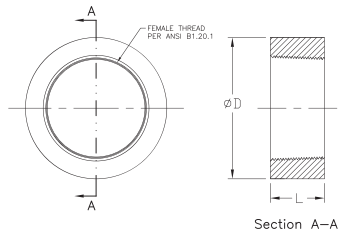


Fittings & Accessories





Half Couplings

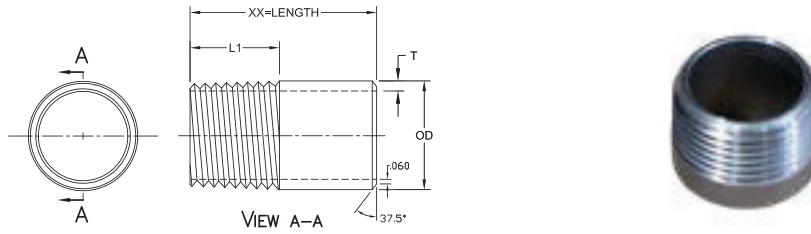
O.D. TUBE SIZES

| API Part Number | Nominal Pipe Size (inches) | OD | End to End Length | Threads per Inch |
|-----------------|----------------------------|-------|-------------------|------------------|
| THC0025 | 0.25 | 0.710 | 0.57 | 18.0 |
| THC0050 | 0.5 | 1.060 | 0.75 | 14.0 |
| THC0075 | 0.75 | 1.310 | 0.81 | 14.0 |
| THC0100 | 1 | 1.570 | 1.00 | 11.5 |
| THC0125 | 1.25 | 1.900 | 1.00 | 11.5 |
| THC0150 | 1.5 | 2.200 | 1.00 | 11.5 |
| THC0200 | 2 | 2.750 | 1.06 | 11.5 |
| THC0250 | 2.5 | 3.250 | 1.06 | 8.0 |
| THC0300 | 3 | 4.000 | 1.63 | 8.0 |
| THC0400 | 4 | 5.000 | 1.75 | 8.0 |
| THC0500 | 5 | 6.290 | 1.90 | 8.0 |
| THC0600 | 6 | 7.390 | 2.00 | 8.0 |
| THC0800 | 8 | 9.610 | 2.63 | 8.0 |

Notes:

- a. Coupling material is mild steel.
- b. Threads conform to ANSI B1.20.1.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.



Thread One End Nipples

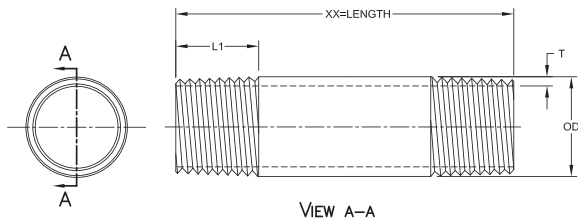
O.D. TUBE SIZES

| API Part Number | Nominal Pipe Size (inches) | OD | End to End Length | Threads Per Inch | Min. Thread Length | Min. Wall Thickness |
|-----------------|----------------------------|-------|-------------------|------------------|--------------------|---------------------|
| TOE0075-1.0 | 0.75 | 1.050 | 1.00 | 14.0 | 0.65 | 0.113 |
| TOE0100-1.0 | 1 | 1.315 | 1.00 | 11.5 | 0.65 | 0.133 |
| TOE0100-6.0 | 1 | 1.315 | 6.00 | 11.5 | 1.00 | 0.133 |
| TOE0125-1.5 | 1.25 | 1.660 | 1.50 | 11.5 | 0.93 | 0.140 |
| TOE0150-1.5 | 1.5 | 1.900 | 1.50 | 11.5 | 1.00 | 0.145 |
| TOE0200-2.0 | 2 | 2.375 | 2.00 | 11.5 | 1.10 | 0.154 |
| TOE0250-2.0 | 2.5 | 2.875 | 2.00 | 8.0 | 1.30 | 0.203 |
| TOE0300-3.0 | 3 | 3.500 | 3.00 | 8.0 | 1.65 | 0.216 |
| TOE0300-4.0 | 3 | 3.500 | 4.00 | 8.0 | 1.65 | 0.216 |
| TOE0400-3.0 | 4 | 4.500 | 3.00 | 8.0 | 1.75 | 0.237 |
| TOE0400-4.0 | 4 | 4.500 | 4.00 | 8.0 | 1.75 | 0.237 |
| TPE0400-5.0 | 4 | 4.500 | 5.00 | 8.0 | 1.75 | 0.237 |
| TOE0500-4.0 | 5 | 5.563 | 4.00 | 8.0 | 1.85 | 0.258 |
| TOE0600-4.0 | 6 | 6.625 | 4.00 | 8.0 | 2.00 | 0.280 |
| TOE0600-4.5 | 6 | 6.625 | 4.50 | 8.0 | 2.00 | 0.280 |
| TOE0600-6.0 | 6 | 6.625 | 6.00 | 8.0 | 2.00 | 0.280 |
| TOE0800-4.0 | 8 | 8.625 | 4.00 | 8.0 | 2.15 | 0.322 |
| TOE0800-6.0 | 8 | 8.625 | 6.00 | 8.0 | 2.15 | 0.322 |

