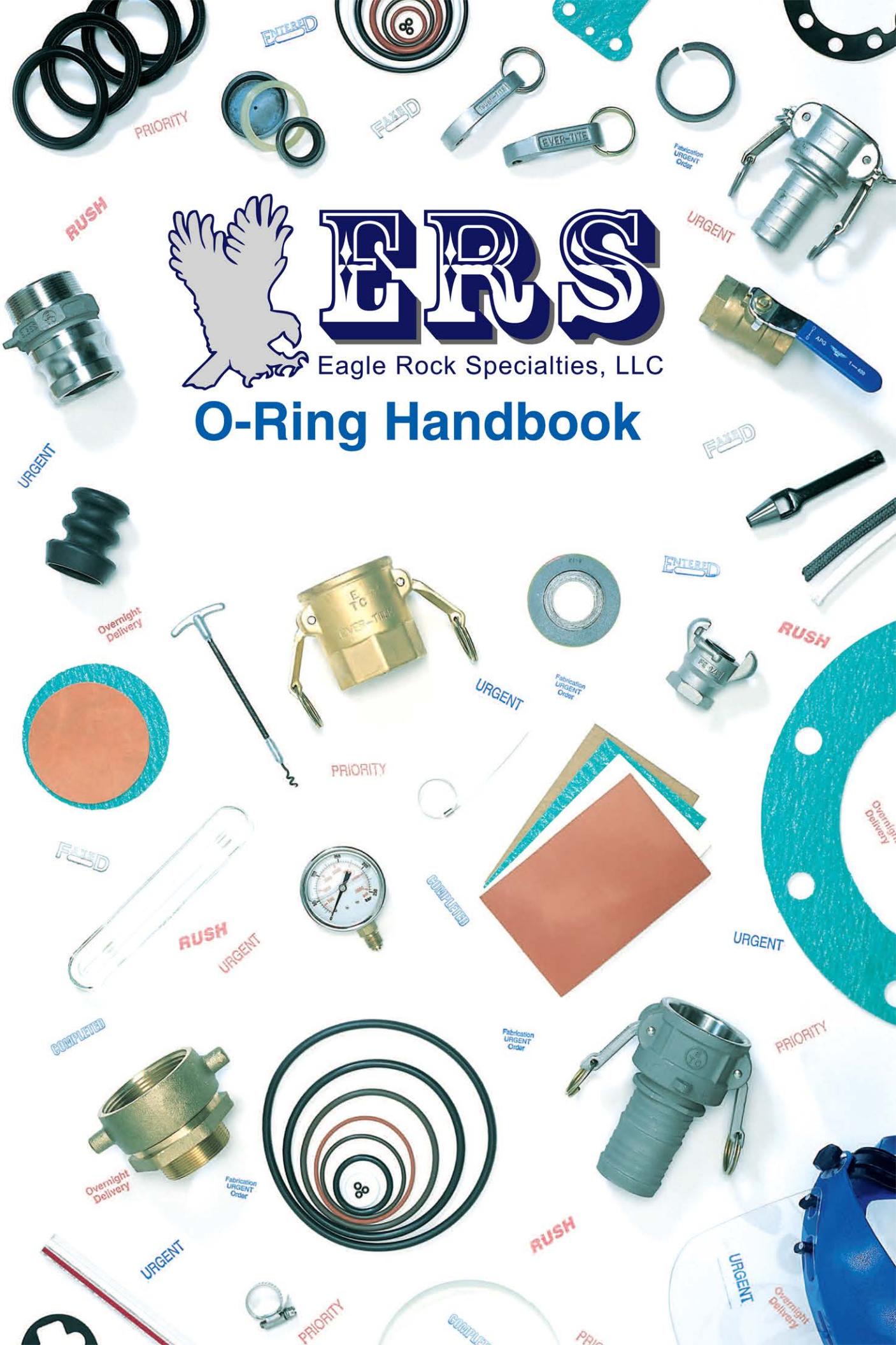


— Packing and Gasket Material — Gasket Fabrication — Stripping and Adhesive Backing — Spiral Wound Gaskets — Mechanical Seal Components — Standard O-Rings — Metric O-Rings — O-Ring Kits — O-Ring Seals — Pressure Gauges — Industrial Hose Couplings — Clamping and Banding Systems — Custom Rubber Fabrication — Vulcanizing — Glass Fabrication — Industrial Glass — Plastic Products — Adhesives and Sealants —



Eagle Rock Specialties, LLC
O-Ring Handbook





Eagle Rock Specialties, LLC

O-Ring Compounds and Styles

O-Rings

| | |
|-------------------------------------|----------|
| Aflas® 80 Durometer | (A80) |
| Chloroprene 70 Durometer | (N70) |
| E.P.R. 70 Durometer | |
| Standard | (E70) |
| Metric | (E) |
| Peroxide Cured NSF | (E70NSF) |
| E.P.R.- Peroxide Cured 80 Durometer | (E80PC) |
| *Fluoroelastomer – Black | |
| Standard | |
| 75 Durometer | (V70) |
| 90 Durometer | (V90) |
| Metric | |
| 75 Durometer | (V) |
| 90 Durometer | (V90M) |
| *Fluoroelastomer – Brown | |
| 75 Durometer | (VB75) |
| 90 Durometer | (VB90) |
| Fluorosilicone 70 Durometer | (FS70) |
| Highly Saturated Nitrile | |
| Green 70 Durometer | |
| Standard | (HS70) |
| Metric | (HS) |
| Black 70 Durometer | (HSN70) |
| Black 90 Durometer | (HSN90) |
| Blue TFE Coated 70 Durometer | (HST70) |
| Kalrez® 4079 | (K4079) |
| Nitrile - Black | |
| Standard | |
| 50 Durometer | (H50) |
| 70 Durometer | (H70) |
| 90 Durometer | (H90) |
| Metric | |
| 70 Durometer | (H) |
| 90 Durometer | (H90M) |
| Nitrile - Black - Peroxide Cured | |
| 90 Durometer | (H90PC) |
| Large Cross Section 70 Durometer | (HX70) |
| Nitrile - White 70 Durometer | (H70FDA) |
| PTFE | (TFE) |
| Silicone 70 Durometer | |
| Standard | (S70) |
| Metric | (S) |
| Square Cut Rings | |
| Nitrile 70 Durometer | (SH70) |
| Teflon® Encapsulated | |
| Viton® Core | (TEV80) |
| Silicone Core | (TES70) |
| Urethane | |
| 70 Durometer | (U70) |
| 90 Durometer | (U90) |

O-Rings (Cont.)

| | |
|--------------------------------------|--------|
| 4 Lobe Q-Rings | |
| Nitrile 70 Durometer | (QH70) |
| Fluoroelastomer 75 Durometer | (QV70) |
| Minnesota Quad-Rings® | |
| Available at ENA (an APG subsidiary) | |
| Nitrile 70 Durometer | (HQ4) |
| Viton® 70 Durometer | (VQ4) |

Back-Up Rings

| | |
|------------------------------|-----------------|
| PTFE | |
| Solid | (TST) |
| Split | (TST) |
| Spiral | (TSP) |
| Contoured Back-Up Rings | |
| Nitrile 90 Durometer | (HB90) |
| Fluoroelastomer 90 Durometer | (VBU90) |
| Leather | |
| | (Cut for Series |
| | 6244 & |
| | Series 6246) |



Elastomer Descriptions and Properties

Nitrile

(Buna-N)

Trade Names:

Chemigum (Goodyear)
Hycar (Zeon Chemical)

Ny Syn (Copolymer)
Paracril (Uniroyal)

Krymec (Polysar)
Perbunan (Mobay)

The most widely used O-Ring elastomer. Excellent resistance to petroleum products. Excellent compression set, tear and abrasion resistance. Does not have good resistance to ozone, sunlight, or weather, unless specifically compounded. Should not be stored in direct sunlight or near motors or other electrical equipment which may generate ozone. Temperature range: -40° to +250°F.

*Fluoroelastomer

Trade Names:

Viton (E.I. duPont)

Fluorel (3M)

Excellent mechanical and physical properties. Good resistance to petroleum products, low compression set, and high temperature resistance. Wide spectrum of chemical compatibility. Good for vacuum service and low gas permeability. Temperature range: -15° to +400°F (limited exposures to higher temperatures).

*APG stocks the Type "A" Grade Fluoroelastomer. Other Grades are available. Please inquire.

Chloroprene

(Neoprene)

Trade Names:

Neoprene (E.I. duPont)

Butachlor (Ditsugil)

Bayprene (Mobay)

Moderately resistant to petroleum products. Good ozone and weather resistance. Good compression set. Excellent for sealing refrigeration fluids such as Freon®. Temperature range: -65° to +250°F.

Silicone

Trade Names:

Silastic (Dow)

Recommended for applications requiring a wide temperature range and good dry heat resistance. Good weather and ozone resistance. Limited oil resistance. Not normally recommended for dynamic sealing applications due to relatively poor tensile and tear strength and relatively low abrasion resistance. Temperature range: -80° to + 450°F.

Highly Saturated Nitrile

(HSN, HNBR)

Better resistance to high temperatures, superior physical properties, and improved chemical resistance over traditional nitrile compounds. It also has better resistance to ozone, sunlight, and other atmospheric conditions. Excellent resistance to compression set. Green HSN is used in refrigerant R134a applications. Temperature range: - 40°F to +325°F.



Ethylene Propylene

(EPM, EPDM) (EPR)

Trade Names:

Nordel (E.I. DuPont) Royalene (Uniroyal)
Vistalon (Exxon Chemical) Epcar (B. F. Goodrich)

Epsyn (Copolymer Rubber)

Excellent resistance to Skydrol® fluids used in commercial aircraft hydraulic systems. Also, recommended for hot water, steam, and phosphate ester type hydraulic fluids. Also resistant to some acids, alkalies, and ozone. Not recommended for petroleum fluids or diester lubricants. Temperature range: -65° to +300°F.

PTFE

Trade Name:

Teflon® (E.I. duPont)

White thermoplastic fluoroethylene resin offers a combination of qualities not found in any other material-chemical inertness, heat resistance, low friction, dielectric strength, weatherability, zero water absorption, toughness, and flexibility. Temperature range: -65° to +500°F.

Aflas®

Trade Name:

Aflas® (Asahi Glass Co., Ltd.)

Advantageous combination of high temperature, chemical and electrical resistance properties. Recommended for oils and lubricants, hydraulic and brake fluids, transmission and power steering fluids, sour oil and gas (H₂S), amine corrosion inhibitors, ozone, steam, acids, bases, alcohols, and a variety of other chemicals. Temperature range: +25° to +450°F. (+500°F short term).

Urethane

(Polyurethane)

Trade Names:

Texin (Miles Chemical)
Adiprene (Uniroyal)

Cyanaprene (American Cyanamid)
Pellethane (Dow Chemical)

Resistant to petroleum oils, hydrocarbon fuels, oxygen, ozone, and weathering. Particularly recommended for hydraulic systems where high pressures, shock loads, wide metal tolerances, or abrasive contamination is anticipated. Not recommended for acids, ketones, and chlorinated hydrocarbons. Some urethanes are also sensitive to water and humidity. Temperature range: -65° to +200°F.

Teflon® Encapsulated

Seamless and uniform Teflon® FEP encapsulation which completely encloses a core material of either silicone or Viton® elastomer. Matches the chemical and temperature resistance of solid PTFE O-Rings and possesses the elasticity and recovery properties which are crucial in many sealing applications. *Complete technical information on Teflon® Encapsulated O-Rings is provided on pages 4 and 5.*

Fluorosilicone

(FVMQ)

Trade Names:

LS (Dow)

FSE (GE)

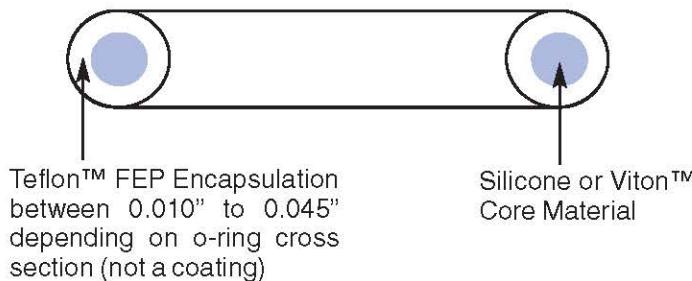
Good low/high temperature resistance. Excellent resistance to petroleum oils and fuels. Used in aerospace applications for fuel systems and systems requiring resistance to diester base lubricants to 350°F. Due to limited strength and abrasion resistance, this material is generally recommended for static applications only. Temperature range: -80° to +350/400°F.

Teflon™ Encapsulated O-Ring Technical Information



Composition and Structure

Teflon™ FEP Encapsulated o-rings consist of a seamless and uniform Teflon™ FEP encapsulation which completely encloses a core material of either silicone or Viton™ elastomer.



Function and Performance

The seamless, uniform, and integral Teflon™ FEP encapsulation is responsible for the sealing effect, and the elastomer core provides continuous reset and constant pressure of the encapsulation onto the sealing point. The result is an overall compression, increasing with medium pressure.

As a result, the Teflon™ FEP Encapsulated O-Rings can outperform solid PTFE O-Rings. The encapsulated o-rings match the chemical and temperature resistance of solid PTFE O-Rings and possess the elasticity and recovery properties which are crucial in many sealing applications.

Chemical attack and swelling are the primary causes of failure in o-rings. The Teflon™ FEP encapsulation is virtually chemically inert and not subject to most chemical attack. Temperature operating range -60°C/-75°F to +205°C/400°F.

Properties/Specifications

- (1) Encapsulation material: Teflon™ FEP resin (yielding high chemical resistance).
- (2) Core material: Silicone or Viton™ elastomers.
- (3) Operational temperature range: -60°C/-75°F to +205°C/400°F.
- (4) Coefficient of friction: .1 to .2
- (5) Elongation at break: 100%-156%
- (6) Water absorption: <0.01
- (7) Average total shore A hardness:
85-90 shore A-silicone core
90-95 shore A-Viton™ core
- (8) FDA Compliance: The clear Teflon™ FEP encapsulation complies with part 177 of Title 21 of the Food and Drug Administration's regulations for safe use as articles or components of articles for producing, manufacturing, processing, preparing, treating, packaging, transporting, or holding food in accordance with regulation 177.1550.

Industrial Applications

- Aircraft and Aerospace
- Chemical Processing Industries
- Pharmaceutical Production
- Polymer Production
- Paint and Coating Operations
- Food Industries
- Petrochemical Industries
- Chemical Transport
- Semi-Conductor Manufacturing
- Pulp and Paper Industries
- Photochemical Industries

Specific Applications

- Air Operated Pumps
- Mechanical Pumps
- Autoclaves
- Heat Exchangers
- Pipelines
- Pressure Vessels
- Valves
- Filtration Systems
- Gas Compressors



Gas Permeability

All plastics have some permeability to gases. In the case of Teflon™ FEP Encapsulated O-Rings, however, gases and vapors will permeate at a considerably lower rate than for most other plastics. The primary permeation mechanism is intermolecular migration. This migration rate depends on the type of gas, pressure, temperature, size of contact areas, and thickness of encapsulation. While highly corrosive gases do not attack the Teflon™FEP Encapsulation of the o-ring, they may eventually permeate through and damage the elastomer core and hence affect the mechanical properties. Thus, in addition to chemical resistance, these permeability effects must be considered in gas sealing systems.

Permeability of Teflon™ FEP Resins (gm/100in²/24 hrs-1mil)¹ TABLE 1

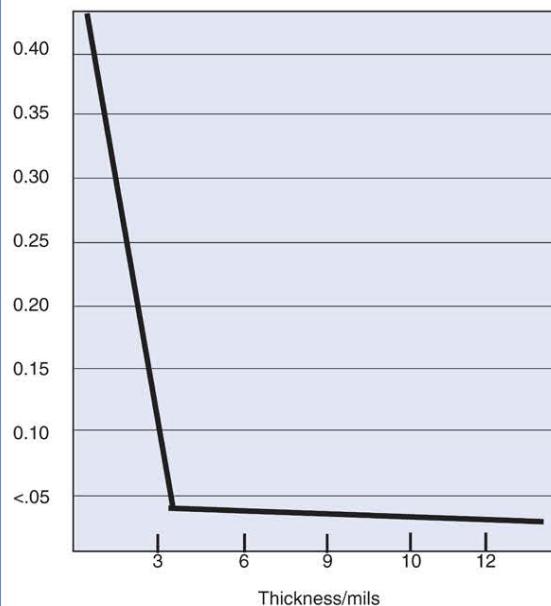
| GASES ² | 23°C/73°F | 35°C/95°F | 50°C/122°F |
|---------------------------|--------------------|-----------|------------|
| Carbon Dioxide | | | |
| Helium | | | |
| Hydrogen Chloride | | | |
| Nitrogen | 0.18 | | |
| Oxygen | 0.39 | | |
| VAPORS³ | | | |
| Acetic Acid | 0.42 | | |
| Acetone | 0.13 | 0.95 | 3.29 |
| Acetophenone | 0.47 | | |
| Benzene | 0.15 | 0.64 | |
| N-Butyl Ether | 0.08 | | 0.65 |
| Carbon Tetrachloride | 0.11 | 0.31 | |
| Decane | 0.72 | | 1.03 |
| Dipentene | 0.17 | | 0.35 |
| Ethyl Acetate | 0.06 | 0.77 | 2.90 |
| Ethyl Alcohol | 0.11 | 0.69 | |
| Hexane | | 0.57 | |
| Hydrochloric Acid (20%) | <0.01 | | |
| Methanol | | | 5.61 |
| Piperidine | 0.04 | | |
| Skydrol Hydraulic Fluid | 0.05 | | |
| Sodium Hydroxide (50%) | 4x10 ⁻⁵ | | |
| Sulfuric Acid (98%) | 8x10 ⁻⁶ | | |
| Toluene | 0.37 | | 2.93 |
| Water | 0.09 | 0.45 | 0.89 |

1. Note that the permeation data listed in Table 1 is based on 0.001" thickness of Teflon™ FEP encapsulation. **The transmission rate significantly decreases when the thickness of encapsulation is increased. See water vapor transmission rate chart.**
2. Test method: ASTM D-790-59 (at 1atm).
3. Test method: ASTM E-96-53T (vapor Pressure).

Absorption

Teflon™ FEP Encapsulated O-Rings absorb practically no common acids or bases at temperatures as high as 200°C/329°F with exposures up to one year. Even the absorption of solvents is surprisingly small; weight increases are generally less than 1% at elevated temperatures and exposure times. Due to the Teflon™ FEP encapsulation, the effects of volume swell (one of the principal causes of seal failure) can be virtually ignored.

Water Vapor Transmission Rate of Teflon™FEP Resins @ 40°C/104°F Transmission Rate = gm/100in²/24hrs



Please note that the vapor transmission rate significantly decreases when the thickness of encapsulation is increased

Thickness of Encapsulation

As discussed earlier, the thickness of encapsulation must be considered in determining migration rates. The thickness of the encapsulation varies with the cross section of the o-ring.

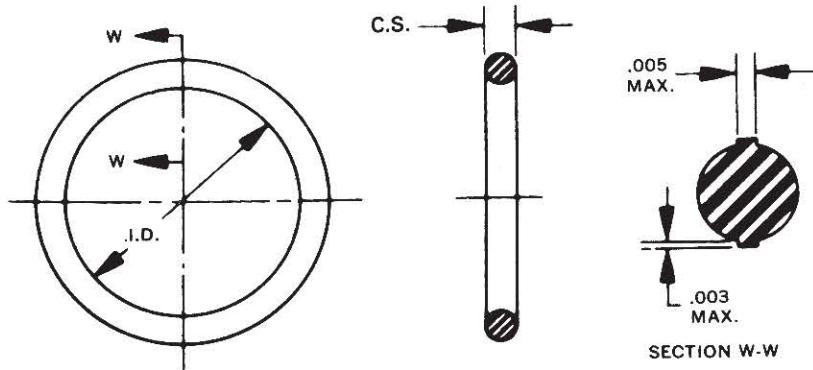
| CROSS SECTION (mm/inches) | WALL SECTION (mm/inches) | CROSS SECTION (mm/inches) | WALL SECTION (mm/inches) |
|---------------------------|--------------------------|---------------------------|--------------------------|
| 1.50mm/.059 | 0.203mm/.008 | 7.50mm/.295 | 0.508mm/.020 |
| 1.60mm/.063 | 0.203mm/.008 | 8.00mm/.312 | 0.508mm/.020 |
| 1.78mm/.070 | 0.254mm/.010 | 8.40mm/.330 | 0.508mm/.020 |
| 2.00mm/.079 | 0.254mm/.010 | 9.00mm/.354 | 0.508mm/.020 |
| 2.40mm/.094 | 0.254mm/.010 | 9.50mm/.374 | 0.508mm/.020 |
| 2.62mm/.103 | 0.279mm/.011 | 10.00mm/.393 | 0.508mm/.020 |
| 3.00mm/.118 | 0.279mm/.011 | 11.00mm/.433 | 0.762mm/.030 |
| 3.53mm/.139 | 0.305mm/.012 | 12.00mm/.472 | 0.762mm/.030 |
| 4.00mm/.157 | 0.305mm/.012 | 12.70mm/.500 | 0.762mm/.030 |
| 4.50mm/.177 | 0.381mm/.015 | 14.00mm/.551 | 0.762mm/.030 |
| 5.00mm/.196 | 0.381mm/.015 | 15.00mm/.591 | 0.762mm/.030 |
| 5.33mm/.210 | 0.381mm/.015 | 16.00mm/.625 | 0.762mm/.030 |
| 5.70mm/.225 | 0.381mm/.015 | 18.00mm/.708 | 0.762mm/.030 |
| 6.00mm/.236 | 0.381mm/.015 | 19.00mm/.750 | 0.762mm/.030 |
| 7.00mm/.275 | 0.508mm/.020 | 20.00mm/.787 | 0.762mm/.030 |

Final selection of applications must be based on functional evaluations or experience under actual end use conditions. This has become industry practice dictated by the many complex aspects of performance in severe conditions. The end user should thoroughly test any application, and independently conclude satisfactory performance of the product for his intended use, and shall assume all risk and liability whatsoever in connection therewith.



O-Ring Dimensional Data

Standard O-Ring Sizes and Tolerances



An O-Ring functions as a seal through the mechanical deformation of the elastomeric compound by mating metal surfaces. The resilient rubber conforms to the shape of the metal sections and blocks the passage of gases or liquids. If the pressure increases, the O-Ring is further deformed and provides tighter sealing.

The application of O-Rings is based on a volume relationship between the O-Ring and the gland. Experience has shown that O-Ring volume is not adversely affected by wider dimensional tolerances. Furthermore, Type II tolerances long in use for the fluoroelastomers and similar high shrinkage materials have proven to be as effective as seals molded to tighter tolerances. This is attributable to constant seal volume.

As a result of this, the latest revision of AS 568, formerly ARP 568 and now AS 568A, is a combination of Class I and II tolerances. This change is being incorporated in all military specifications and drawings as they come up for revision. Therefore, in the future, most AN, MS and NAS tolerance standards will conform to AS 568A. It should be recognized that standards apply both to dimensions, as shown, to drawing numbers, and to compounds, and that the military specifications will not be withdrawn, but updated to conform to a single dimensional specification. Various company standards probably also will be revised to meet this standard.

Through O-Ring industry sponsored technical committees, the United States is currently working with the International Standards Organization (ISO) to adapt AS 568A standard sizes to international metric requirements.

Tentative agreement has been reached on a size standard incorporating the existing five AS 568A cross sections and a series of ID dimensions determined by a logarithmic progression of the numbers. The result has been to increase the number of small sizes, i.e. to make the steps between sizes smaller, and to decrease the number of large sizes by widening the steps between sizes. This action is consistent with the assembly requirements of an O-Ring seal, and the elastic properties of O-Ring seal compounds.

Although some U.S. sizes will be deleted or modified in the new document, manufacturers will continue to manufacture existing sizes as long as there is demand.

The new ISO sizes will become available when approved by member nations. In the meantime, AS 568A contains metric equivalents in International System (SI) units. Calculation of these metric equivalents was done in accord with the rules appearing in SAE J390, Method A, rounding off tolerances as recommended.



Eagle Rock Specialties, LLC

Standard O-Ring Sizes and Dimensions

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | DASH NUMBERS | PART NUMBERS | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|-----------------|-----------------|--------------|----------|--------|------------------|------|----------------------------|------|
| | | | | I.D. | O.D. | C.S. | I.D. | ± | I.D. | ± |
| -004 to -050 Cross Section Diameters = .070 ± .003 inches — 1.78 ± 0.08 millimeters. | | | | | | | | | | |
| ★-001 | | -001** | | 1/32 | x 3/32 | x 1/32 | .029 | .004 | 0.74 | 0.10 |
| ★-002 | | -002** | | 3/64 | x 9/64 | x 1/32 | .042 | .004 | 1.07 | 0.10 |
| ★-003 | | -003** | | 1/16 | x 3/16 | x 1/16 | .056 | .004 | 1.42 | 0.10 |
| -004 | | -004 | | 5/64 | x 13/64 | x 1/16 | .070 | .005 | 1.78 | 0.13 |
| -005 | | -005 | | 3/32 | x 7/32 | x 1/16 | .101 | .005 | 2.57 | 0.13 |
| -006 | AN 6227B-1 | -006 | AN 123856 | 1/8 | x 1/4 | x 1/16 | .114 | .005 | 2.90 | 0.13 |
| -007 | AN 6227B-2 | -007 | AN 123857 | 5/32 | x 9/32 | x 1/16 | .145 | .005 | 3.68 | 0.13 |
| -008 | AN 6227B-3 | -008 | AN 123858 | 3/16 | x 5/16 | x 1/16 | .176 | .005 | 4.47 | 0.13 |
| -009 | AN 6227B-4 | -009 | AN 123859 | 7/32 | x 11/32 | x 1/16 | .208 | .005 | 5.28 | 0.13 |
| -010 | AN 6227B-5 | -010 | AN 123860 | 1/4 | x 3/8 | x 1/16 | .239 | .005 | 6.07 | 0.13 |
| -011 | AN 6227B-6 | -011 | AN 123861 | 5/16 | x 7/16 | x 1/16 | .301 | .005 | 7.65 | 0.13 |
| -012 | AN 6227B-7 | -012 | AN 123862 | 3/8 | x 1/2 | x 1/16 | .364 | .005 | 9.25 | 0.13 |
| -013 | | -013 | | 7/16 | x 9/16 | x 1/16 | .426 | .005 | 10.82 | 0.13 |
| -014 | | -014 | | 1/2 | x 5/8 | x 1/16 | .489 | .005 | 12.42 | 0.13 |
| -015 | | -015 | | 9/16 | x 11/16 | x 1/16 | .551 | .007 | 14.00 | 0.18 |
| -016 | | -016 | | 5/8 | x 3/4 | x 1/16 | .614 | .009 | 15.60 | 0.23 |
| -017 | | -017 | | 11/16 | x 13/16 | x 1/16 | .676 | .009 | 17.17 | 0.23 |
| -018 | | -018 | | 3/4 | x 7/8 | x 1/16 | .739 | .009 | 18.77 | 0.23 |
| -019 | | -019 | | 13/16 | x 15/16 | x 1/16 | .801 | .009 | 20.35 | 0.23 |
| -020 | | -020 | | 7/8 | x 1 | x 1/16 | .864 | .009 | 21.95 | 0.23 |
| -021 | | -021 | | 15/16 | x 1-1/16 | x 1/16 | .926 | .009 | 23.52 | 0.23 |
| -022 | | -022 | | 1 | x 1-1/8 | x 1/16 | .989 | .010 | 25.12 | 0.25 |
| -023 | | -023 | | 1-1/16 | x 1-3/16 | x 1/16 | 1.051 | .010 | 26.70 | 0.25 |
| -024 | | -024 | | 1-1/8 | x 1-1/4 | x 1/16 | 1.114 | .010 | 28.30 | 0.25 |
| -025 | | -025 | | 1-3/16 | x 1-5/16 | x 1/16 | 1.176 | .011 | 29.87 | 0.28 |
| -026 | | -026 | | 1-1/4 | x 1-3/8 | x 1/16 | 1.239 | .011 | 31.47 | 0.28 |
| -027 | | -027 | | 1-5/16 | x 1-7/16 | x 1/16 | 1.301 | .011 | 33.05 | 0.28 |
| -028 | | -028 | | 1-3/8 | x 1-1/2 | x 1/16 | 1.364 | .013 | 34.65 | 0.33 |
| -029 | | -029* | | 1-1/2 | x 1-5/8 | x 1/16 | 1.489 | .013 | 37.82 | 0.33 |
| -030 | | -030* | | 1-5/8 | x 1-3/4 | x 1/16 | 1.614 | .013 | 41.00 | 0.33 |
| -031 | | -031* | | 1-3/4 | x 1-7/8 | x 1/16 | 1.739 | .015 | 44.17 | 0.38 |
| -032 | | -032* | | 1-7/8 | x 2 | x 1/16 | 1.864 | .015 | 47.35 | 0.38 |
| -033 | | -033* | | 2 | x 2-1/8 | x 1/16 | 1.989 | .018 | 50.52 | 0.46 |
| -034 | | -034* | | 2-1/8 | x 2-1/4 | x 1/16 | 2.114 | .018 | 53.70 | 0.46 |
| -035 | | -035* | | 2-1/4 | x 2-3/8 | x 1/16 | 2.239 | .018 | 56.87 | 0.46 |
| -036 | | -036* | | 2-3/8 | x 2-1/2 | x 1/16 | 2.364 | .018 | 60.05 | 0.46 |
| -037 | | -037* | | 2-1/2 | x 2-5/8 | x 1/16 | 2.489 | .018 | 63.22 | 0.46 |
| -038 | | -038* | | 2-5/8 | x 2-3/4 | x 1/16 | 2.614 | .020 | 66.40 | 0.51 |
| -039 | | -039* | | 2-3/4 | x 2-7/8 | x 1/16 | 2.739 | .020 | 69.57 | 0.51 |
| -040 | | -040* | | 2-7/8 | x 3 | x 1/16 | 2.864 | .020 | 72.75 | 0.51 |
| -041 | | -041* | | 3 | x 3-1/8 | x 1/16 | 2.989 | .024 | 75.92 | 0.61 |
| -042 | | -042* | | 3-1/4 | x 3-3/8 | x 1/16 | 3.239 | .024 | 82.27 | 0.61 |
| -043 | | -043* | | 3-1/2 | x 3-5/8 | x 1/16 | 3.489 | .024 | 88.62 | 0.61 |
| -044 | | -044* | | 3-3/4 | x 3-7/8 | x 1/16 | 3.739 | .027 | 94.97 | 0.69 |
| -045 | | -045* | | 4 | x 4-1/8 | x 1/16 | 3.989 | .027 | 101.32 | 0.69 |

* Cross Section Diameter: -001 = .040 ± .003 in. -002 = .050 ± .003 in. -003 = .060 ± .003 in.
 = 1.02 ± .08 mm. = 1.27 ± .08 mm. = 1.52 ± .08 mm.

1 For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

** These dash numbers are not included in MS 9068, MS 29561, NAS 1593 or NAS 1594 series.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | DASH NUMBERS | PART NUMBERS | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|-----------------|-----------------|--------------|----------|-------|------------------|------|----------------------------|------|
| | | | | I.D. | O.D. | C.S. | I.D. | ± | I.D. | ± |
| -004 to -050 Cross Section Diameters = .070 ± .003 inches — 1.78 ± 0.08 millimeters. | | | | | | | | | | |
| -046 | | -046*†† | | 4-1/4 | x4-3/8 | x1/16 | 4.239 | .030 | 107.67 | 0.76 |
| -047 | | -047*†† | | 4-1/2 | x4-5/8 | x1/16 | 4.489 | .030 | 114.02 | 0.76 |
| -048 | | -048*†† | | 4-3/4 | x4-7/8 | x1/16 | 4.739 | .030 | 120.37 | 0.76 |
| -049 | | -049*†† | | 5 | x5-1/8 | x1/16 | 4.989 | .037 | 126.72 | 0.94 |
| -050 | | -050*†† | | 5-1/4 | x5-3/8 | x1/16 | 5.239 | .037 | 133.07 | 0.94 |
| -102 to -178 Cross Section Diameters = .103 ± .003 inches — 2.62 ± 0.08 millimeters. | | | | | | | | | | |
| -102 | | | | 1/16 | x1/4 | x3/32 | .049 | .005 | 1.24 | 0.10 |
| -103 | | | | 3/32 | x9/32 | x3/32 | .081 | .005 | 2.06 | 0.13 |
| -104 | | | | 1/8 | x5/16 | x3/32 | .112 | .005 | 2.84 | 0.13 |
| -105 | | | | 5/32 | x11/32 | x3/32 | .143 | .005 | 3.63 | 0.13 |
| -106 | | | | 3/16 | x3/8 | x3/32 | .174 | .005 | 4.42 | 0.13 |
| -107 | | | | 7/32 | x13/32 | x3/32 | .206 | .005 | 5.23 | 0.13 |
| -108 | | | | 1/4 | x7/16 | x3/32 | .237 | .005 | 6.02 | 0.13 |
| -109 | | | | 5/16 | x1/2 | x3/32 | .299 | .005 | 7.59 | 0.13 |
| -110 | AN 6227B-8 | -110 | AN 123863 | 3/8 | x9/16 | x3/32 | .362 | .005 | 9.19 | 0.13 |
| -111 | AN 6227B-9 | -111 | AN 123864 | 7/16 | x5/8 | x3/32 | .424 | .005 | 10.77 | 0.13 |
| -112 | AN 6227B-10 | -112 | AN 123865 | 1/2 | x11/16 | x3/32 | .487 | .005 | 12.37 | 0.13 |
| -113 | AN 6227B-11 | -113 | AN 123866 | 9/16 | x3/4 | x3/32 | .549 | .007 | 13.94 | 0.18 |
| -114 | AN 6227B-12 | -114 | AN 123867 | 5/8 | x13/16 | x3/32 | .612 | .009 | 15.54 | 0.23 |
| -115 | AN 6227B-13 | -115 | AN 123868 | 11/16 | x7/8 | x3/32 | .674 | .009 | 17.12 | 0.23 |
| -116 | AN 6227B-14 | -116 | AN 123869 | 3/4 | x15/16 | x3/32 | .737 | .009 | 18.72 | 0.23 |
| -117 | | | | 13/16 | x1 | x3/32 | .799 | .010 | 20.29 | 0.25 |
| -118 | | | | 7/8 | x1-1/16 | x3/32 | .862 | .010 | 21.89 | 0.25 |
| -119 | | | | 15/16 | x1-1/8 | x3/32 | .924 | .010 | 23.47 | 0.25 |
| -120 | | | | 1 | x1-3/16 | x3/32 | .987 | .010 | 25.07 | 0.25 |
| -121 | | -121 | | 1-1/16 | x1-1/4 | x3/32 | 1.049 | .010 | 26.64 | 0.25 |
| -122 | | -122 | | 1-1/8 | x1-5/16 | x3/32 | 1.112 | .010 | 28.24 | 0.25 |
| -123 | | -123 | | 1-3/16 | x1-3/8 | x3/32 | 1.174 | .012 | 29.82 | 0.30 |
| -124 | | -124 | | 1-1/4 | x1-7/16 | x3/32 | 1.237 | .012 | 31.42 | 0.30 |
| -125 | | -125 | | 1-5/16 | x1-1/2 | x3/32 | 1.299 | .012 | 32.99 | 0.30 |
| -126 | | -126 | | 1-3/8 | x1-9/16 | x3/32 | 1.362 | .012 | 34.59 | 0.30 |
| -127 | | -127 | | 1-7/16 | x1-5/8 | x3/32 | 1.424 | .012 | 36.17 | 0.30 |
| -128 | | -128 | | 1-1/2 | x1-11/16 | x3/32 | 1.487 | .012 | 37.77 | 0.30 |
| -129 | | -129 | | 1-9/16 | x1-3/4 | x3/32 | 1.549 | .015 | 39.34 | 0.38 |
| -130 | | -130 | | 1-5/8 | x1-13/16 | x3/32 | 1.612 | .015 | 40.94 | 0.38 |
| -131 | | -131 | | 1-11/16 | x1-7/8 | x3/32 | 1.674 | .015 | 42.52 | 0.38 |
| -132 | | -132 | | 1-3/4 | x1-15/16 | x3/32 | 1.737 | .015 | 44.12 | 0.38 |
| -133 | | -133 | | 1-13/16 | x2 | x3/32 | 1.799 | .015 | 45.69 | 0.38 |
| -134 | | -134 | | 1-7/8 | x2-1/16 | x3/32 | 1.862 | .015 | 47.29 | 0.38 |
| -135 | | -135 | | 1-15/16 | x2-1/8 | x3/32 | 1.925 | .017 | 48.90 | 0.43 |
| -136 | | -136 | | 2 | x2-3/16 | x3/32 | 1.987 | .017 | 50.47 | 0.43 |
| -137 | | -137 | | 2-1/16 | x2-1/4 | x3/32 | 2.050 | .017 | 52.07 | 0.43 |
| -138 | | -138 | | 2-1/8 | x2-5/16 | x3/32 | 2.112 | .017 | 53.64 | 0.43 |
| -139 | | -139 | | 2-3/16 | x2-3/8 | x3/32 | 2.175 | .017 | 55.25 | 0.43 |
| -140 | | -140 | | 2-1/4 | x2-7/16 | x3/32 | 2.237 | .017 | 56.82 | 0.43 |

