45        | 12              | 1 1/8"              | 8 1/2"  |
|                     | 9"                 | R-49        | 12              | 1 3/8"              | 9 1/2"  |
|                     | 11"                | R-53        | 16              | 1 3/8"              | 10"     |
|                     | 13 5/8"            | R-57        | 20              | 1 3/8"              | 10 3/4" |
|                     | 16 3/4"            | R-65        | 20              | 1 5/8"              | 12 1/4" |
|                     | 21 1/4"            | R-73        | 20              | 2"                  | 15"     |
| 5000 lb             | 2 1/16"            | R-24        | 8               | 7/8"                | 6 1/4"  |
|                     | 2 9/16"            | R-27        | 8               | 1"                  | 7"      |
|                     | 3 1/8"             | R-35        | 8               | 1 1/8"              | 7 3/4"  |
|                     | 4 1/16"            | R-39        | 8               | 1 1/4"              | 8 1/2"  |
|                     | 5 1/8"             | R-44        | 8               | 1 1/2"              | 10 3/4" |
|                     | 7 1/16"            | R-46        | 12              | 1 3/8"              | 11 1/4" |
|                     | 9" 11"             | R-50        | 12              | 1 5/8"              | 12 1/2" |
|                     | 13 5/8"            | R-54        | 12              | 1 7/8"              | 14 1/2" |