Notes:

- a. Nipple material is mild steel.
- b. NPT threads in accordance with ANSI B2.1.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.



Threaded Both End Nipples

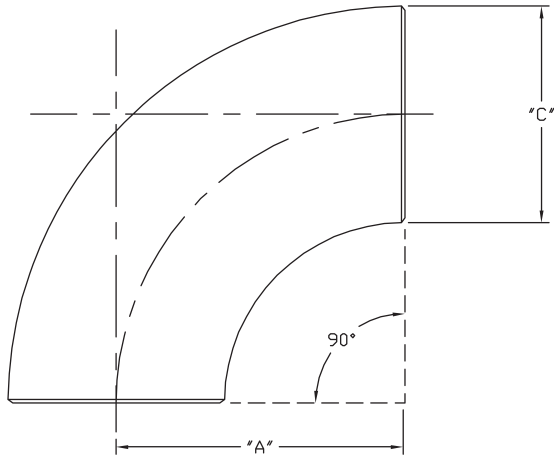
O.D. TUBE SIZES

| API Part Number | Nominal Pipe Size (inches) | OD | End to End Length | Threads per Inch | Min. Thread Length | Min. Wall Thickness |
|-----------------|----------------------------|-------|-------------------|------------------|--------------------|---------------------|
| TBE0075-1.38 | 0.75 | 1.050 | 1.38 | 14.0 | 0.75 | 0.113 |
| TBE0075-2.0 | 0.75 | 1.050 | 2.00 | 14.0 | 0.75 | 0.113 |
| TBE0075-3.0 | 0.75 | 1.050 | 3.00 | 14.0 | 0.75 | 0.113 |
| TBE0100-4.0 | 1 | 1.315 | 4.00 | 11.5 | 1.00 | 0.133 |
| TBE0100-12.0 | 1 | 1.315 | 12.00 | 11.5 | 1.00 | 0.133 |
| TBE0250-6.0 | 2.5 | 2.875 | 6.00 | 8.0 | 1.60 | 0.209 |
| TBE0400-8.0 | 4 | 4.500 | 8.00 | 8.0 | 1.75 | 0.237 |

Notes:

- a. Nipple material is mild steel.
- b. NPT threads in accordance with ANSI B2.1.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.



LONG RADIUS 90°

Long Radius 304L Stainless Steel 90° Elbows (LRE Series)

DIMENSIONS

| API Part Number | NOM. PIPE SIZE | OUTSIDE DIAMETER (O.D) | CENTER TO END (C to E) | INSIDE DIAMETER (I.D) | WALL THICKNESS (T) |
|-----------------|----------------|------------------------|------------------------|-----------------------|--------------------|
| LRE0100-90 | 1 | 1.315 | 1.500 | 1.097 | 0.109 |
| LRE0125-90 | 1.25 | 1.660 | 1.875 | 1.442 | 0.109 |
| LRE0150-90 | 1.5 | 1.900 | 2.250 | 1.682 | 0.109 |
| LRE0200-90 | 2 | 2.375 | 3.000 | 2.157 | 0.109 |
| LRE0250-90 | 2.5 | 2.875 | 3.750 | 2.635 | 0.120 |
| LRE0300-90 | 3 | 3.500 | 4.500 | 3.260 | 0.120 |
| LRE0400-90 | 4 | 4.500 | 6.000 | 4.260 | 0.120 |
| LRE0500-90 | 5 | 5.563 | 7.500 | 5.295 | 0.134 |
| LRE0600-90 | 6 | 6.625 | 9.000 | 6.357 | 0.134 |
| LRE0800-90 | 8 | 8.625 | 12.000 | 8.329 | 0.148 |
| LRE1000-90 | 10 | 10.750 | 15.000 | 10.420 | 0.165 |
| LRE1200-90 | 12 | 12.750 | 18.000 | 12.390 | 0.180 |

- ANSI B16.9
- MSS SP-43
- Schedule 10S

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.