[†] For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

** These dash numbers are not included in MS 9068, MS 29561, NAS 1593 or NAS 1594 series.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | MS 28775 MS 29513 MS 29561 MS 9021 MS 9068 NAS 1593 NAS 1594 NAS 1611 | AN 6227B AND AN 6230B | AN 123856 ¹ TO AN 123934 | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|--|-----------------------------|---|--------------|----------|-------|------------------|------|----------------------------|------|
| | | | | | I.D. | O.D. | C.S. | I.D. | ± | I.D. | ± |
| -102 to -178 Cross Section Diameters = .103 + .003 inches — 2.62 + 0.08 millimeters. | | | | | | | | | | | |
| -141 | | -141 | | | 2-5/16 | x2-1/2 | x3/32 | 2.300 | .020 | 58.42 | 0.51 |
| -142 | | -142 | | | 2-3/8 | x2-9/16 | x3/32 | 2.362 | .020 | 59.99 | 0.51 |
| -143 | | -143 | | | 2-7/16 | x2-5/8 | x3/32 | 2.425 | .020 | 61.60 | 0.51 |
| -144 | | -144 | | | 2-1/2 | x2-11/16 | x3/32 | 2.487 | .020 | 63.17 | 0.51 |
| -145 | | -145 | | | 2-9/16 | x2-3/4 | x3/32 | 2.550 | .020 | 64.77 | 0.51 |
| -146 | | -146 | | | 2-5/8 | x2-13/16 | x3/32 | 2.612 | .020 | 66.34 | 0.51 |
| -147 | | -147 | | | 2-11/16 | x2-7/8 | x3/32 | 2.675 | .022 | 67.95 | 0.56 |
| -148 | | -148 | | | 2-3/4 | x2-15/16 | x3/32 | 2.737 | .022 | 69.52 | 0.56 |
| -149 | | -149 | | | 2-13/16 | x3 | x3/32 | 2.800 | .022 | 71.12 | 0.56 |
| -150 | | -150* | | | 2-7/8 | x3-1/16 | x3/32 | 2.862 | .022 | 72.69 | 0.56 |
| -151 | | -151* | | | 3 | x3-3/16 | x3/32 | 2.987 | .024 | 75.87 | 0.61 |
| -152 | | -152* | | | 3-1/4 | x3-7/16 | x3/32 | 3.237 | .024 | 82.22 | 0.61 |
| -153 | | -153* | | | 3-1/2 | x3-11/16 | x3/32 | 3.487 | .024 | 88.57 | 0.61 |
| -154 | | -154* | | | 3-3/4 | x3-15/16 | x3/32 | 3.737 | .028 | 94.92 | 0.71 |
| -155 | | -155* | | | 4 | x4-3/16 | x3/32 | 3.987 | .028 | 101.27 | 0.71 |
| -156 | | -156* | | | 4-1/4 | x4-7/16 | x3/32 | 4.237 | .030 | 107.62 | 0.76 |
| -157 | | -157* | | | 4-1/2 | x4-11/16 | x3/32 | 4.487 | .030 | 113.97 | 0.76 |
| -158 | | -158* | | | 4-3/4 | x4-15/16 | x3/32 | 4.737 | .030 | 120.32 | 0.76 |
| -159 | | -159* | | | 5 | x5-3/16 | x3/32 | 4.987 | .035 | 126.67 | 0.89 |
| -160 | | -160* | | | 5-1/4 | x5-7/16 | x3/32 | 5.237 | .035 | 133.02 | 0.89 |
| -161 | | -161* | | | 5-1/2 | x5-11/16 | x3/32 | 5.487 | .035 | 139.37 | 0.89 |
| -162 | | -162* | | | 5-3/4 | x5-15/16 | x3/32 | 5.737 | .035 | 145.72 | 0.89 |
| -163 | | -163*†† | | | 6 | x6-3/16 | x3/32 | 5.987 | .035 | 152.07 | 0.89 |
| -164 | | -164*†† | | | 6-1/4 | x6-7/16 | x3/32 | 6.237 | .040 | 158.42 | 1.02 |
| -165 | | -165*†† | | | 6-1/2 | x6-11/16 | x3/32 | 6.487 | .040 | 164.77 | 1.02 |
| -166 | | -166*†† | | | 6-3/4 | x6-15/16 | x3/32 | 6.737 | .040 | 171.12 | 1.02 |
| -167 | | -167*†† | | | 7 | x7-3/16 | x3/32 | 6.987 | .040 | 177.47 | 1.02 |
| -168 | | -168*†† | | | 7-1/4 | x7-7/16 | x3/32 | 7.237 | .045 | 183.82 | 1.14 |
| -169 | | -169*†† | | | 7-1/2 | x7-11/16 | x3/32 | 7.487 | .045 | 190.17 | 1.14 |
| -170 | | -170*†† | | | 7-3/4 | x7-15/16 | x3/32 | 7.737 | .045 | 196.52 | 1.14 |
| -171 | | -171*†† | | | 8 | x8-3/16 | x3/32 | 7.987 | .045 | 202.87 | 1.14 |
| -172 | | -172*†† | | | 8-1/4 | x8-7/16 | x3/32 | 8.237 | .050 | 209.22 | 1.27 |
| -173 | | -173*†† | | | 8-1/2 | x8-11/16 | x3/32 | 8.487 | .050 | 215.57 | 1.27 |
| -174 | | -174*†† | | | 8-3/4 | x8-15/16 | x3/32 | 8.737 | .050 | 221.92 | 1.27 |
| -175 | | -175*†† | | | 9 | x9-3/16 | x3/32 | 8.987 | .050 | 228.27 | 1.27 |
| -176 | | -176*†† | | | 9-1/4 | x9-7/16 | x3/32 | 9.237 | .055 | 234.62 | 1.40 |
| -177 | | -177*†† | | | 9-1/2 | x9-11/16 | x3/32 | 9.487 | .055 | 240.97 | 1.40 |
| -178 | | -178*†† | | | 9-3/4 | x9-15/16 | x3/32 | 9.737 | .055 | 247.32 | 1.40 |
| -201 to -284 Cross Section Diameters = .139 + .004 inches — 3.53 + 0.10 millimeters. | | | | | | | | | | | |
| -201 | | | | | 3/16 | x7/16 | x1/8 | .171 | .005 | 4.34 | 0.13 |
| -202 | | | | | 1/4 | x1/2 | x1/8 | .234 | .005 | 5.94 | 0.13 |
| -203 | | | | | 5/16 | x9/16 | x1/8 | .296 | .005 | 7.52 | 0.13 |
| -204 | | | | | 3/8 | x5/8 | x1/8 | .359 | .005 | 9.12 | 0.13 |
| -205 | | | | | 7/16 | x11/16 | x1/8 | .421 | .005 | 10.69 | 0.13 |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

** These dash numbers are not included in MS 9068, MS 29561, NAS 1593 or NAS 1594 series.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | DASH NUMBERS | PART NUMBERS | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|-----------------|-----------------|--------------|-----------|------|------------------|------|----------------------------|------|
| | | | | I.D. | O.D. | C.S. | I.D. | ± | I.D. | ± |
| -201 to -284 Cross Section Diameters = .139 ± .004 inches — 3.53 ± 0.10 millimeters. | | | | | | | | | | |
| -206 | | | | 1/2 | x 3/4 | x1/8 | .484 | .005 | 12.29 | 0.13 |
| -207 | | | | 9/16 | x 13/16 | x1/8 | .546 | .007 | 13.87 | 0.18 |
| -208 | | | | 5/8 | x 7/8 | x1/8 | .609 | .009 | 15.47 | 0.23 |
| -209 | | | | 11/16 | x 15/16 | x1/8 | .671 | .009 | 17.04 | 0.23 |
| -210 | AN 6227B-15 | -210 | AN 123870 | 3/4 | x 1 | x1/8 | .734 | .010 | 18.64 | 0.25 |
| -211 | AN 6227B-16 | -211 | AN 123871 | 13/16 | x 1-1/16 | x1/8 | .796 | .010 | 20.22 | 0.25 |
| -212 | AN 6227B-17 | -212 | AN 123872 | 7/8 | x 1-1/8 | x1/8 | .859 | .010 | 21.82 | 0.25 |
| -213 | AN 6227B-18 | -213 | AN 123873 | 15/16 | x 1-3/16 | x1/8 | .921 | .010 | 23.39 | 0.25 |
| -214 | AN 6227B-19 | -214 | AN 123874 | 1 | x 1-1/4 | x1/8 | .984 | .010 | 24.99 | 0.25 |
| -215 | AN 6227B-20 | -215 | AN 123875 | 1-1/16 | x 1-5/16 | x1/8 | 1.046 | .010 | 26.57 | 0.25 |
| -216 | AN 6227B-21 | -216 | AN 123876 | 1-1/8 | x 1-3/8 | x1/8 | 1.109 | .012 | 28.17 | 0.30 |
| -217 | AN 6227B-22 | -217 | AN 123877 | 1-3/16 | x 1-7/16 | x1/8 | 1.171 | .012 | 29.74 | 0.30 |
| -218 | AN 6227B-23 | -218 | AN 123878 | 1-1/4 | x 1-1/2 | x1/8 | 1.234 | .012 | 31.34 | 0.30 |
| -219 | AN 6227B-24 | -219 | AN 123879 | 1-5/16 | x 1-9/16 | x1/8 | 1.296 | .012 | 32.92 | 0.30 |
| -220 | AN 6227B-25 | -220 | AN 123880 | 1-3/8 | x 1-5/8 | x1/8 | 1.359 | .012 | 34.52 | 0.30 |
| -221 | AN 6227B-26 | -221 | AN 123881 | 1-7/16 | x 1-11/16 | x1/8 | 1.421 | .012 | 36.09 | 0.30 |
| -222 | AN 6227B-27 | -222 | AN 123882 | 1-1/2 | x 1-3/4 | x1/8 | 1.484 | .015 | 37.69 | 0.38 |
| -223 | AN 6230B-1 | -223 | AN 123883 | 1-5/8 | x 1-7/8 | x1/8 | 1.609 | .015 | 40.87 | 0.38 |
| -224 | AN 6230B-2 | -224 | AN 123884 | 1-3/4 | x 2 | x1/8 | 1.734 | .015 | 44.04 | 0.38 |
| -225 | AN 6230B-3 | -225 | AN 123885 | 1-7/8 | x 2-1/8 | x1/8 | 1.859 | .018 | 47.22 | 0.46 |
| -226 | AN 6230B-4 | -226 | AN 123886 | 2 | x 2-1/4 | x1/8 | 1.984 | .018 | 50.39 | 0.46 |
| -227 | AN 6230B-5 | -227 | AN 123887 | 2-1/8 | x 2-3/8 | x1/8 | 2.109 | .018 | 53.57 | 0.46 |
| -228 | AN 6230B-6 | -228 | AN 123888 | 2-1/4 | x 2-1/2 | x1/8 | 2.234 | .020 | 56.74 | 0.51 |
| -229 | AN 6230B-7 | -229 | AN 123889 | 2-3/8 | x 2-5/8 | x1/8 | 2.359 | .020 | 59.92 | 0.51 |
| -230 | AN 6230B-8 | -230 | AN 123890 | 2-1/2 | x 2-3/4 | x1/8 | 2.484 | .020 | 63.09 | 0.51 |
| -231 | AN 6230B-9 | -231 | AN 123891 | 2-5/8 | x 2-7/8 | x1/8 | 2.609 | .020 | 66.27 | 0.51 |
| -232 | AN 6230B-10 | -232 | AN 123892 | 2-3/4 | x 3 | x1/8 | 2.734 | .024 | 69.44 | 0.61 |
| -233 | AN 6230B-11 | -233 | AN 123893 | 2-7/8 | x 3-1/8 | x1/8 | 2.859 | .024 | 72.62 | 0.61 |
| -234 | AN 6230B-12 | -234 | AN 123894 | 3 | x 3-1/4 | x1/8 | 2.984 | .024 | 75.79 | 0.61 |
| -235 | AN 6230B-13 | -235 | AN 123895 | 3-1/8 | x 3-3/8 | x1/8 | 3.109 | .024 | 78.97 | 0.61 |
| -236 | AN 6230B-14 | -236 | AN 123896 | 3-1/4 | x 3-1/2 | x1/8 | 3.234 | .024 | 82.14 | 0.61 |
| -237 | AN 6230B-15 | -237 | AN 123897 | 3-3/8 | x 3-5/8 | x1/8 | 3.359 | .024 | 85.32 | 0.61 |
| -238 | AN 6230B-16 | -238 | AN 123898 | 3-1/2 | x 3-3/4 | x1/8 | 3.484 | .024 | 88.49 | 0.61 |
| -239 | AN 6230B-17 | -239 | AN 123899 | 3-5/8 | x 3-7/8 | x1/8 | 3.609 | .028 | 91.67 | 0.71 |
| -240 | AN 6230B-18 | -240 | AN 123900 | 3-3/4 | x 4 | x1/8 | 3.734 | .028 | 94.84 | 0.71 |
| -241 | AN 6230B-19 | -241 | AN 123901 | 3-7/8 | x 4-1/8 | x1/8 | 3.859 | .028 | 98.02 | 0.71 |
| -242 | AN 6230B-20 | -242 | AN 123902 | 4 | x 4-1/4 | x1/8 | 3.984 | .028 | 101.19 | 0.71 |
| -243 | AN 6230B-21 | -243 | AN 123903 | 4-1/8 | x 4-3/8 | x1/8 | 4.109 | .028 | 104.37 | 0.71 |
| -244 | AN 6230B-22 | -244 | AN 123904 | 4-1/4 | x 4-1/2 | x1/8 | 4.234 | .030 | 107.54 | 0.76 |
| -245 | AN 6230B-23 | -245 | AN 123905 | 4-3/8 | x 4-5/8 | x1/8 | 4.359 | .030 | 110.72 | 0.76 |
| -246 | AN 6230B-24 | -246 | AN 123906 | 4-1/2 | x 4-3/4 | x1/8 | 4.484 | .030 | 113.89 | 0.76 |
| -247 | AN 6230B-25 | -247 | AN 123907 | 4-5/8 | x 4-7/8 | x1/8 | 4.609 | .030 | 117.07 | 0.76 |
| -248 | AN 6230B-26 | -248† | AN 123908 | 4-3/4 | x 5 | x1/8 | 4.734 | .030 | 120.24 | 0.76 |
| -249 | AN 6230B-27 | -249† | AN 123909 | 4-7/8 | x 5-1/8 | x1/8 | 4.859 | .035 | 123.42 | 0.89 |
| -250 | AN 6230B-28 | -250† | AN 123910 | 5 | x 5-1/4 | x1/8 | 4.984 | .035 | 126.59 | 0.89 |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

† These dash numbers are not included in MS 28775 series.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | MS 28775 MS 29513 MS 29561 MS 9021 MS 9068 NAS 1593 NAS 1594 NAS 1611 | DASH NUMBERS | PART NUMBERS | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|--|-----------------|-----------------|--------------|-------|--------|------------------|--------|----------------------------|---|
| | | | | | I.D. | O.D. | C.S. | I.D. | ± | I.D. | ± |
| -201 to -284 Cross Section Diameters = .139 ± .004 inches — 3.53 ± 0.10 millimeters. | | | | | | | | | | | |
| -251 | AN 6230B29 | -251† | AN 123911 | 5-1/8 | x5-3/8 | x1/8 | 5.109 | .035 | 129.77 | 0.89 | |
| -252 | AN 6230B30 | -252† | AN 123912 | 5-1/4 | x5-1/2 | x1/8 | 5.234 | .035 | 132.94 | 0.89 | |
| -253 | AN 6230B31 | -253† | AN 123913 | 5-3/8 | x5-5/8 | x1/8 | 5.359 | .035 | 136.12 | 0.89 | |
| -254 | AN 6230B32 | -254† | AN 123914 | 5-1/2 | x5-3/4 | x1/8 | 5.484 | .035 | 139.29 | 0.89 | |
| -255 | AN 6230B33 | -255† | AN 123915 | 5-5/8 | x5-7/8 | x1/8 | 5.609 | .035 | 142.47 | 0.89 | |
| -256 | AN 6230B34 | -256† | AN 123916 | 5-3/4 | x6 | x1/8 | 5.734 | .035 | 145.64 | 0.89 | |
| -257 | AN 6230B35 | -257† | AN 123917 | 5-7/8 | x6-1/8 | x1/8 | 5.859 | .035 | 148.82 | 0.89 | |
| -258 | AN 6230B36 | -258† | AN 123918 | 6 | x6-1/4 | x1/8 | 5.984 | .035 | 151.99 | 0.89 | |
| -259 | AN 6230B37 | -259† | AN 123919 | 6-1/4 | x6-1/2 | x1/8 | 6.234 | .040 | 158.34 | 1.02 | |
| -260 | AN 6230B38 | -260† | AN 123920 | 6-1/2 | x6-3/4 | x1/8 | 6.484 | .040 | 164.69 | 1.02 | |
| -261 | AN 6230B39 | -261† | AN 123921 | 6-3/4 | x7 | x1/8 | 6.734 | .040 | 171.04 | 1.02 | |
| -262 | AN 6230B40 | -262† | AN 123922 | 7 | x7-1/4 | x1/8 | 6.984 | .040 | 177.39 | 1.02 | |
| -263 | AN 6230B41 | -263† | AN 123923 | 7-1/4 | x7-1/2 | x1/8 | 7.234 | .045 | 183.74 | 1.14 | |
| -264 | AN 6230B42 | -264† | AN 123924 | 7-1/2 | x7-3/4 | x1/8 | 7.484 | .045 | 190.09 | 1.14 | |
| -265 | AN 6230B43 | -265† | AN 123925 | 7-3/4 | x8 | x1/8 | 7.734 | .045 | 196.44 | 1.14 | |
| -266 | AN 6230B44 | -266† | AN 123926 | 8 | x8-1/4 | x1/8 | 7.984 | .045 | 202.79 | 1.14 | |
| -267 | AN 6230B45 | -267† | AN 123927 | 8-1/4 | x8-1/2 | x1/8 | 8.234 | .050 | 209.14 | 1.27 | |
| -268 | AN 6230B46 | -268† | AN 123928 | 8-1/2 | x8-3/4 | x1/8 | 8.484 | .050 | 215.49 | 1.27 | |
| -269 | AN 6230B47 | -269† | AN 123929 | 8-3/4 | x9 | x1/8 | 8.734 | .050 | 221.84 | 1.27 | |
| -270 | AN 6230B48 | -270† | AN 123930 | 9 | x9-1/4 | x1/8 | 8.984 | .050 | 228.19 | 1.27 | |
| -271 | AN 6230B49 | -271† | AN 123931 | 9-1/4 | x9-1/2 | x1/8 | 9.234 | .055 | 234.54 | 1.40 | |
| -272 | AN 6230B50 | -272† | AN 123932 | 9-1/2 | x9-3/4 | x1/8 | 9.484 | .055 | 240.89 | 1.40 | |
| -273 | AN 6230B51 | -273† | AN 123933 | 9-3/4 | x10 | x1/8 | 9.734 | .055 | 247.24 | 1.40 | |
| -274 | AN 6230B52 | -274† | AN 123934 | 10 | x10-1/4 | x1/8 | 9.984 | .055 | 253.59 | 1.40 | |
| -275 | | -275* | | 10-1/2 | x10-3/4 | x1/8 | 10.484 | .055 | 266.29 | 1.40 | |
| -276 | | -276* | | 11 | x11-1/4 | x1/8 | 10.984 | .065 | 278.99 | 1.65 | |
| -277 | | -277* | | 11-1/2 | x11-3/4 | x1/8 | 11.484 | .065 | 291.69 | 1.65 | |
| -278 | | -278* | | 12 | x12-1/4 | x1/8 | 11.984 | .065 | 304.39 | 1.65 | |
| -279 | | -279* | | 13 | x13-1/4 | x1/8 | 12.984 | .065 | 329.79 | 1.65 | |
| -280 | | -280* | | 14 | x14-1/4 | x1/8 | 13.984 | .065 | 355.19 | 1.65 | |
| -281 | | -281* | | 15 | x15-1/4 | x1/8 | 14.984 | .065 | 380.59 | 1.65 | |
| -282 | | -282*†† | | 16 | x16-1/4 | x1/8 | 15.955 | .075 | 405.26 | 1.90 | |
| -283 | | -283*†† | | 17 | x17-1/4 | x1/8 | 16.955 | .080 | 430.66 | 2.03 | |
| -284 | | -284*†† | | 18 | x18-1/4 | x1/8 | 17.955 | .085 | 456.06 | 2.16 | |
| -309 to -395 Cross Section Diameters = .210 ± .005 inches — 5.33 ± 0.13 millimeters. | | | | | | | | | | | |
| -309 | | | | 7/16 | x13/16 | x3/16 | .412 | .005 | 10.46 | 0.13 | |
| -310 | | | | 1/2 | x7/8 | x3/16 | .475 | .005 | 12.07 | 0.13 | |
| -311 | | | | 9/16 | x15/16 | x3/16 | .537 | .007 | 13.64 | 0.18 | |
| -312 | | | | 5/8 | x1 | x3/16 | .600 | .009 | 15.24 | 0.23 | |
| -313 | | | | 11/16 | x1-1/16 | x3/16 | .662 | .009 | 16.81 | 0.23 | |
| -314 | | | | 3/4 | x1-1/8 | x3/16 | .725 | .010 | 18.42 | 0.25 | |
| -315 | | | | 13/16 | x1-3/16 | x3/16 | .787 | .010 | 19.99 | 0.25 | |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

† These dash numbers are not included in MS 28775.

†† These dash numbers are not included in MS 9068, NAS 1593 or NAS 1594.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Eagle Rock Specialties, LLC

Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | DASH NUMBERS | MS 28775 MS 29513 MS 29561 MS 9021 MS 9068 NAS 1593 NAS 1594 NAS 1611 | AN 123856 ¹ TO AN 123934 | NOMINAL SIZE | | INCH STANDARD | | METRIC STANDARD (MM) | | |
|--|-----------------|-----------------|--|---|-----------------|----------|------------------|-------|----------------------------|--------|------|
| | | | | | PART NUMBERS | I.D. | O.D. | C.S. | I.D. | ± | |
| -309 to -395 Cross Section Diameters = .210 ± .005 inches — 5.33 ± 0.13 millimeters. | | | | | | | | | | | |
| -316 | | | | | 7/8 | x1-1/4 | x3/16 | .850 | .010 | 21.59 | 0.25 |
| -317 | | | | | 15-16 | x1-5/16 | x3/16 | .912 | .010 | 23.16 | 0.25 |
| -318 | | | | | 1 | x1-3/8 | x3/16 | .975 | .010 | 24.77 | 0.25 |
| -319 | | | | | 1-1/16 | x1-7/16 | x3/16 | 1.037 | .010 | 26.34 | 0.25 |
| -320 | | | | | 1-1/8 | x1-1/2 | x3/16 | 1.100 | .012 | 27.94 | 0.30 |
| -321 | | | | | 1-3/16 | x1-9/16 | x3/16 | 1.162 | .012 | 29.51 | 0.30 |
| -322 | | | | | 1-1/4 | x1-5/8 | x3/16 | 1.225 | .012 | 31.12 | 0.30 |
| -323 | | | | | 1-5/16 | x1-11/16 | x3/16 | 1.287 | .012 | 32.69 | 0.30 |
| -324 | | | | | 1-3/8 | x1-3/4 | x3/16 | 1.350 | .012 | 34.29 | 0.30 |
| -325 | AN 6227B-28 | -325 | | | 1-1/2 | x1-7/8 | x3/16 | 1.475 | .015 | 37.47 | 0.38 |
| -326 | AN 6227B-29 | -326 | | | 1-5/8 | x2 | x3/16 | 1.600 | .015 | 40.64 | 0.38 |
| -327 | AN 6227B-30 | -327 | | | 1-3/4 | x2-1/8 | x3/16 | 1.725 | .015 | 43.82 | 0.38 |
| -328 | AN 6227B-31 | -328 | | | 1-7/8 | x2-1/4 | x3/16 | 1.850 | .015 | 46.99 | 0.38 |
| -329 | AN 6227B-32 | -329 | | | 2 | x2-3/8 | x3/16 | 1.975 | .018 | 50.17 | 0.46 |
| -330 | AN 6227B-33 | -330 | | | 2-1/8 | x2-1/2 | x3/16 | 2.100 | .018 | 53.34 | 0.46 |
| -331 | AN 6227B-34 | -331 | | | 2-1/4 | x2-5/8 | x3/16 | 2.225 | .018 | 56.52 | 0.46 |
| -332 | AN 6227B-35 | -332 | | | 2-3/8 | x2-3/4 | x3/16 | 2.350 | .018 | 59.69 | 0.46 |
| -333 | AN 6227B-36 | -333 | | | 2-1/2 | x2-7/8 | x3/16 | 2.475 | .020 | 62.87 | 0.51 |
| -334 | AN 6227B-37 | -334 | | | 2-5/8 | x3 | x3/16 | 2.600 | .020 | 66.04 | 0.51 |
| -335 | AN 6227B-38 | -335 | | | 2-3/4 | x3-1/8 | x3/16 | 2.725 | .020 | 69.22 | 0.51 |
| -336 | AN 6227B-39 | -336 | | | 2-7/8 | x3-1/4 | x3/16 | 2.850 | .020 | 72.39 | 0.51 |
| -337 | AN 6227B-40 | -337 | | | 3 | x3-3/8 | x3/16 | 2.975 | .024 | 75.57 | 0.61 |
| -338 | AN 6227B-41 | -338 | | | 3-1/8 | x3-1/2 | x3/16 | 3.100 | .024 | 78.74 | 0.61 |
| -339 | AN 6227B-42 | -339 | | | 3-1/4 | x3-5/8 | x3/16 | 3.225 | .024 | 81.92 | 0.61 |
| -340 | AN 6227B-43 | -340 | | | 3-3/8 | x3-3/4 | x3/16 | 3.350 | .024 | 85.09 | 0.61 |
| -341 | AN 6227B-44 | -341 | | | 3-1/2 | x3-7/8 | x3/16 | 3.475 | .024 | 88.27 | 0.61 |
| -342 | AN 6227B-45 | -342 | | | 3-5/8 | x4 | x3/16 | 3.600 | .028 | 91.44 | 0.71 |
| -343 | AN 6227B-46 | -343 | | | 3-3/4 | x4-1/8 | x3/16 | 3.725 | .028 | 94.62 | 0.71 |
| -344 | AN 6227B-47 | -344 | | | 3-7/8 | x4-1/4 | x3/16 | 3.850 | .028 | 97.79 | 0.71 |
| -345 | AN 6227B-48 | -345 | | | 4 | x4-3/8 | x3/16 | 3.975 | .028 | 100.97 | 0.71 |
| -346 | AN 6227B-49 | -346 | | | 4-1/8 | x4-1/2 | x3/16 | 4.100 | .028 | 104.14 | 0.71 |
| -347 | AN 6227B-50 | -347 | | | 4-1/4 | x4-5/8 | x3/16 | 4.225 | .030 | 107.32 | 0.76 |
| -348 | AN 6227B-51 | -348 | | | 4-3/8 | x4-3/4 | x3/16 | 4.350 | .030 | 110.49 | 0.76 |
| -349 | AN 6227B-52 | -349 | | | 4-1/2 | x4-7/8 | x3/16 | 4.475 | .030 | 113.67 | 0.76 |
| -350 | | -350*†† | | | 4-5/8 | x5 | x3/16 | 4.600 | .030 | 116.84 | 0.76 |
| -351 | | -351*†† | | | 4-3/4 | x5-1/8 | x3/16 | 4.725 | .030 | 120.02 | 0.76 |
| -352 | | -352*†† | | | 4-7/8 | x5-1/4 | x3/16 | 4.850 | .030 | 123.19 | 0.76 |
| -353 | | -353*†† | | | 5 | x5-3/8 | x3/16 | 4.975 | .037 | 126.37 | 0.94 |
| -354 | | -354*†† | | | 5-1/8 | x5-1/2 | x3/16 | 5.100 | .037 | 129.54 | 0.94 |
| -355 | | -355*†† | | | 5-1/4 | x5-5/8 | x3/16 | 5.225 | .037 | 132.72 | 0.94 |
| -356 | | -356*†† | | | 5-3/8 | x5-3/4 | x3/16 | 5.350 | .037 | 135.89 | 0.94 |
| -357 | | -357*†† | | | 5-1/2 | x5-7/8 | x3/16 | 5.475 | .037 | 139.07 | 0.94 |
| -358 | | -358*†† | | | 5-5/8 | x6 | x3/16 | 5.600 | .037 | 142.24 | 0.94 |
| -359 | | -359*†† | | | 5-3/4 | x6-1/8 | x3/16 | 5.725 | .037 | 145.42 | 0.94 |
| -360 | | -360*†† | | | 5-7/8 | x6-1/4 | x3/16 | 5.850 | .037 | 148.59 | 0.94 |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

†† These dash numbers are not included in MS 9068, NAS 1593 or NAS 1594.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | MS 28775 MS 29513 MS 29561 MS 9021 MS 9068 NAS 1593 NAS 1594 NAS 1611 | AN 6227B AND AN 6230B | AN 123856 ¹ TO AN 123934 | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|--|-----------------------------|---|-----------------|---------|-------|------------------|------|----------------------------|------|
| | | | | | PART NUMBERS | I.D. | O.D. | C.S. | I.D. | ± | I.D. |
| -309 to -395 Cross Section Diameters = .210 ± .005 inches — 5.33 ± 0.13 millimeters. | | | | | | | | | | | |
| -361 | | -361*†† | | | 6 | x6-3/8 | x3/16 | 5.975 | .037 | 151.77 | 0.94 |
| -362 | | -362*†† | | | 6-1/4 | x6-5/8 | x3/16 | 6.225 | .040 | 158.12 | 1.02 |
| -363 | | -363*†† | | | 6-1/2 | x6-7/8 | x3/16 | 6.475 | .040 | 164.47 | 1.02 |
| -364 | | -364*†† | | | 6-3/4 | x7-1/8 | x3/16 | 6.725 | .040 | 170.82 | 1.02 |
| -365 | | -365*†† | | | 7 | x7-3/8 | x3/16 | 6.975 | .040 | 177.17 | 1.02 |
| -366 | | -366*†† | | | 7-1/4 | x7-5/8 | x3/16 | 7.225 | .045 | 183.52 | 1.14 |
| -367 | | -367*†† | | | 7-1/2 | x7-7/8 | x3/16 | 7.475 | .045 | 189.87 | 1.14 |
| -368 | | -368*†† | | | 7-3/4 | x8-1/8 | x3/16 | 7.725 | .045 | 196.22 | 1.14 |
| -369 | | -369*†† | | | 8 | x8-3/8 | x3/16 | 7.975 | .045 | 202.57 | 1.14 |
| -370 | | -370*†† | | | 8-1/4 | x8-5/8 | x3/16 | 8.225 | .050 | 208.92 | 1.27 |
| -371 | | -371*†† | | | 8-1/2 | x8-7/8 | x3/16 | 8.475 | .050 | 215.27 | 1.27 |
| -372 | | -372*†† | | | 8-3/4 | x9-1/8 | x3/16 | 8.725 | .050 | 221.62 | 1.27 |
| -373 | | -373*†† | | | 9 | x9-3/8 | x3/16 | 8.975 | .050 | 227.97 | 1.27 |
| -374 | | -374*†† | | | 9-1/4 | x9-5/8 | x3/16 | 9.225 | .055 | 234.32 | 1.40 |
| -375 | | -375*†† | | | 9-1/2 | x9-7/8 | x3/16 | 9.475 | .055 | 240.67 | 1.40 |
| -376 | | -376*†† | | | 9-3/4 | x10-1/8 | x3/16 | 9.725 | .055 | 247.02 | 1.40 |
| -377 | | -377*†† | | | 10 | x10-3/8 | x3/16 | 9.975 | .055 | 253.37 | 1.40 |
| -378 | | -378*†† | | | 10-1/2 | x10-7/8 | x3/16 | 10.475 | .060 | 266.07 | 1.52 |
| -379 | | -379*†† | | | 11 | x11-3/8 | x3/16 | 10.975 | .060 | 278.77 | 1.52 |
| -380 | | -380*†† | | | 11-1/2 | x11-7/8 | x3/16 | 11.475 | .065 | 291.47 | 1.65 |
| -381 | | -381*†† | | | 12 | x12-3/8 | x3/16 | 11.975 | .065 | 304.17 | 1.65 |
| -382 | | -382*†† | | | 13 | x13-3/8 | x3/16 | 12.975 | .065 | 329.57 | 1.65 |
| -383 | | -383*†† | | | 14 | x14-3/8 | x3/16 | 13.975 | .070 | 354.97 | 1.78 |
| -384 | | -384*†† | | | 15 | x15-3/8 | x3/16 | 14.975 | .070 | 380.37 | 1.78 |
| -385 | | -385*†† | | | 16 | x16-3/8 | x3/16 | 15.955 | .075 | 405.26 | 1.90 |
| -386 | | -386*†† | | | 17 | x17-3/8 | x3/16 | 16.955 | .080 | 430.66 | 2.03 |
| -387 | | -387*†† | | | 18 | x18-3/8 | x3/16 | 17.955 | .085 | 456.06 | 2.16 |
| -388 | | -388*†† | | | 19 | x19-3/8 | x3/16 | 18.955 | .090 | 481.38 | 2.29 |
| -389 | | -389*†† | | | 20 | x20-3/8 | x3/16 | 19.955 | .095 | 506.78 | 2.41 |
| -390 | | -390*†† | | | 21 | x21-3/8 | x3/16 | 20.955 | .095 | 532.18 | 2.41 |
| -391 | | -391*†† | | | 22 | x22-3/8 | x3/16 | 21.955 | .095 | 557.58 | 2.41 |
| -392 | | -392*†† | | | 23 | x23-3/8 | x3/16 | 22.940 | .105 | 582.68 | 2.67 |
| -393 | | -393*†† | | | 24 | x24-3/8 | x3/16 | 23.940 | .110 | 608.08 | 2.79 |
| -394 | | -394*†† | | | 25 | x25-3/8 | x3/16 | 24.940 | .115 | 633.48 | 2.92 |
| -395 | | -395*†† | | | 26 | x26-3/8 | x3/16 | 25.940 | .120 | 658.88 | 3.05 |
| -400 to -424 Cross Section Diameters = .275 ± .006 inches — 6.99 ± 0.15 millimeters. | | | | | | | | | | | |
| -400*** | | | | | 1-3/8 | x1-7/8 | x1/4 | 1.350 | .014 | 34.29 | 0.36 |
| -401*** | | | | | 1-1/2 | x2 | x1/4 | 1.475 | .014 | 37.47 | 0.36 |
| -402*** | | | | | 1-5/8 | x2-1/8 | x1/4 | 1.600 | .015 | 40.64 | 0.38 |
| -403*** | | | | | 1-3/4 | x2-1/4 | x1/4 | 1.725 | .016 | 43.82 | 0.41 |
| -404*** | | | | | 1-7/8 | x2-3/8 | x1/4 | 1.850 | .017 | 46.99 | 0.43 |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

*** Dash numbers 400-424 are not listed on AS 568A, but are stock items at American Packing in selected compounds.

†† These dash numbers are not included in MS 9068, NAS 1593 or NAS 1594.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



Eagle Rock Specialties, LLC

Standard O-Ring Sizes and Dimensions (Continued)

| AS-568A UNIVERSAL DASH NUMBERS | PART NUMBERS | DASH NUMBERS | MS 28775 MS 29513 MS 29561 MS 9021 MS 9068 NAS 1593 NAS 1594 NAS 1611 | AN 123856 ¹ TO AN 123934 | NOMINAL SIZE | | | INCH STANDARD | | METRIC STANDARD (MM) | |
|--|-----------------|-----------------|--|---|-----------------|---------|------|------------------|------|----------------------------|------|
| | | | | | PART NUMBERS | I.D. | O.D. | C.S. | I.D. | ± | I.D. |
| -425 to -475 Cross Section Diameters = .275 ± .006 inches — 6.99 ± 0.15 millimeters. | | | | | | | | | | | |
| -446 | AN 6227B-73 | -446 | | | 8-1/2 | x9 | x1/4 | 8.475 | .055 | 215.27 | 1.40 |
| -447 | AN 6227B-74 | -447 | | | 9 | x9-1/2 | x1/4 | 8.975 | .055 | 227.97 | 1.40 |
| -448 | AN 6227B-75 | -448 | | | 9-1/2 | x10 | x1/4 | 9.475 | .055 | 240.67 | 1.40 |
| -449 | AN 6227B-76 | -449 | | | 10 | x10-1/2 | x1/4 | 9.975 | .055 | 253.37 | 1.40 |
| -450 | AN 6227B-77 | -450 | | | 10-1/2 | x11 | x1/4 | 10.475 | .060 | 266.07 | 1.52 |
| -451 | AN 6227B-78 | -451 | | | 11 | x11-1/2 | x1/4 | 10.975 | .060 | 278.77 | 1.52 |
| -452 | AN 6227B-79 | -452 | | | 11-1/2 | x12 | x1/4 | 11.475 | .060 | 291.47 | 1.52 |
| -453 | AN 6227B-80 | -453 | | | 12 | x12-1/2 | x1/4 | 11.975 | .060 | 304.17 | 1.52 |
| -454 | AN 6227B-81 | -454 | | | 12-1/2 | x13 | x1/4 | 12.475 | .060 | 316.87 | 1.52 |
| -455 | AN 6227B-82 | -455 | | | 13 | x13-1/2 | x1/4 | 12.975 | .060 | 329.57 | 1.52 |
| -456 | AN 6227B-83 | -456 | | | 13-1/2 | x14 | x1/4 | 13.475 | .070 | 342.27 | 1.78 |
| -457 | AN 6227B-84 | -457 | | | 14 | x14-1/2 | x1/4 | 13.975 | .070 | 354.97 | 1.78 |
| -458 | AN 6227B-85 | -458 | | | 14-1/2 | x15 | x1/4 | 14.475 | .070 | 367.67 | 1.78 |
| -459 | AN 6227B-86 | -459 | | | 15 | x15-1/2 | x1/4 | 14.975 | .070 | 380.37 | 1.78 |
| -460 | AN 6227B-87 | -460 | | | 15-1/2 | x16 | x1/4 | 15.475 | .070 | 393.07 | 1.78 |
| -461 | | -461*†† | | | 16 | x16-1/2 | x1/4 | 15.955 | .075 | 405.26 | 1.90 |
| -462 | | -462*†† | | | 16-1/2 | x17 | x1/4 | 16.455 | .075 | 417.96 | 1.90 |
| -463 | | -463*†† | | | 17 | x17-1/2 | x1/4 | 16.955 | .080 | 430.66 | 2.03 |
| -464 | | -464*†† | | | 17-1/2 | x18 | x1/4 | 17.455 | .085 | 443.36 | 2.15 |
| -465 | | -465*†† | | | 18 | x18-1/2 | x1/4 | 17.955 | .085 | 456.06 | 2.15 |
| -466 | | -466*†† | | | 18-1/2 | x19 | x1/4 | 18.455 | .085 | 468.76 | 2.15 |
| -467 | | -467*†† | | | 19 | x19-1/2 | x1/4 | 18.955 | .090 | 481.46 | 2.29 |
| -468 | | -468*†† | | | 19-1/2 | x20 | x1/4 | 19.455 | .090 | 494.16 | 2.29 |
| -469 | | -469*†† | | | 20 | x20-1/2 | x1/4 | 19.955 | .095 | 506.86 | 2.41 |
| -470 | | -470*†† | | | 21 | x21-1/2 | x1/4 | 20.955 | .095 | 532.26 | 2.41 |
| -471 | | -471*†† | | | 22 | x22-1/2 | x1/4 | 21.955 | .100 | 557.66 | 2.55 |
| -472 | | -472*†† | | | 23 | x23-1/2 | x1/4 | 22.940 | .105 | 582.68 | 2.67 |
| -473 | | -473*†† | | | 24 | x24-1/2 | x1/4 | 23.940 | .110 | 608.08 | 2.79 |
| -474 | | -474*†† | | | 25 | x25-1/2 | x1/4 | 24.940 | .115 | 633.48 | 2.92 |
| -475 | | -475*†† | | | 26 | x26-1/2 | x1/4 | 25.940 | .120 | 658.88 | 3.05 |

¹ For AN 123956 to AN 124034, add 100 to part numbers shown in this column.

* These dash numbers are not included in MS 28775, MS 29561 or NAS 1611 series.

†† These dash numbers are not included in MS 9068, NAS 1593 or NAS 1594.

NOTES: (1) "AN", "MS", and "NAS" information is for size cross-reference only. "AN", "MS", and "NAS" O-Rings require special compounds.

O-Rings are available in a variety of compounds.

(2) Actual dimensions for standard (AN) shrinkage materials only. These correspond to AS568A dimensions. O-Rings manufactured out of compounds with different shrinkage rates (other than AN) will produce slightly different dimensions and tolerances.



*Dash Number Cross-References

| AN 6227 / AS 568A | | | | | | | | | |
|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| AN 6227 | AS 568A | AN 6227 | AS 568A | AN 6227 | AS 568A | AN 6227 | AS 568A | AN 6227 | AS 568A |
| 1 | 006 | 19 | 214 | 37 | 334 | 55 | 428 | 73 | 446 |
| 2 | 007 | 20 | 215 | 38 | 335 | 56 | 429 | 74 | 447 |
| 3 | 008 | 21 | 216 | 39 | 336 | 57 | 430 | 75 | 448 |
| 4 | 009 | 22 | 217 | 40 | 337 | 58 | 431 | 76 | 449 |
| 5 | 010 | 23 | 218 | 41 | 338 | 59 | 432 | 77 | 450 |
| 6 | 011 | 24 | 219 | 42 | 339 | 60 | 433 | 78 | 451 |
| 7 | 012 | 25 | 220 | 43 | 340 | 61 | 434 | 79 | 452 |
| 8 | 110 | 26 | 221 | 44 | 341 | 62 | 435 | 80 | 453 |
| 9 | 111 | 27 | 222 | 45 | 342 | 63 | 436 | 81 | 454 |
| 10 | 112 | 28 | 325 | 46 | 343 | 64 | 437 | 82 | 455 |
| 11 | 113 | 29 | 326 | 47 | 344 | 65 | 438 | 83 | 456 |
| 12 | 114 | 30 | 327 | 48 | 345 | 66 | 439 | 84 | 457 |
| 13 | 115 | 31 | 328 | 49 | 346 | 67 | 440 | 85 | 458 |
| 14 | 116 | 32 | 329 | 50 | 347 | 68 | 441 | 86 | 459 |
| 15 | 210 | 33 | 330 | 51 | 348 | 69 | 442 | 87 | 460 |
| 16 | 211 | 34 | 331 | 52 | 349 | 70 | 443 | 88 | 425 |
| 17 | 212 | 35 | 332 | 53 | 426 | 71 | 444 | | |
| 18 | 213 | 36 | 333 | 54 | 427 | 72 | 445 | | |

| AN 6230 / AS 568A | | | | | | | | | |
|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| AN 6230 | AS 568A | AN 6230 | AS 568A | AN 6230 | AS 568A | AN 6230 | AS 568A | AN 6230 | AS 568A |
| 1 | 223 | 12 | 234 | 23 | 245 | 34 | 256 | 45 | 267 |
| 2 | 224 | 13 | 235 | 24 | 246 | 35 | 257 | 46 | 268 |
| 3 | 225 | 14 | 236 | 25 | 247 | 36 | 258 | 47 | 269 |
| 4 | 226 | 15 | 237 | 26 | 248 | 37 | 259 | 48 | 270 |
| 5 | 227 | 16 | 238 | 27 | 249 | 38 | 260 | 49 | 271 |
| 6 | 228 | 17 | 239 | 28 | 250 | 39 | 261 | 50 | 272 |
| 7 | 229 | 18 | 240 | 29 | 251 | 40 | 262 | 51 | 273 |
| 8 | 230 | 19 | 241 | 30 | 252 | 41 | 263 | 52 | 274 |
| 9 | 231 | 20 | 242 | 31 | 253 | 42 | 264 | | |
| 10 | 232 | 21 | 243 | 32 | 254 | 43 | 265 | | |
| 11 | 233 | 22 | 244 | 33 | 255 | 44 | 266 | | |

*These charts are for size cross-reference only. "AN" O-Rings require special compounds.
O-Rings are available in a variety of compounds.



**O-Ring Boss Gaskets
For Straight Thread Tube Fittings**

| AS 568A DASH NUMBERS | NAS 1595 NAS 1596 | MS 9020 MS 29512 | TUBE SIZE O.D. INCHES | INCH STANDARD | | METRIC STANDARD | | INCH STANDARD | | METRIC STANDARD | | |
|----------------------------|----------------------|---------------------|------------------------------------|--------------------|------|--------------------|-----|-------------------|------|--------------------|-----|--|
| | INSIDE DIAMETER | | | INSIDE DIAMETER | | CROSS- SECTION | | CROSS- SECTION | | CROSS- SECTION | | |
| | IN. | ± | | MM | ± | IN. | ± | MM | ± | MM | ± | |
| -901 | | -01 | 3/32 | .185 | .005 | 4.70 | .13 | .056 | .003 | 1.42 | .08 | |
| -902 | -2 | -02 | 1/8 | .239 | .005 | 6.07 | .13 | .064 | .003 | 1.63 | .08 | |
| -903 | -3 | -03 | 3/16 | .301 | .005 | 7.65 | .13 | .064 | .003 | 1.63 | .08 | |
| -904 | -4 | -04 | 1/4 | .351 | .005 | 8.92 | .13 | .072 | .003 | 1.83 | .08 | |
| -905 | -5 | -05 | 5/16 | .414 | .005 | 10.52 | .13 | .072 | .003 | 1.83 | .08 | |
| -906 | -6 | -06 | 3/8 | .468 | .005 | 11.89 | .13 | .078 | .003 | 1.98 | .08 | |
| -907 | | -07 | 7/16 | .530 | .007 | 13.46 | .18 | .082 | .003 | 2.08 | .08 | |
| -908 | -8 | -08 | 1/2 | .644 | .009 | 16.36 | .23 | .087 | .003 | 2.21 | .08 | |
| -909 | | -09 | 9/16 | .706 | .009 | 17.93 | .23 | .097 | .003 | 2.46 | .08 | |
| -910 | -10 | -10 | 5/8 | .755 | .009 | 19.18 | .23 | .097 | .003 | 2.46 | .08 | |
| -911 | | -11 | 11/16 | .863 | .009 | 21.92 | .23 | .116 | .004 | 2.95 | .10 | |
| -912 | -12 | -12 | 3/4 | .924 | .009 | 23.47 | .23 | .116 | .004 | 2.95 | .10 | |
| -913 | | -13 | 13/16 | .986 | .010 | 25.04 | .25 | .116 | .004 | 2.95 | .10 | |
| -914 | | -14 | 7/8 | 1.047 | .010 | 26.59 | .25 | .116 | .004 | 2.95 | .10 | |
| -916 | -16 | -16 | 1 | 1.171 | .010 | 29.74 | .25 | .116 | .004 | 2.95 | .10 | |
| -918 | | -18 | 1-1/8 | 1.355 | .012 | 34.42 | .30 | .116 | .004 | 2.95 | .10 | |
| -920 | -20 | -20 | 1-1/4 | 1.475 | .014 | 37.47 | .36 | .118 | .004 | 3.00 | .10 | |
| -924 | -24 | -24 | 1-1/2 | 1.720 | .014 | 43.69 | .36 | .118 | .004 | 3.00 | .10 | |
| -928 | -28 | -28 | 1-3/4 | 2.090 | .018 | 53.09 | .46 | .118 | .004 | 3.00 | .10 | |
| -932 | -32 | -32 | 2 | 2.337 | .018 | 59.36 | .46 | .118 | .004 | 3.00 | .10 | |

NOTE: "NAS" and "MS" information is for size cross-reference only. "NAS and "MS" O-Rings require special compounds. O-Rings are available in a variety of compounds.



Eagle Rock Specialties, LLC

Metric O-Rings *

(Metric O-Ring Tolerances – Page 40)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 0.70 X | 1.80 | |
| 0.80 X | 22.80 | |
| 0.81 X | 5.36 | |
| 0.84 X | 6.10 | |
| 0.90 X | 22.80 | |
| 0.97 X | 2.54 | |
| 1.00 X | 1.15 | |
| 1.00 X | 1.25 | |
| 1.00 X | 1.50 | |
| 1.00 X | 1.80 | |
| 1.00 X | 2.00 | |
| 1.00 X | 2.50 | |
| 1.00 X | 2.70 | |
| 1.00 X | 3.00 | |
| 1.00 X | 3.30 | |
| 1.00 X | 3.50 | |
| 1.00 X | 4.00 | |
| 1.00 X | 4.50 | |
| 1.00 X | 5.00 | |
| 1.00 X | 5.50 | |
| 1.00 X | 6.00 | |
| 1.00 X | 6.50 | |
| 1.00 X | 7.00 | |
| 1.00 X | 7.20 | |
| 1.00 X | 7.50 | |
| 1.00 X | 8.00 | |
| 1.00 X | 8.50 | |
| 1.00 X | 9.00 | |
| 1.00 X | 9.50 | |
| 1.00 X | 10.00 | |
| 1.00 X | 10.50 | |
| 1.00 X | 11.00 | |
| 1.00 X | 11.50 | |
| 1.00 X | 12.00 | |
| 1.00 X | 12.50 | |
| 1.00 X | 13.00 | |
| 1.00 X | 13.50 | |
| 1.00 X | 14.00 | |
| 1.00 X | 14.50 | |
| 1.00 X | 15.00 | |
| 1.00 X | 15.50 | |
| 1.00 X | 16.00 | |
| 1.00 X | 16.50 | |
| 1.00 X | 17.00 | |
| 1.00 X | 17.50 | |
| 1.00 X | 18.00 | |
| 1.00 X | 18.50 | |
| 1.00 X | 19.00 | |
| 1.00 X | 19.50 | |
| 1.00 X | 20.00 | |
| 1.00 X | 20.50 | |
| 1.00 X | 21.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.00 X | 21.50 | |
| 1.00 X | 22.00 | |
| 1.00 X | 22.50 | |
| 1.00 X | 23.00 | |
| 1.00 X | 23.50 | |
| 1.00 X | 24.00 | |
| 1.00 X | 24.50 | |
| 1.00 X | 25.00 | |
| 1.00 X | 28.00 | |
| 1.00 X | 29.40 | |
| 1.00 X | 29.90 | |
| 1.00 X | 30.50 | |
| 1.00 X | 31.80 | |
| 1.00 X | 32.00 | |
| 1.00 X | 39.00 | |
| 1.00 X | 42.00 | |
| 1.00 X | 60.00 | |
| 1.02 X | .74 | -001 |
| 1.02 X | 1.78 | -001-1/2BS606 |
| 1.02 X | 2.54 | BS607 |
| 1.15 X | 42.10 | |
| 1.19 X | 4.32 | |
| 1.20 X | 2.50 | |
| 1.20 X | 2.60 | |
| 1.20 X | 3.50 | |
| 1.20 X | 5.00 | |
| 1.20 X | 24.00 | |
| 1.20 X | 26.00 | |
| 1.20 X | 28.00 | |
| 1.20 X | 35.00 | |
| 1.20 X | 40.00 | |
| 1.20 X | 53.50 | |
| 1.20 X | 98.00 | |
| 1.25 X | 3.80 | |
| 1.25 X | 8.00 | |
| 1.25 X | 16.00 | |
| 1.27 X | 1.07 | -002 |
| 1.27 X | 3.25 | |
| 1.27 X | 3.91 | |
| 1.27 X | 4.47 | |
| 1.30 X | 2.50 | |
| 1.30 X | 8.00 | |
| 1.30 X | 10.00 | |
| 1.30 X | 11.00 | |
| 1.30 X | 13.50 | |
| 1.30 X | 20.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.42 X | 4.70 | -901 |
| 1.50 X | 1.80 | |
| 1.50 X | 1.85 | |
| 1.50 X | 2.00 | |
| 1.50 X | 2.50 | S3 |
| 1.50 X | 2.80 | |
| 1.50 X | 3.00 | |
| 1.50 X | 3.50 | S4 |
| 1.50 X | 4.00 | |
| 1.50 X | 4.50 | S5 |
| 1.50 X | 5.00 | |
| 1.50 X | 5.50 | S6 |
| 1.50 X | 6.00 | |
| 1.50 X | 6.50 | S7 |
| 1.50 X | 7.00 | |
| 1.50 X | 7.50 | S8 |
| 1.50 X | 8.00 | |
| 1.50 X | 8.50 | S9 |
| 1.50 X | 9.00 | |
| 1.50 X | 9.50 | S10 |
| 1.50 X | 10.00 | |
| 1.50 X | 10.50 | |
| 1.50 X | 10.70 | S11.2 |
| 1.50 X | 11.00 | |
| 1.50 X | 11.50 | S12 |
| 1.50 X | 12.00 | S12.5 |
| 1.50 X | 12.50 | |
| 1.50 X | 13.00 | |
| 1.50 X | 13.25 | |
| 1.50 X | 13.50 | S14 |
| 1.50 X | 14.00 | |
| 1.50 X | 14.50 | S15 |
| 1.50 X | 15.00 | |
| 1.50 X | 15.50 | S16 |
| 1.50 X | 16.00 | |
| 1.50 X | 16.50 | |
| 1.50 X | 17.00 | |
| 1.50 X | 17.50 | S18 |
| 1.50 X | 18.00 | |
| 1.50 X | 18.50 | |
| 1.50 X | 19.00 | |
| 1.50 X | 19.50 | S20 |
| 1.50 X | 20.00 | |
| 1.50 X | 20.50 | |
| 1.50 X | 21.00 | |
| 1.50 X | 21.50 | S22 |
| 1.50 X | 22.00 | |
| 1.50 X | 22.50 | |
| 1.50 X | 23.00 | |
| 1.50 X | 23.50 | |
| 1.50 X | 24.00 | |
| 1.50 X | 24.50 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.50 X | 25.00 | |
| 1.50 X | 25.50 | |
| 1.50 X | 26.00 | |
| 1.50 X | 26.50 | |
| 1.50 X | 27.00 | |
| 1.50 X | 27.50 | |
| 1.50 X | 28.00 | |
| 1.50 X | 28.50 | |
| 1.50 X | 29.00 | |
| 1.50 X | 29.50 | |
| 1.50 X | 30.00 | |
| 1.50 X | 30.50 | |
| 1.50 X | 31.00 | |
| 1.50 X | 31.50 | |
| 1.50 X | 32.00 | |
| 1.50 X | 32.50 | |
| 1.50 X | 33.00 | |
| 1.50 X | 33.50 | |
| 1.50 X | 34.00 | |
| 1.50 X | 34.50 | |
| 1.50 X | 35.00 | |
| 1.50 X | 35.50 | |
| 1.50 X | 36.00 | |
| 1.50 X | 36.50 | |
| 1.50 X | 37.00 | |
| 1.50 X | 37.50 | |
| 1.50 X | 38.00 | |
| 1.50 X | 38.50 | |
| 1.50 X | 39.00 | |
| 1.50 X | 39.50 | |
| 1.50 X | 40.00 | |
| 1.50 X | 41.00 | |
| 1.50 X | 42.00 | |
| 1.50 X | 43.00 | |
| 1.50 X | 44.00 | |
| 1.50 X | 45.00 | |
| 1.50 X | 46.00 | |
| 1.50 X | 47.00 | |
| 1.50 X | 48.00 | |
| 1.50 X | 49.00 | |
| 1.50 X | 50.00 | |
| 1.50 X | 51.00 | |
| 1.50 X | 52.00 | |
| 1.50 X | 53.00 | |
| 1.50 X | 54.00 | |
| 1.50 X | 55.00 | |
| 1.50 X | 56.00 | |
| 1.50 X | 57.00 | |
| 1.50 X | 58.00 | |
| 1.50 X | 59.00 | |
| 1.50 X | 60.00 | |
| 1.50 X | 61.00 | |
| 1.50 X | 62.00 | |

*The following listing of metric O-Ring sizes includes cross reference information for American Standard (AS 568A) O-Ring sizes, Japanese Metric O-Rings, and British Standard Metric O-Rings. AS 568A dash numbers are shaded; G, P, S, and V numbers are Japanese Metric O-Rings; and BS numbers are British Standard Metric O-Rings. This is a comprehensive listing, and stocks most of the sizes. Some sizes, however, are not commonly used and are not standard stock items. Call for availability.



Metric O-Rings (Continued)

(Metric O-Ring Tolerances – Page 40)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.50 X | 63.00 | |
| 1.50 X | 64.00 | |
| 1.50 X | 65.00 | |
| 1.50 X | 66.00 | |
| 1.50 X | 67.00 | |
| 1.50 X | 68.00 | |
| 1.50 X | 69.00 | |
| 1.50 X | 70.00 | |
| 1.50 X | 71.00 | |
| 1.50 X | 72.00 | |
| 1.50 X | 73.00 | |
| 1.50 X | 74.00 | |
| 1.50 X | 75.00 | |
| 1.50 X | 76.00 | |
| 1.50 X | 77.00 | |
| 1.50 X | 78.00 | |
| 1.50 X | 79.00 | |
| 1.50 X | 80.00 | |
| 1.50 X | 81.00 | |
| 1.50 X | 82.00 | |
| 1.50 X | 83.00 | |
| 1.50 X | 84.00 | |
| 1.50 X | 85.00 | |
| 1.50 X | 86.00 | |
| 1.50 X | 87.00 | |
| 1.50 X | 88.00 | |
| 1.50 X | 89.00 | |
| 1.50 X | 90.00 | |
| 1.50 X | 91.00 | |
| 1.50 X | 92.00 | |
| 1.50 X | 93.00 | |
| 1.50 X | 94.00 | |
| 1.50 X | 95.00 | |
| 1.50 X | 96.00 | |
| 1.50 X | 97.00 | |
| 1.50 X | 98.00 | |
| 1.50 X | 99.00 | |
| 1.50 X | 100.00 | |
| 1.52 X | 1.42 | -003 |
| 1.60 X | 2.20 | |
| 1.60 X | 2.75 | |
| 1.60 X | 2.80 | |
| 1.60 X | 3.10 | |
| 1.60 X | 3.20 | |
| 1.60 X | 3.70 | |
| 1.60 X | 4.10 | |
| 1.60 X | 4.70 | |
| 1.60 X | 5.00 | |
| 1.60 X | 5.10 | |
| 1.60 X | 6.10 | |
| 1.60 X | 7.10 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.60 X | 8.10 | |
| 1.60 X | 9.10 | |
| 1.60 X | 10.10 | |
| 1.60 X | 11.10 | |
| 1.60 X | 12.10 | |
| 1.60 X | 13.10 | |
| 1.60 X | 14.10 | |
| 1.60 X | 15.10 | |
| 1.60 X | 16.10 | |
| 1.60 X | 17.10 | |
| 1.60 X | 18.10 | |
| 1.60 X | 19.10 | |
| 1.60 X | 20.30 | |
| 1.60 X | 21.10 | |
| 1.60 X | 22.10 | |
| 1.60 X | 25.10 | |
| 1.60 X | 27.10 | |
| 1.60 X | 29.10 | |
| 1.60 X | 32.10 | |
| 1.60 X | 35.10 | |
| 1.60 X | 37.10 | |
| 1.60 X | 51.10 | |
| 1.60 X | 86.00 | |
| 1.60 X | 96.60 | |
| 1.60 X | 115.00 | |
| 1.63 X | 6.07 | -902 |
| 1.63 X | 7.65 | -903 |
| 1.78 X | 1.78 | -004 |
| 1.78 X | 2.57 | -005 |
| 1.78 X | 2.90 | -006 |
| 1.78 X | 3.17 | BS801 |
| 1.78 X | 3.68 | -007 |
| 1.78 X | 4.47 | -008 |
| 1.78 X | 4.76 | BS802 |
| 1.78 X | 5.28 | -009 |
| 1.78 X | 6.07 | -010 |
| 1.78 X | 6.35 | BS803 |
| 1.78 X | 6.75 | BS610 |
| 1.78 X | 7.65 | -011 |
| 1.78 X | 7.94 | BS804 |
| 1.78 X | 8.73 | BS611 |
| 1.78 X | 9.25 | -012 |
| 1.78 X | 9.52 | |
| 1.78 X | 10.82 | -013 |
| 1.78 X | 11.11 | BS806 |
| 1.78 X | 11.91 | |
| 1.78 X | 12.42 | -014 |
| 1.78 X | 14.00 | -015 |
| 1.78 X | 15.60 | -016 |
| 1.78 X | 17.17 | -017 |
| 1.78 X | 18.77 | -018 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.78 X | 19.05 | |
| 1.78 X | 19.15 | |
| 1.78 X | 20.35 | -019 |
| 1.78 X | 21.47 | |
| 1.78 X | 21.95 | -020 |
| 1.78 X | 23.52 | -021 |
| 1.78 X | 25.12 | -022 |
| 1.78 X | 26.70 | -023 |
| 1.78 X | 28.30 | -024 |
| 1.78 X | 29.87 | -025 |
| 1.78 X | 31.47 | -026 |
| 1.78 X | 33.05 | -027 |
| 1.78 X | 34.65 | -028 |
| 1.78 X | 36.00 | |
| 1.78 X | 36.27 | BS517 |
| 1.78 X | 37.82 | -029 |
| 1.78 X | 39.45 | BS519 |
| 1.78 X | 41.00 | -030 |
| 1.78 X | 44.17 | -031 |
| 1.78 X | 45.84 | |
| 1.78 X | 47.35 | -032 |
| 1.78 X | 50.52 | -033 |
| 1.78 X | 53.70 | -034 |
| 1.78 X | 56.87 | -035 |
| 1.78 X | 60.05 | -036 |
| 1.78 X | 63.22 | -037 |
| 1.78 X | 66.40 | -038 |
| 1.78 X | 69.57 | -039 |
| 1.78 X | 72.75 | -040 |
| 1.78 X | 75.92 | -041 |
| 1.78 X | 79.00 | BS532 |
| 1.78 X | 82.27 | -042 |
| 1.78 X | 85.34 | BS534 |
| 1.78 X | 88.62 | -043 |
| 1.78 X | 91.70 | BS536 |
| 1.78 X | 94.97 | -044 |
| 1.78 X | 98.05 | BS538 |
| 1.78 X | 101.32 | -045 |
| 1.78 X | 104.40 | BS540 |
| 1.78 X | 107.67 | -046 |
| 1.78 X | 110.74 | BS542 |
| 1.78 X | 114.02 | -047 |
| 1.78 X | 117.10 | BS544 |
| 1.78 X | 120.37 | -048 |
| 1.78 X | 123.44 | BS546 |
| 1.78 X | 126.72 | -049 |
| 1.78 X | 129.40 | BS548 |
| 1.78 X | 133.07 | -050 |
| 1.78 X | 135.76 | BS550 |
| 1.78 X | 138.94 | BS551 |
| 1.78 X | 142.11 | BS552 |
| 1.78 X | 145.29 | BS553 |
| 1.78 X | 148.46 | BS554 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.80 X | 151.64 | BS555 |
| 1.78 X | 154.81 | BS556 |
| 1.78 X | 158.00 | BS557 |
| 1.78 X | 161.16 | BS558 |
| 1.78 X | 164.34 | BS559 |
| 1.78 X | 167.51 | BS560 |
| 1.78 X | 170.69 | BS561 |
| 1.78 X | 173.87 | BS562 |
| 1.80 X | 1.80 | |
| 1.80 X | 2.00 | |
| 1.80 X | 2.24 | |
| 1.80 X | 2.50 | |
| 1.80 X | 2.80 | |
| 1.80 X | 3.15 | |
| 1.80 X | 3.55 | |
| 1.80 X | 3.75 | |
| 1.80 X | 4.00 | |
| 1.80 X | 4.50 | |
| 1.80 X | 4.87 | |
| 1.80 X | 5.00 | |
| 1.80 X | 5.15 | |
| 1.80 X | 5.30 | |
| 1.80 X | 5.60 | |
| 1.80 X | 6.00 | |
| 1.80 X | 6.30 | |
| 1.80 X | 6.70 | |
| 1.80 X | 6.90 | |
| 1.80 X | 7.10 | |
| 1.80 X | 7.50 | |
| 1.80 X | 8.00 | |
| 1.80 X | 8.50 | |
| 1.80 X | 8.76 | |
| 1.80 X | 9.00 | |
| 1.80 X | 9.50 | |
| 1.80 X | 10.00 | |
| 1.80 X | 10.60 | |
| 1.80 X | 11.20 | |
| 1.80 X | 11.80 | |
| 1.80 X | 12.50 | |
| 1.80 X | 13.20 | |
| 1.80 X | 14.00 | |
| 1.80 X | 15.00 | |
| 1.80 X | 16.00 | |
| 1.80 X | 17.00 | |
| 1.83 X | 8.92 | -904 |
| 1.83 X | 10.52 | -905 |
| 1.90 X | 2.40 | |
| 1.90 X | 2.60 | |
| 1.90 X | 2.80 | P3 |
| 1.90 X | 3.40 | |



Metric O-Rings (Continued)

(Metric O-Ring Tolerances – Page 40)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 1.90 X | 3.70 | |
| 1.90 X | 3.80 | P4 |
| 1.90 X | 4.20 | |
| 1.90 X | 4.80 | P5 |
| 1.90 X | 4.90 | |
| 1.90 X | 5.70 | |
| 1.90 X | 5.80 | P6 |
| 1.90 X | 6.40 | |
| 1.90 X | 6.80 | P7 |
| 1.90 X | 7.20 | |
| 1.90 X | 7.80 | P8 |
| 1.90 X | 8.00 | |
| 1.90 X | 8.80 | P9 |
| 1.90 X | 8.90 | |
| 1.90 X | 9.80 | P10 |
| 1.92 X | 67.10 | |
| 1.98 X | 11.89 | -906 |
| 2.00 X | 2.00 | |
| 2.00 X | 2.50 | |
| 2.00 X | 2.60 | |
| 2.00 X | 3.00 | |
| 2.00 X | 3.50 | |
| 2.00 X | 4.00 | |
| 2.00 X | 4.50 | |
| 2.00 X | 4.60 | |
| 2.00 X | 5.00 | |
| 2.00 X | 5.50 | |
| 2.00 X | 6.00 | |
| 2.00 X | 6.50 | |
| 2.00 X | 7.00 | |
| 2.00 X | 7.50 | |
| 2.00 X | 8.00 | |
| 2.00 X | 8.50 | |
| 2.00 X | 9.00 | |
| 2.00 X | 9.50 | |
| 2.00 X | 10.00 | |
| 2.00 X | 10.50 | |
| 2.00 X | 11.00 | |
| 2.00 X | 11.50 | |
| 2.00 X | 12.00 | |
| 2.00 X | 12.50 | |
| 2.00 X | 13.00 | |
| 2.00 X | 13.50 | |
| 2.00 X | 14.00 | |
| 2.00 X | 14.50 | |
| 2.00 X | 15.00 | |
| 2.00 X | 15.50 | |
| 2.00 X | 16.00 | |
| 2.00 X | 16.50 | |
| 2.00 X | 17.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.00 X | 17.50 | |
| 2.00 X | 18.00 | |
| 2.00 X | 18.50 | |
| 2.00 X | 19.00 | |
| 2.00 X | 19.50 | |
| 2.00 X | 20.00 | |
| 2.00 X | 20.50 | |
| 2.00 X | 21.00 | |
| 2.00 X | 21.50 | |
| 2.00 X | 21.90 | S22.4 |
| 2.00 X | 22.00 | |
| 2.00 X | 22.50 | |
| 2.00 X | 23.00 | |
| 2.00 X | 23.50 | S24 |
| 2.00 X | 24.00 | |
| 2.00 X | 24.50 | S25 |
| 2.00 X | 25.00 | |
| 2.00 X | 25.50 | S26 |
| 2.00 X | 26.00 | |
| 2.00 X | 26.50 | |
| 2.00 X | 27.00 | |
| 2.00 X | 27.50 | S28 |
| 2.00 X | 28.00 | |
| 2.00 X | 28.50 | S29 |
| 2.00 X | 29.00 | |
| 2.00 X | 29.50 | S30 |
| 2.00 X | 30.00 | |
| 2.00 X | 30.50 | |
| 2.00 X | 31.00 | S31.5 |
| 2.00 X | 31.50 | S32 |
| 2.00 X | 32.00 | |
| 2.00 X | 32.50 | |
| 2.00 X | 33.00 | |
| 2.00 X | 33.50 | S34 |
| 2.00 X | 34.00 | |
| 2.00 X | 34.50 | S35 |
| 2.00 X | 35.00 | S35.5 |
| 2.00 X | 35.50 | S36 |
| 2.00 X | 36.00 | |
| 2.00 X | 36.50 | |
| 2.00 X | 37.00 | |
| 2.00 X | 37.50 | S38 |
| 2.00 X | 38.00 | |
| 2.00 X | 38.50 | S39 |
| 2.00 X | 39.00 | |
| 2.00 X | 39.50 | S40 |
| 2.00 X | 40.00 | |
| 2.00 X | 41.00 | |
| 2.00 X | 41.50 | S42 |
| 2.00 X | 42.00 | |
| 2.00 X | 42.50 | S43 |
| 2.00 X | 43.00 | |
| 2.00 X | 43.50 | S44 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.00 X | 44.00 | |
| 2.00 X | 44.50 | S45 |
| 2.00 X | 45.00 | |
| 2.00 X | 45.50 | S46 |
| 2.00 X | 46.00 | |
| 2.00 X | 47.00 | |
| 2.00 X | 47.50 | S48 |
| 2.00 X | 48.00 | |
| 2.00 X | 49.00 | |
| 2.00 X | 49.50 | S50 |
| 2.00 X | 50.00 | |
| 2.00 X | 51.00 | |
| 2.00 X | 52.00 | |
| 2.00 X | 52.50 | S53 |
| 2.00 X | 53.00 | |
| 2.00 X | 54.00 | |
| 2.00 X | 54.50 | S55 |
| 2.00 X | 55.00 | |
| 2.00 X | 55.50 | S56 |
| 2.00 X | 56.00 | |
| 2.00 X | 57.00 | |
| 2.00 X | 58.00 | |
| 2.00 X | 59.00 | |
| 2.00 X | 59.50 | S60 |
| 2.00 X | 60.00 | |
| 2.00 X | 61.00 | |
| 2.00 X | 62.00 | |
| 2.00 X | 62.50 | S63 |
| 2.00 X | 63.00 | |
| 2.00 X | 64.00 | |
| 2.00 X | 64.50 | S65 |
| 2.00 X | 65.00 | |
| 2.00 X | 66.00 | |
| 2.00 X | 66.50 | S67 |
| 2.00 X | 67.00 | |
| 2.00 X | 68.00 | |
| 2.00 X | 69.00 | |
| 2.00 X | 69.50 | S70 |
| 2.00 X | 70.00 | |
| 2.00 X | 70.50 | S71 |
| 2.00 X | 71.00 | |
| 2.00 X | 72.00 | |
| 2.00 X | 73.00 | |
| 2.00 X | 74.00 | |
| 2.00 X | 74.50 | S75 |
| 2.00 X | 75.00 | |
| 2.00 X | 76.00 | |
| 2.00 X | 77.00 | |
| 2.00 X | 78.00 | |
| 2.00 X | 79.00 | |
| 2.00 X | 79.50 | S80 |
| 2.00 X | 80.00 | |
| 2.00 X | 81.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.00 X | 82.00 | |
| 2.00 X | 83.00 | |
| 2.00 X | 84.00 | |
| 2.00 X | 84.50 | S85 |
| 2.00 X | 85.00 | |
| 2.00 X | 86.00 | |
| 2.00 X | 87.00 | |
| 2.00 X | 88.00 | |
| 2.00 X | 89.00 | |
| 2.00 X | 89.50 | S90 |
| 2.00 X | 90.00 | |
| 2.00 X | 91.00 | |
| 2.00 X | 92.00 | |
| 2.00 X | 93.00 | |
| 2.00 X | 94.00 | |
| 2.00 X | 94.50 | S95 |
| 2.00 X | 95.00 | |
| 2.00 X | 96.00 | |
| 2.00 X | 97.00 | |
| 2.00 X | 98.00 | |
| 2.00 X | 99.00 | |
| 2.00 X | 99.50 | S100 |
| 2.00 X | 100.00 | |
| 2.00 X | 102.00 | |
| 2.00 X | 104.50 | S105 |
| 2.00 X | 105.00 | |
| 2.00 X | 109.00 | |
| 2.00 X | 109.50 | S110 |
| 2.00 X | 110.00 | |
| 2.00 X | 111.50 | S112 |
| 2.00 X | 114.50 | S115 |
| 2.00 X | 115.00 | |
| 2.00 X | 119.50 | S120 |
| 2.00 X | 120.00 | |
| 2.00 X | 124.50 | S125 |
| 2.00 X | 125.60 | |
| 2.00 X | 129.50 | S130 |
| 2.00 X | 130.00 | |
| 2.00 X | 131.50 | S132 |
| 2.00 X | 134.50 | S135 |
| 2.00 X | 139.50 | S140 |
| 2.00 X | 140.00 | |
| 2.00 X | 144.50 | S145 |
| 2.00 X | 149.50 | S150 |
| 2.00 X | 165.00 | |
| 2.00 X | 180.00 | |
| 2.00 X | 194.00 | |
| 2.08 X | 13.46 | -907 |
| 2.18 X | 12.40 | |
| 2.20 X | 6.00 | |



Metric O-Rings (Continued)