MATERIALS

- ASTM A403
- WP304
- WP304H
- WP304L
- WP316
- WP316L



Gaskets

API stocks a variety of sizes of full face and ring gaskets in green Non-Asbestos (GNA Series) and SBR (GRR Series) materials.

| Nominal Pipe Size I.D. (old style) | ANSI Size I.D. (newstyle) | Full Face Gaskets - (125/150#) | | | | Full Face Gaskets - (250/300#) | | | | Ring Gaskets | |
|------------------------------------|---------------------------|--------------------------------|-------|--------|----------|--------------------------------|-------|---------|-----------|---------------|---------------|
| | | O.D | # B.H | Ø B.H. | Ø B.H.C. | O.D | # B.H | Ø B. H. | Ø B.H. C. | 125/150# (OD) | 250/300# (OD) |
| 0.5 | 0.878 | 3.50 | 4 | 0.625 | 2.375 | 3.750 | 4 | 0.625 | 2.625 | 1.875 | 2.125 |
| 0.75 | 1.062 | 3.88 | 4 | 0.625 | 2.750 | 4.625 | 4 | 0.750 | 3.250 | 2.250 | 2.625 |
| 1 | 1.313 | 4.25 | 4 | 0.625 | 3.125 | 4.875 | 4 | 0.750 | 3.500 | 2.625 | 2.875 |
| 1.25 | 1.683 | 4.63 | 4 | 0.625 | 3.500 | 5.250 | 4 | 0.750 | 3.875 | 3.000 | 3.250 |
| 1.5 | 1.943 | 5.00 | 4 | 0.625 | 3.875 | 6.125 | 4 | 0.875 | 4.500 | 3.375 | 3.750 |
| 2 | 2.375 | 6.00 | 4 | 0.750 | 4.750 | 6.500 | 8 | 0.875 | 5.000 | 4.125 | 4.375 |
| 2.5 | 2.875 | 7.00 | 4 | 0.750 | 5.500 | 7.500 | 8 | 0.875 | 5.875 | 4.875 | 5.125 |
| 3 | 3.500 | 7.50 | 4 | 0.750 | 6.000 | 8.250 | 8 | 0.875 | 6.625 | 5.375 | 5.875 |
| 3.5 | 4.000 | 8.50 | 8 | 0.750 | 7.000 | 9.000 | 8 | 0.875 | 7.250 | 6.375 | 6.500 |
| 4 | 4.500 | 9.00 | 8 | 0.750 | 7.500 | 10.00 | 8 | 0.875 | 7.875 | 6.875 | 7.125 |
| 5 | 5.563 | 10.00 | 8 | 0.875 | 8.500 | 11.00 | 8 | 0.875 | 9.250 | 7.750 | 8.500 |
| 6 | 6.625 | 11.00 | 8 | 0.875 | 9.500 | 12.50 | 12 | 0.875 | 10.63 | 8.750 | 9.875 |
| 8 | 8.650 | 13.50 | 8 | 0.875 | 11.75 | 15.00 | 12 | 1.000 | 13.00 | 11.000 | 12.125 |