(Metric O-Ring Tolerances – Page 40)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.20 X | 9.00 | |
| 2.20 X | 10.00 | |
| 2.20 X | 18.00 | |
| 2.21 X | 16.36 | -908 |
| 2.40 X | 3.30 | |
| 2.40 X | 3.60 | |
| 2.40 X | 4.30 | |
| 2.40 X | 4.60 | |
| 2.40 X | 5.30 | |
| 2.40 X | 5.50 | |
| 2.40 X | 5.60 | |
| 2.40 X | 6.30 | |
| 2.40 X | 6.60 | |
| 2.40 X | 7.30 | |
| 2.40 X | 7.50 | |
| 2.40 X | 7.60 | |
| 2.40 X | 8.00 | |
| 2.40 X | 8.30 | |
| 2.40 X | 8.60 | |
| 2.40 X | 9.30 | |
| 2.40 X | 9.60 | |
| 2.40 X | 9.80 | P10A |
| 2.40 X | 10.30 | |
| 2.40 X | 10.50 | |
| 2.40 X | 10.60 | |
| 2.40 X | 10.80 | P11 |
| 2.40 X | 11.00 | P11.2 |
| 2.40 X | 11.30 | |
| 2.40 X | 11.50 | |
| 2.40 X | 11.60 | |
| 2.40 X | 11.80 | P12 |
| 2.40 X | 12.30 | P12.5 |
| 2.40 X | 12.60 | |
| 2.40 X | 13.30 | |
| 2.40 X | 13.50 | |
| 2.40 X | 13.60 | |
| 2.40 X | 13.80 | P14 |
| 2.40 X | 14.30 | |
| 2.40 X | 14.50 | |
| 2.40 X | 14.60 | |
| 2.40 X | 14.80 | P15 |
| 2.40 X | 15.30 | |
| 2.40 X | 15.50 | |
| 2.40 X | 15.60 | |
| 2.40 X | 15.80 | P16 |
| 2.40 X | 15.90 | |
| 2.40 X | 16.30 | |
| 2.40 X | 16.60 | |
| 2.40 X | 17.30 | |
| 2.40 X | 17.50 | |
| 2.40 X | 17.60 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.40 X | 17.80 | P18 |
| 2.40 X | 18.30 | |
| 2.40 X | 18.60 | |
| 2.40 X | 19.30 | |
| 2.40 X | 19.60 | |
| 2.40 X | 19.80 | P20 |
| 2.40 X | 20.30 | |
| 2.40 X | 20.50 | |
| 2.40 X | 20.80 | P21 |
| 2.40 X | 21.30 | |
| 2.40 X | 21.50 | |
| 2.40 X | 21.60 | |
| 2.40 X | 21.80 | P22 |
| 2.40 X | 22.30 | |
| 2.40 X | 22.60 | |
| 2.40 X | 23.30 | |
| 2.40 X | 23.50 | |
| 2.40 X | 23.60 | |
| 2.40 X | 24.30 | |
| 2.40 X | 24.50 | |
| 2.40 X | 24.60 | |
| 2.40 X | 25.00 | |
| 2.40 X | 25.30 | |
| 2.40 X | 25.60 | |
| 2.40 X | 27.30 | |
| 2.40 X | 27.50 | |
| 2.40 X | 27.60 | |
| 2.40 X | 29.60 | |
| 2.40 X | 30.30 | |
| 2.40 X | 31.60 | |
| 2.40 X | 33.30 | |
| 2.40 X | 34.60 | |
| 2.40 X | 36.50 | |
| 2.40 X | 37.60 | |
| 2.40 X | 39.60 | |
| 2.40 X | 41.60 | |
| 2.40 X | 44.60 | |
| 2.40 X | 47.60 | |
| 2.40 X | 49.60 | |
| 2.40 X | 51.60 | |
| 2.40 X | 54.60 | |
| 2.40 X | 57.60 | |
| 2.40 X | 59.60 | |
| 2.40 X | 61.60 | |
| 2.40 X | 64.60 | |
| 2.40 X | 67.60 | |
| 2.40 X | 69.60 | |
| 2.40 X | 161.60 | |
| 2.46 X | 17.93 | -909 |
| 2.46 X | 19.18 | -910 |
| 2.50 X | 4.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.50 X | 4.60 | |
| 2.50 X | 5.00 | |
| 2.50 X | 5.50 | |
| 2.50 X | 6.00 | |
| 2.50 X | 6.50 | |
| 2.50 X | 7.00 | |
| 2.50 X | 7.50 | |
| 2.50 X | 8.00 | |
| 2.50 X | 8.50 | |
| 2.50 X | 9.00 | |
| 2.50 X | 9.50 | |
| 2.50 X | 10.00 | |
| 2.50 X | 10.50 | |
| 2.50 X | 11.00 | |
| 2.50 X | 11.50 | |
| 2.50 X | 12.00 | |
| 2.50 X | 12.50 | |
| 2.50 X | 13.00 | |
| 2.50 X | 13.50 | |
| 2.50 X | 14.00 | |
| 2.50 X | 14.50 | |
| 2.50 X | 15.00 | |
| 2.50 X | 15.50 | |
| 2.50 X | 16.00 | |
| 2.50 X | 16.50 | |
| 2.50 X | 17.00 | |
| 2.50 X | 17.50 | |
| 2.50 X | 18.00 | |
| 2.50 X | 18.50 | |
| 2.50 X | 19.00 | |
| 2.50 X | 19.50 | |
| 2.50 X | 20.00 | |
| 2.50 X | 20.50 | |
| 2.50 X | 21.00 | |
| 2.50 X | 21.50 | |
| 2.50 X | 22.00 | |
| 2.50 X | 22.50 | |
| 2.50 X | 23.00 | |
| 2.50 X | 23.50 | |
| 2.50 X | 24.00 | |
| 2.50 X | 24.50 | |
| 2.50 X | 25.00 | |
| 2.50 X | 25.50 | |
| 2.50 X | 26.00 | |
| 2.50 X | 26.50 | |
| 2.50 X | 27.00 | |
| 2.50 X | 27.50 | |
| 2.50 X | 28.00 | |
| 2.50 X | 28.50 | |
| 2.50 X | 29.00 | |
| 2.50 X | 29.50 | |
| 2.50 X | 30.00 | |
| 2.50 X | 30.50 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.50 X | 31.00 | |
| 2.50 X | 31.50 | |
| 2.50 X | 32.00 | |
| 2.50 X | 32.50 | |
| 2.50 X | 33.00 | |
| 2.50 X | 33.50 | |
| 2.50 X | 34.00 | |
| 2.50 X | 34.50 | |
| 2.50 X | 35.00 | |
| 2.50 X | 35.50 | |
| 2.50 X | 36.00 | |
| 2.50 X | 36.50 | |
| 2.50 X | 37.00 | |
| 2.50 X | 37.50 | |
| 2.50 X | 38.00 | |
| 2.50 X | 38.50 | |
| 2.50 X | 39.00 | |
| 2.50 X | 39.50 | |
| 2.50 X | 40.00 | |
| 2.50 X | 41.00 | |
| 2.50 X | 42.00 | |
| 2.50 X | 43.00 | |
| 2.50 X | 44.00 | |
| 2.50 X | 45.00 | |
| 2.50 X | 46.00 | |
| 2.50 X | 47.00 | |
| 2.50 X | 48.00 | |
| 2.50 X | 49.00 | |
| 2.50 X | 50.00 | |
| 2.50 X | 51.00 | |
| 2.50 X | 52.00 | |
| 2.50 X | 53.00 | |
| 2.50 X | 54.00 | |
| 2.50 X | 55.00 | |
| 2.50 X | 56.00 | |
| 2.50 X | 57.00 | |
| 2.50 X | 58.00 | |
| 2.50 X | 59.00 | |
| 2.50 X | 60.00 | |
| 2.50 X | 61.00 | |
| 2.50 X | 62.00 | |
| 2.50 X | 63.00 | |
| 2.50 X | 64.00 | |
| 2.50 X | 65.00 | |
| 2.50 X | 66.00 | |
| 2.50 X | 67.00 | |
| 2.50 X | 68.00 | |
| 2.50 X | 69.00 | |
| 2.50 X | 70.00 | |
| 2.50 X | 71.00 | |
| 2.50 X | 72.00 | |
| 2.50 X | 73.00 | |
| 2.50 X | 74.00 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 2.50 X 75.00 | | |
| 2.50 X 76.00 | | |
| 2.50 X 77.00 | | |
| 2.50 X 78.00 | | |
| 2.50 X 79.00 | | |
| 2.50 X 80.00 | | |
| 2.50 X 81.00 | | |
| 2.50 X 82.00 | | |
| 2.50 X 83.00 | | |
| 2.50 X 84.00 | | |
| 2.50 X 85.00 | | |
| 2.50 X 86.00 | | |
| 2.50 X 87.00 | | |
| 2.50 X 88.00 | | |
| 2.50 X 89.00 | | |
| 2.50 X 90.00 | | |
| 2.50 X 91.00 | | |
| 2.50 X 92.00 | | |
| 2.50 X 93.00 | | |
| 2.50 X 94.00 | | |
| 2.50 X 95.00 | | |
| 2.50 X 96.00 | | |
| 2.50 X 97.00 | | |
| 2.50 X 98.00 | | |
| 2.50 X 99.00 | | |
| 2.50 X 100.00 | | |
| 2.50 X 101.00 | | |
| 2.50 X 102.00 | | |
| 2.50 X 103.00 | | |
| 2.50 X 104.00 | | |
| 2.50 X 105.00 | | |
| 2.50 X 106.00 | | |
| 2.50 X 107.00 | | |
| 2.50 X 108.00 | | |
| 2.50 X 109.00 | | |
| 2.50 X 110.00 | | |
| 2.50 X 111.00 | | |
| 2.50 X 112.00 | | |
| 2.50 X 113.00 | | |
| 2.50 X 114.00 | | |
| 2.50 X 115.00 | | |
| 2.50 X 116.00 | | |
| 2.50 X 117.00 | | |
| 2.50 X 118.00 | | |
| 2.50 X 119.00 | | |
| 2.50 X 120.00 | | |
| 2.50 X 121.00 | | |
| 2.50 X 122.00 | | |
| 2.50 X 123.00 | | |
| 2.50 X 124.00 | | |
| 2.50 X 125.00 | | |
| 2.50 X 126.00 | | |
| 2.50 X 127.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 2.50 X 128.00 | | |
| 2.50 X 129.00 | | |
| 2.50 X 130.00 | | |
| 2.50 X 131.00 | | |
| 2.50 X 132.00 | | |
| 2.50 X 133.00 | | |
| 2.50 X 134.00 | | |
| 2.50 X 135.00 | | |
| 2.50 X 136.00 | | |
| 2.50 X 137.00 | | |
| 2.50 X 138.00 | | |
| 2.50 X 139.00 | | |
| 2.50 X 140.00 | | |
| 2.50 X 141.00 | | |
| 2.50 X 142.00 | | |
| 2.50 X 143.00 | | |
| 2.50 X 144.00 | | |
| 2.50 X 145.00 | | |
| 2.50 X 146.00 | | |
| 2.50 X 147.00 | | |
| 2.50 X 148.00 | | |
| 2.50 X 149.00 | | |
| 2.50 X 150.00 | | |
| 2.55 X 29.10 | | |
| 2.62 X 1.24 | -102 | |
| 2.62 X 2.06 | -103 | |
| 2.62 X 2.84 | -104 | |
| 2.62 X 3.63 | -105 | |
| 2.62 X 4.42 | -106 | |
| 2.62 X 5.23 | -107 | |
| 2.62 X 6.02 | -108 | |
| 2.62 X 7.59 | -109 | |
| 2.62 X 9.13 | | |
| 2.62 X 9.19 | -110 | |
| 2.62 X 9.90 | BS613 | |
| 2.62 X 10.77 | -111 | |
| 2.62 X 11.91 | BS614 | |
| 2.62 X 12.37 | -112 | |
| 2.62 X 12.70 | BS807 | |
| 2.62 X 13.10 | BS615 | |
| 2.62 X 13.94 | -113 | |
| 2.62 X 15.08 | BS616 | |
| 2.62 X 15.54 | -114 | |
| 2.62 X 15.88 | BS809 | |
| 2.62 X 17.12 | -115 | |
| 2.62 X 17.46 | BS810 | |
| 2.62 X 17.86 | BS617 | |
| 2.62 X 18.72 | -116 | |
| 2.62 X 20.30 | -117 | |
| 2.62 X 20.64 | BS812 | |
| 2.62 X 21.89 | -118 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 2.62 X 22.23 | BS813 | |
| 2.62 X 23.47 | -119 | |
| 2.62 X 23.81 | BS814 | |
| 2.62 X 25.07 | -120 | |
| 2.62 X 26.64 | -121 | |
| 2.62 X 28.24 | -122 | |
| 2.62 X 29.82 | -123 | |
| 2.62 X 31.42 | -124 | |
| 2.62 X 32.99 | -125 | |
| 2.62 X 34.59 | -126 | |
| 2.62 X 36.17 | -127 | |
| 2.62 X 37.77 | -128 | |
| 2.62 X 39.34 | -129 | |
| 2.62 X 40.94 | -130 | |
| 2.62 X 42.52 | -131 | |
| 2.62 X 44.12 | -132 | |
| 2.62 X 45.69 | -133 | |
| 2.62 X 47.29 | -134 | |
| 2.62 X 48.90 | -135 | |
| 2.62 X 50.47 | -136 | |
| 2.62 X 52.07 | -137 | |
| 2.62 X 53.64 | -138 | |
| 2.62 X 55.25 | -139 | |
| 2.62 X 56.82 | -140 | |
| 2.62 X 58.42 | -141 | |
| 2.62 X 59.99 | -142 | |
| 2.62 X 61.60 | -143 | |
| 2.62 X 63.17 | -144 | |
| 2.62 X 64.77 | -145 | |
| 2.62 X 66.34 | -146 | |
| 2.62 X 67.95 | -147 | |
| 2.62 X 69.52 | -148 | |
| 2.62 X 71.12 | -149 | |
| 2.62 X 72.69 | -150 | |
| 2.62 X 74.30 | BS640 | |
| 2.62 X 75.87 | -151 | |
| 2.62 X 77.50 | BS641 | |
| 2.62 X 80.60 | BS642 | |
| 2.62 X 82.22 | -152 | |
| 2.62 X 83.80 | BS643 | |
| 2.62 X 88.57 | -153 | |
| 2.62 X 92.75 | | |
| 2.62 X 94.92 | -154 | |
| 2.62 X 101.27 | -155 | |
| 2.62 X 107.62 | -156 | |
| 2.62 X 113.97 | -157 | |
| 2.62 X 120.32 | -158 | |
| 2.62 X 126.67 | -159 | |
| 2.62 X 133.02 | -160 | |
| 2.62 X 139.37 | -161 | |
| 2.62 X 145.72 | -162 | |
| 2.62 X 152.07 | -163 | |
| 2.62 X 158.42 | -164 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 2.62 X 164.77 | -165 | |
| 2.62 X 171.12 | -166 | |
| 2.62 X 177.47 | -167 | |
| 2.62 X 183.82 | -168 | |
| 2.62 X 190.17 | -169 | |
| 2.62 X 196.52 | -170 | |
| 2.62 X 202.87 | -171 | |
| 2.62 X 209.22 | -172 | |
| 2.62 X 215.57 | -173 | |
| 2.62 X 221.92 | -174 | |
| 2.62 X 228.27 | -175 | |
| 2.62 X 234.62 | -176 | |
| 2.62 X 240.97 | -177 | |
| 2.62 X 247.32 | -178 | |
| 2.65 X 14.00 | | |
| 2.65 X 15.00 | | |
| 2.65 X 16.00 | | |
| 2.65 X 17.00 | | |
| 2.65 X 18.00 | | |
| 2.65 X 19.00 | | |
| 2.65 X 20.00 | | |
| 2.65 X 21.20 | | |
| 2.65 X 22.40 | | |
| 2.65 X 23.60 | | |
| 2.65 X 25.00 | | |
| 2.65 X 25.80 | | |
| 2.65 X 26.50 | | |
| 2.65 X 28.00 | | |
| 2.65 X 30.00 | | |
| 2.65 X 31.50 | | |
| 2.65 X 32.50 | | |
| 2.65 X 33.50 | | |
| 2.65 X 34.50 | | |
| 2.65 X 35.50 | | |
| 2.65 X 36.50 | | |
| 2.65 X 37.50 | | |
| 2.65 X 38.70 | | |
| 2.70 X 8.35 | | |
| 2.70 X 8.90 | | |
| 2.70 X 10.50 | | |
| 2.70 X 12.10 | | |
| 2.70 X 13.60 | | |
| 2.70 X 15.10 | | |
| 2.70 X 16.90 | | |
| 2.70 X 18.40 | | |
| 2.70 X 18.60 | | |
| 2.70 X 27.30 | | |
| 2.70 X 28.40 | | |
| 2.70 X 117.00 | | |
| 2.92 X 9.53 | | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 2.95 X | 21.92 | -911 |
| 2.95 X | 23.47 | -912 |
| 2.95 X | 25.04 | -913 |
| 2.95 X | 26.59 | -914 |
| 2.95 X | 29.74 | -916 |
| 2.95 X | 34.42 | -918 |
| 3.00 X | 3.00 | |
| 3.00 X | 3.50 | |
| 3.00 X | 4.00 | |
| 3.00 X | 4.50 | |
| 3.00 X | 5.00 | |
| 3.00 X | 5.50 | |
| 3.00 X | 6.00 | |
| 3.00 X | 6.50 | |
| 3.00 X | 7.00 | |
| 3.00 X | 7.50 | |
| 3.00 X | 8.00 | |
| 3.00 X | 8.50 | |
| 3.00 X | 9.00 | |
| 3.00 X | 9.50 | |
| 3.00 X | 10.00 | |
| 3.00 X | 10.50 | |
| 3.00 X | 11.00 | |
| 3.00 X | 11.50 | |
| 3.00 X | 12.00 | |
| 3.00 X | 12.50 | |
| 3.00 X | 13.00 | |
| 3.00 X | 13.50 | |
| 3.00 X | 14.00 | |
| 3.00 X | 14.50 | |
| 3.00 X | 15.00 | |
| 3.00 X | 15.50 | |
| 3.00 X | 16.00 | |
| 3.00 X | 16.50 | |
| 3.00 X | 17.00 | |
| 3.00 X | 17.50 | |
| 3.00 X | 18.00 | |
| 3.00 X | 18.20 | |
| 3.00 X | 18.50 | |
| 3.00 X | 19.00 | |
| 3.00 X | 19.20 | |
| 3.00 X | 19.50 | |
| 3.00 X | 20.00 | |
| 3.00 X | 20.50 | |
| 3.00 X | 21.00 | |
| 3.00 X | 21.50 | |
| 3.00 X | 22.00 | |
| 3.00 X | 22.20 | |
| 3.00 X | 22.50 | |
| 3.00 X | 23.00 | |
| 3.00 X | 23.50 | |
| 3.00 X | 24.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.00 X | 24.20 | |
| 3.00 X | 24.50 | |
| 3.00 X | 24.60 | |
| 3.00 X | 25.00 | |
| 3.00 X | 25.20 | |
| 3.00 X | 25.50 | |
| 3.00 X | 26.00 | |
| 3.00 X | 26.20 | |
| 3.00 X | 26.50 | |
| 3.00 X | 27.00 | |
| 3.00 X | 27.50 | |
| 3.00 X | 28.00 | |
| 3.00 X | 28.50 | |
| 3.00 X | 29.00 | |
| 3.00 X | 29.20 | |
| 3.00 X | 29.50 | |
| 3.00 X | 30.00 | |
| 3.00 X | 30.20 | |
| 3.00 X | 30.50 | |
| 3.00 X | 31.00 | |
| 3.00 X | 31.50 | |
| 3.00 X | 32.00 | |
| 3.00 X | 32.20 | |
| 3.00 X | 32.50 | |
| 3.00 X | 33.00 | |
| 3.00 X | 33.50 | |
| 3.00 X | 34.00 | |
| 3.00 X | 34.20 | |
| 3.00 X | 34.50 | |
| 3.00 X | 35.00 | |
| 3.00 X | 35.50 | |
| 3.00 X | 36.00 | |
| 3.00 X | 36.20 | |
| 3.00 X | 36.50 | |
| 3.00 X | 37.00 | |
| 3.00 X | 37.20 | |
| 3.00 X | 37.47 | -920 |
| 3.00 X | 37.50 | |
| 3.00 X | 38.00 | |
| 3.00 X | 38.50 | |
| 3.00 X | 39.00 | |
| 3.00 X | 39.20 | |
| 3.00 X | 39.50 | |
| 3.00 X | 40.00 | |
| 3.00 X | 40.20 | |
| 3.00 X | 41.00 | |
| 3.00 X | 41.50 | |
| 3.00 X | 42.00 | |
| 3.00 X | 42.20 | |
| 3.00 X | 42.50 | |
| 3.00 X | 43.00 | |
| 3.00 X | 43.69 | -924 |
| 3.00 X | 44.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.00 X | 44.20 | |
| 3.00 X | 44.50 | |
| 3.00 X | 45.00 | |
| 3.00 X | 46.00 | |
| 3.00 X | 47.00 | |
| 3.00 X | 48.00 | |
| 3.00 X | 49.00 | |
| 3.00 X | 49.50 | |
| 3.00 X | 50.00 | |
| 3.00 X | 50.50 | |
| 3.00 X | 51.00 | |
| 3.00 X | 52.00 | |
| 3.00 X | 53.00 | |
| 3.00 X | 53.09 | -928 |
| 3.00 X | 54.00 | |
| 3.00 X | 54.20 | |
| 3.00 X | 54.50 | |
| 3.00 X | 55.00 | |
| 3.00 X | 56.00 | |
| 3.00 X | 56.20 | |
| 3.00 X | 57.00 | |
| 3.00 X | 58.00 | |
| 3.00 X | 59.00 | |
| 3.00 X | 59.36 | -932 |
| 3.00 X | 59.50 | |
| 3.00 X | 60.00 | |
| 3.00 X | 61.00 | |
| 3.00 X | 62.00 | |
| 3.00 X | 62.20 | |
| 3.00 X | 63.00 | |
| 3.00 X | 64.00 | |
| 3.00 X | 64.50 | |
| 3.00 X | 65.00 | |
| 3.00 X | 66.00 | |
| 3.00 X | 67.00 | |
| 3.00 X | 68.00 | |
| 3.00 X | 69.00 | |
| 3.00 X | 69.50 | |
| 3.00 X | 70.00 | |
| 3.00 X | 71.00 | |
| 3.00 X | 72.00 | |
| 3.00 X | 73.00 | |
| 3.00 X | 74.00 | |
| 3.00 X | 74.50 | |
| 3.00 X | 75.00 | |
| 3.00 X | 76.00 | |
| 3.00 X | 77.00 | |
| 3.00 X | 78.00 | |
| 3.00 X | 79.00 | |
| 3.00 X | 79.50 | |
| 3.00 X | 80.00 | |
| 3.00 X | 81.00 | |
| 3.00 X | 82.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.00 X | 83.00 | |
| 3.00 X | 84.00 | |
| 3.00 X | 84.50 | |
| 3.00 X | 85.00 | |
| 3.00 X | 86.00 | |
| 3.00 X | 87.00 | |
| 3.00 X | 88.00 | |
| 3.00 X | 89.00 | |
| 3.00 X | 89.50 | |
| 3.00 X | 90.00 | |
| 3.00 X | 91.00 | |
| 3.00 X | 92.00 | |
| 3.00 X | 93.00 | |
| 3.00 X | 94.00 | |
| 3.00 X | 94.50 | |
| 3.00 X | 95.00 | |
| 3.00 X | 96.00 | |
| 3.00 X | 97.00 | |
| 3.00 X | 98.00 | |
| 3.00 X | 99.00 | |
| 3.00 X | 99.50 | |
| 3.00 X | 100.00 | |
| 3.00 X | 101.00 | |
| 3.00 X | 102.00 | |
| 3.00 X | 103.00 | |
| 3.00 X | 104.00 | |
| 3.00 X | 104.50 | |
| 3.00 X | 105.00 | |
| 3.00 X | 106.00 | |
| 3.00 X | 107.00 | |
| 3.00 X | 108.00 | |
| 3.00 X | 109.00 | |
| 3.00 X | 109.50 | |
| 3.00 X | 110.00 | |
| 3.00 X | 111.00 | |
| 3.00 X | 112.00 | |
| 3.00 X | 113.00 | |
| 3.00 X | 114.00 | |
| 3.00 X | 114.50 | |
| 3.00 X | 115.00 | |
| 3.00 X | 116.00 | |
| 3.00 X | 117.00 | |
| 3.00 X | 118.00 | |
| 3.00 X | 119.00 | |
| 3.00 X | 119.50 | |
| 3.00 X | 120.00 | |
| 3.00 X | 121.00 | |
| 3.00 X | 122.00 | |
| 3.00 X | 123.00 | |
| 3.00 X | 124.00 | |
| 3.00 X | 124.50 | |
| 3.00 X | 125.00 | |
| 3.00 X | 126.00 | |



Metric O-Rings (Continued)

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|--------|
| (mm) | (mm) | (mm) | |
| 3.00 X | 126.50 | 3.00 X | 170.00 |
| 3.00 X | 127.00 | 3.00 X | 171.00 |
| 3.00 X | 128.00 | 3.00 X | 172.00 |
| 3.00 X | 129.00 | 3.00 X | 173.00 |
| 3.00 X | 129.50 | 3.00 X | 174.00 |
| 3.00 X | 130.00 | 3.00 X | 174.50 |
| 3.00 X | 131.00 | 3.00 X | 175.00 |
| 3.00 X | 132.00 | 3.00 X | 176.00 |
| 3.00 X | 133.00 | 3.00 X | 177.00 |
| 3.00 X | 134.00 | 3.00 X | 178.00 |
| 3.00 X | 134.50 | 3.00 X | 179.00 |
| 3.00 X | 135.00 | 3.00 X | 179.50 |
| 3.00 X | 136.00 | 3.00 X | 180.00 |
| 3.00 X | 137.00 | 3.00 X | 181.00 |
| 3.00 X | 138.00 | 3.00 X | 182.00 |
| 3.00 X | 139.00 | 3.00 X | 183.00 |
| 3.00 X | 139.50 | 3.00 X | 183.50 |
| 3.00 X | 140.00 | 3.00 X | 184.00 |
| 3.00 X | 141.00 | 3.00 X | 184.50 |
| 3.00 X | 142.00 | 3.00 X | 185.00 |
| 3.00 X | 143.00 | 3.00 X | 186.00 |
| 3.00 X | 144.00 | 3.00 X | 187.00 |
| 3.00 X | 144.50 | 3.00 X | 188.00 |
| 3.00 X | 145.00 | 3.00 X | 189.00 |
| 3.00 X | 146.00 | 3.00 X | 189.50 |
| 3.00 X | 147.00 | 3.00 X | 190.00 |
| 3.00 X | 148.00 | 3.00 X | 191.00 |
| 3.00 X | 149.00 | 3.00 X | 192.00 |
| 3.00 X | 149.50 | 3.00 X | 193.00 |
| 3.00 X | 150.00 | 3.00 X | 194.00 |
| 3.00 X | 151.00 | 3.00 X | 194.50 |
| 3.00 X | 152.00 | 3.00 X | 195.00 |
| 3.00 X | 153.00 | 3.00 X | 196.00 |
| 3.00 X | 154.00 | 3.00 X | 197.00 |
| 3.00 X | 154.50 | 3.00 X | 198.00 |
| 3.00 X | 155.00 | 3.00 X | 199.00 |
| 3.00 X | 156.00 | 3.00 X | 199.50 |
| 3.00 X | 157.00 | 3.00 X | 200.00 |
| 3.00 X | 158.00 | 3.00 X | 201.00 |
| 3.00 X | 159.00 | 3.00 X | 202.00 |
| 3.00 X | 159.50 | 3.00 X | 203.00 |
| 3.00 X | 160.00 | 3.00 X | 204.00 |
| 3.00 X | 161.00 | 3.00 X | 204.50 |
| 3.00 X | 162.00 | 3.00 X | 205.00 |
| 3.00 X | 163.00 | 3.00 X | 206.00 |
| 3.00 X | 164.00 | 3.00 X | 207.00 |
| 3.00 X | 164.50 | 3.00 X | 208.00 |
| 3.00 X | 165.00 | 3.00 X | 209.00 |
| 3.00 X | 166.00 | 3.00 X | 209.50 |
| 3.00 X | 167.00 | 3.00 X | 210.00 |
| 3.00 X | 168.00 | 3.00 X | 211.00 |
| 3.00 X | 169.00 | 3.00 X | 212.00 |
| 3.00 X | 169.50 | 3.00 X | 213.00 |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|--------|
| (mm) | (mm) | (mm) | |
| 3.00 X | 214.00 | 3.00 X | 214.00 |
| 3.00 X | 215.00 | 3.00 X | 215.00 |
| 3.00 X | 216.00 | 3.00 X | 216.00 |
| 3.00 X | 217.00 | 3.00 X | 217.00 |
| 3.00 X | 218.00 | 3.00 X | 218.00 |
| 3.00 X | 219.00 | 3.00 X | 219.00 |
| 3.00 X | 219.50 | 3.00 X | 219.50 |
| 3.00 X | 220.00 | 3.00 X | 220.00 |
| 3.00 X | 221.00 | 3.00 X | 221.00 |
| 3.00 X | 222.00 | 3.00 X | 222.00 |
| 3.00 X | 223.00 | 3.00 X | 223.00 |
| 3.00 X | 224.00 | 3.00 X | 224.00 |
| 3.00 X | 225.00 | 3.00 X | 225.00 |
| 3.00 X | 226.00 | 3.00 X | 226.00 |
| 3.00 X | 227.00 | 3.00 X | 227.00 |
| 3.00 X | 228.00 | 3.00 X | 228.00 |
| 3.00 X | 229.00 | 3.00 X | 229.00 |
| 3.00 X | 229.50 | 3.00 X | 229.50 |
| 3.00 X | 230.00 | 3.00 X | 230.00 |
| 3.00 X | 231.00 | 3.00 X | 231.00 |
| 3.00 X | 232.00 | 3.00 X | 232.00 |
| 3.00 X | 233.00 | 3.00 X | 233.00 |
| 3.00 X | 234.00 | 3.00 X | 234.00 |
| 3.00 X | 235.00 | 3.00 X | 235.00 |
| 3.00 X | 236.00 | 3.00 X | 236.00 |
| 3.00 X | 237.00 | 3.00 X | 237.00 |
| 3.00 X | 238.00 | 3.00 X | 238.00 |
| 3.00 X | 239.00 | 3.00 X | 239.00 |
| 3.00 X | 239.50 | 3.00 X | 239.50 |
| 3.00 X | 240.00 | 3.00 X | 240.00 |
| 3.00 X | 241.00 | 3.00 X | 241.00 |
| 3.00 X | 242.00 | 3.00 X | 242.00 |
| 3.00 X | 243.00 | 3.00 X | 243.00 |
| 3.00 X | 244.00 | 3.00 X | 244.00 |
| 3.00 X | 245.00 | 3.00 X | 245.00 |
| 3.00 X | 246.00 | 3.00 X | 246.00 |
| 3.00 X | 247.00 | 3.00 X | 247.00 |
| 3.00 X | 248.00 | 3.00 X | 248.00 |
| 3.00 X | 249.00 | 3.00 X | 249.00 |
| 3.00 X | 249.50 | 3.00 X | 249.50 |
| 3.00 X | 250.00 | 3.00 X | 250.00 |
| 3.00 X | 255.00 | 3.00 X | 255.00 |
| 3.00 X | 259.30 | 3.00 X | 259.30 |
| 3.00 X | 260.00 | 3.00 X | 260.00 |
| 3.00 X | 264.00 | 3.00 X | 264.00 |
| 3.00 X | 270.00 | 3.00 X | 270.00 |
| 3.00 X | 280.00 | 3.00 X | 280.00 |
| 3.00 X | 300.00 | 3.00 X | 300.00 |
| 3.00 X | 315.00 | 3.00 X | 315.00 |
| 3.00 X | 320.00 | 3.00 X | 320.00 |
| 3.00 X | 350.00 | 3.00 X | 350.00 |
| 3.00 X | 440.00 | 3.00 X | 440.00 |
| 3.00 X | 505.00 | 3.00 X | 505.00 |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|--------|
| (mm) | (mm) | (mm) | |
| 3.20 X | 174.00 | 3.20 X | 174.00 |
| 3.20 X | 219.50 | 3.20 X | 219.50 |
| 3.20 X | 227.00 | 3.20 X | 227.00 |
| 3.50 X | 5.00 | 3.50 X | 5.00 |
| 3.50 X | 8.00 | 3.50 X | 8.00 |
| 3.50 X | 9.00 | 3.50 X | 9.00 |
| 3.50 X | 9.20 | 3.50 X | 9.20 |
| 3.50 X | 10.00 | 3.50 X | 10.00 |
| 3.50 X | 11.00 | 3.50 X | 11.00 |
| 3.50 X | 12.00 | 3.50 X | 12.00 |
| 3.50 X | 13.00 | 3.50 X | 13.00 |
| 3.50 X | 14.00 | 3.50 X | 14.00 |
| 3.50 X | 15.00 | 3.50 X | 15.00 |
| 3.50 X | 16.00 | 3.50 X | 16.00 |
| 3.50 X | 17.00 | 3.50 X | 17.00 |
| 3.50 X | 17.50 | 3.50 X | 17.50 |
| 3.50 X | 18.00 | 3.50 X | 18.00 |
| 3.50 X | 19.00 | 3.50 X | 19.00 |
| 3.50 X | 20.00 | 3.50 X | 20.00 |
| 3.50 X | 21.00 | 3.50 X | 21.00 |
| 3.50 X | 21.70 | P22A | P22A |
| 3.50 X | 22.00 | | |
| 3.50 X | 22.10 | P22.4 | P22.4 |
| 3.50 X | 23.00 | | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|------|
| (mm) | (mm) | (mm) | |
| 3.00 X | 518.50 | | |
| 3.10 X | 24.40 | G25 | |
| 3.10 X | 29.40 | G30 | |
| 3.10 X | 34.40 | G35 | |
| 3.10 X | 39.40 | G40 | |
| 3.10 X | 44.40 | G45 | |
| 3.10 X | 49.40 | G50 | |
| 3.10 X | 54.40 | G55 | |
| 3.10 X | 59.40 | G60 | |
| 3.10 X | 64.40 | G65 | |
| 3.10 X | 69.40 | G70 | |
| 3.10 X | 74.40 | G75 | |
| 3.10 X | 79.40 | G80 | |
| 3.10 X | 84.40 | G85 | |
| 3.10 X | 89.40 | G90 | |
| 3.10 X | 94.40 | G95 | |
| 3.10 X | 99.40 | G100 | |
| 3.10 X | 104.40 | G105 | |
| 3.10 X | 109.40 | G110 | |
| 3.10 X | 114.40 | G115 | |
| 3.10 X | 119.40 | G120 | |
| 3.10 X | 124.40 | G125 | |
| 3.10 X | 129.40 | G130 | |
| 3.10 X | 134.40 | G135 | |
| 3.10 X | 139.40 | G140 | |
| 3.10 X | 144.40 | G145 | |



Eagle Rock Specialties, LLC

Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.50 X 23.70 | 24.00 | P24 |
| 3.50 X 24.00 | | |
| 3.50 X 24.70 | 25.00 | P25 |
| 3.50 X 25.00 | | |
| 3.50 X 25.20 | 25.50 | P25.5 |
| 3.50 X 25.70 | 26.00 | P26 |
| 3.50 X 26.00 | | |
| 3.50 X 27.00 | | |
| 3.50 X 27.70 | 28.00 | P28 |
| 3.50 X 28.00 | | |
| 3.50 X 28.70 | 29.00 | P29 |
| 3.50 X 29.00 | | |
| 3.50 X 29.20 | 29.50 | P29.5 |
| 3.50 X 29.70 | 30.00 | P30 |
| 3.50 X 30.00 | | |
| 3.50 X 30.50 | | |
| 3.50 X 30.70 | 31.00 | P31 |
| 3.50 X 31.00 | | |
| 3.50 X 31.20 | 31.50 | P31.5 |
| 3.50 X 31.70 | 32.00 | P32 |
| 3.50 X 32.00 | | |
| 3.50 X 33.00 | | |
| 3.50 X 33.70 | 34.00 | P34 |
| 3.50 X 34.00 | | |
| 3.50 X 34.70 | 35.00 | P35 |
| 3.50 X 35.00 | | |
| 3.50 X 35.20 | 35.50 | P35.5 |
| 3.50 X 35.70 | 36.00 | P36 |
| 3.50 X 36.00 | | |
| 3.50 X 37.00 | | |
| 3.50 X 37.70 | 38.00 | P38 |
| 3.50 X 38.00 | | |
| 3.50 X 38.70 | 39.00 | P39 |
| 3.50 X 39.00 | | |
| 3.50 X 39.70 | 40.00 | P40 |
| 3.50 X 40.00 | | |
| 3.50 X 40.70 | 41.00 | P41 |
| 3.50 X 41.00 | | |
| 3.50 X 41.70 | 42.00 | P42 |
| 3.50 X 42.00 | | |
| 3.50 X 43.00 | | |
| 3.50 X 43.70 | 44.00 | P44 |
| 3.50 X 44.00 | | |
| 3.50 X 44.70 | 45.00 | P45 |
| 3.50 X 45.00 | | |
| 3.50 X 45.70 | 46.00 | P46 |
| 3.50 X 46.00 | | |
| 3.50 X 47.00 | | |
| 3.50 X 47.70 | 48.00 | P48 |
| 3.50 X 48.00 | | |
| 3.50 X 48.70 | 49.00 | P49 |
| 3.50 X 49.00 | | |
| 3.50 X 49.70 | 50.00 | P50 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.50 X 50.00 | | |
| 3.50 X 51.00 | | |
| 3.50 X 52.00 | | |
| 3.50 X 53.00 | | |
| 3.50 X 54.00 | | |
| 3.50 X 55.00 | | |
| 3.50 X 56.00 | | |
| 3.50 X 57.00 | | |
| 3.50 X 58.00 | | |
| 3.50 X 59.00 | | |
| 3.50 X 60.00 | | |
| 3.50 X 61.00 | | |
| 3.50 X 62.00 | | |
| 3.50 X 63.00 | | |
| 3.50 X 64.00 | | |
| 3.50 X 65.00 | | |
| 3.50 X 66.00 | | |
| 3.50 X 67.00 | | |
| 3.50 X 68.00 | | |
| 3.50 X 69.00 | | |
| 3.50 X 70.00 | | |
| 3.50 X 71.00 | | |
| 3.50 X 72.00 | | |
| 3.50 X 73.00 | | |
| 3.50 X 74.00 | | |
| 3.50 X 75.00 | | |
| 3.50 X 76.00 | | |
| 3.50 X 77.00 | | |
| 3.50 X 78.00 | | |
| 3.50 X 79.00 | | |
| 3.50 X 80.00 | | |
| 3.50 X 81.00 | | |
| 3.50 X 82.00 | | |
| 3.50 X 83.00 | | |
| 3.50 X 84.00 | | |
| 3.50 X 85.00 | | |
| 3.50 X 86.00 | | |
| 3.50 X 87.00 | | |
| 3.50 X 88.00 | | |
| 3.50 X 89.00 | | |
| 3.50 X 90.00 | | |
| 3.50 X 91.00 | | |
| 3.50 X 92.00 | | |
| 3.50 X 93.00 | | |
| 3.50 X 94.00 | | |
| 3.50 X 95.00 | | |
| 3.50 X 96.00 | | |
| 3.50 X 97.00 | | |
| 3.50 X 98.00 | | |
| 3.50 X 99.00 | | |
| 3.50 X 100.00 | | |
| 3.50 X 101.00 | | |
| 3.50 X 102.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.50 X 103.00 | | |
| 3.50 X 104.00 | | |
| 3.50 X 105.00 | | |
| 3.50 X 106.00 | | |
| 3.50 X 107.00 | | |
| 3.50 X 108.00 | | |
| 3.50 X 109.00 | | |
| 3.50 X 110.00 | | |
| 3.50 X 111.00 | | |
| 3.50 X 112.00 | | |
| 3.50 X 113.00 | | |
| 3.50 X 114.00 | | |
| 3.50 X 115.00 | | |
| 3.50 X 116.00 | | |
| 3.50 X 117.00 | | |
| 3.50 X 118.00 | | |
| 3.50 X 119.00 | | |
| 3.50 X 120.00 | | |
| 3.50 X 121.00 | | |
| 3.50 X 122.00 | | |
| 3.50 X 123.00 | | |
| 3.50 X 124.00 | | |
| 3.50 X 125.00 | | |
| 3.50 X 126.00 | | |
| 3.50 X 127.00 | | |
| 3.50 X 128.00 | | |
| 3.50 X 129.00 | | |
| 3.50 X 130.00 | | |
| 3.50 X 131.00 | | |
| 3.50 X 132.00 | | |
| 3.50 X 133.00 | | |
| 3.50 X 134.00 | | |
| 3.50 X 135.00 | | |
| 3.50 X 136.00 | | |
| 3.50 X 137.00 | | |
| 3.50 X 138.00 | | |
| 3.50 X 139.00 | | |
| 3.50 X 140.00 | | |
| 3.50 X 141.00 | | |
| 3.50 X 142.00 | | |
| 3.50 X 143.00 | | |
| 3.50 X 144.00 | | |
| 3.50 X 145.00 | | |
| 3.50 X 146.00 | | |
| 3.50 X 147.00 | | |
| 3.50 X 148.00 | | |
| 3.50 X 149.00 | | |
| 3.50 X 150.00 | | |
| 3.50 X 151.00 | | |
| 3.50 X 152.00 | | |
| 3.50 X 153.00 | | |
| 3.50 X 154.00 | | |
| 3.50 X 155.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.50 X 156.00 | | |
| 3.50 X 157.00 | | |
| 3.50 X 158.00 | | |
| 3.50 X 159.00 | | |
| 3.50 X 160.00 | | |
| 3.50 X 161.00 | | |
| 3.50 X 162.00 | | |
| 3.50 X 163.00 | | |
| 3.50 X 164.00 | | |
| 3.50 X 165.00 | | |
| 3.50 X 166.00 | | |
| 3.50 X 167.00 | | |
| 3.50 X 168.00 | | |
| 3.50 X 169.00 | | |
| 3.50 X 170.00 | | |
| 3.50 X 171.00 | | |
| 3.50 X 172.00 | | |
| 3.50 X 173.00 | | |
| 3.50 X 174.00 | | |
| 3.50 X 175.00 | | |
| 3.50 X 176.00 | | |
| 3.50 X 177.00 | | |
| 3.50 X 178.00 | | |
| 3.50 X 179.00 | | |
| 3.50 X 180.00 | | |
| 3.50 X 181.00 | | |
| 3.50 X 182.00 | | |
| 3.50 X 183.00 | | |
| 3.50 X 184.00 | | |
| 3.50 X 185.00 | | |
| 3.50 X 186.00 | | |
| 3.50 X 187.00 | | |
| 3.50 X 188.00 | | |
| 3.50 X 189.00 | | |
| 3.50 X 190.00 | | |
| 3.50 X 191.00 | | |
| 3.50 X 192.00 | | |
| 3.50 X 193.00 | | |
| 3.50 X 194.00 | | |
| 3.50 X 195.00 | | |
| 3.50 X 196.00 | | |
| 3.50 X 197.00 | | |
| 3.50 X 198.00 | | |
| 3.50 X 199.00 | | |
| 3.50 X 200.00 | | |
| 3.50 X 201.00 | | |
| 3.50 X 202.00 | | |
| 3.50 X 203.00 | | |
| 3.50 X 204.00 | | |
| 3.50 X 205.00 | | |
| 3.50 X 206.00 | | |
| 3.50 X 207.00 | | |
| 3.50 X 208.00 | | |