| 10 | 10.750 | 16.00 | 12 | 1.000 | 14.25 | 17.50 | 16 | 1.125 | 15.25 | 13.380 | 14.250 |
| 12 | 12.750 | 19.00 | 12 | 1.000 | 17.00 | 20.50 | 16 | 1.250 | 17.75 | 16.130 | 16.625 |
| 14 | 14.000 | 21.00 | 12 | 1.125 | 18.75 | 23.00 | 20 | 1.250 | 20.25 | 17.750 | 19.125 |
| 16 | 16.000 | 23.50 | 16 | 1.125 | 21.25 | 25.50 | 20 | 1.375 | 22.50 | 20.500 | 21.250 |
| 18 | 18.000 | 25.00 | 16 | 1.250 | 22.75 | 28.00 | 24 | 1.375 | 24.75 | 21.630 | 23.500 |
| 20 | 20.000 | 27.50 | 20 | 1.250 | 25.00 | 30.50 | 24 | 1.375 | 27.00 | 23.880 | 25.750 |
| 22 | 22.000 | 29.50 | 20 | 1.375 | 27.25 | 33.00 | 24 | 1.625 | 29.25 | 26.000 | 27.625 |
| 24 | 24.000 | 32.00 | 20 | 1.375 | 29.50 | 36.00 | 24 | 1.625 | 32.00 | 28.250 | 30.500 |
| 26 | 26.000 | 34.75 | 24 | 1.375 | 31.75 | 38.25 | 28 | 1.750 | 34.50 | 30.500 | 32.875 |
| 28 | 28.000 | 36.50 | 28 | 1.375 | 34.00 | 40.75 | 28 | 1.750 | 37.00 | 32.750 | 35.375 |
| 30 | 30.000 | 38.75 | 28 | 1.375 | 36.00 | 43.00 | 28 | 1.875 | 39.50 | 34.750 | 37.500 |
| 32 | 32.000 | 41.75 | 28 | 1.625 | 38.50 | 45.25 | 28 | 2.000 | 41.50 | 38.000 | 39.625 |
| 34 | 34.000 | 43.75 | 32 | 1.625 | 40.50 | 47.50 | 28 | 2.000 | 43.50 | 39.000 | 41.625 |
| 36 | 36.000 | 46.00 | 32 | 1.625 | 42.75 | 50.00 | 32 | 2.125 | 46.00 | 41.250 | 44.000 |
| 38 | 38.000 | 48.75 | 36 | 1.625 | 45.25 | 52.25 | 32 | 2.250 | 48.00 | 43.630 | 46.125 |
| 40 | 40.000 | 50.75 | 36 | 1.625 | 47.25 | 54.25 | 36 | 2.250 | 50.25 | 45.630 | 48.750 |
| 42 | 42.000 | 53.00 | 36 | 1.625 | 49.50 | 57.00 | 36 | 2.250 | 52.75 | 48.000 | 50.750 |
| 44 | 44.000 | 55.25 | 40 | 1.625 | 51.75 | 59.25 | 36 | 2.250 | 55.00 | 50.130 | 53.000 |
| 46 | 46.000 | 57.25 | 40 | 1.625 | 53.75 | 61.50 | 40 | 2.250 | 57.75 | 52.130 | 55.250 |
| 48 | 48.000 | 59.50 | 44 | 1.625 | 56.00 | 65.00 | 40 | 2.250 | 60.75 | 54.500 | 58.500 |

Note:

- a. Dimensions per ANSI B 16.5 and AWWA C110 standards for pipe flanges and gaskets.
- b. Dimensional tolerances (unless otherwise stated): Up to 1" @ +/- .0325"; 1.25" thru 12" @ +/- .0625"; 14" thru 24" @ +/- .0975"; 24" and above @ +/- .25".
- c. Standard gasket material is SBR (Red Rubber) or Non-Asbestos (Green), but Neoprene, EPDM, Buna N, Silicone, Viton Teflon and other compounds are readily available.
- d. Standard thicknesses are 1/16" and 1/8", but other thickness are available.
- e. Sizes above 24" available upon request (minimum order quantity may apply).

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.

Gaskets - Basic Compounds & Properties

| | | | | General Chemical Resistance | |
|------------------------------|-------------|--|---|---|--|
| Common Name (s) | Designation | Composition | General Properties | Resistance to | Attacked by: |
| Neoprene | CR | Chloroprene | Good weathering resistance and flame retarding. Good resistance to petroleum based fluids. | Moderate chemicals and acids, ozone, oils, fats, greases and many solvents. | Strong oxidizing acids, esters, ketones, chlorinated, aromatic and nitro hydrocarbons. |
| EPDM | EPM | Ethylene-propylene-diene-molimers | Excellent ozone, chemical and aging resistance. Excellent heat resistance. Poor resistance to petroleum based fluids. | Heat, ozone, strong oxidizing chemicals and acetone. | Petroleum based fluids, animal fats, solvents and greases. |
| Buna-N | NBR | Nitrile-butadiene | Excellent resistance to petroleum based fluids. Good physical properties. | Many hydrocarbons, fats, oils, hydraulic fluids and chemicals. | Ozone (except PVC blends), ketones, esters, aldehydes, chlorinated and nitro hydrocarbons. |
| Silicones | Q, Si | Polysiloxane | Excellent high and low temperature properties. Good oil resistance. FDA compound. Good physical properties. | Moderate chemicals and acids, ozone, oils, fats, greases and concentrated sodium hydroxide. | Many solvents, high aromatic hydrocarbons, concentrated acids, dilute sodium hydroxide. |
| SBR (Red Rubber) | SBR | Styrene-butadiene | Good physical properties and abrasion resistance. Poor resistance to petroleum based fluids. | Most moderate chemicals wet or dry, organic acids, alcohols, ketones and aldehydes. | Ozone, strong acids, animal fats, oils, greases and most hydrocarbons. |
| Viton (Fluoro-elastomer) | FPM | Hexafluoropropylene-vinylidene fluoride | Excellent oil and air resistance at low and high temperatures. Excellent chemical resistance. | All aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. | Ketones, low molecular weight esters and nitro containing compounds |
| Teflon® (Fluorocarbon resin) | TFE | Polytetra-fluoroethylene | Excellent chemical and solvent resistance. Resistant to very high temperatures. | Inert to most chemicals, smooth anti-adhesive surface. Easily cleaned. | Acetates, NA-K and some amino acids. |
| Non-Asbestos | NA | Aramid fiber and synthetic fibers bonded with NBR. | General service water & oil gasket. Pressures to 1595 psi, Temp to 750o F. | Mild acids, Alkalis, Oils, general chemicals & petroleum derivatives and steam. | Consult customer service for chemical compatibility. |

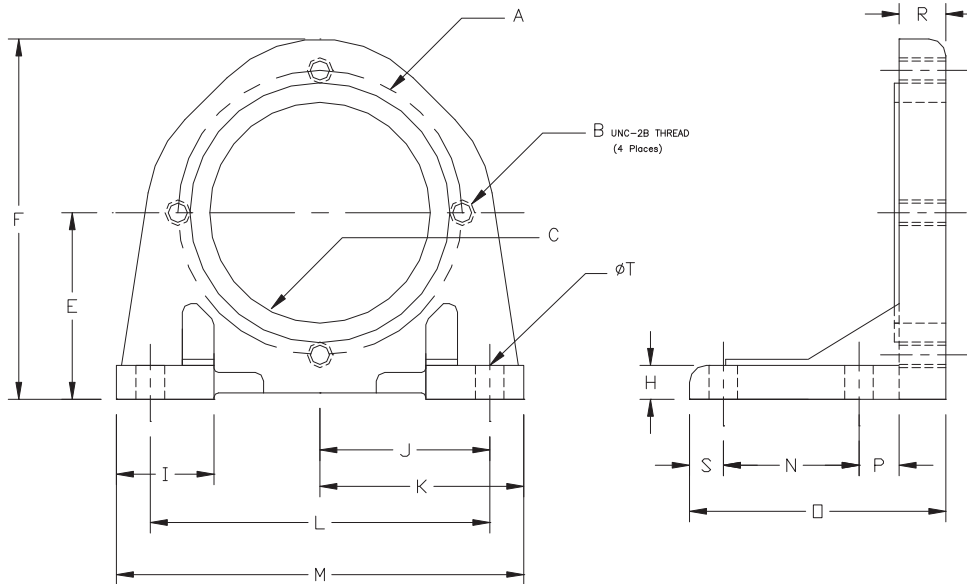
Notes:

- The chemical guidelines in this table are offered as a general indication of the compatibility of various materials with chemicals and fluids listed.
- When in doubt a sample of the compound should always be tested with the particular chemical it is to handle.
- API stocks Non-Asbestos (GNA Series) and SBR (GRR Series) gaskets, but others are available upon request (minimum order quantity may apply).