Metric O-Rings (Continued)

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|------|
| (mm) | (mm) | (mm) | |
| 3.50 X 209.00 | | | |
| 3.50 X 210.00 | | | |
| 3.50 X 211.00 | | | |
| 3.50 X 212.00 | | | |
| 3.50 X 213.00 | | | |
| 3.50 X 214.00 | | | |
| 3.50 X 215.00 | | | |
| 3.50 X 216.00 | | | |
| 3.50 X 217.00 | | | |
| 3.50 X 218.00 | | | |
| 3.50 X 219.00 | | | |
| 3.50 X 220.00 | | | |
| 3.50 X 221.00 | | | |
| 3.50 X 222.00 | | | |
| 3.50 X 223.00 | | | |
| 3.50 X 224.00 | | | |
| 3.50 X 225.00 | | | |
| 3.50 X 226.00 | | | |
| 3.50 X 227.00 | | | |
| 3.50 X 228.00 | | | |
| 3.50 X 229.00 | | | |
| 3.50 X 230.00 | | | |
| 3.50 X 231.00 | | | |
| 3.50 X 232.00 | | | |
| 3.50 X 233.00 | | | |
| 3.50 X 234.00 | | | |
| 3.50 X 235.00 | | | |
| 3.50 X 236.00 | | | |
| 3.50 X 237.00 | | | |
| 3.50 X 238.00 | | | |
| 3.50 X 239.00 | | | |
| 3.50 X 240.00 | | | |
| 3.50 X 241.00 | | | |
| 3.50 X 242.00 | | | |
| 3.50 X 243.00 | | | |
| 3.50 X 244.00 | | | |
| 3.50 X 245.00 | | | |
| 3.50 X 246.00 | | | |
| 3.50 X 247.00 | | | |
| 3.50 X 248.00 | | | |
| 3.50 X 249.00 | | | |
| 3.50 X 250.00 | | | |
| 3.50 X 251.00 | | | |
| 3.50 X 252.00 | | | |
| 3.50 X 253.00 | | | |
| 3.50 X 254.00 | | | |
| 3.50 X 255.00 | | | |
| 3.50 X 256.00 | | | |
| 3.50 X 257.00 | | | |
| 3.50 X 258.00 | | | |
| 3.50 X 259.00 | | | |
| 3.50 X 260.00 | | | |
| 3.50 X 261.00 | | | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|------|
| (mm) | (mm) | (mm) | |
| 3.50 X 262.00 | | | |
| 3.50 X 263.00 | | | |
| 3.50 X 264.00 | | | |
| 3.50 X 265.00 | | | |
| 3.50 X 266.00 | | | |
| 3.50 X 267.00 | | | |
| 3.50 X 268.00 | | | |
| 3.50 X 269.00 | | | |
| 3.50 X 270.00 | | | |
| 3.50 X 271.00 | | | |
| 3.50 X 272.00 | | | |
| 3.50 X 273.00 | | | |
| 3.50 X 274.00 | | | |
| 3.50 X 275.00 | | | |
| 3.50 X 276.00 | | | |
| 3.50 X 277.00 | | | |
| 3.50 X 278.00 | | | |
| 3.50 X 279.00 | | | |
| 3.50 X 280.00 | | | |
| 3.50 X 281.00 | | | |
| 3.50 X 282.00 | | | |
| 3.50 X 283.00 | | | |
| 3.50 X 284.00 | | | |
| 3.50 X 285.00 | | | |
| 3.50 X 286.00 | | | |
| 3.50 X 287.00 | | | |
| 3.50 X 288.00 | | | |
| 3.50 X 289.00 | | | |
| 3.50 X 290.00 | | | |
| 3.50 X 291.00 | | | |
| 3.50 X 292.00 | | | |
| 3.50 X 293.00 | | | |
| 3.50 X 294.00 | | | |
| 3.50 X 295.00 | | | |
| 3.50 X 296.00 | | | |
| 3.50 X 297.00 | | | |
| 3.50 X 298.00 | | | |
| 3.50 X 299.00 | | | |
| 3.50 X 300.00 | | | |
| 3.50 X 301.00 | | | |
| 3.50 X 302.00 | | | |
| 3.50 X 303.00 | | | |
| 3.50 X 304.00 | | | |
| 3.50 X 305.00 | | | |
| 3.50 X 306.00 | | | |
| 3.50 X 307.00 | | | |
| 3.50 X 308.00 | | | |
| 3.50 X 309.00 | | | |
| 3.50 X 310.00 | | | |
| 3.50 X 311.00 | | | |
| 3.50 X 312.00 | | | |
| 3.50 X 313.00 | | | |
| 3.50 X 314.00 | | | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|------|
| (mm) | (mm) | (mm) | |
| 3.50 X 315.00 | | | |
| 3.50 X 316.00 | | | |
| 3.50 X 317.00 | | | |
| 3.50 X 318.00 | | | |
| 3.50 X 319.00 | | | |
| 3.50 X 320.00 | | | |
| 3.50 X 321.00 | | | |
| 3.50 X 322.00 | | | |
| 3.50 X 323.00 | | | |
| 3.50 X 324.00 | | | |
| 3.50 X 325.00 | | | |
| 3.50 X 326.00 | | | |
| 3.50 X 327.00 | | | |
| 3.50 X 328.00 | | | |
| 3.50 X 329.00 | | | |
| 3.50 X 330.00 | | | |
| 3.50 X 331.00 | | | |
| 3.50 X 332.00 | | | |
| 3.50 X 333.00 | | | |
| 3.50 X 334.00 | | | |
| 3.50 X 335.00 | | | |
| 3.50 X 336.00 | | | |
| 3.50 X 337.00 | | | |
| 3.50 X 338.00 | | | |
| 3.50 X 339.00 | | | |
| 3.50 X 340.00 | | | |
| 3.50 X 341.00 | | | |
| 3.50 X 342.00 | | | |
| 3.50 X 343.00 | | | |
| 3.50 X 344.00 | | | |
| 3.50 X 345.00 | | | |
| 3.50 X 346.00 | | | |
| 3.50 X 347.00 | | | |
| 3.50 X 348.00 | | | |
| 3.50 X 349.00 | | | |
| 3.50 X 350.00 | | | |
| 3.50 X 351.00 | | | |
| 3.50 X 352.00 | | | |
| 3.50 X 353.00 | | | |
| 3.50 X 354.00 | | | |
| 3.50 X 355.00 | | | |
| 3.50 X 356.00 | | | |
| 3.50 X 357.00 | | | |
| 3.50 X 358.00 | | | |
| 3.50 X 359.00 | | | |
| 3.50 X 360.00 | | | |
| 3.50 X 361.00 | | | |
| 3.50 X 362.00 | | | |
| 3.50 X 363.00 | | | |
| 3.50 X 364.00 | | | |
| 3.50 X 365.00 | | | |
| 3.50 X 366.00 | | | |
| 3.50 X 367.00 | | | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS | REF. |
|---------------|-----------------|------------|------|
| (mm) | (mm) | (mm) | |
| 3.50 X 368.00 | | | |
| 3.50 X 369.00 | | | |
| 3.50 X 370.00 | | | |
| 3.50 X 371.00 | | | |
| 3.50 X 372.00 | | | |
| 3.50 X 373.00 | | | |
| 3.50 X 374.00 | | | |
| 3.50 X 375.00 | | | |
| 3.50 X 376.00 | | | |
| 3.50 X 377.00 | | | |
| 3.50 X 378.00 | | | |
| 3.50 X 379.00 | | | |
| 3.50 X 380.00 | | | |
| 3.50 X 381.00 | | | |
| 3.50 X 382.00 | | | |
| 3.50 X 383.00 | | | |
| 3.50 X 384.00 | | | |
| 3.50 X 385.00 | | | |
| 3.50 X 386.00 | | | |
| 3.50 X 387.00 | | | |
| 3.50 X 388.00 | | | |
| 3.50 X 389.00 | | | |
| 3.50 X 390.00 | | | |
| 3.50 X 391.00 | | | |
| 3.50 X 392.00 | | | |
| 3.50 X 393.00 | | | |
| 3.50 X 394.00 | | | |
| 3.50 X 395.00 | | | |
| 3.50 X 396.00 | | | |
| 3.50 X 397.00 | | | |
| 3.50 X 398.00 | | | |
| 3.50 X 399.00 | | | |
| 3.50 X 400.00 | | | |
| 3.50 X 401.00 | | | |
| 3.50 X 402.00 | | | |
| 3.50 X 403.00 | | | |
| 3.50 X 404.00 | | | |
| 3.50 X 405.00 | | | |
| 3.50 X 406.00 | | | |
| 3.50 X 407.00 | | | |
| 3.50 X 408.00 | | | |
| 3.50 X 409.00 | | | |
| 3.50 X 410.00 | | | |
| 3.50 X 411.00 | | | |
| 3.50 X 412.00 | | | |
| 3.50 X 413.00 | | | |
| 3.50 X 414.00 | | | |
| 3.50 X 415.00 | | | |
| 3.50 X 416.00 | | | |
| 3.50 X 417.00 | | | |
| 3.50 X 418.00 | | | |
| 3.50 X 419.00 | | | |
| 3.50 X 420.00 | | | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE REF. |
|--------------------|----------------------|-----------|
| 3.50 X 421.00 | | |
| 3.50 X 422.00 | | |
| 3.50 X 423.00 | | |
| 3.50 X 424.00 | | |
| 3.50 X 425.00 | | |
| 3.50 X 426.00 | | |
| 3.50 X 427.00 | | |
| 3.50 X 428.00 | | |
| 3.50 X 429.00 | | |
| 3.50 X 430.00 | | |
| 3.50 X 431.00 | | |
| 3.50 X 432.00 | | |
| 3.50 X 433.00 | | |
| 3.50 X 434.00 | | |
| 3.50 X 435.00 | | |
| 3.50 X 436.00 | | |
| 3.50 X 437.00 | | |
| 3.50 X 438.00 | | |
| 3.50 X 439.00 | | |
| 3.50 X 440.00 | | |
| 3.53 X 4.34 -201 | | |
| 3.53 X 5.94 -202 | | |
| 3.53 X 7.52 -203 | | |
| 3.53 X 9.12 -204 | | |
| 3.53 X 10.69 -205 | | |
| 3.53 X 12.29 -206 | | |
| 3.53 X 13.87 -207 | | |
| 3.53 X 15.47 -208 | | |
| 3.53 X 17.04 -209 | | |
| 3.53 X 18.64 -210 | | |
| 3.53 X 20.22 -211 | | |
| 3.53 X 21.82 -212 | | |
| 3.53 X 23.39 -213 | | |
| 3.53 X 24.99 -214 | | |
| 3.53 X 25.80 BS618 | | |
| 3.53 X 26.57 -215 | | |
| 3.53 X 28.17 -216 | | |
| 3.53 X 29.74 -217 | | |
| 3.53 X 31.34 -218 | | |
| 3.53 X 32.92 -219 | | |
| 3.53 X 34.52 -220 | | |
| 3.53 X 36.09 -221 | | |
| 3.53 X 37.69 -222 | | |
| 3.53 X 39.70 BS824 | | |
| 3.53 X 40.87 -223 | | |
| 3.53 X 41.28 BS825 | | |
| 3.53 X 42.86 BS826 | | |
| 3.53 X 44.04 -224 | | |
| 3.53 X 44.45 BS827 | | |
| 3.53 X 46.04 BS828 | | |
| 3.53 X 47.22 -225 | | |
| 3.53 X 47.62 BS829 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE REF. |
|--------------------|----------------------|-----------|
| 3.53 X 49.20 BS830 | | |
| 3.53 X 50.39 -226 | | |
| 3.53 X 50.80 BS831 | | |
| 3.53 X 52.40 BS832 | | |
| 3.53 X 53.57 -227 | | |
| 3.53 X 53.97 BS833 | | |
| 3.53 X 55.56 BS834 | | |
| 3.53 X 56.74 -228 | | |
| 3.53 X 57.15 BS835 | | |
| 3.53 X 58.74 BS836 | | |
| 3.53 X 59.92 -229 | | |
| 3.53 X 60.32 BS837 | | |
| 3.53 X 61.90 BS838 | | |
| 3.53 X 63.09 -230 | | |
| 3.53 X 63.50 BS839 | | |
| 3.53 X 65.10 BS840 | | |
| 3.53 X 66.27 -231 | | |
| 3.53 X 66.67 BS841 | | |
| 3.53 X 68.26 BS842 | | |
| 3.53 X 69.44 -232 | | |
| 3.53 X 69.85 BS843 | | |
| 3.53 X 71.44 BS844 | | |
| 3.53 X 72.62 -233 | | |
| 3.53 X 73.02 BS845 | | |
| 3.53 X 74.60 BS846 | | |
| 3.53 X 75.79 -234 | | |
| 3.53 X 78.97 -235 | | |
| 3.53 X 82.14 -236 | | |
| 3.53 X 85.32 -237 | | |
| 3.53 X 88.49 -238 | | |
| 3.53 X 91.67 -239 | | |
| 3.53 X 94.84 -240 | | |
| 3.53 X 98.02 -241 | | |
| 3.53 X 101.19 -242 | | |
| 3.53 X 104.37 -243 | | |
| 3.53 X 107.54 -244 | | |
| 3.53 X 110.72 -245 | | |
| 3.53 X 113.89 -246 | | |
| 3.53 X 117.07 -247 | | |
| 3.53 X 120.24 -248 | | |
| 3.53 X 123.42 -249 | | |
| 3.53 X 126.59 -250 | | |
| 3.53 X 129.77 -251 | | |
| 3.53 X 132.94 -252 | | |
| 3.53 X 136.12 -253 | | |
| 3.53 X 139.29 -254 | | |
| 3.53 X 142.47 -255 | | |
| 3.53 X 145.64 -256 | | |
| 3.53 X 148.82 -257 | | |
| 3.53 X 151.99 -258 | | |
| 3.53 X 158.34 -259 | | |
| 3.53 X 158.82 | | |
| 3.53 X 164.69 -260 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE REF. |
|--------------------|----------------------|-----------|
| 3.53 X 171.04 -261 | | |
| 3.53 X 177.39 -262 | | |
| 3.53 X 183.74 -263 | | |
| 3.53 X 190.09 -264 | | |
| 3.53 X 196.44 -265 | | |
| 3.53 X 202.79 -266 | | |
| 3.53 X 209.14 -267 | | |
| 3.53 X 215.49 -268 | | |
| 3.53 X 221.84 -269 | | |
| 3.53 X 228.19 -270 | | |
| 3.53 X 234.54 -271 | | |
| 3.53 X 240.89 -272 | | |
| 3.53 X 247.24 -273 | | |
| 3.53 X 253.59 -274 | | |
| 3.53 X 266.29 -275 | | |
| 3.53 X 278.99 -276 | | |
| 3.53 X 291.69 -277 | | |
| 3.53 X 304.39 -278 | | |
| 3.53 X 319.20 | | |
| 3.53 X 329.79 -279 | | |
| 3.53 X 355.19 -280 | | |
| 3.53 X 380.59 -281 | | |
| 3.53 X 405.26 -282 | | |
| 3.53 X 430.66 -283 | | |
| 3.53 X 456.06 -284 | | |
| 3.53 X 18.00 | | |
| 3.53 X 19.00 | | |
| 3.53 X 20.00 | | |
| 3.53 X 21.20 | | |
| 3.53 X 22.40 | | |
| 3.53 X 23.60 | | |
| 3.53 X 25.00 | | |
| 3.53 X 25.80 | | |
| 3.53 X 26.50 | | |
| 3.53 X 28.00 | | |
| 3.53 X 30.00 | | |
| 3.53 X 31.50 | | |
| 3.53 X 32.50 | | |
| 3.53 X 33.50 | | |
| 3.53 X 34.50 | | |
| 3.53 X 35.50 | | |
| 3.53 X 36.50 | | |
| 3.53 X 37.50 | | |
| 3.53 X 38.70 | | |
| 3.53 X 40.00 | | |
| 3.53 X 41.20 | | |
| 3.53 X 42.50 | | |
| 3.53 X 43.70 | | |
| 3.53 X 45.00 | | |
| 3.53 X 46.20 | | |
| 3.53 X 47.50 | | |
| 3.53 X 48.70 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE REF. |
|--------------------|----------------------|-----------|
| 3.55 X 50.00 | | |
| 3.55 X 51.50 | | |
| 3.55 X 53.00 | | |
| 3.55 X 54.50 | | |
| 3.55 X 56.00 | | |
| 3.55 X 58.00 | | |
| 3.55 X 60.00 | | |
| 3.55 X 61.50 | | |
| 3.55 X 63.00 | | |
| 3.55 X 65.00 | | |
| 3.55 X 67.00 | | |
| 3.55 X 69.00 | | |
| 3.55 X 71.00 | | |
| 3.55 X 73.00 | | |
| 3.55 X 75.00 | | |
| 3.55 X 77.50 | | |
| 3.55 X 80.00 | | |
| 3.55 X 82.50 | | |
| 3.55 X 85.00 | | |
| 3.55 X 87.50 | | |
| 3.55 X 90.00 | | |
| 3.55 X 92.50 | | |
| 3.55 X 95.00 | | |
| 3.55 X 97.50 | | |
| 3.55 X 100.00 | | |
| 3.55 X 103.00 | | |
| 3.55 X 106.00 | | |
| 3.55 X 109.00 | | |
| 3.55 X 112.00 | | |
| 3.55 X 115.00 | | |
| 3.55 X 118.00 | | |
| 3.55 X 122.00 | | |
| 3.55 X 125.00 | | |
| 3.55 X 128.00 | | |
| 3.55 X 132.00 | | |
| 3.55 X 136.00 | | |
| 3.55 X 140.00 | | |
| 3.55 X 145.00 | | |
| 3.55 X 150.00 | | |
| 3.55 X 155.00 | | |
| 3.55 X 160.00 | | |
| 3.55 X 165.00 | | |
| 3.55 X 170.00 | | |
| 3.55 X 175.00 | | |
| 3.55 X 180.00 | | |
| 3.55 X 185.00 | | |
| 3.55 X 190.00 | | |
| 3.55 X 195.00 | | |
| 3.55 X 200.00 | | |
| 3.60 X 18.30 | | |
| 3.60 X 19.80 | | |
| 3.60 X 21.30 | | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 3.60 X | 23.00 | |
| 3.60 X | 24.60 | |
| 3.60 X | 26.20 | |
| 3.60 X | 27.80 | |
| 3.60 X | 29.30 | |
| 3.60 X | 30.80 | |
| 3.60 X | 32.50 | |
| 3.60 X | 34.10 | |
| 3.60 X | 35.60 | |
| 3.60 X | 37.30 | |
| 3.60 X | 43.40 | |
| 4.00 X | 4.00 | |
| 4.00 X | 5.00 | |
| 4.00 X | 6.00 | |
| 4.00 X | 7.00 | |
| 4.00 X | 7.60 | |
| 4.00 X | 8.00 | |
| 4.00 X | 9.00 | |
| 4.00 X | 10.00 | |
| 4.00 X | 11.00 | |
| 4.00 X | 12.00 | |
| 4.00 X | 13.00 | |
| 4.00 X | 14.00 | |
| 4.00 X | 14.50 | V15 |
| 4.00 X | 15.00 | |
| 4.00 X | 16.00 | |
| 4.00 X | 17.00 | |
| 4.00 X | 18.00 | |
| 4.00 X | 19.00 | |
| 4.00 X | 20.00 | |
| 4.00 X | 21.00 | |
| 4.00 X | 22.00 | |
| 4.00 X | 23.00 | |
| 4.00 X | 23.50 | V24 |
| 4.00 X | 24.00 | |
| 4.00 X | 25.00 | |
| 4.00 X | 26.00 | |
| 4.00 X | 27.00 | |
| 4.00 X | 28.00 | |
| 4.00 X | 29.00 | |
| 4.00 X | 30.00 | |
| 4.00 X | 31.00 | |
| 4.00 X | 32.00 | |
| 4.00 X | 33.00 | |
| 4.00 X | 33.50 | V34 |
| 4.00 X | 34.00 | |
| 4.00 X | 35.00 | |
| 4.00 X | 36.00 | |
| 4.00 X | 37.00 | |
| 4.00 X | 38.00 | |
| 4.00 X | 39.00 | |
| 4.00 X | 39.50 | V40 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X | 40.00 | |
| 4.00 X | 41.00 | |
| 4.00 X | 42.00 | |
| 4.00 X | 43.00 | |
| 4.00 X | 44.00 | |
| 4.00 X | 45.00 | |
| 4.00 X | 46.00 | |
| 4.00 X | 47.00 | |
| 4.00 X | 48.00 | |
| 4.00 X | 49.00 | |
| 4.00 X | 50.00 | |
| 4.00 X | 51.00 | |
| 4.00 X | 52.00 | |
| 4.00 X | 53.00 | |
| 4.00 X | 54.00 | |
| 4.00 X | 54.50 | V55 |
| 4.00 X | 55.00 | |
| 4.00 X | 56.00 | |
| 4.00 X | 57.00 | |
| 4.00 X | 58.00 | |
| 4.00 X | 59.00 | |
| 4.00 X | 60.00 | |
| 4.00 X | 61.00 | |
| 4.00 X | 62.00 | |
| 4.00 X | 63.00 | |
| 4.00 X | 64.00 | |
| 4.00 X | 65.00 | |
| 4.00 X | 66.00 | |
| 4.00 X | 67.00 | |
| 4.00 X | 68.00 | |
| 4.00 X | 69.00 | V70 |
| 4.00 X | 70.00 | |
| 4.00 X | 71.00 | |
| 4.00 X | 72.00 | |
| 4.00 X | 73.00 | |
| 4.00 X | 74.00 | |
| 4.00 X | 75.00 | |
| 4.00 X | 76.00 | |
| 4.00 X | 77.00 | |
| 4.00 X | 78.00 | |
| 4.00 X | 79.00 | |
| 4.00 X | 80.00 | |
| 4.00 X | 81.00 | |
| 4.00 X | 82.00 | |
| 4.00 X | 83.00 | |
| 4.00 X | 84.00 | V85 |
| 4.00 X | 85.00 | |
| 4.00 X | 86.00 | |
| 4.00 X | 86.50 | |
| 4.00 X | 87.00 | |
| 4.00 X | 88.00 | |
| 4.00 X | 89.00 | |
| 4.00 X | 90.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X | 91.00 | |
| 4.00 X | 92.00 | |
| 4.00 X | 93.00 | |
| 4.00 X | 94.00 | |
| 4.00 X | 95.00 | |
| 4.00 X | 96.00 | |
| 4.00 X | 97.00 | |
| 4.00 X | 98.00 | |
| 4.00 X | 99.00 | V100 |
| 4.00 X | 100.00 | |
| 4.00 X | 101.00 | |
| 4.00 X | 102.00 | |
| 4.00 X | 103.00 | |
| 4.00 X | 104.00 | |
| 4.00 X | 105.00 | |
| 4.00 X | 106.00 | |
| 4.00 X | 107.00 | |
| 4.00 X | 108.00 | |
| 4.00 X | 109.00 | |
| 4.00 X | 110.00 | |
| 4.00 X | 111.00 | |
| 4.00 X | 112.00 | |
| 4.00 X | 113.00 | |
| 4.00 X | 114.00 | |
| 4.00 X | 115.00 | |
| 4.00 X | 116.00 | |
| 4.00 X | 117.00 | |
| 4.00 X | 118.00 | |
| 4.00 X | 119.00 | V120 |
| 4.00 X | 120.00 | |
| 4.00 X | 121.00 | |
| 4.00 X | 122.00 | |
| 4.00 X | 123.00 | |
| 4.00 X | 124.00 | |
| 4.00 X | 125.00 | |
| 4.00 X | 126.00 | |
| 4.00 X | 127.00 | |
| 4.00 X | 128.00 | |
| 4.00 X | 129.00 | |
| 4.00 X | 130.00 | |
| 4.00 X | 131.00 | |
| 4.00 X | 132.00 | |
| 4.00 X | 133.00 | |
| 4.00 X | 134.00 | |
| 4.00 X | 135.00 | |
| 4.00 X | 136.00 | |
| 4.00 X | 137.00 | |
| 4.00 X | 138.00 | |
| 4.00 X | 139.00 | |
| 4.00 X | 140.00 | |
| 4.00 X | 141.00 | |
| 4.00 X | 142.00 | |
| 4.00 X | 143.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X | 144.00 | |
| 4.00 X | 145.00 | |
| 4.00 X | 146.00 | |
| 4.00 X | 147.00 | |
| 4.00 X | 148.00 | |
| 4.00 X | 148.50 | V150 |
| 4.00 X | 149.00 | |
| 4.00 X | 150.00 | |
| 4.00 X | 151.00 | |
| 4.00 X | 152.00 | |
| 4.00 X | 153.00 | |
| 4.00 X | 154.00 | |
| 4.00 X | 155.00 | |
| 4.00 X | 156.00 | |
| 4.00 X | 157.00 | |
| 4.00 X | 158.00 | |
| 4.00 X | 159.00 | |
| 4.00 X | 160.00 | |
| 4.00 X | 161.00 | |
| 4.00 X | 162.00 | |
| 4.00 X | 163.00 | |
| 4.00 X | 164.00 | |
| 4.00 X | 165.00 | |
| 4.00 X | 166.00 | |
| 4.00 X | 167.00 | |
| 4.00 X | 168.00 | |
| 4.00 X | 169.00 | |
| 4.00 X | 170.00 | |
| 4.00 X | 171.00 | |
| 4.00 X | 172.00 | |
| 4.00 X | 173.00 | V175 |
| 4.00 X | 174.00 | |
| 4.00 X | 175.00 | |
| 4.00 X | 176.00 | |
| 4.00 X | 177.00 | |
| 4.00 X | 178.00 | |
| 4.00 X | 179.00 | |
| 4.00 X | 180.00 | |
| 4.00 X | 181.00 | |
| 4.00 X | 182.00 | |
| 4.00 X | 183.00 | |
| 4.00 X | 184.00 | |
| 4.00 X | 185.00 | |
| 4.00 X | 186.00 | |
| 4.00 X | 187.00 | |
| 4.00 X | 188.00 | |
| 4.00 X | 189.00 | |
| 4.00 X | 190.00 | |
| 4.00 X | 191.00 | |
| 4.00 X | 192.00 | |
| 4.00 X | 193.00 | |
| 4.00 X | 194.00 | |
| 4.00 X | 195.00 | |



Eagle Rock Specialties, LLC

Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X 196.00 | | |
| 4.00 X 197.00 | | |
| 4.00 X 198.00 | | |
| 4.00 X 199.00 | | |
| 4.00 X 200.00 | | |
| 4.00 X 201.00 | | |
| 4.00 X 202.00 | | |
| 4.00 X 203.00 | | |
| 4.00 X 204.00 | | |
| 4.00 X 205.00 | | |
| 4.00 X 206.00 | | |
| 4.00 X 207.00 | | |
| 4.00 X 208.00 | | |
| 4.00 X 209.00 | | |
| 4.00 X 210.00 | | |
| 4.00 X 211.00 | | |
| 4.00 X 212.00 | | |
| 4.00 X 213.00 | | |
| 4.00 X 214.00 | | |
| 4.00 X 215.00 | | |
| 4.00 X 216.00 | | |
| 4.00 X 217.00 | | |
| 4.00 X 218.00 | | |
| 4.00 X 219.00 | | |
| 4.00 X 220.00 | | |
| 4.00 X 221.00 | | |
| 4.00 X 222.00 | | |
| 4.00 X 223.00 | | |
| 4.00 X 224.00 | | |
| 4.00 X 225.00 | | |
| 4.00 X 226.00 | | |
| 4.00 X 227.00 | | |
| 4.00 X 228.00 | | |
| 4.00 X 229.00 | | |
| 4.00 X 230.00 | | |
| 4.00 X 231.00 | | |
| 4.00 X 232.00 | | |
| 4.00 X 233.00 | | |
| 4.00 X 234.00 | | |
| 4.00 X 235.00 | | |
| 4.00 X 236.00 | | |
| 4.00 X 237.00 | | |
| 4.00 X 238.00 | | |
| 4.00 X 239.00 | | |
| 4.00 X 240.00 | | |
| 4.00 X 241.00 | | |
| 4.00 X 242.00 | | |
| 4.00 X 243.00 | | |
| 4.00 X 244.00 | | |
| 4.00 X 245.00 | | |
| 4.00 X 246.00 | | |
| 4.00 X 247.00 | | |
| 4.00 X 248.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X 249.00 | | |
| 4.00 X 250.00 | | |
| 4.00 X 251.00 | | |
| 4.00 X 252.00 | | |
| 4.00 X 253.00 | | |
| 4.00 X 254.00 | | |
| 4.00 X 255.00 | | |
| 4.00 X 256.00 | | |
| 4.00 X 257.00 | | |
| 4.00 X 258.00 | | |
| 4.00 X 259.00 | | |
| 4.00 X 260.00 | | |
| 4.00 X 261.00 | | |
| 4.00 X 262.00 | | |
| 4.00 X 263.00 | | |
| 4.00 X 264.00 | | |
| 4.00 X 265.00 | | |
| 4.00 X 266.00 | | |
| 4.00 X 267.00 | | |
| 4.00 X 268.00 | | |
| 4.00 X 269.00 | | |
| 4.00 X 270.00 | | |
| 4.00 X 271.00 | | |
| 4.00 X 272.00 | | |
| 4.00 X 273.00 | | |
| 4.00 X 274.00 | | |
| 4.00 X 275.00 | | |
| 4.00 X 276.00 | | |
| 4.00 X 277.00 | | |
| 4.00 X 278.00 | | |
| 4.00 X 279.00 | | |
| 4.00 X 280.00 | | |
| 4.00 X 281.00 | | |
| 4.00 X 282.00 | | |
| 4.00 X 283.00 | | |
| 4.00 X 284.00 | | |
| 4.00 X 285.00 | | |
| 4.00 X 286.00 | | |
| 4.00 X 287.00 | | |
| 4.00 X 288.00 | | |
| 4.00 X 289.00 | | |
| 4.00 X 290.00 | | |
| 4.00 X 291.00 | | |
| 4.00 X 292.00 | | |
| 4.00 X 293.00 | | |
| 4.00 X 294.00 | | |
| 4.00 X 295.00 | | |
| 4.00 X 296.00 | | |
| 4.00 X 297.00 | | |
| 4.00 X 298.00 | | |
| 4.00 X 299.00 | | |
| 4.00 X 300.00 | | |
| 4.00 X 301.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X 302.00 | | |
| 4.00 X 303.00 | | |
| 4.00 X 304.00 | | |
| 4.00 X 305.00 | | |
| 4.00 X 306.00 | | |
| 4.00 X 307.00 | | |
| 4.00 X 308.00 | | |
| 4.00 X 309.00 | | |
| 4.00 X 310.00 | | |
| 4.00 X 311.00 | | |
| 4.00 X 312.00 | | |
| 4.00 X 313.00 | | |
| 4.00 X 314.00 | | |
| 4.00 X 315.00 | | |
| 4.00 X 316.00 | | |
| 4.00 X 317.00 | | |
| 4.00 X 318.00 | | |
| 4.00 X 319.00 | | |
| 4.00 X 320.00 | | |
| 4.00 X 321.00 | | |
| 4.00 X 322.00 | | |
| 4.00 X 323.00 | | |
| 4.00 X 324.00 | | |
| 4.00 X 325.00 | | |
| 4.00 X 326.00 | | |
| 4.00 X 327.00 | | |
| 4.00 X 328.00 | | |
| 4.00 X 329.00 | | |
| 4.00 X 330.00 | | |
| 4.00 X 331.00 | | |
| 4.00 X 332.00 | | |
| 4.00 X 333.00 | | |
| 4.00 X 334.00 | | |
| 4.00 X 335.00 | | |
| 4.00 X 336.00 | | |
| 4.00 X 337.00 | | |
| 4.00 X 338.00 | | |
| 4.00 X 339.00 | | |
| 4.00 X 340.00 | | |
| 4.00 X 341.00 | | |
| 4.00 X 342.00 | | |
| 4.00 X 343.00 | | |
| 4.00 X 344.00 | | |
| 4.00 X 345.00 | | |
| 4.00 X 346.00 | | |
| 4.00 X 347.00 | | |
| 4.00 X 348.00 | | |
| 4.00 X 349.00 | | |
| 4.00 X 350.00 | | |
| 4.00 X 351.00 | | |
| 4.00 X 352.00 | | |
| 4.00 X 353.00 | | |
| 4.00 X 354.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X 355.00 | | |
| 4.00 X 356.00 | | |
| 4.00 X 357.00 | | |
| 4.00 X 358.00 | | |
| 4.00 X 359.00 | | |
| 4.00 X 360.00 | | |
| 4.00 X 361.00 | | |
| 4.00 X 362.00 | | |
| 4.00 X 363.00 | | |
| 4.00 X 364.00 | | |
| 4.00 X 365.00 | | |
| 4.00 X 366.00 | | |
| 4.00 X 367.00 | | |
| 4.00 X 368.00 | | |
| 4.00 X 369.00 | | |
| 4.00 X 370.00 | | |
| 4.00 X 371.00 | | |
| 4.00 X 372.00 | | |
| 4.00 X 373.00 | | |
| 4.00 X 374.00 | | |
| 4.00 X 375.00 | | |
| 4.00 X 376.00 | | |
| 4.00 X 377.00 | | |
| 4.00 X 378.00 | | |
| 4.00 X 379.00 | | |
| 4.00 X 380.00 | | |
| 4.00 X 381.00 | | |
| 4.00 X 382.00 | | |
| 4.00 X 383.00 | | |
| 4.00 X 384.00 | | |
| 4.00 X 385.00 | | |
| 4.00 X 386.00 | | |
| 4.00 X 387.00 | | |
| 4.00 X 388.00 | | |
| 4.00 X 389.00 | | |
| 4.00 X 390.00 | | |
| 4.00 X 391.00 | | |
| 4.00 X 392.00 | | |
| 4.00 X 393.00 | | |
| 4.00 X 394.00 | | |
| 4.00 X 395.00 | | |
| 4.00 X 396.00 | | |
| 4.00 X 397.00 | | |
| 4.00 X 398.00 | | |
| 4.00 X 399.00 | | |
| 4.00 X 400.00 | | |
| 4.00 X 401.00 | | |
| 4.00 X 402.00 | | |
| 4.00 X 403.00 | | |
| 4.00 X 404.00 | | |
| 4.00 X 405.00 | | |
| 4.00 X 406.00 | | |
| 4.00 X 407.00 | | |



Eagle Rock Specialties, LLC

Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X | 408.00 | |
| 4.00 X | 409.00 | |
| 4.00 X | 410.00 | |
| 4.00 X | 411.00 | |
| 4.00 X | 412.00 | |
| 4.00 X | 413.00 | |
| 4.00 X | 414.00 | |
| 4.00 X | 415.00 | |
| 4.00 X | 416.00 | |
| 4.00 X | 417.00 | |
| 4.00 X | 418.00 | |
| 4.00 X | 419.00 | |
| 4.00 X | 420.00 | |
| 4.00 X | 421.00 | |
| 4.00 X | 422.00 | |
| 4.00 X | 423.00 | |
| 4.00 X | 424.00 | |
| 4.00 X | 425.00 | |
| 4.00 X | 426.00 | |
| 4.00 X | 427.00 | |
| 4.00 X | 428.00 | |
| 4.00 X | 429.00 | |
| 4.00 X | 430.00 | |
| 4.00 X | 431.00 | |
| 4.00 X | 432.00 | |
| 4.00 X | 433.00 | |
| 4.00 X | 434.00 | |
| 4.00 X | 435.00 | |
| 4.00 X | 436.00 | |
| 4.00 X | 437.00 | |
| 4.00 X | 438.00 | |
| 4.00 X | 439.00 | |
| 4.00 X | 440.00 | |
| 4.00 X | 441.00 | |
| 4.00 X | 442.00 | |
| 4.00 X | 443.00 | |
| 4.00 X | 444.00 | |
| 4.00 X | 445.00 | |
| 4.00 X | 446.00 | |
| 4.00 X | 447.00 | |
| 4.00 X | 448.00 | |
| 4.00 X | 449.00 | |
| 4.00 X | 450.00 | |
| 4.00 X | 451.00 | |
| 4.00 X | 452.00 | |
| 4.00 X | 453.00 | |
| 4.00 X | 454.00 | |
| 4.00 X | 455.00 | |
| 4.00 X | 456.00 | |
| 4.00 X | 457.00 | |
| 4.00 X | 458.00 | |
| 4.00 X | 459.00 | |
| 4.00 X | 460.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.00 X | 461.00 | |
| 4.00 X | 462.00 | |
| 4.00 X | 463.00 | |
| 4.00 X | 464.00 | |
| 4.00 X | 465.00 | |
| 4.00 X | 466.00 | |
| 4.00 X | 467.00 | |
| 4.00 X | 468.00 | |
| 4.00 X | 469.00 | |
| 4.00 X | 470.00 | |
| 4.00 X | 471.00 | |
| 4.00 X | 472.00 | |
| 4.00 X | 473.00 | |
| 4.00 X | 474.00 | |
| 4.00 X | 475.00 | |
| 4.00 X | 476.00 | |
| 4.00 X | 477.00 | |
| 4.00 X | 478.00 | |
| 4.00 X | 479.00 | |
| 4.00 X | 480.00 | |
| 4.00 X | 481.00 | |
| 4.00 X | 482.00 | |
| 4.00 X | 483.00 | |
| 4.00 X | 484.00 | |
| 4.00 X | 485.00 | |
| 4.00 X | 486.00 | |
| 4.00 X | 487.00 | |
| 4.00 X | 488.00 | |
| 4.00 X | 489.00 | |
| 4.00 X | 490.00 | |
| 4.00 X | 491.00 | |
| 4.00 X | 492.00 | |
| 4.00 X | 493.00 | |
| 4.00 X | 494.00 | |
| 4.00 X | 495.00 | |
| 4.00 X | 496.00 | |
| 4.00 X | 497.00 | |
| 4.00 X | 498.00 | |
| 4.00 X | 499.00 | |
| 4.00 X | 500.00 | |
| 4.20 X | 139.00 | |
| 4.50 X | 6.00 | |
| 4.50 X | 8.00 | |
| 4.50 X | 9.00 | |
| 4.50 X | 9.50 | |
| 4.50 X | 10.00 | |
| 4.50 X | 10.50 | |
| 4.50 X | 11.00 | |
| 4.50 X | 12.00 | |
| 4.50 X | 13.00 | |
| 4.50 X | 15.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.50 X | 15.50 | |
| 4.50 X | 16.00 | |
| 4.50 X | 17.00 | |
| 4.50 X | 18.00 | |
| 4.50 X | 19.00 | |
| 4.50 X | 20.00 | |
| 4.50 X | 21.00 | |
| 4.50 X | 21.50 | |
| 4.50 X | 22.00 | |
| 4.50 X | 22.50 | |
| 4.50 X | 23.00 | |
| 4.50 X | 24.00 | |
| 4.50 X | 24.50 | |
| 4.50 X | 25.00 | |
| 4.50 X | 26.00 | |
| 4.50 X | 27.00 | |
| 4.50 X | 27.50 | |
| 4.50 X | 28.00 | |
| 4.50 X | 28.50 | |
| 4.50 X | 29.00 | |
| 4.50 X | 29.50 | |
| 4.50 X | 30.00 | |
| 4.50 X | 31.00 | |
| 4.50 X | 31.50 | |
| 4.50 X | 32.00 | |
| 4.50 X | 33.00 | |
| 4.50 X | 34.00 | |
| 4.50 X | 34.50 | |
| 4.50 X | 35.00 | |
| 4.50 X | 35.50 | |
| 4.50 X | 36.00 | |
| 4.50 X | 37.00 | |
| 4.50 X | 37.50 | |
| 4.50 X | 38.00 | |
| 4.50 X | 39.00 | |
| 4.50 X | 40.00 | |
| 4.50 X | 40.50 | |
| 4.50 X | 41.00 | |
| 4.50 X | 42.00 | |
| 4.50 X | 43.00 | |
| 4.50 X | 44.00 | |
| 4.50 X | 45.00 | |
| 4.50 X | 46.00 | |
| 4.50 X | 47.00 | |
| 4.50 X | 48.00 | |
| 4.50 X | 49.00 | |
| 4.50 X | 50.00 | |
| 4.50 X | 51.00 | |
| 4.50 X | 53.00 | |
| 4.50 X | 56.00 | |
| 4.50 X | 57.00 | |
| 4.50 X | 60.00 | |
| 4.50 X | 61.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.50 X | 62.00 | |
| 4.50 X | 63.00 | |
| 4.50 X | 64.00 | |
| 4.50 X | 65.00 | |
| 4.50 X | 66.00 | |
| 4.50 X | 68.00 | |
| 4.50 X | 69.00 | |
| 4.50 X | 70.00 | |
| 4.50 X | 71.00 | |
| 4.50 X | 73.00 | |
| 4.50 X | 74.00 | |
| 4.50 X | 75.00 | |
| 4.50 X | 76.00 | |
| 4.50 X | 80.00 | |
| 4.50 X | 81.00 | |
| 4.50 X | 83.00 | |
| 4.50 X | 85.00 | |
| 4.50 X | 86.00 | |
| 4.50 X | 89.00 | |
| 4.50 X | 90.00 | |
| 4.50 X | 92.00 | |
| 4.50 X | 93.50 | |
| 4.50 X | 95.00 | |
| 4.50 X | 97.50 | |
| 4.50 X | 98.00 | |
| 4.50 X | 99.50 | |
| 4.50 X | 100.00 | |
| 4.50 X | 100.50 | |
| 4.50 X | 101.00 | |
| 4.50 X | 103.50 | |
| 4.50 X | 105.00 | |
| 4.50 X | 106.00 | |
| 4.50 X | 110.00 | |
| 4.50 X | 115.00 | |
| 4.50 X | 118.00 | |
| 4.50 X | 120.00 | |
| 4.50 X | 122.00 | |
| 4.50 X | 124.00 | |
| 4.50 X | 126.00 | |
| 4.50 X | 128.00 | |
| 4.50 X | 130.00 | |
| 4.50 X | 131.50 | |
| 4.50 X | 134.50 | |
| 4.50 X | 137.00 | |
| 4.50 X | 140.00 | |
| 4.50 X | 140.50 | |
| 4.50 X | 150.00 | |
| 4.50 X | 153.00 | |
| 4.50 X | 155.00 | |
| 4.50 X | 157.00 | |
| 4.50 X | 160.00 | |
| 4.50 X | 165.00 | |
| 4.50 X | 172.00 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 4.50 X 178.00 | | |
| 4.50 X 180.00 | | |
| 4.50 X 185.00 | | |
| 4.50 X 186.00 | | |
| 4.50 X 189.50 | | |
| 4.50 X 192.00 | | |
| 4.50 X 208.00 | | |
| 4.50 X 215.00 | | |
| 4.50 X 218.50 | | |
| 4.50 X 225.00 | | |
| 4.50 X 227.00 | | |
| 4.50 X 250.00 | | |
| 4.50 X 267.00 | | |
| 4.50 X 280.00 | | |
| 4.50 X 315.00 | | |
| 4.76 X 7.93 | | |
| 5.00 X 4.00 | | |
| 5.00 X 5.00 | | |
| 5.00 X 6.00 | | |
| 5.00 X 7.00 | | |
| 5.00 X 8.00 | | |
| 5.00 X 9.00 | | |
| 5.00 X 10.00 | | |
| 5.00 X 11.00 | | |
| 5.00 X 12.00 | | |
| 5.00 X 13.00 | | |
| 5.00 X 14.00 | | |
| 5.00 X 15.00 | | |
| 5.00 X 16.00 | | |
| 5.00 X 17.00 | | |
| 5.00 X 18.00 | | |
| 5.00 X 19.00 | | |
| 5.00 X 20.00 | | |
| 5.00 X 21.00 | | |
| 5.00 X 22.00 | | |
| 5.00 X 23.00 | | |
| 5.00 X 24.00 | | |
| 5.00 X 25.00 | | |
| 5.00 X 26.00 | | |
| 5.00 X 27.00 | | |
| 5.00 X 28.00 | | |
| 5.00 X 29.00 | | |
| 5.00 X 30.00 | | |
| 5.00 X 31.00 | | |
| 5.00 X 32.00 | | |
| 5.00 X 33.00 | | |
| 5.00 X 34.00 | | |
| 5.00 X 35.00 | | |
| 5.00 X 36.00 | | |
| 5.00 X 37.00 | | |
| 5.00 X 38.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.00 X 39.00 | | |
| 5.00 X 40.00 | | |
| 5.00 X 41.00 | | |
| 5.00 X 42.00 | | |
| 5.00 X 43.00 | | |
| 5.00 X 44.00 | | |
| 5.00 X 45.00 | | |
| 5.00 X 46.00 | | |
| 5.00 X 47.00 | | |
| 5.00 X 48.00 | | |
| 5.00 X 49.00 | | |
| 5.00 X 50.00 | | |
| 5.00 X 51.00 | | |
| 5.00 X 52.00 | | |
| 5.00 X 53.00 | | |
| 5.00 X 54.00 | | |
| 5.00 X 55.00 | | |
| 5.00 X 56.00 | | |
| 5.00 X 57.00 | | |
| 5.00 X 58.00 | | |
| 5.00 X 59.00 | | |
| 5.00 X 60.00 | | |
| 5.00 X 61.00 | | |
| 5.00 X 62.00 | | |
| 5.00 X 63.00 | | |
| 5.00 X 64.00 | | |
| 5.00 X 65.00 | | |
| 5.00 X 66.00 | | |
| 5.00 X 67.00 | | |
| 5.00 X 68.00 | | |
| 5.00 X 69.00 | | |
| 5.00 X 70.00 | | |
| 5.00 X 71.00 | | |
| 5.00 X 72.00 | | |
| 5.00 X 73.00 | | |
| 5.00 X 74.00 | | |
| 5.00 X 75.00 | | |
| 5.00 X 76.00 | | |
| 5.00 X 77.00 | | |
| 5.00 X 78.00 | | |
| 5.00 X 79.00 | | |
| 5.00 X 80.00 | | |
| 5.00 X 81.00 | | |
| 5.00 X 82.00 | | |
| 5.00 X 83.00 | | |
| 5.00 X 84.00 | | |
| 5.00 X 85.00 | | |
| 5.00 X 86.00 | | |
| 5.00 X 87.00 | | |
| 5.00 X 88.00 | | |
| 5.00 X 89.00 | | |
| 5.00 X 90.00 | | |
| 5.00 X 91.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.00 X 92.00 | | |
| 5.00 X 93.00 | | |
| 5.00 X 94.00 | | |
| 5.00 X 95.00 | | |
| 5.00 X 96.00 | | |
| 5.00 X 97.00 | | |
| 5.00 X 98.00 | | |
| 5.00 X 99.00 | | |
| 5.00 X 100.00 | | |
| 5.00 X 101.00 | | |
| 5.00 X 102.00 | | |
| 5.00 X 103.00 | | |
| 5.00 X 104.00 | | |
| 5.00 X 105.00 | | |
| 5.00 X 106.00 | | |
| 5.00 X 107.00 | | |
| 5.00 X 108.00 | | |
| 5.00 X 109.00 | | |
| 5.00 X 110.00 | | |
| 5.00 X 111.00 | | |
| 5.00 X 112.00 | | |
| 5.00 X 113.00 | | |
| 5.00 X 114.00 | | |
| 5.00 X 115.00 | | |
| 5.00 X 116.00 | | |
| 5.00 X 117.00 | | |
| 5.00 X 118.00 | | |
| 5.00 X 119.00 | | |
| 5.00 X 120.00 | | |
| 5.00 X 121.00 | | |
| 5.00 X 122.00 | | |
| 5.00 X 123.00 | | |
| 5.00 X 124.00 | | |
| 5.00 X 125.00 | | |
| 5.00 X 126.00 | | |
| 5.00 X 127.00 | | |
| 5.00 X 128.00 | | |
| 5.00 X 129.00 | | |
| 5.00 X 130.00 | | |
| 5.00 X 131.00 | | |
| 5.00 X 132.00 | | |
| 5.00 X 133.00 | | |
| 5.00 X 134.00 | | |
| 5.00 X 135.00 | | |
| 5.00 X 136.00 | | |
| 5.00 X 137.00 | | |
| 5.00 X 138.00 | | |
| 5.00 X 139.00 | | |
| 5.00 X 140.00 | | |
| 5.00 X 141.00 | | |
| 5.00 X 142.00 | | |
| 5.00 X 143.00 | | |
| 5.00 X 144.00 | | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.00 X 145.00 | | |
| 5.00 X 146.00 | | |
| 5.00 X 147.00 | | |
| 5.00 X 148.00 | | |
| 5.00 X 149.00 | | |
| 5.00 X 150.00 | | |
| 5.00 X 151.00 | | |
| 5.00 X 152.00 | | |
| 5.00 X 153.00 | | |
| 5.00 X 154.00 | | |
| 5.00 X 155.00 | | |
| 5.00 X 156.00 | | |
| 5.00 X 157.00 | | |
| 5.00 X 158.00 | | |
| 5.00 X 159.00 | | |
| 5.00 X 160.00 | | |
| 5.00 X 161.00 | | |
| 5.00 X 162.00 | | |
| 5.00 X 163.00 | | |
| 5.00 X 164.00 | | |
| 5.00 X 165.00 | | |
| 5.00 X 166.00 | | |
| 5.00 X 167.00 | | |
| 5.00 X 168.00 | | |
| 5.00 X 169.00 | | |
| 5.00 X 170.00 | | |
| 5.00 X 171.00 | | |
| 5.00 X 172.00 | | |
| 5.00 X 173.00 | | |
| 5.00 X 174.00 | | |
| 5.00 X 175.00 | | |
| 5.00 X 176.00 | | |
| 5.00 X 177.00 | | |
| 5.00 X 178.00 | | |
| 5.00 X 179.00 | | |
| 5.00 X 180.00 | | |
| 5.00 X 181.00 | | |
| 5.00 X 182.00 | | |
| 5.00 X 183.00 | | |
| 5.00 X 184.00 | | |
| 5.00 X 185.00 | | |
| 5.00 X 186.00 | | |
| 5.00 X 187.00 | | |
| 5.00 X 188.00 | | |
| 5.00 X 189.00 | | |
| 5.00 X 190.00 | | |
| 5.00 X 191.00 | | |
| 5.00 X 192.00 | | |
| 5.00 X 193.00 | | |
| 5.00 X 194.00 | | |
| 5.00 X 195.00 | | |
| 5.00 X 196.00 | | |
| 5.00 X 197.00 | | |



Metric O-Rings (Continued)

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS REF. |
|---------------|-----------------|-----------------|
| 5.00 X | 198.00 | |
| 5.00 X | 199.00 | |
| 5.00 X | 200.00 | |
| 5.00 X | 201.00 | |
| 5.00 X | 202.00 | |
| 5.00 X | 203.00 | |
| 5.00 X | 204.00 | |
| 5.00 X | 205.00 | |
| 5.00 X | 206.00 | |
| 5.00 X | 207.00 | |
| 5.00 X | 208.00 | |
| 5.00 X | 209.00 | |
| 5.00 X | 210.00 | |
| 5.00 X | 211.00 | |
| 5.00 X | 212.00 | |
| 5.00 X | 213.00 | |
| 5.00 X | 214.00 | |
| 5.00 X | 215.00 | |
| 5.00 X | 216.00 | |
| 5.00 X | 217.00 | |
| 5.00 X | 218.00 | |
| 5.00 X | 219.00 | |
| 5.00 X | 220.00 | |
| 5.00 X | 221.00 | |
| 5.00 X | 222.00 | |
| 5.00 X | 223.00 | |
| 5.00 X | 224.00 | |
| 5.00 X | 225.00 | |
| 5.00 X | 226.00 | |
| 5.00 X | 227.00 | |
| 5.00 X | 228.00 | |
| 5.00 X | 229.00 | |
| 5.00 X | 230.00 | |
| 5.00 X | 231.00 | |
| 5.00 X | 232.00 | |
| 5.00 X | 233.00 | |
| 5.00 X | 234.00 | |
| 5.00 X | 235.00 | |
| 5.00 X | 236.00 | |
| 5.00 X | 237.00 | |
| 5.00 X | 238.00 | |
| 5.00 X | 239.00 | |
| 5.00 X | 240.00 | |
| 5.00 X | 241.00 | |
| 5.00 X | 242.00 | |
| 5.00 X | 243.00 | |
| 5.00 X | 244.00 | |
| 5.00 X | 245.00 | |
| 5.00 X | 246.00 | |
| 5.00 X | 247.00 | |
| 5.00 X | 248.00 | |
| 5.00 X | 249.00 | |
| 5.00 X | 250.00 | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS REF. |
|---------------|-----------------|-----------------|
| 5.00 X | 251.00 | |
| 5.00 X | 252.00 | |
| 5.00 X | 253.00 | |
| 5.00 X | 254.00 | |
| 5.00 X | 255.00 | |
| 5.00 X | 256.00 | |
| 5.00 X | 257.00 | |
| 5.00 X | 258.00 | |
| 5.00 X | 259.00 | |
| 5.00 X | 260.00 | |
| 5.00 X | 261.00 | |
| 5.00 X | 262.00 | |
| 5.00 X | 263.00 | |
| 5.00 X | 264.00 | |
| 5.00 X | 265.00 | |
| 5.00 X | 266.00 | |
| 5.00 X | 267.00 | |
| 5.00 X | 268.00 | |
| 5.00 X | 269.00 | |
| 5.00 X | 270.00 | |
| 5.00 X | 271.00 | |
| 5.00 X | 272.00 | |
| 5.00 X | 273.00 | |
| 5.00 X | 274.00 | |
| 5.00 X | 275.00 | |
| 5.00 X | 276.00 | |
| 5.00 X | 277.00 | |
| 5.00 X | 278.00 | |
| 5.00 X | 279.00 | |
| 5.00 X | 280.00 | |
| 5.00 X | 281.00 | |
| 5.00 X | 282.00 | |
| 5.00 X | 283.00 | |
| 5.00 X | 284.00 | |
| 5.00 X | 285.00 | |
| 5.00 X | 286.00 | |
| 5.00 X | 287.00 | |
| 5.00 X | 288.00 | |
| 5.00 X | 289.00 | |
| 5.00 X | 290.00 | |
| 5.00 X | 291.00 | |
| 5.00 X | 292.00 | |
| 5.00 X | 293.00 | |
| 5.00 X | 294.00 | |
| 5.00 X | 295.00 | |
| 5.00 X | 296.00 | |
| 5.00 X | 297.00 | |
| 5.00 X | 298.00 | |
| 5.00 X | 299.00 | |
| 5.00 X | 300.00 | |
| 5.00 X | 301.00 | |
| 5.00 X | 302.00 | |
| 5.00 X | 303.00 | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS REF. |
|---------------|-----------------|-----------------|
| 5.00 X | 304.00 | |
| 5.00 X | 305.00 | |
| 5.00 X | 306.00 | |
| 5.00 X | 307.00 | |
| 5.00 X | 308.00 | |
| 5.00 X | 309.00 | |
| 5.00 X | 310.00 | |
| 5.00 X | 311.00 | |
| 5.00 X | 312.00 | |
| 5.00 X | 313.00 | |
| 5.00 X | 314.00 | |
| 5.00 X | 315.00 | |
| 5.00 X | 316.00 | |
| 5.00 X | 317.00 | |
| 5.00 X | 318.00 | |
| 5.00 X | 319.00 | |
| 5.00 X | 320.00 | |
| 5.00 X | 321.00 | |
| 5.00 X | 322.00 | |
| 5.00 X | 323.00 | |
| 5.00 X | 324.00 | |
| 5.00 X | 325.00 | |
| 5.00 X | 326.00 | |
| 5.00 X | 327.00 | |
| 5.00 X | 328.00 | |
| 5.00 X | 329.00 | |
| 5.00 X | 330.00 | |
| 5.00 X | 331.00 | |
| 5.00 X | 332.00 | |
| 5.00 X | 333.00 | |
| 5.00 X | 334.00 | |
| 5.00 X | 335.00 | |
| 5.00 X | 336.00 | |
| 5.00 X | 337.00 | |
| 5.00 X | 338.00 | |
| 5.00 X | 339.00 | |
| 5.00 X | 340.00 | |
| 5.00 X | 341.00 | |
| 5.00 X | 342.00 | |
| 5.00 X | 343.00 | |
| 5.00 X | 344.00 | |
| 5.00 X | 345.00 | |
| 5.00 X | 346.00 | |
| 5.00 X | 347.00 | |
| 5.00 X | 348.00 | |
| 5.00 X | 349.00 | |
| 5.00 X | 350.00 | |
| 5.00 X | 351.00 | |
| 5.00 X | 352.00 | |
| 5.00 X | 353.00 | |
| 5.00 X | 354.00 | |
| 5.00 X | 355.00 | |
| 5.00 X | 356.00 | |

| CROSS SECTION | INSIDE DIAMETER | SIZE CROSS REF. |
|---------------|-----------------|-----------------|
| 5.00 X | 357.00 | |
| 5.00 X | 358.00 | |
| 5.00 X | 359.00 | |
| 5.00 X | 360.00 | |
| 5.00 X | 361.00 | |
| 5.00 X | 362.00 | |
| 5.00 X | 363.00 | |
| 5.00 X | 364.00 | |
| 5.00 X | 365.00 | |
| 5.00 X | 366.00 | |
| 5.00 X | 367.00 | |
| 5.00 X | 368.00 | |
| 5.00 X | 369.00 | |
| 5.00 X | 370.00 | |
| 5.00 X | 371.00 | |
| 5.00 X | 372.00 | |
| 5.00 X | 373.00 | |
| 5.00 X | 374.00 | |
| 5.00 X | 375.00 | |
| 5.00 X | 376.00 | |
| 5.00 X | 377.00 | |
| 5.00 X | 378.00 | |
| 5.00 X | 379.00 | |
| 5.00 X | 380.00 | |
| 5.00 X | 381.00 | |
| 5.00 X | 382.00 | |
| 5.00 X | 383.00 | |
| 5.00 X | 384.00 | |
| 5.00 X | 385.00 | |
| 5.00 X | 386.00 | |
| 5.00 X | 387.00 | |
| 5.00 X | 388.00 | |
| 5.00 X | 389.00 | |
| 5.00 X | 390.00 | |
| 5.00 X | 391.00 | |
| 5.00 X | 392.00 | |
| 5.00 X | 393.00 | |
| 5.00 X | 394.00 | |
| 5.00 X | 395.00 | |
| 5.00 X | 396.00 | |
| 5.00 X | 397.00 | |
| 5.00 X | 398.00 | |
| 5.00 X | 399.00 | |
| 5.00 X | 400.00 | |
| 5.00 X | 415.00 | |
| 5.00 X | 460.00 | |
| 5.00 X | 470.00 | |
| 5.30 X | 40.00 | |
| 5.30 X | 41.20 | |
| 5.30 X | 41.40 | |
| 5.30 X | 42.50 | |
| 5.30 X | 43.70 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.30 X | 45.00 | |
| 5.30 X | 46.20 | |
| 5.30 X | 47.50 | |
| 5.30 X | 48.70 | |
| 5.30 X | 50.00 | |
| 5.30 X | 51.50 | |
| 5.30 X | 53.00 | |
| 5.30 X | 54.40 | |
| 5.30 X | 54.50 | |
| 5.30 X | 56.00 | |
| 5.30 X | 58.00 | |
| 5.30 X | 60.00 | |
| 5.30 X | 61.50 | |
| 5.30 X | 63.00 | |
| 5.30 X | 65.00 | |
| 5.30 X | 67.00 | |
| 5.30 X | 69.00 | |
| 5.30 X | 71.00 | |
| 5.30 X | 73.00 | |
| 5.30 X | 75.00 | |
| 5.30 X | 77.50 | |
| 5.30 X | 80.00 | |
| 5.30 X | 82.50 | |
| 5.30 X | 85.00 | |
| 5.30 X | 87.50 | |
| 5.30 X | 90.00 | |
| 5.30 X | 92.50 | |
| 5.30 X | 95.00 | |
| 5.30 X | 97.50 | |
| 5.30 X | 100.00 | |
| 5.30 X | 103.00 | |
| 5.30 X | 106.00 | |
| 5.30 X | 109.00 | |
| 5.30 X | 112.00 | |
| 5.30 X | 115.00 | |
| 5.30 X | 118.00 | |
| 5.30 X | 122.00 | |
| 5.30 X | 125.00 | |
| 5.30 X | 128.00 | |
| 5.30 X | 132.00 | |
| 5.30 X | 136.00 | |
| 5.30 X | 140.00 | |
| 5.30 X | 145.00 | |
| 5.30 X | 150.00 | |
| 5.30 X | 155.00 | |
| 5.30 X | 160.00 | |
| 5.30 X | 165.00 | |
| 5.30 X | 170.00 | |
| 5.30 X | 175.00 | |
| 5.30 X | 180.00 | |
| 5.30 X | 185.00 | |
| 5.30 X | 190.00 | |
| 5.30 X | 195.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.30 X | 200.00 | |
| 5.33 X | 10.46 | -309 |
| 5.33 X | 12.07 | -310 |
| 5.33 X | 13.64 | -311 |
| 5.33 X | 15.24 | -312 |
| 5.33 X | 16.81 | -313 |
| 5.33 X | 18.42 | -314 |
| 5.33 X | 19.99 | -315 |
| 5.33 X | 21.59 | -316 |
| 5.33 X | 23.16 | -317 |
| 5.33 X | 24.77 | -318 |
| 5.33 X | 26.34 | -319 |
| 5.33 X | 27.94 | -320 |
| 5.33 X | 29.51 | -321 |
| 5.33 X | 31.12 | -322 |
| 5.33 X | 32.69 | -323 |
| 5.33 X | 34.29 | -324 |
| 5.33 X | 37.47 | -325 |
| 5.33 X | 40.64 | -326 |
| 5.33 X | 43.82 | -327 |
| 5.33 X | 46.99 | -328 |
| 5.33 X | 50.17 | -329 |
| 5.33 X | 53.34 | -330 |
| 5.33 X | 56.52 | -331 |
| 5.33 X | 59.69 | -332 |
| 5.33 X | 62.87 | -333 |
| 5.33 X | 66.04 | -334 |
| 5.33 X | 69.22 | -335 |
| 5.33 X | 72.39 | -336 |
| 5.33 X | 74.63 | BS619 |
| 5.33 X | 75.57 | -337 |
| 5.33 X | 78.74 | -338 |
| 5.33 X | 79.73 | BS620 |
| 5.33 X | 81.92 | -339 |
| 5.33 X | 85.09 | -340 |
| 5.33 X | 88.27 | -341 |
| 5.33 X | 89.69 | BS621 |
| 5.33 X | 91.44 | -342 |
| 5.33 X | 94.62 | -343 |
| 5.33 X | 97.79 | -344 |
| 5.33 X | 100.00 | BS622 |
| 5.33 X | 100.97 | -345 |
| 5.33 X | 104.14 | -346 |
| 5.33 X | 107.32 | -347 |
| 5.33 X | 109.54 | BS623 |
| 5.33 X | 110.49 | -348 |
| 5.33 X | 113.67 | -349 |
| 5.33 X | 116.84 | -350 |
| 5.33 X | 117.48 | BS860 |
| 5.33 X | 120.02 | -351 |
| 5.33 X | 120.65 | BS861 |
| 5.33 X | 123.19 | -352 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.33 X | 123.83 | BS862 |
| 5.33 X | 126.37 | -353 |
| 5.33 X | 127.00 | BS863 |
| 5.33 X | 129.54 | -354 |
| 5.33 X | 130.18 | BS864 |
| 5.33 X | 132.72 | -355 |
| 5.33 X | 133.35 | BS865 |
| 5.33 X | 135.89 | -356 |
| 5.33 X | 136.53 | BS866 |
| 5.33 X | 139.07 | -357 |
| 5.33 X | 139.70 | BS867 |
| 5.33 X | 142.24 | -358 |
| 5.33 X | 142.88 | BS868 |
| 5.33 X | 145.42 | -359 |
| 5.33 X | 146.05 | BS869 |
| 5.33 X | 148.59 | -360 |
| 5.33 X | 149.23 | BS870 |
| 5.33 X | 151.77 | -361 |
| 5.33 X | 155.00 | BS644 |
| 5.33 X | 158.12 | -362 |
| 5.33 X | 161.30 | BS645 |
| 5.33 X | 164.47 | -363 |
| 5.33 X | 167.70 | BS646 |
| 5.33 X | 170.82 | -364 |
| 5.33 X | 174.00 | BS647 |
| 5.33 X | 177.17 | -365 |
| 5.33 X | 183.52 | -366 |
| 5.33 X | 189.87 | -367 |
| 5.33 X | 196.22 | -368 |
| 5.33 X | 202.57 | -369 |
| 5.33 X | 208.92 | -370 |
| 5.33 X | 215.27 | -371 |
| 5.33 X | 221.62 | -372 |
| 5.33 X | 227.97 | -373 |
| 5.33 X | 234.32 | -374 |
| 5.33 X | 240.67 | -375 |
| 5.33 X | 247.02 | -376 |
| 5.33 X | 253.37 | -377 |
| 5.33 X | 266.07 | -378 |
| 5.33 X | 278.77 | -379 |
| 5.33 X | 291.47 | -380 |
| 5.33 X | 291.69 | |
| 5.33 X | 304.17 | -381 |
| 5.33 X | 329.57 | -382 |
| 5.33 X | 354.97 | -383 |
| 5.33 X | 380.37 | -384 |
| 5.33 X | 405.26 | -385 |
| 5.33 X | 430.66 | -386 |
| 5.33 X | 456.06 | -387 |
| 5.33 X | 481.46 | -388 |
| 5.33 X | 491.49 | |
| 5.33 X | 506.86 | -389 |
| 5.33 X | 532.26 | -390 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.33 X | 557.66 | -391 |
| 5.33 X | 582.68 | -392 |
| 5.33 X | 608.08 | -393 |
| 5.33 X | 633.48 | -394 |
| 5.33 X | 658.88 | -395 |
| 5.33 X | 702.66 | |
| 5.50 X | 34.00 | |
| 5.50 X | 72.00 | |
| 5.50 X | 75.00 | |
| 5.50 X | 145.00 | |
| 5.70 X | 24.20 | |
| 5.70 X | 35.20 | |
| 5.70 X | 36.20 | |
| 5.70 X | 37.20 | |
| 5.70 X | 39.20 | |
| 5.70 X | 41.20 | |
| 5.70 X | 44.20 | |
| 5.70 X | 44.30 | |
| 5.70 X | 45.20 | |
| 5.70 X | 45.30 | |
| 5.70 X | 47.20 | |
| 5.70 X | 47.60 | P48A |
| 5.70 X | 49.20 | |
| 5.70 X | 49.30 | |
| 5.70 X | 49.60 | P50A |
| 5.70 X | 51.20 | |
| 5.70 X | 51.60 | P52 |
| 5.70 X | 52.20 | |
| 5.70 X | 52.30 | |
| 5.70 X | 52.50 | |
| 5.70 X | 52.60 | P53 |
| 5.70 X | 53.00 | |
| 5.70 X | 54.20 | |
| 5.70 X | 54.30 | |
| 5.70 X | 54.60 | P55 |
| 5.70 X | 55.20 | |
| 5.70 X | 55.30 | |
| 5.70 X | 55.60 | P56 |
| 5.70 X | 57.20 | |
| 5.70 X | 57.60 | P58 |
| 5.70 X | 59.20 | |
| 5.70 X | 59.30 | |
| 5.70 X | 59.60 | P60 |
| 5.70 X | 59.70 | |
| 5.70 X | 61.20 | |
| 5.70 X | 61.60 | P62 |
| 5.70 X | 62.00 | |
| 5.70 X | 62.20 | |
| 5.70 X | 62.30 | |
| 5.70 X | 62.60 | P63 |
| 5.70 X | 64.00 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.70 X | 64.20 | |
| 5.70 X | 64.30 | |
| 5.70 X | 64.60 | P65 |
| 5.70 X | 66.60 | P67 |
| 5.70 X | 67.20 | |
| 5.70 X | 67.60 | P68 |
| 5.70 X | 69.00 | |
| 5.70 X | 69.20 | |
| 5.70 X | 69.30 | |
| 5.70 X | 69.60 | P70 |
| 5.70 X | 70.20 | |
| 5.70 X | 70.60 | P71 |
| 5.70 X | 71.20 | |
| 5.70 X | 72.20 | |
| 5.70 X | 72.30 | |
| 5.70 X | 74.00 | |
| 5.70 X | 74.20 | |
| 5.70 X | 74.30 | |
| 5.70 X | 74.60 | P75 |
| 5.70 X | 77.20 | |
| 5.70 X | 79.00 | |
| 5.70 X | 79.20 | |
| 5.70 X | 79.30 | |
| 5.70 X | 79.60 | P80 |
| 5.70 X | 81.20 | |
| 5.70 X | 82.20 | |
| 5.70 X | 84.00 | |
| 5.70 X | 84.10 | |
| 5.70 X | 84.20 | |
| 5.70 X | 84.30 | |
| 5.70 X | 84.60 | P85 |
| 5.70 X | 87.20 | |
| 5.70 X | 89.00 | |
| 5.70 X | 89.10 | |
| 5.70 X | 89.20 | |
| 5.70 X | 89.30 | |
| 5.70 X | 89.60 | P90 |
| 5.70 X | 92.20 | |
| 5.70 X | 94.00 | |
| 5.70 X | 94.10 | |
| 5.70 X | 94.20 | |
| 5.70 X | 94.30 | |
| 5.70 X | 94.60 | P95 |
| 5.70 X | 97.20 | |
| 5.70 X | 99.00 | |
| 5.70 X | 99.10 | |
| 5.70 X | 99.20 | |
| 5.70 X | 99.30 | |
| 5.70 X | 99.60 | P100 |
| 5.70 X | 101.60 | P102 |
| 5.70 X | 104.00 | |
| 5.70 X | 104.10 | |
| 5.70 X | 104.20 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.70 X | 104.30 | |
| 5.70 X | 104.60 | P105 |
| 5.70 X | 109.00 | |
| 5.70 X | 109.10 | |
| 5.70 X | 109.20 | |
| 5.70 X | 109.30 | |
| 5.70 X | 109.60 | P110 |
| 5.70 X | 111.60 | P112 |
| 5.70 X | 114.00 | |
| 5.70 X | 114.20 | |
| 5.70 X | 114.30 | |
| 5.70 X | 114.60 | P115 |
| 5.70 X | 119.00 | |
| 5.70 X | 119.20 | |
| 5.70 X | 119.30 | |
| 5.70 X | 119.50 | |
| 5.70 X | 119.60 | P120 |
| 5.70 X | 124.00 | |
| 5.70 X | 124.30 | |
| 5.70 X | 124.60 | P125 |
| 5.70 X | 125.30 | |
| 5.70 X | 129.20 | |
| 5.70 X | 129.30 | |
| 5.70 X | 129.60 | P130 |
| 5.70 X | 131.60 | P132 |
| 5.70 X | 132.20 | |
| 5.70 X | 133.20 | |
| 5.70 X | 134.20 | |
| 5.70 X | 134.30 | |
| 5.70 X | 134.60 | P135 |
| 5.70 X | 139.20 | |
| 5.70 X | 139.30 | |
| 5.70 X | 139.60 | P140 |
| 5.70 X | 144.20 | |
| 5.70 X | 144.30 | |
| 5.70 X | 144.60 | P145 |
| 5.70 X | 149.20 | |
| 5.70 X | 149.30 | G150 |
| 5.70 X | 149.60 | P150 |
| 5.70 X | 154.30 | G155 |
| 5.70 X | 159.30 | G160 |
| 5.70 X | 164.20 | |
| 5.70 X | 164.30 | G165 |
| 5.70 X | 168.00 | |
| 5.70 X | 169.30 | G170 |
| 5.70 X | 174.20 | |
| 5.70 X | 174.30 | G175 |
| 5.70 X | 179.30 | G180 |
| 5.70 X | 184.30 | G185 |
| 5.70 X | 189.20 | |
| 5.70 X | 189.30 | G190 |
| 5.70 X | 194.20 | |
| 5.70 X | 194.30 | G195 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 5.70 X | 199.20 | |
| 5.70 X | 199.30 | G200 |
| 5.70 X | 204.20 | |
| 5.70 X | 209.20 | |
| 5.70 X | 209.30 | G210 |
| 5.70 X | 219.30 | G220 |
| 5.70 X | 229.30 | G230 |
| 5.70 X | 234.30 | |
| 5.70 X | 239.30 | G240 |
| 5.70 X | 249.30 | G250 |
| 5.70 X | 259.30 | G260 |
| 5.70 X | 269.30 | G270 |
| 5.70 X | 279.30 | G280 |
| 5.70 X | 289.20 | |
| 5.70 X | 289.30 | G290 |
| 5.70 X | 299.30 | G300 |
| 5.70 X | 319.30 | |
| 5.70 X | 329.30 | |
| 5.70 X | 339.30 | |
| 5.70 X | 349.30 | |
| 5.70 X | 359.30 | |
| 5.70 X | 379.30 | |
| 5.70 X | 399.30 | |
| 5.70 X | 419.30 | |
| 5.70 X | 439.30 | |
| 5.70 X | 449.20 | |
| 5.70 X | 459.30 | |
| 5.70 X | 479.30 | |
| 5.70 X | 499.30 | |
| 5.70 X | 519.30 | |
| 5.70 X | 529.30 | |
| 5.70 X | 594.00 | |
| 5.70 X | 594.30 | |
| 5.70 X | 725.00 | |
| 5.80 X | 11.70 | |
| 5.80 X | 218.00 | |
| 6.00 X | 6.00 | |
| 6.00 X | 7.00 | |
| 6.00 X | 9.00 | |
| 6.00 X | 10.00 | |
| 6.00 X | 11.00 | |
| 6.00 X | 12.00 | |
| 6.00 X | 13.00 | |
| 6.00 X | 14.00 | |
| 6.00 X | 15.00 | |
| 6.00 X | 16.00 | |
| 6.00 X | 18.00 | |
| 6.00 X | 19.00 | |
| 6.00 X | 19.50 | |
| 6.00 X | 20.00 | |
| 6.00 X | 21.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 6.00 X | 22.00 | |
| 6.00 X | 23.00 | |
| 6.00 X | 23.50 | |
| 6.00 X | 24.00 | |
| 6.00 X | 25.00 | |
| 6.00 X | 26.00 | |
| 6.00 X | 27.00 | |
| 6.00 X | 28.00 | |
| 6.00 X | 29.00 | |
| 6.00 X | 30.00 | |
| 6.00 X | 31.00 | |
| 6.00 X | 32.00 | |
| 6.00 X | 33.00 | |
| 6.00 X | 34.00 | |
| 6.00 X | 35.00 | |
| 6.00 X | 36.00 | |
| 6.00 X | 37.00 | |
| 6.00 X | 38.00 | |
| 6.00 X | 39.00 | |
| 6.00 X | 39.50 | |
| 6.00 X | 40.00 | |
| 6.00 X | 41.00 | |
| 6.00 X | 41.50 | |
| 6.00 X | 42.00 | |
| 6.00 X | 43.00 | |
| 6.00 X | 44.00 | |
| 6.00 X | 44.50 | |
| 6.00 X | 45.00 | |
| 6.00 X | 46.00 | |
| 6.00 X | 47.00 | |
| 6.00 X | 48.00 | |
| 6.00 X | 49.00 | |
| 6.00 X | 50.00 | |
| 6.00 X | 51.00 | |
| 6.00 X | 52.00 | |
| 6.00 X | 53.00 | |
| 6.00 X | 54.00 | |
| 6.00 X | 55.00 | |
| 6.00 X | 56.00 | |
| 6.00 X | 57.00 | |
| 6.00 X | 58.00 | |
| 6.00 X | 59.50 | |
| 6.00 X | 60.00 | |
| 6.00 X | 61.00 | |
| 6.00 X | 62.00 | |
| 6.00 X | 63.00 | |
| 6.00 X | 64.00 | |
| 6.00 X | 65.00 | |
| 6.00 X | 66.00 | |
| 6.00 X | 67.00 | |
| 6.00 X | 68.00 | |
| 6.00 X | 69.00 | |
| 6.00 X | 70.00 | |