PART NUMBER STRUCTURE

| Part Number Section | Options |
|---------------------|--|
| Material | GNA = Green Non-Asbestos GRR = Red Rubber |
| Size | XXXX = Size in inches going out 2 decimal places |
| Type | FF = Full Face R = Ring |
| Thickness | XXX = Size in inches going out 3 decimal places |

DC# 0524



Hydraulic Motor Pump Brackets

DIMENSIONS

| API Part Number | A | B | C | E | F | H | I | J | K | L | M | N | O | P | R | S | T | Weight (lbs) |
|-----------------|------|--------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|--------------|
| HB-A | 4.19 | .38-16 | 3.25 | 2.75 | 5.31 | 0.50 | 1.44 | 2.50 | 3.00 | 5.00 | 6.00 | 2.00 | 3.78 | 0.59 | 0.69 | 0.50 | 0.43 | 4 |
| HB-B | 5.75 | .50-13 | 4.00 | 3.63 | 7.12 | 0.50 | 1.44 | 2.88 | 3.38 | 5.75 | 6.75 | 2.00 | 3.77 | 0.59 | 0.69 | 0.50 | 0.43 | 5 |
| HB-C | 7.13 | .62-11 | 5.00 | 4.31 | 8.50 | 0.62 | 2.00 | 4.63 | 5.22 | 9.25 | 10.44 | 3.00 | 5.18 | 0.75 | 0.75 | 0.68 | 0.69 | 12 |

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.

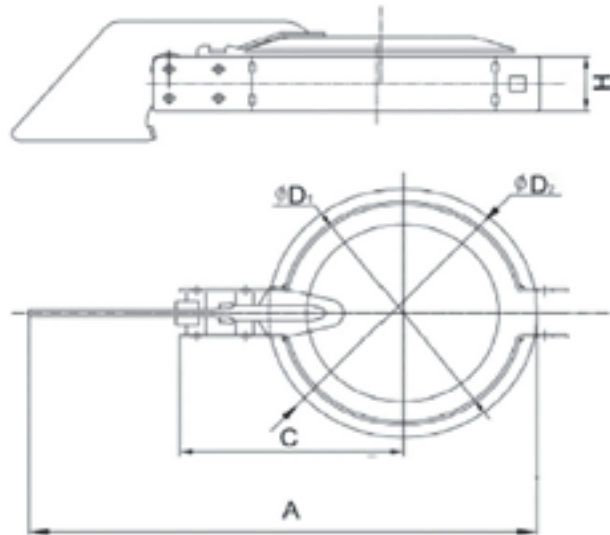
MATERIALS

| Part | Material |
|------|-----------|
| Body | Cast Iron |



Notes:

SAE-J744, 3 sizes for the same specification for Gear Pump, Vickers Piston Pump, or Vane Pump & Motors.



Exhaust Rain Caps

DIMENSIONS

| API Part Number | Size | "A" | "C" | "H" | "D1" | "D2" |
|-----------------|------|-------|------|------|------|------|
| RC0100-x | 1 | 5.63 | 2.91 | 1.26 | 1.14 | 1.57 |
| RC0150-x | 1.5 | 5.98 | 2.95 | 1.26 | 1.50 | 1.65 |
| RC0200-x | 2 | 6.69 | 3.19 | 1.26 | 2.03 | 2.52 |
| RC0250-x | 2.5 | 7.17 | 3.46 | 1.26 | 2.52 | 2.99 |
| RC0300-x | 3 | 7.68 | 3.74 | 1.26 | 3.01 | 3.50 |
| RC0350-x | 3.5 | 8.19 | 3.94 | 1.26 | 3.52 | 4.02 |
| RC0400-x | 4 | 9.61 | 4.27 | 1.26 | 4.02 | 4.72 |
| RC0450-x | 4.5 | 10.43 | 4.61 | 1.26 | 4.50 | 5.31 |
| RC0500-x | 5 | 10.81 | 4.78 | 1.26 | 5.02 | 5.75 |
| RC0550-x | 5.5 | 11.30 | 5.20 | 1.26 | 5.63 | 6.26 |
| RC0600-x | 6 | 11.61 | 5.31 | 1.26 | 5.98 | 6.69 |
| RC0650-x | 6.5 | 12.36 | 5.71 | 1.26 | 6.61 | 7.64 |
| RC0800-x | 8 | 13.78 | 6.30 | 1.26 | 7.99 | 8.66 |

"x" = **G** (Electro-Galvanized/Zink-Plated Q235 Steel)
S (304 Stainless Steel)

TEMPERATURE RATINGS

| | |
|---|---------|
| Electro-Galvanized/ Zink-Plated Q235 Steel | 750° F |
| 304 Stainless Steel | 1100° F |

APPLICATIONS

- Used to prevent dirt, dust, rain and other debris from falling into exposed stack pipes

Notes:

- Rain Caps rated for 2,000,000 cycles.