Eagle Rock Specialties, LLC

Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 6.00 X | 72.00 | |
| 6.00 X | 73.00 | |
| 6.00 X | 74.00 | |
| 6.00 X | 75.00 | |
| 6.00 X | 76.00 | |
| 6.00 X | 78.00 | |
| 6.00 X | 78.50 | |
| 6.00 X | 79.00 | |
| 6.00 X | 80.00 | |
| 6.00 X | 81.00 | |
| 6.00 X | 81.50 | |
| 6.00 X | 84.00 | |
| 6.00 X | 85.00 | |
| 6.00 X | 86.00 | |
| 6.00 X | 88.00 | |
| 6.00 X | 90.00 | |
| 6.00 X | 92.00 | |
| 6.00 X | 93.00 | |
| 6.00 X | 95.00 | |
| 6.00 X | 96.00 | |
| 6.00 X | 98.00 | |
| 6.00 X | 99.00 | |
| 6.00 X | 100.00 | |
| 6.00 X | 101.00 | |
| 6.00 X | 103.00 | |
| 6.00 X | 104.00 | |
| 6.00 X | 104.50 | |
| 6.00 X | 105.00 | |
| 6.00 X | 106.00 | |
| 6.00 X | 108.00 | |
| 6.00 X | 110.00 | |
| 6.00 X | 111.00 | |
| 6.00 X | 112.00 | |
| 6.00 X | 114.00 | |
| 6.00 X | 115.00 | |
| 6.00 X | 118.00 | |
| 6.00 X | 120.00 | |
| 6.00 X | 122.00 | |
| 6.00 X | 123.00 | |
| 6.00 X | 124.00 | |
| 6.00 X | 125.00 | |
| 6.00 X | 126.00 | |
| 6.00 X | 128.00 | |
| 6.00 X | 130.00 | |
| 6.00 X | 132.00 | |
| 6.00 X | 134.00 | |
| 6.00 X | 135.00 | |
| 6.00 X | 136.00 | |
| 6.00 X | 138.00 | |
| 6.00 X | 139.20 | |
| 6.00 X | 140.00 | |
| 6.00 X | 142.00 | |
| 6.00 X | 143.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 6.00 X | 145.00 | |
| 6.00 X | 146.00 | |
| 6.00 X | 148.00 | |
| 6.00 X | 150.00 | |
| 6.00 X | 153.00 | |
| 6.00 X | 154.00 | |
| 6.00 X | 155.00 | |
| 6.00 X | 155.50 | |
| 6.00 X | 156.00 | |
| 6.00 X | 157.00 | |
| 6.00 X | 158.00 | |
| 6.00 X | 159.00 | |
| 6.00 X | 160.00 | |
| 6.00 X | 162.00 | |
| 6.00 X | 165.00 | |
| 6.00 X | 166.00 | |
| 6.00 X | 169.00 | |
| 6.00 X | 170.00 | |
| 6.00 X | 172.00 | |
| 6.00 X | 175.00 | |
| 6.00 X | 176.00 | |
| 6.00 X | 180.00 | |
| 6.00 X | 182.00 | |
| 6.00 X | 184.00 | |
| 6.00 X | 185.00 | |
| 6.00 X | 188.00 | |
| 6.00 X | 190.00 | |
| 6.00 X | 191.20 | |
| 6.00 X | 193.00 | |
| 6.00 X | 195.00 | |
| 6.00 X | 196.00 | |
| 6.00 X | 198.00 | |
| 6.00 X | 200.00 | |
| 6.00 X | 201.00 | |
| 6.00 X | 202.00 | |
| 6.00 X | 203.00 | |
| 6.00 X | 203.50 | |
| 6.00 X | 204.00 | |
| 6.00 X | 205.00 | |
| 6.00 X | 206.00 | |
| 6.00 X | 208.00 | |
| 6.00 X | 210.00 | |
| 6.00 X | 212.00 | |
| 6.00 X | 215.00 | |
| 6.00 X | 216.00 | |
| 6.00 X | 217.00 | |
| 6.00 X | 218.00 | |
| 6.00 X | 220.00 | |
| 6.00 X | 221.00 | |
| 6.00 X | 222.50 | V225 |
| 6.00 X | 225.00 | |
| 6.00 X | 226.00 | |
| 6.00 X | 229.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 6.00 X | 230.00 | |
| 6.00 X | 235.00 | |
| 6.00 X | 236.00 | |
| 6.00 X | 237.00 | |
| 6.00 X | 237.50 | |
| 6.00 X | 238.00 | |
| 6.00 X | 240.00 | |
| 6.00 X | 242.00 | |
| 6.00 X | 244.00 | |
| 6.00 X | 247.00 | |
| 6.00 X | 249.00 | |
| 6.00 X | 250.00 | |
| 6.00 X | 258.00 | |
| 6.00 X | 259.00 | |
| 6.00 X | 260.00 | |
| 6.00 X | 262.00 | |
| 6.00 X | 265.00 | |
| 6.00 X | 266.00 | |
| 6.00 X | 270.00 | |
| 6.00 X | 272.00 | V275 |
| 6.00 X | 278.00 | |
| 6.00 X | 280.00 | |
| 6.00 X | 284.00 | |
| 6.00 X | 285.00 | |
| 6.00 X | 288.00 | |
| 6.00 X | 290.00 | |
| 6.00 X | 294.00 | |
| 6.00 X | 295.00 | |
| 6.00 X | 300.00 | |
| 6.00 X | 301.00 | |
| 6.00 X | 305.00 | |
| 6.00 X | 310.00 | |
| 6.00 X | 311.00 | |
| 6.00 X | 315.00 | |
| 6.00 X | 320.00 | |
| 6.00 X | 321.50 | V325 |
| 6.00 X | 324.00 | |
| 6.00 X | 325.00 | |
| 6.00 X | 330.00 | |
| 6.00 X | 333.00 | |
| 6.00 X | 335.00 | |
| 6.00 X | 338.00 | |
| 6.00 X | 340.00 | |
| 6.00 X | 345.00 | |
| 6.00 X | 347.00 | |
| 6.00 X | 348.00 | |
| 6.00 X | 350.00 | |
| 6.00 X | 355.00 | |
| 6.00 X | 360.00 | |
| 6.00 X | 365.00 | |
| 6.00 X | 368.00 | |
| 6.00 X | 370.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|-----------------------|-------------------------|--------------------|
| 6.00 X | 375.00 | |
| 6.00 X | 376.00 | V380 |
| 6.00 X | 380.00 | |
| 6.00 X | 385.00 | |
| 6.00 X | 386.00 | |
| 6.00 X | 388.00 | |
| 6.00 X | 389.00 | |
| 6.00 X | 390.00 | |
| 6.00 X | 392.00 | |
| 6.00 X | 394.00 | |
| 6.00 X | 395.00 | |
| 6.00 X | 398.00 | |
| 6.00 X | 400.00 | |
| 6.00 X | 415.00 | |
| 6.00 X | 422.00 | |
| 6.00 X | 425.50 | V430 |
| 6.00 X | 429.00 | |
| 6.00 X | 446.00 | |
| 6.00 X | 448.00 | |
| 6.00 X | 450.00 | |
| 6.00 X | 453.00 | |
| 6.00 X | 470.00 | |
| 6.00 X | 478.00 | |
| 6.00 X | 480.00 | |
| 6.00 X | 483.00 | |
| 6.00 X | 486.00 | |
| 6.00 X | 489.00 | |
| 6.00 X | 500.00 | |
| 6.00 X | 504.00 | |
| 6.00 X | 505.00 | |
| 6.00 X | 508.00 | |
| 6.00 X | 510.00 | |
| 6.00 X | 516.00 | |
| 6.00 X | 530.00 | |
| 6.00 X | 540.00 | |
| 6.00 X | 544.00 | |
| 6.00 X | 549.00 | |
| 6.00 X | 552.00 | |
| 6.00 X | 555.00 | |
| 6.00 X | 560.00 | |
| 6.00 X | 569.00 | |
| 6.00 X | 575.00 | |
| 6.00 X | 579.00 | |
| 6.20 X | 422.20 | |
| 6.35 X | 610.00 | |
| 6.50 X | 50.00 | |
| 6.50 X | 57.00 | |
| 6.90 X | 422.20 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 6.99 X | 34.29 | -400 |
| 6.99 X | 37.46 | -401 |
| 6.99 X | 40.64 | -402 |
| 6.99 X | 43.81 | -403 |
| 6.99 X | 46.99 | -404 |
| 6.99 X | 50.16 | -405 |
| 6.99 X | 53.34 | -406 |
| 6.99 X | 56.51 | -407 |
| 6.99 X | 59.69 | -408 |
| 6.99 X | 62.86 | -409 |
| 6.99 X | 66.04 | -410 |
| 6.99 X | 69.21 | -411 |
| 6.99 X | 72.39 | -412 |
| 6.99 X | 75.56 | -413 |
| 6.99 X | 78.74 | -414 |
| 6.99 X | 81.91 | -415 |
| 6.99 X | 85.09 | -416 |
| 6.99 X | 88.26 | -417 |
| 6.99 X | 91.44 | -418 |
| 6.99 X | 94.61 | -419 |
| 6.99 X | 97.79 | -420 |
| 6.99 X | 100.96 | -421 |
| 6.99 X | 104.14 | -422 |
| 6.99 X | 107.31 | -423 |
| 6.99 X | 110.49 | -424 |
| 6.99 X | 113.67 | -425 |
| 6.99 X | 114.70 | BS624 |
| 6.99 X | 116.84 | -426 |
| 6.99 X | 120.02 | -427 |
| 6.99 X | 123.19 | -428 |
| 6.99 X | 124.60 | BS625 |
| 6.99 X | 126.37 | -429 |
| 6.99 X | 129.54 | -430 |
| 6.99 X | 132.72 | -431 |
| 6.99 X | 134.50 | BS626 |
| 6.99 X | 135.89 | -432 |
| 6.99 X | 139.07 | -433 |
| 6.99 X | 142.24 | -434 |
| 6.99 X | 145.42 | -435 |
| 6.99 X | 148.59 | -436 |
| 6.99 X | 151.77 | -437 |
| 6.99 X | 155.60 | BS872 |
| 6.99 X | 158.12 | -438 |
| 6.99 X | 159.50 | BS627 |
| 6.99 X | 161.90 | BS874 |
| 6.99 X | 164.47 | -439 |
| 6.99 X | 166.70 | BS628 |
| 6.99 X | 168.30 | BS876 |
| 6.99 X | 170.82 | -440 |
| 6.99 X | 174.60 | BS878 |
| 6.99 X | 177.17 | -441 |
| 6.99 X | 181.00 | BS880 |
| 6.99 X | 183.52 | -442 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 6.99 X | 187.30 | BS882 |
| 6.99 X | 189.87 | -443 |
| 6.99 X | 193.70 | BS884 |
| 6.99 X | 196.22 | -444 |
| 6.99 X | 200.00 | BS886 |
| 6.99 X | 202.57 | -445 |
| 6.99 X | 208.92 | BS674 |
| 6.99 X | 215.27 | -446 |
| 6.99 X | 221.62 | BS676 |
| 6.99 X | 227.97 | -447 |
| 6.99 X | 234.32 | BS678 |
| 6.99 X | 240.67 | -448 |
| 6.99 X | 247.00 | BS680 |
| 6.99 X | 253.37 | -449 |
| 6.99 X | 259.70 | BS682 |
| 6.99 X | 266.07 | -450 |
| 6.99 X | 272.40 | BS684 |
| 6.99 X | 278.77 | -451 |
| 6.99 X | 285.10 | BS686 |
| 6.99 X | 291.47 | -452 |
| 6.99 X | 297.80 | BS688 |
| 6.99 X | 304.17 | -453 |
| 6.99 X | 310.50 | BS648 |
| 6.99 X | 316.87 | -454 |
| 6.99 X | 323.20 | BS649 |
| 6.99 X | 329.57 | -455 |
| 6.99 X | 335.90 | BS650 |
| 6.99 X | 342.27 | -456 |
| 6.99 X | 354.97 | -457 |
| 6.99 X | 367.67 | -458 |
| 6.99 X | 380.37 | -459 |
| 6.99 X | 393.07 | -460 |
| 6.99 X | 405.26 | -461 |
| 6.99 X | 417.96 | -462 |
| 6.99 X | 430.66 | -463 |
| 6.99 X | 443.36 | -464 |
| 6.99 X | 456.06 | -465 |
| 6.99 X | 468.76 | -466 |
| 6.99 X | 481.46 | -467 |
| 6.99 X | 494.16 | -468 |
| 6.99 X | 506.86 | -469 |
| 6.99 X | 532.26 | -470 |
| 6.99 X | 557.66 | -471 |
| 6.99 X | 582.68 | -472 |
| 6.99 X | 608.08 | -473 |
| 6.99 X | 633.48 | -474 |
| 6.99 X | 658.88 | -475 |
| 6.99 X | 675.16 | |
| 7.00 X | 12.00 | |
| 7.00 X | 54.00 | |
| 7.00 X | 60.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 7.00 X | 70.00 | |
| 7.00 X | 75.00 | |
| 7.00 X | 82.00 | |
| 7.00 X | 90.00 | |
| 7.00 X | 95.00 | |
| 7.00 X | 105.00 | |
| 7.00 X | 110.00 | |
| 7.00 X | 192.00 | |
| 7.00 X | 206.00 | |
| 7.00 X | 212.00 | |
| 7.00 X | 218.00 | |
| 7.00 X | 224.00 | |
| 7.00 X | 230.00 | |
| 7.00 X | 236.00 | |
| 7.00 X | 243.00 | |
| 7.00 X | 250.00 | |
| 7.00 X | 250.37 | |
| 7.00 X | 258.00 | |
| 7.00 X | 265.00 | |
| 7.00 X | 272.00 | |
| 7.00 X | 280.00 | |
| 7.00 X | 290.00 | |
| 7.00 X | 300.00 | |
| 7.00 X | 307.00 | |
| 7.00 X | 315.00 | |
| 7.00 X | 325.00 | |
| 7.00 X | 335.00 | |
| 7.00 X | 345.00 | |
| 7.00 X | 355.00 | |
| 7.00 X | 360.00 | |
| 7.00 X | 365.00 | |
| 7.00 X | 375.00 | |
| 7.00 X | 387.00 | |
| 7.00 X | 400.00 | |
| 7.00 X | 412.00 | |
| 7.00 X | 425.00 | |
| 7.00 X | 437.00 | |
| 7.00 X | 450.00 | |
| 7.00 X | 457.20 | |
| 7.00 X | 462.00 | |
| 7.00 X | 475.00 | |
| 7.00 X | 487.00 | |
| 7.00 X | 490.00 | |
| 7.00 X | 494.67 | |
| 7.00 X | 500.00 | |
| 7.00 X | 515.00 | |
| 7.00 X | 530.00 | |
| 7.00 X | 545.00 | |
| 7.00 X | 545.47 | |
| 7.00 X | 560.00 | |
| 7.00 X | 580.00 | |
| 7.00 X | 596.27 | |
| 7.00 X | 600.00 | |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS REF. |
|--------------------|----------------------|-----------------|
| 7.00 X | 615.00 | |
| 7.00 X | 630.00 | |
| 7.00 X | 647.07 | |
| 7.00 X | 650.00 | |
| 7.00 X | 670.00 | |
| 7.00 X | 699.00 | |
| 7.00 X | 724.00 | |
| 7.00 X | 730.50 | |
| 7.00 X | 745.00 | |
| 7.00 X | 760.00 | |
| 7.00 X | 880.00 | |
| 7.50 X | 75.00 | |
| 8.00 X | 25.00 | |
| 8.00 X | 42.00 | |
| 8.00 X | 57.00 | |
| 8.00 X | 60.00 | |
| 8.00 X | 97.00 | |
| 8.00 X | 100.00 | |
| 8.00 X | 108.00 | |
| 8.00 X | 114.00 | |
| 8.00 X | 150.00 | |
| 8.00 X | 160.00 | |
| 8.00 X | 180.00 | |
| 8.00 X | 195.00 | |
| 8.00 X | 216.00 | |
| 8.00 X | 226.00 | |
| 8.00 X | 230.00 | |
| 8.00 X | 240.00 | |
| 8.00 X | 242.00 | |
| 8.00 X | 260.00 | |
| 8.00 X | 265.00 | |
| 8.00 X | 280.00 | |
| 8.00 X | 310.00 | |
| 8.00 X | 326.00 | |
| 8.00 X | 330.00 | |
| 8.00 X | 350.00 | |
| 8.00 X | 360.00 | |
| 8.00 X | 400.00 | |
| 8.00 X | 425.00 | |
| 8.00 X | 450.00 | |
| 8.00 X | 460.00 | |
| 8.00 X | 490.00 | |
| 8.00 X | 500.00 | |
| 8.00 X | 520.00 | |
| 8.00 X | 630.00 | |
| 8.00 X | 638.00 | |
| 8.00 X | 800.00 | |
| 8.30 X | 125.00 | |
| 8.40 X | 144.10 | |



Metric O-Rings (Continued)

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS (mm) | REF. |
|-----------------------|-------------------------|--------------------|-------|
| 8.40 X 149.10 | | | |
| 8.40 X 149.50 | | | P150A |
| 8.40 X 154.10 | | | |
| 8.40 X 154.50 | | | P155 |
| 8.40 X 159.10 | | | |
| 8.40 X 159.50 | | | P160 |
| 8.40 X 164.10 | | | |
| 8.40 X 164.50 | | | P165 |
| 8.40 X 169.10 | | | |
| 8.40 X 169.50 | | | P170 |
| 8.40 X 174.10 | | | |
| 8.40 X 174.50 | | | P175 |
| 8.40 X 179.10 | | | |
| 8.40 X 179.50 | | | P180 |
| 8.40 X 184.10 | | | |
| 8.40 X 184.50 | | | P185 |
| 8.40 X 189.10 | | | |
| 8.40 X 189.50 | | | P190 |
| 8.40 X 194.10 | | | |
| 8.40 X 194.50 | | | P195 |
| 8.40 X 199.10 | | | |
| 8.40 X 199.50 | | | P200 |
| 8.40 X 204.10 | | | |
| 8.40 X 204.50 | | | P205 |
| 8.40 X 208.50 | | | P209 |
| 8.40 X 209.10 | | | |
| 8.40 X 209.50 | | | P210 |
| 8.40 X 214.50 | | | P215 |
| 8.40 X 219.10 | | | |
| 8.40 X 219.50 | | | P220 |
| 8.40 X 224.50 | | | P225 |
| 8.40 X 229.10 | | | |
| 8.40 X 229.50 | | | P230 |
| 8.40 X 234.10 | | | |
| 8.40 X 234.50 | | | P235 |
| 8.40 X 239.10 | | | |
| 8.40 X 239.50 | | | P240 |
| 8.40 X 244.50 | | | P245 |
| 8.40 X 249.10 | | | |
| 8.40 X 249.50 | | | P250 |
| 8.40 X 254.50 | | | P255 |
| 8.40 X 259.50 | | | P260 |
| 8.40 X 264.50 | | | P265 |
| 8.40 X 269.50 | | | P270 |
| 8.40 X 274.50 | | | P275 |
| 8.40 X 279.50 | | | P280 |
| 8.40 X 284.50 | | | P285 |
| 8.40 X 289.50 | | | P290 |
| 8.40 X 294.50 | | | P295 |
| 8.40 X 299.50 | | | P300 |
| 8.40 X 304.00 | | | |
| 8.40 X 314.50 | | | P315 |
| 8.40 X 319.50 | | | P320 |

| CROSS SECTION (mm) | INSIDE DIAMETER (mm) | SIZE CROSS (mm) | REF. |
|-----------------------|-------------------------|--------------------|-------|
| 8.40 X 334.50 | | | P335 |
| 8.40 X 339.50 | | | P340 |
| 8.40 X 354.50 | | | P355 |
| 8.40 X 359.50 | | | P360 |
| 8.40 X 374.50 | | | P375 |
| 8.40 X 375.00 | | | |
| 8.40 X 384.50 | | | P385 |
| 8.40 X 399.50 | | | P400 |
| 9.00 X 75.00 | | | |
| 9.00 X 84.00 | | | |
| 9.00 X 205.00 | | | |
| 9.00 X 316.00 | | | |
| 9.00 X 335.00 | | | |
| 9.00 X 360.00 | | | |
| 9.00 X 402.00 | | | |
| 9.00 X 451.00 | | | |
| 9.00 X 480.00 | | | |
| 9.00 X 545.00 | | | |
| 10.00 X 35.00 | | | |
| 10.00 X 38.00 | | | |
| 10.00 X 92.00 | | | |
| 10.00 X 105.00 | | | |
| 10.00 X 120.00 | | | |
| 10.00 X 140.00 | | | |
| 10.00 X 160.00 | | | |
| 10.00 X 195.00 | | | |
| 10.00 X 205.00 | | | |
| 10.00 X 228.00 | | | |
| 10.00 X 264.00 | | | |
| 10.00 X 270.00 | | | |
| 10.00 X 280.00 | | | |
| 10.00 X 292.00 | | | |
| 10.00 X 300.00 | | | |
| 10.00 X 315.00 | | | |
| 10.00 X 325.00 | | | |
| 10.00 X 330.00 | | | |
| 10.00 X 340.00 | | | |
| 10.00 X 360.00 | | | |
| 10.00 X 380.00 | | | |
| 10.00 X 450.00 | | | |
| 10.00 X 475.00 | | | V480 |
| 10.00 X 524.50 | | | V530 |
| 10.00 X 579.00 | | | V585 |
| 10.00 X 633.50 | | | V640 |
| 10.00 X 683.00 | | | V690 |
| 10.00 X 700.00 | | | |
| 10.00 X 732.50 | | | V740 |
| 10.00 X 782.00 | | | V790 |
| 10.00 X 836.50 | | | V845 |
| 10.00 X 1044.00 | | | V1055 |



Japanese Industrial Standards Dimensional Data

| P Series | | | | | | | | | | G Series | | |
|----------|--------------------|------------------|---------|--------------------|------------------|---------|--------------------|------------------|---------|--------------------|------------------|--|
| JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | |
| P3 | 1.90 | X 2.80 | P48 | 3.50 | X 47.70 | P195 | 8.40 | X 194.50 | G25 | 3.10 | 24.40 | |
| P4 | 1.90 | X 3.80 | P49 | 3.50 | X 48.70 | P200 | 8.40 | X 199.50 | G30 | 3.10 | 29.40 | |
| P5 | 1.90 | X 4.80 | P50 | 3.50 | X 49.70 | P205 | 8.40 | X 204.50 | G35 | 3.10 | 34.40 | |
| P6 | 1.90 | X 5.80 | P48A | 5.70 | X 47.60 | P209 | 8.40 | X 208.50 | G40 | 3.10 | 39.40 | |
| P7 | 1.90 | X 6.80 | P50A | 5.70 | X 49.60 | P210 | 8.40 | X 209.50 | G45 | 3.10 | 44.40 | |
| P8 | 1.90 | X 7.80 | P52 | 5.70 | X 51.60 | P215 | 8.40 | X 214.50 | G50 | 3.10 | 49.40 | |
| P9 | 1.90 | X 8.80 | P53 | 5.70 | X 52.60 | P220 | 8.40 | X 219.50 | G55 | 3.10 | 54.40 | |
| P10 | 1.90 | X 9.80 | P55 | 5.70 | X 54.60 | P225 | 8.40 | X 224.50 | G60 | 3.10 | 59.40 | |
| P10A | 2.40 | X 9.80 | P56 | 5.70 | X 55.60 | P230 | 8.40 | X 229.50 | G65 | 3.10 | 64.40 | |
| P11 | 2.40 | X 10.80 | P58 | 5.70 | X 57.60 | P235 | 8.40 | X 234.50 | G70 | 3.10 | 69.40 | |
| P11.2 | 2.40 | X 11.00 | P60 | 5.70 | X 59.60 | P240 | 8.40 | X 239.50 | G75 | 3.10 | 74.40 | |
| P12 | 2.40 | X 11.80 | P62 | 5.70 | X 61.60 | P245 | 8.40 | X 244.50 | G80 | 3.10 | 79.40 | |
| P12.5 | 2.40 | X 12.30 | P63 | 5.70 | X 62.60 | P250 | 8.40 | X 249.50 | G85 | 3.10 | 84.40 | |
| P14 | 2.40 | X 13.80 | P65 | 5.70 | X 64.60 | P255 | 8.40 | X 254.50 | G90 | 3.10 | 89.40 | |
| P15 | 2.40 | X 14.80 | P67 | 5.70 | X 66.60 | P260 | 8.40 | X 259.50 | G95 | 3.10 | 94.40 | |
| P16 | 2.40 | X 15.80 | P70 | 5.70 | X 69.60 | P265 | 8.40 | X 264.50 | G100 | 3.10 | 99.40 | |
| P18 | 2.40 | X 17.80 | P71 | 5.70 | X 70.60 | P270 | 8.40 | X 269.50 | G105 | 3.10 | 104.40 | |
| P20 | 2.40 | X 19.80 | P75 | 5.70 | X 74.60 | P275 | 8.40 | X 274.50 | G110 | 3.10 | 109.40 | |
| P21 | 2.40 | X 20.80 | P80 | 5.70 | X 79.60 | P280 | 8.40 | X 279.50 | G115 | 3.10 | 114.40 | |
| P22 | 2.40 | X 21.80 | P85 | 5.70 | X 84.60 | P285 | 8.40 | X 284.50 | G120 | 3.10 | 119.40 | |
| P22A | 3.50 | X 21.70 | P90 | 5.70 | X 89.60 | P290 | 8.40 | X 289.50 | G125 | 3.10 | 124.40 | |
| P22.4 | 3.50 | X 22.10 | P95 | 5.70 | X 94.60 | P295 | 8.40 | X 294.50 | G130 | 3.10 | 129.40 | |
| P24 | 3.50 | X 23.70 | P100 | 5.70 | X 99.60 | P300 | 8.40 | X 299.50 | G135 | 3.10 | 134.40 | |
| P25 | 3.50 | X 24.70 | P102 | 5.70 | X 101.60 | P315 | 8.40 | X 314.50 | G140 | 3.10 | 139.40 | |
| P25.5 | 3.50 | X 25.20 | P105 | 5.70 | X 104.60 | P320 | 8.40 | X 319.50 | G145 | 3.10 | 144.40 | |
| P26 | 3.50 | X 25.70 | P110 | 5.70 | X 109.60 | P335 | 8.40 | X 334.50 | G150 | 5.70 | 149.30 | |
| P28 | 3.50 | X 27.70 | P112 | 5.70 | X 111.60 | P340 | 8.40 | X 339.50 | G155 | 5.70 | 154.30 | |
| P29 | 3.50 | X 28.70 | P115 | 5.70 | X 114.60 | P355 | 8.40 | X 354.50 | G160 | 5.70 | 159.30 | |
| P29.5 | 3.50 | X 29.20 | P120 | 5.70 | X 119.60 | P360 | 8.40 | X 359.50 | G165 | 5.70 | 164.30 | |
| P30 | 3.50 | X 29.70 | P125 | 5.70 | X 124.60 | P375 | 8.40 | X 374.50 | G170 | 5.70 | 169.30 | |
| P31 | 3.50 | X 30.70 | P130 | 5.70 | X 129.60 | P385 | 8.40 | X 384.50 | G175 | 5.70 | 174.30 | |
| P31.5 | 3.50 | X 31.20 | P132 | 5.70 | X 131.60 | P400 | 8.40 | X 399.50 | G180 | 5.70 | 179.30 | |
| P32 | 3.50 | X 31.70 | P135 | 5.70 | X 134.60 | | | | G185 | 5.70 | 184.30 | |
| P34 | 3.50 | X 33.70 | P140 | 5.70 | X 139.60 | | | | G190 | 5.70 | 189.30 | |
| P35 | 3.50 | X 34.70 | P145 | 5.70 | X 144.60 | | | | G195 | 5.70 | 194.30 | |
| P35.5 | 3.50 | X 35.20 | P150 | 5.70 | X 149.60 | | | | G200 | 5.70 | 199.30 | |
| P36 | 3.50 | X 35.70 | P150A | 8.40 | X 149.50 | | | | G210 | 5.70 | 209.30 | |
| P38 | 3.50 | X 37.70 | P155 | 8.40 | X 154.50 | | | | G220 | 5.70 | 219.30 | |
| P39 | 3.50 | X 38.70 | P160 | 8.40 | X 159.50 | | | | G230 | 5.70 | 229.30 | |
| P40 | 3.50 | X 39.70 | P165 | 8.40 | X 164.50 | | | | G240 | 5.70 | 239.30 | |
| P41 | 3.50 | X 40.70 | P170 | 8.40 | X 169.50 | | | | G250 | 5.70 | 249.30 | |
| P42 | 3.50 | X 41.70 | P175 | 8.40 | X 174.50 | | | | G260 | 5.70 | 259.30 | |
| P44 | 3.50 | X 43.70 | P180 | 8.40 | X 179.50 | | | | G270 | 5.70 | 269.30 | |
| P45 | 3.50 | X 44.70 | P185 | 8.40 | X 184.50 | | | | G280 | 5.70 | 279.30 | |
| P46 | 3.50 | X 45.70 | P190 | 8.40 | X 189.50 | | | | G290 | 5.70 | 289.30 | |
| | | | | | | | | | G300 | 5.70 | 299.30 | |



Eagle Rock Specialties, LLC

Japanese Industrial Standards Dimensional Data (Continued)

| S Series | | | | V Series | | | | |
|----------|--------------------|------------------|---------|--------------------|------------------|---------|--------------------|------------------|
| JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) | JIS NO. | CROSS SECTION (mm) | INSIDE DIA. (mm) |
| S3 | 1.50 X | 2.50 | S45 | 2.00 X | 44.50 | V15 | 4.00 X | 14.50 |
| S4 | 1.50 X | 3.50 | S46 | 2.00 X | 45.50 | V24 | 4.00 X | 23.50 |
| S5 | 1.50 X | 4.50 | S48 | 2.00 X | 47.50 | V34 | 4.00 X | 33.50 |
| S6 | 1.50 X | 5.50 | S50 | 2.00 X | 49.50 | V40 | 4.00 X | 39.50 |
| S7 | 1.50 X | 6.50 | S53 | 2.00 X | 52.50 | V55 | 4.00 X | 54.50 |
| S8 | 1.50 X | 7.50 | S55 | 2.00 X | 54.50 | V70 | 4.00 X | 69.00 |
| S9 | 1.50 X | 8.50 | S56 | 2.00 X | 55.50 | V85 | 4.00 X | 84.00 |
| S10 | 1.50 X | 9.50 | S60 | 2.00 X | 59.50 | V100 | 4.00 X | 99.00 |
| S11.2 | 1.50 X | 10.70 | S63 | 2.00 X | 62.50 | V120 | 4.00 X | 119.00 |
| S12 | 1.50 X | 11.50 | S65 | 2.00 X | 64.50 | V150 | 4.00 X | 148.50 |
| S12.5 | 1.50 X | 12.00 | S67 | 2.00 X | 66.50 | V175 | 4.00 X | 173.00 |
| S14 | 1.50 X | 13.50 | S70 | 2.00 X | 69.50 | V225 | 6.00 X | 222.50 |
| S15 | 1.50 X | 14.50 | S71 | 2.00 X | 70.50 | V275 | 6.00 X | 272.00 |
| S16 | 1.50 X | 15.50 | S75 | 2.00 X | 74.50 | V325 | 6.00 X | 321.50 |
| S18 | 1.50 X | 17.50 | S80 | 2.00 X | 79.50 | V380 | 6.00 X | 376.00 |
| S20 | 1.50 X | 19.50 | S85 | 2.00 X | 84.50 | V430 | 6.00 X | 425.50 |
| S22 | 1.50 X | 21.50 | S90 | 2.00 X | 89.50 | V480 | 10.00 X | 475.00 |
| S22.4 | 2.00 X | 21.90 | S95 | 2.00 X | 94.50 | V530 | 10.00 X | 524.50 |
| S24 | 2.00 X | 23.50 | S100 | 2.00 X | 99.50 | V585 | 10.00 X | 579.00 |
| S25 | 2.00 X | 24.50 | S105 | 2.00 X | 104.50 | V640 | 10.00 X | 633.50 |
| S26 | 2.00 X | 25.50 | S110 | 2.00 X | 109.50 | V690 | 10.00 X | 683.00 |
| S28 | 2.00 X | 27.50 | S112 | 2.00 X | 111.50 | V740 | 10.00 X | 732.50 |
| S29 | 2.00 X | 28.50 | S115 | 2.00 X | 114.50 | V790 | 10.00 X | 782.00 |
| S30 | 2.00 X | 29.50 | S120 | 2.00 X | 119.50 | V845 | 10.00 X | 836.50 |
| S31.5 | 2.00 X | 31.00 | S125 | 2.00 X | 124.50 | V950 | 10.00 X | 940.50 |
| S32 | 2.00 X | 31.50 | S130 | 2.00 X | 129.50 | V1055 | 10.00 X 1044.00 | |
| S34 | 2.00 X | 33.50 | S132 | 2.00 X | 131.50 | | | |
| S35 | 2.00 X | 34.50 | S135 | 2.00 X | 134.50 | | | |
| S35.5 | 2.00 X | 35.00 | S140 | 2.00 X | 139.50 | | | |
| S36 | 2.00 X | 35.50 | S145 | 2.00 X | 144.50 | | | |
| S38 | 2.00 X | 37.50 | S150 | 2.00 X | 149.50 | | | |
| S39 | 2.00 X | 38.50 | | | | | | |
| S40 | 2.00 X | 39.50 | | | | | | |
| S42 | 2.00 X | 41.50 | | | | | | |
| S43 | 2.00 X | 42.50 | | | | | | |
| S44 | 2.00 X | 43.50 | | | | | | |



Eagle Rock Specialties, LLC

Metric O-Ring Tolerances (DIN 3771, Part 1 and ISO 3601/1)

| INSIDE DIAMETER (mm) | TOLERANCE (mm) |
|----------------------|----------------|
| 1.80 – 2.79 | ± 0.13 |
| 2.80 – 4.86 | ± 0.14 |
| 4.87 – 6.69 | ± 0.15 |
| 6.70 – 8.75 | ± 0.16 |
| 8.76 – 10.59 | ± 0.17 |
| 10.5 – 11.79 | ± 0.18 |
| 11.8 – 14.99 | ± 0.19 |
| 15.0 – 16.99 | ± 0.20 |
| 17.0 – 18.99 | ± 0.21 |
| 19.0 – 21.19 | ± 0.22 |
| 21.2 – 22.39 | ± 0.23 |
| 22.4 – 24.99 | ± 0.24 |
| 25.0 – 25.79 | ± 0.25 |
| 25.8 – 27.99 | ± 0.26 |
| 28.0 – 29.99 | ± 0.28 |
| 30.0 – 31.49 | ± 0.29 |
| 31.5 – 32.49 | ± 0.31 |
| 32.5 – 34.49 | ± 0.32 |
| 34.5 – 35.49 | ± 0.33 |
| 35.5 – 36.49 | ± 0.34 |
| 36.5 – 37.49 | ± 0.35 |
| 37.5 – 38.59 | ± 0.36 |
| 38.7 – 39.99 | ± 0.37 |
| 40.0 – 41.19 | ± 0.38 |
| 41.2 – 42.49 | ± 0.39 |
| 42.5 – 43.69 | ± 0.40 |
| 43.7 – 44.99 | ± 0.41 |
| 45.0 – 46.19 | ± 0.42 |
| 46.2 – 47.49 | ± 0.43 |
| 47.5 – 48.69 | ± 0.44 |
| 48.7 – 49.99 | ± 0.45 |
| 50.0 – 51.49 | ± 0.46 |
| 51.5 – 52.99 | ± 0.47 |
| 53.0 – 54.49 | ± 0.48 |
| 54.5 – 55.99 | ± 0.50 |
| 56.0 – 57.99 | ± 0.51 |
| 58.0 – 59.99 | ± 0.52 |
| 60.0 – 61.49 | ± 0.54 |
| 61.5 – 52.99 | ± 0.55 |
| 63.0 – 64.99 | ± 0.58 |
| 6.50 – 68.99 | ± 0.58 |
| 67.0 – 68.99 | ± 0.59 |
| 69.0 – 70.99 | ± 0.61 |
| 71.0 – 72.99 | ± 0.63 |
| 73.0 – 74.99 | ± 0.64 |

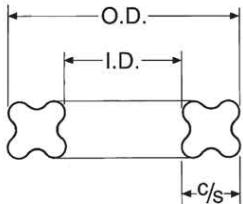
| INSIDE DIAMETER (mm) | TOLERANCE (mm) |
|----------------------|----------------|
| 75.0 – 77.49 | ± 0.66 |
| 77.5 – 79.99 | ± 0.67 |
| 80.0 – 82.49 | ± 0.69 |
| 82.5 – 84.99 | ± 0.71 |
| 85.0 – 87.49 | ± 0.73 |
| 87.5 – 89.99 | ± 0.75 |
| 90.0 – 92.49 | ± 0.77 |
| 92.5 – 94.99 | ± 0.79 |
| 95.0 – 97.49 | ± 0.81 |
| 97.5 – 99.99 | ± 0.83 |
| 100 – 102.9 | ± 0.84 |
| 103 – 105.9 | ± 0.87 |
| 106 – 108.9 | ± 0.89 |
| 109 – 111.9 | ± 0.91 |
| 112 – 114.9 | ± 0.93 |
| 115 – 117.9 | ± 0.95 |
| 118 – 121.9 | ± 0.97 |
| 122 – 124.9 | ± 1.00 |
| 125 – 127.9 | ± 1.03 |
| 128 – 131.9 | ± 1.05 |
| 132 – 135.9 | ± 1.08 |
| 136 – 139.9 | ± 1.10 |
| 140 – 144.9 | ± 1.13 |
| 145 – 149.9 | ± 1.17 |
| 150 – 154.9 | ± 1.20 |
| 155 – 159.9 | ± 1.24 |
| 160 – 164.9 | ± 1.27 |
| 165 – 169.9 | ± 1.31 |
| 170 – 174.9 | ± 1.34 |
| 175 – 179.9 | ± 1.38 |
| 180 – 184.9 | ± 1.41 |
| 185 – 189.9 | ± 1.44 |
| 190 – 194.9 | ± 1.48 |
| 195 – 199.9 | ± 1.51 |
| 200 – 205.9 | ± 1.55 |
| 206 – 211.9 | ± 1.59 |
| 212 – 217.9 | ± 1.63 |
| 218 – 223.9 | ± 1.67 |
| 224 – 229.9 | ± 1.71 |
| 230 – 235.9 | ± 1.75 |
| 238 – 242.9 | ± 1.79 |
| 243 – 249.9 | ± 1.83 |
| 250 – 257.9 | ± 1.88 |
| 258 – 264.9 | ± 1.93 |
| 265 – 271.9 | ± 1.98 |

| INSIDE DIAMETER (mm) | TOLERANCE (mm) |
|----------------------|----------------|
| 272 – 279.9 | ± 2.02 |
| 280 – 289.9 | ± 2.08 |
| 290 – 299.9 | ± 2.14 |
| 300 – 306.9 | ± 2.21 |
| 307 – 314.9 | ± 2.25 |
| 315 – 324.9 | ± 2.30 |
| 325 – 334.9 | ± 2.37 |
| 335 – 344.9 | ± 2.43 |
| 345 – 354.9 | ± 2.49 |
| 355 – 364.9 | ± 2.56 |
| 365 – 374.9 | ± 2.62 |
| 375 – 386.9 | ± 2.68 |
| 387 – 399.9 | ± 2.78 |
| 400 – 411.9 | ± 2.84 |
| 412 – 424.9 | ± 2.91 |
| 425 – 436.9 | ± 2.99 |
| 437 – 449.9 | ± 3.07 |
| 450 – 461.9 | ± 3.15 |
| 462 – 474.9 | ± 3.22 |
| 475 – 486.9 | ± 3.30 |
| 487 – 499.9 | ± 3.37 |
| 500 – 514.9 | ± 3.45 |
| 515 – 529.9 | ± 3.54 |
| 530 – 544.9 | ± 3.63 |
| 545 – 559.9 | ± 3.72 |
| 560 – 579.9 | ± 3.81 |
| 580 – 599.9 | ± 3.93 |
| 600 – 614.9 | ± 4.05 |
| 615 – 629.9 | ± 4.13 |
| 630 – 649.9 | ± 4.22 |
| 650 – 669.9 | ± 4.34 |
| 670 – 689.9 | ± 4.46 |
| ≥ 690 | ± 0.65% |

| CROSS SECTION (mm) | TOLERANCE (mm) |
|--------------------|----------------|
| ≤ 2.62 | ± 0.08 |
| 2.63 – 3.00 | ± 0.09 |
| 3.01 – 4.50 | ± 0.10 |
| 4.51 – 5.50 | ± 0.13 |
| 5.51 – 7.50 | ± 0.15 |
| 7.51 – 8.50 | ± 0.18 |
| 8.51 – 10.0 | ± 0.20 |



Q-Ring Sizes and Dimensions



| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|----------|--------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -004 TO -050 Cross Section Diameters — .070 ± .003 inches | | | | |
| *-001 | 1/32 | X 3/32 | X 1/32 | .029 |
| *-002 | 3/64 | X 9/64 | X 1/32 | .042 |
| *-003 | 1/16 | X 3/16 | X 1/16 | .056 |
| -004 | 5/64 | X 13/64 | X 1/16 | .070 |
| -005 | 3/32 | X 7/32 | X 1/16 | .101 |
| -006 | 1/8 | X 1/4 | X 1/16 | .114 |
| -007 | 5/32 | X 9/32 | X 1/16 | .145 |
| -008 | 3/16 | X 5/16 | X 1/16 | .176 |
| -009 | 7/32 | X 11/32 | X 1/16 | .208 |
| -010 | 1/4 | X 3/8 | X 1/16 | .239 |
| -011 | 5/16 | X 7/16 | X 1/16 | .301 |
| -012 | 3/8 | X 1/2 | X 1/16 | .364 |
| -013 | 7/16 | X 9/16 | X 1/16 | .426 |
| -014 | 1/2 | X 5/8 | X 1/16 | .489 |
| -015 | 9/16 | X 11/16 | X 1/16 | .551 |
| -016 | 5/8 | X 3/4 | X 1/16 | .614 |
| -017 | 11/16 | X 13/16 | X 1/16 | .676 |
| -018 | 3/4 | X 7/8 | X 1/16 | .739 |
| -019 | 13/16 | X 15/16 | X 1/16 | .801 |
| -020 | 7/8 | X 1 | X 1/16 | .864 |
| -021 | 15/16 | X 1-1/16 | X 1/16 | .926 |
| -022 | 1 | X 1-1/8 | X 1/16 | .989 |
| -023 | 1-1/16 | X 1-3/16 | X 1/16 | 1.051 |
| -024 | 1-1/8 | X 1-1/4 | X 1/16 | 1.114 |
| -025 | 1-3/16 | X 1-5/16 | X 1/16 | 1.176 |
| -026 | 1-1/4 | X 1-3/8 | X 1/16 | 1.239 |
| -027 | 1-5/16 | X 1-7/16 | X 1/16 | 1.301 |
| -028 | 1-3/8 | X 1-1/2 | X 1/16 | 1.364 |
| -029 | 1-1/2 | X 1-5/8 | X 1/16 | 1.489 |
| -030 | 1-5/8 | X 1-3/4 | X 1/16 | 1.614 |
| -031 | 1-3/4 | X 1-7/8 | X 1/16 | 1.739 |
| -032 | 1-7/8 | X 2 | X 1/16 | 1.864 |
| -033 | 2 | X 2-1/8 | X 1/16 | 1.989 |
| -034 | 2-1/8 | X 2-1/4 | X 1/16 | 2.114 |
| -035 | 2-1/4 | X 2-3/8 | X 1/16 | 2.239 |
| -036 | 2-3/8 | X 2-1/2 | X 1/16 | 2.364 |
| -037 | 2-1/2 | X 2-5/8 | X 1/16 | 2.489 |
| -038 | 2-5/8 | X 2-3/4 | X 1/16 | 2.614 |
| -039 | 2-3/4 | X 2-7/8 | X 1/16 | 2.739 |
| -040 | 2-7/8 | X 3 | X 1/16 | 2.864 |

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL | |
|--|-----------------|-----------|--------|--------|--|
| | Q-DASH NO. | I.D. | O.D. | C/S | |
| -004 TO -050 Cross Section Diameters — .070 ± .003 inches | | | | | |
| -041 | 3 | X 3-1/8 | X 1/16 | .2989 | |
| -042 | 3-1/4 | X 3-3/8 | X 1/16 | .3239 | |
| -043 | 3-1/2 | X 3-5/8 | X 1/16 | .3489 | |
| -044 | 3-3/4 | X 3-7/8 | X 1/16 | .3739 | |
| -045 | 4 | X 4-1/8 | X 1/16 | .3989 | |
| -046 | 4-1/4 | X 4-3/8 | X 1/16 | .4239 | |
| -047 | 4-1/2 | X 4-5/8 | X 1/16 | .4489 | |
| -048 | 4-3/4 | X 4-7/8 | X 1/16 | .4739 | |
| -049 | 5 | X 5-1/8 | X 1/16 | .4989 | |
| -050 | 5-1/4 | X 5-3/8 | X 1/16 | .5239 | |
| -102 to -178 Cross Section Diameters - .103 ± .003 inches | | | | | |
| -102 | 1/16 | X 1/4 | X 3/32 | .049 | |
| -103 | 3/32 | X 9/32 | X 3/32 | .081 | |
| -104 | 1/8 | X 5/16 | X 3/32 | .112 | |
| -105 | 5/32 | X 11/32 | X 3/32 | .143 | |
| -106 | 3/16 | X 3/8 | X 3/32 | .174 | |
| -107 | 7/32 | X 13/32 | X 3/32 | .206 | |
| -108 | 1/4 | X 7/16 | X 3/32 | .237 | |
| -109 | 5/16 | X 1/2 | X 3/32 | .299 | |
| -110 | 3/8 | X 9/16 | X 3/32 | .362 | |
| -111 | 7/16 | X 5/8 | X 3/32 | .424 | |
| -112 | 1/2 | X 11/16 | X 3/32 | .487 | |
| -113 | 9/16 | X 3/4 | X 3/32 | .549 | |
| -114 | 5/8 | X 13/16 | X 3/32 | .612 | |
| -115 | 11/16 | X 7/8 | X 3/32 | .674 | |
| -116 | 3/4 | X 15/16 | X 3/32 | .737 | |
| -117 | 13/16 | X 1 | X 3/32 | .799 | |
| -118 | 7/8 | X 1-1/16 | X 3/32 | .862 | |
| -119 | 15/16 | X 1-1/8 | X 3/32 | .924 | |
| -120 | 1 | X 1-3/16 | X 3/32 | .987 | |
| -121 | 1-1/16 | X 1-1/4 | X 3/32 | 1.049 | |
| -122 | 1-1/8 | X 1-5/16 | X 3/32 | 1.112 | |
| -123 | 1-3/16 | X 1-3/8 | X 3/32 | 1.174 | |
| -124 | 1-1/4 | X 1-7/16 | X 3/32 | 1.237 | |
| -125 | 1-5/16 | X 1-1/2 | X 3/32 | 1.299 | |
| -126 | 1-3/8 | X 1-9/16 | X 3/32 | 1.362 | |
| -127 | 1-7/16 | X 1-5/8 | X 3/32 | 1.424 | |
| -128 | 1-1/2 | X 1-11/16 | X 3/32 | 1.487 | |
| -129 | 1-9/16 | X 1-3/4 | X 3/32 | 1.549 | |
| -130 | 1-5/8 | X 1-13/16 | X 3/32 | 1.612 | |
| -131 | 1-11/16 | X 1-7/8 | X 3/32 | 1.674 | |
| -132 | 1-3/4 | X 1-15/16 | X 3/32 | 1.737 | |
| -133 | 1-13/16 | X 2 | X 3/32 | 1.799 | |
| -134 | 1-7/8 | X 2-1/16 | X 3/32 | 1.862 | |
| -135 | 1-15/16 | X 2-1/8 | X 3/32 | 1.925 | |

* Cross Section Diameter:
 - 001 -.040 + .003 in./.02 + .08 mm.
 - 002 -.050 + .003 in./.027 + .08 mm.
 - 003 -.060 + .003 in./.052 + .08 mm.



Q-Ring Sizes and Dimensions (Continued)

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|-----------|--------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -102 TO -178 Cross Section Diameters — .103 + .003 inches | | | | |
| -136 | 2 | X 2-3/16 | X 3/32 | 1.987 |
| -137 | 2-1/16 | X 2-1/4 | X 3/32 | 2.050 |
| -138 | 2-1/8 | X 2-5/16 | X 3/32 | 2.112 |
| -139 | 2-3/16 | X 2-3/8 | X 3/32 | 2.175 |
| -140 | 2-1/4 | X 2-7/16 | X 3/32 | 2.237 |
| -141 | 2-5/16 | X 2-1/2 | X 3/32 | 2.300 |
| -142 | 2-3/8 | X 2-9/16 | X 3/32 | 2.362 |
| -143 | 2-7/16 | X 2-5/8 | X 3/32 | 2.425 |
| -144 | 2-1/2 | X 2-11/16 | X 3/32 | 2.487 |
| -145 | 2-9/16 | X 2-3/4 | X 3/32 | 2.550 |
| -146 | 2-5/8 | X 2-13/16 | X 3/32 | 2.612 |
| -147 | 2-11/16 | X 2-7/8 | X 3/32 | 2.675 |
| -148 | 2-3/4 | X 2-15/16 | X 3/32 | 2.737 |
| -149 | 2-13/16 | X 3 | X 3/32 | 2.800 |
| -150 | 2-7/8 | X 3-1/16 | X 3/32 | 2.862 |
| -151 | 3 | X 3-3/16 | X 3/32 | 2.987 |
| -152 | 3-1/4 | X 3-7/16 | X 3/32 | 3.237 |
| -153 | 3-1/2 | X 3-11/16 | X 3/32 | 3.487 |
| -154 | 3-3/4 | X 3-15/16 | X 3/32 | 3.737 |
| -155 | 4 | X 4-3/16 | X 3/32 | 3.987 |
| -156 | 4-1/4 | X 4-7/16 | X 3/32 | 4.237 |
| -157 | 4-1/2 | X 4-11/16 | X 3/32 | 4.487 |
| -158 | 4-3/4 | X 4-15/16 | X 3/32 | 4.737 |
| -159 | 5 | X 5-3/16 | X 3/32 | 4.987 |
| -160 | 5-1/4 | X 5-7/16 | X 3/32 | 5.237 |
| -161 | 5-1/2 | X 5-11/16 | X 3/32 | 5.487 |
| -162 | 5-3/4 | X 5-15/16 | X 3/32 | 5.737 |
| -163 | 6 | X 6-3/16 | X 3/32 | 5.987 |
| -164 | 6-1/4 | X 6-7/16 | X 3/32 | 6.237 |
| -165 | 6-1/2 | X 6-11/16 | X 3/32 | 6.487 |
| -166 | 6-3/4 | X 6-15/16 | X 3/32 | 6.737 |
| -167 | 7 | X 7-3/16 | X 3/32 | 6.987 |
| -168 | 7-1/4 | X 7-7/16 | X 3/32 | 7.237 |
| -169 | 7-1/2 | X 7-11/16 | X 3/32 | 7.487 |
| -170 | 7-3/4 | X 7-15/16 | X 3/32 | 7.737 |
| -171 | 8 | X 8-3/16 | X 3/32 | 7.987 |
| -172 | 8-1/4 | X 8-7/16 | X 3/32 | 8.237 |
| -173 | 8-1/2 | X 8-11/16 | X 3/32 | 8.487 |
| -174 | 8-3/4 | X 8-15/16 | X 3/32 | 8.737 |
| -175 | 9 | X 9-3/16 | X 3/32 | 8.987 |
| -176 | 9-1/4 | X 9-7/16 | X 3/32 | 9.237 |
| -177 | 9-1/2 | X 9-11/16 | X 3/32 | 9.487 |
| -178 | 9-3/4 | X 9-15/16 | X 3/32 | 9.737 |
| -201 to -284 Cross Section Diameter - .139 + .004 inches | | | | |
| -201 | 3/16 | X 7/16 | X 1/8 | .171 |
| -202 | 1/4 | X 1/2 | X 1/8 | .234 |
| -203 | 5/16 | X 9/16 | X 1/8 | .296 |
| -204 | 3/8 | X 5/8 | X 1/8 | .359 |
| -205 | 7/16 | X 11/16 | X 1/8 | .421 |
| -206 | 1/2 | X 3/4 | X 1/8 | .484 |
| -207 | 9/16 | X 1-13/16 | X 1/8 | .546 |
| -208 | 5/8 | X 7/8 | X 1/8 | .609 |
| -209 | 11/16 | X 15/16 | X 1/8 | .671 |
| -210 | 3/4 | X 1 | X 1/8 | .734 |

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|-----------|-------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -201 TO -284 Cross Section Diameters — .139 ± .004 inches | | | | |
| -211 | 13/16 | X 1-1/16 | X 1/8 | .796 |
| -212 | 7/8 | X 1-1/8 | X 1/8 | .859 |
| -213 | 15/16 | X 1-3/16 | X 1/8 | .921 |
| -214 | 1 | X 1-1/4 | X 1/8 | .984 |
| -215 | 1-1/16 | X 1-5/16 | X 1/8 | 1.046 |
| -216 | 1-1/8 | X 1-3/8 | X 1/8 | 1.109 |
| -217 | 1-3/16 | X 1-7/16 | X 1/8 | 1.171 |
| -218 | 1-1/4 | X 1-1/2 | X 1/8 | 1.234 |
| -219 | 1-5/16 | X 1-9/16 | X 1/8 | 1.296 |
| -220 | 1-3/8 | X 1-5/8 | X 1/8 | 1.359 |
| -221 | 1-7/16 | X 1-11/16 | X 1/8 | 1.421 |
| -222 | 1-1/2 | X 1-3/4 | X 1/8 | 1.609 |
| -223 | 1-5/8 | X 1-7/8 | X 1/8 | 1.609 |
| -224 | 1-3/4 | X 2 | X 1/8 | 1.734 |
| -225 | 1-7/8 | X 2-1/8 | X 1/8 | 1.859 |
| -226 | 2 | X 2-1/4 | X 1/8 | 1.984 |
| -227 | 2-1/8 | X 2-3/8 | X 1/8 | 2.109 |
| -228 | 2-1/4 | X 2-1/2 | X 1/8 | 2.234 |
| -229 | 2-3/8 | X 2-5/8 | X 1/8 | 2.359 |
| -230 | 2-1/2 | X 2-3/4 | X 1/8 | 2.484 |
| -231 | 2-5/8 | X 2-7/8 | X 1/8 | 2.609 |
| -232 | 2-3/4 | X 3 | X 1/8 | 2.734 |
| -233 | 2-7/8 | X 3-1/8 | X 1/8 | 2.859 |
| -234 | 3 | X 3-1/4 | X 1/8 | 2.984 |
| -235 | 3-1/8 | X 3-3/8 | X 1/8 | 3.109 |
| -236 | 3-1/4 | X 3-1/2 | X 1/8 | 3.234 |
| -237 | 3-3/8 | X 3-5/8 | X 1/8 | 3.359 |
| -238 | 3-1/2 | X 3-3/4 | X 1/8 | 3.484 |
| -239 | 3-5/8 | X 3-7/8 | X 1/8 | 3.609 |
| -240 | 3-3/4 | X 4 | X 1/8 | 3.734 |
| -241 | 3-7/8 | X 4-1/8 | X 1/8 | 3.859 |
| -242 | 4 | X 4-1/4 | X 1/8 | 3.984 |
| -243 | 4-1/8 | X 4-3/8 | X 1/8 | 4.109 |
| -244 | 4-1/4 | X 4-1/2 | X 1/8 | 4.234 |
| -245 | 4-3/8 | X 4-5/8 | X 1/8 | 4.359 |
| -246 | 4-1/2 | X 4-3/4 | X 1/8 | 4.484 |
| -247 | 4-5/8 | X 4-7/8 | X 1/8 | 4.609 |
| -248 | 4-3/4 | X 5 | X 1/8 | 4.734 |
| -249 | 4-7/8 | X 5-1/8 | X 1/8 | 4.859 |
| -250 | 5 | X 5-1/4 | X 1/8 | 4.984 |
| -251 | 5-1/8 | X 5-3/8 | X 1/8 | 5.109 |
| -252 | 5-1/4 | X 5-1/2 | X 1/8 | 5.234 |
| -253 | 5-3/8 | X 5-5/8 | X 1/8 | 5.359 |
| -254 | 5-1/2 | X 5-3/4 | X 1/8 | 5.484 |
| -255 | 5-5/8 | X 5-7/8 | X 1/8 | 5.609 |
| -256 | 5-3/4 | X 6 | X 1/8 | 5.734 |
| -257 | 5-7/8 | X 6-1/8 | X 1/8 | 5.859 |
| -258 | 6 | X 6-1/4 | X 1/8 | 5.984 |
| -259 | 6-1/4 | X 6-1/2 | X 1/8 | 6.234 |
| -260 | 6-1/2 | X 6-3/4 | X 1/8 | 6.484 |
| -261 | 6-3/4 | X 7 | X 1/8 | 6.734 |
| -262 | 7 | X 7-1/4 | X 1/8 | 6.984 |
| -263 | 7-1/4 | X 7-1/2 | X 1/8 | 7.234 |
| -264 | 7-1/2 | X 7-3/4 | X 1/8 | 7.484 |
| -265 | 7-3/4 | X 8 | X 1/8 | 7.734 |



Q-Ring Sizes and Dimensions (Continued)

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|-----------|--------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -201 TO -284 Cross Section Diameters — .139 ± .004 inches | | | | |
| -266 | 8 | X 8-1/4 | X 1/8 | 7.984 |
| -267 | 8-1/4 | X 8-1/2 | X 1/8 | 8.234 |
| -268 | 8-1/2 | X 8-3/4 | X 1/8 | 8.484 |
| -269 | 8-3/4 | X 9 | X 1/8 | 8.734 |
| -270 | 9 | X 9-1/4 | X 1/8 | 8.984 |
| -271 | 9-1/4 | X 9-1/2 | X 1/8 | 9.234 |
| -272 | 9-1/2 | X 9-3/4 | X 1/8 | 9.484 |
| -273 | 9-3/4 | X 10 | X 1/8 | 9.734 |
| -274 | 10 | X 10-1/4 | X 1/8 | 9.984 |
| -275 | 10-1/2 | X 10-3/4 | X 1/8 | 10.484 |
| -276 | 11 | X 11-1/4 | X 1/8 | 10.984 |
| -277 | 11-1/2 | X 11-3/4 | X 1/8 | 11.484 |
| -278 | 12 | X 12-1/4 | X 1/8 | 11.984 |
| -279 | 13 | X 13-1/4 | X 1/8 | 12.984 |
| -280 | 14 | X 14-1/4 | X 1/8 | 13.984 |
| -281 | 15 | X 15-1/4 | X 1/8 | 14.984 |
| -282 | 16 | X 16-1/4 | X 1/8 | 15.955 |
| -283 | 17 | X 17-1/4 | X 1/8 | 16.955 |
| -284 | 18 | X 18-1/4 | X 1/8 | 17.955 |
| -309 to -395 Cross Section Diameter -.210 ± .005 inches | | | | |
| -309 | 7/16 | X 13/16 | X 3/16 | .412 |
| -310 | 1/2 | X 7/8 | X 3/16 | .475 |
| -311 | 9/16 | X 15/16 | X 3/16 | .537 |
| -312 | 5/8 | X 1 | X 3/16 | .600 |
| -313 | 11/16 | X 1-1/16 | X 3/16 | .662 |
| -314 | 3/4 | X 1-1/8 | X 3/16 | .725 |
| -315 | 13/16 | X 1-3/16 | X 3/16 | .787 |
| -316 | 7/8 | X 1-1/4 | X 3/16 | .850 |
| -317 | 15/16 | X 1-5/16 | X 3/16 | .850 |
| -318 | 1 | X 1-3/8 | X 3/16 | .975 |
| -319 | 1-1/16 | X 1-7/16 | X 3/16 | 1.037 |
| -320 | 1-1/8 | X 1-1/2 | X 3/16 | 1.100 |
| -321 | 1-3/16 | X 1-9/16 | X 3/16 | 1.162 |
| -322 | 1-1/4 | X 1-5/8 | X 3/16 | 1.225 |
| -323 | 1-5/16 | X 1-11/16 | X 3/16 | 1.287 |
| -324 | 1-3/8 | X 1-3/4 | X 3/16 | 1.350 |
| -325 | 1-1/2 | X 1-7/8 | X 3/16 | 1.475 |
| -326 | 1-5/8 | X 2 | X 3/16 | 1.600 |
| -327 | 1-3/4 | X 2-1/8 | X 3/16 | 1.725 |
| -328 | 1-7/8 | X 2-1/4 | X 3/16 | 1.850 |
| -329 | 2 | X 2-3/8 | X 3/16 | 1.975 |
| -330 | 2-1/8 | X 2-1/2 | X 3/16 | 2.100 |
| -331 | 2-1/4 | X 2-5/8 | X 3/16 | 2.225 |
| -332 | 2-3/8 | X 2-3/4 | X 3/16 | 2.350 |
| -333 | 2-1/2 | X 2-7/8 | X 3/16 | 2.475 |
| -334 | 2-5/8 | X 3 | X 3/16 | 2.600 |
| -335 | 2-3/4 | X 3-1/8 | X 3/16 | 2.725 |
| -336 | 2-7/8 | X 3-1/4 | X 3/16 | 2.850 |
| -337 | 3 | X 3-3/8 | X 3/16 | 2.975 |
| -338 | 3-1/8 | X 3-1/2 | X 3/16 | 3.100 |
| -339 | 3-1/4 | X 3-5/8 | X 3/16 | 3.225 |
| -340 | 3-3/8 | X 3-3/4 | X 3/16 | 3.350 |

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|----------|--------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -309 TO -395 Cross Section Diameters — .210 ± .005 inches | | | | |
| -341 | 3-1/2 | X 3-7/8 | X 3/16 | 3.475 |
| -342 | 3-5/8 | X 4 | X 3/16 | 3.600 |
| -343 | 3-3/4 | X 4-1/8 | X 3/16 | 3.725 |
| -344 | 3-7/8 | X 4-1/16 | X 3/16 | 3.850 |
| -345 | 4 | X 4-3/8 | X 3/16 | 3.975 |
| -346 | 4-1/8 | X 4-1/2 | X 3/16 | 4.100 |
| -347 | 4-1/4 | X 4-5/8 | X 3/16 | 4.225 |
| -348 | 4-3/8 | X 4-3/4 | X 3/16 | 4.350 |
| -349 | 4-1/2 | X 4-7/8 | X 3/16 | 4.475 |
| -350 | 4-5/8 | X 5 | X 3/16 | 4.600 |
| -351 | 4-3/4 | X 5-1/8 | X 3/16 | 4.725 |
| -352 | 4-7/8 | X 5-1/4 | X 3/16 | 4.850 |
| -353 | 5 | X 5-3/8 | X 3/16 | 4.975 |
| -354 | 5-1/8 | X 5-1/2 | X 3/16 | 5.100 |
| -355 | 5-1/4 | X 5-5/8 | X 3/16 | 5.225 |
| -356 | 5-3/8 | X 5-3/4 | X 3/16 | 5.350 |
| -357 | 5-1/2 | X 5-7/8 | X 3/16 | 5.475 |
| -358 | 5-5/8 | X 6 | X 3/16 | 5.600 |
| -359 | 5-3/4 | X 6-1/8 | X 3/16 | 5.725 |
| -360 | 5-7/8 | X 6-1/4 | X 3/16 | 5.850 |
| -361 | 6 | X 6-3/8 | X 3/16 | 5.975 |
| -362 | 6-1/4 | X 6-5/8 | X 3/16 | 6.225 |
| -363 | 6-1/2 | X 6-7/8 | X 3/16 | 6.475 |
| -364 | 6-3/4 | X 7-1/8 | X 3/16 | 6.725 |
| -365 | 7 | X 7-3/8 | X 3/16 | 6.975 |
| -366 | 7-1/4 | X 7-5/8 | X 3/16 | 7.225 |
| -367 | 7-1/2 | X 7-7/8 | X 3/16 | 7.475 |
| -368 | 7-3/4 | X 8-1/8 | X 3/16 | 7.725 |
| -369 | 8 | X 8-3/8 | X 3/16 | 7.975 |
| -370 | 8-1/4 | X 8-5/8 | X 3/16 | 8.225 |
| -371 | 8-1/2 | X 8-7/8 | X 3/16 | 8.475 |
| -372 | 8-3/4 | X 9-1/8 | X 3/16 | 8.725 |
| -373 | 9 | X 9-3/8 | X 3/16 | 8.975 |
| -374 | 9-1/4 | X 9-5/8 | X 3/16 | 9.225 |
| -375 | 9-1/2 | X 9-7/8 | X 3/16 | 9.475 |
| -376 | 9-3/4 | X 10-1/8 | X 3/16 | 9.725 |
| -377 | 10 | X 10-3/8 | X 3/16 | 9.975 |
| -378 | 10-1/2 | X 10-7/8 | X 3/16 | 10.475 |
| -379 | 11 | X 11-3/8 | X 3/16 | 10.975 |
| -380 | 11-1/2 | X 11-7/8 | X 3/16 | 11.475 |
| -381 | 12 | X 12-3/8 | X 3/16 | 11.975 |
| -382 | 13 | X 13-3/8 | X 3/16 | 12.975 |
| -383 | 14 | X 14-3/8 | X 3/16 | 13.975 |
| -384 | 15 | X 15-3/8 | X 3/16 | 14.975 |
| -385 | 16 | X 16-3/8 | X 3/16 | 15.955 |
| -386 | 17 | X 17-3/8 | X 3/16 | 16.955 |
| -387 | 18 | X 18-3/8 | X 3/16 | 17.955 |
| -388 | 19 | X 19-3/8 | X 3/16 | 18.952 |
| -389 | 20 | X 20-3/8 | X 3/16 | 19.952 |
| -390 | 21 | X 21-3/8 | X 3/16 | 20.952 |
| -391 | 22 | X 22-3/8 | X 3/16 | 21.952 |
| -392 | 23 | X 23-3/8 | X 3/16 | 22.940 |
| -393 | 24 | X 24-3/8 | X 3/16 | 23.940 |
| -394 | 25 | X 25-3/8 | X 3/16 | 24.940 |
| -395 | 26 | X 26-3/8 | X 3/16 | 25.940 |



Q-Ring Sizes and Dimensions (Continued)

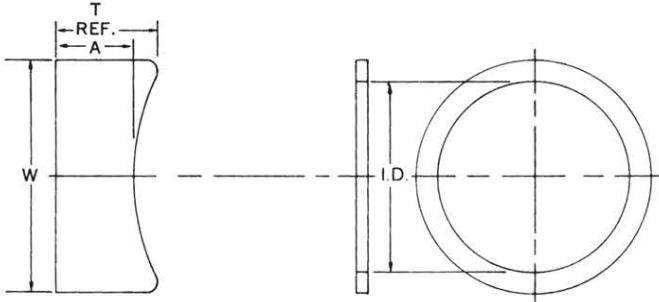
| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|----------|-------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -425 TO -475 Cross Section Diameters — .275 ± .006 inches | | | | |
| -425 | 4-1/2 | X 5 | X 1/4 | 4.475 |
| -426 | 4-5/8 | X 5-1/8 | X 1/4 | 4.600 |
| -427 | 4-3/4 | X 5-1/4 | X 1/4 | 4.725 |
| -428 | 4-7/8 | X 5-3/8 | X 1/4 | 4.850 |
| -429 | 5 | X 5-1/2 | X 1/4 | 4.975 |
| -430 | 5-1/8 | X 5-5/8 | X 1/4 | 5.100 |
| -431 | 5-1/4 | X 5-3/4 | X 1/4 | 5.225 |
| -432 | 5-3/8 | X 5-7/8 | X 1/4 | 5.350 |
| -433 | 5-1/2 | X 6 | X 1/4 | 5.475 |
| -434 | 5-5/8 | X 6-1/8 | X 1/4 | 5.600 |
| -435 | 5-3/4 | X 6-1/4 | X 1/4 | 5.725 |
| -436 | 5-7/8 | X 6-3/8 | X 1/4 | 5.850 |
| -437 | 6 | X 6-1/2 | X 1/4 | 5.975 |
| -438 | 6-1/4 | X 6-3/4 | X 1/4 | 6.225 |
| -439 | 6-1/2 | X 7 | X 1/4 | 6.475 |
| -440 | 6-3/4 | X 7-1/4 | X 1/4 | 6.725 |
| -441 | 7 | X 7-1/2 | X 1/4 | 6.975 |
| -442 | 7-1/4 | X 7-3/4 | X 1/4 | 7.225 |
| -443 | 7-1/2 | X 8 | X 1/4 | 7.475 |
| -444 | 7-3/4 | X 8-1/4 | X 1/4 | 7.725 |
| -445 | 8 | X 8-1/2 | X 1/4 | 7.975 |
| -446 | 8-1/2 | X 9 | X 1/4 | 8.475 |
| -447 | 9 | X 9-1/2 | X 1/4 | 8.975 |
| -448 | 9-1/2 | X 10 | X 1/4 | 9.475 |
| -449 | 10 | X 10-1/2 | X 1/4 | 9.975 |

| AS568 SERIES | NOMINAL SIZE | | | ACTUAL |
|--|-----------------|----------|-------|--------|
| | Q-DASH NO. | I.D. | O.D. | C/S |
| -425 TO -475 Cross Section Diameters — .275 ± .006 inches | | | | |
| -450 | 10-1/2 | X 11 | X 1/4 | 10.475 |
| -451 | 11 | X 11-1/2 | X 1/4 | 10.975 |
| -452 | 11-1/2 | X 12 | X 1/4 | 11.475 |
| -453 | 12 | X 12-1/2 | X 1/4 | 11.975 |
| -454 | 12-1/2 | X 13 | X 1/4 | 12.475 |
| -455 | 13 | X 13-1/2 | X 1/4 | 12.975 |
| -456 | 13-1/2 | X 14 | X 1/4 | 13.475 |
| -457 | 14 | X 14-1/2 | X 1/4 | 13.975 |
| -458 | 14-1/2 | X 15 | X 1/4 | 14.475 |
| -459 | 15 | X 15-1/2 | X 1/4 | 14.975 |
| -460 | 15-1/2 | X 16 | X 1/4 | 15.475 |
| -461 | 16 | X 16-1/2 | X 1/4 | 15.955 |
| -462 | 16-1/2 | X 17 | X 1/4 | 16.455 |
| -463 | 17 | X 17-1/2 | X 1/4 | 16.955 |
| -464 | 17-1/2 | X 18 | X 1/4 | 17.455 |
| -465 | 18 | X 18-1/2 | X 1/4 | 17.955 |
| -466 | 18-1/2 | X 19 | X 1/4 | 18.455 |
| -467 | 19 | X 19-1/2 | X 1/4 | 18.955 |
| -468 | 19-1/2 | X 20 | X 1/4 | 19.455 |
| -469 | 20 | X 20-1/2 | X 1/4 | 19.955 |
| -470 | 21 | X 21-1/2 | X 1/4 | 20.955 |
| -471 | 22 | X 22-1/2 | X 1/4 | 21.955 |
| -472 | 23 | X 23-1/2 | X 1/4 | 22.940 |
| -473 | 24 | X 24-1/2 | X 1/4 | 23.940 |
| -474 | 25 | X 25-1/2 | X 1/4 | 24.940 |
| -475 | 26 | X 26-1/2 | X 1/4 | 25.940 |



Eagle Rock Specialties, LLC

Contoured Back-Up Rings - Series 8



| DASH NOS. | T (REF.) | A |
|----------------|----------|-------------|
| -004 THRU -050 | .049 | .045 ± .003 |
| -102 THRU -178 | .053 | .045 ± .003 |
| -201 THRU -284 | .050 | .040 ± .003 |
| -309 THRU -395 | .076 | .060 ± .004 |
| -425 THRU -475 | .117 | .096 ± .005 |

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|-------|-----------|------|-----------|
| 8-004 | .096 | .005 | .053 | .003 |
| 8-005 | .127 | .005 | .053 | .003 |
| 8-006 | .140 | .005 | .053 | .003 |
| 8-007 | .171 | .005 | .053 | .003 |
| 8-008 | .202 | .005 | .053 | .003 |
| 8-009 | .234 | .005 | .053 | .003 |
| 8-010 | .265 | .005 | .053 | .003 |
| 8-011 | .327 | .005 | .053 | .003 |
| 8-012 | .390 | .005 | .053 | .003 |
| 8-013 | .455 | .005 | .053 | .003 |
| 8-014 | .518 | .005 | .053 | .003 |
| 8-015 | .580 | .005 | .053 | .003 |
| 8-016 | .643 | .009 | .053 | .003 |
| 8-017 | .705 | .009 | .053 | .003 |
| 8-018 | .768 | .009 | .053 | .003 |
| 8-019 | .830 | .009 | .053 | .003 |
| 8-020 | .893 | .009 | .053 | .003 |
| 8-021 | .955 | .009 | .053 | .003 |
| 8-022 | 1.018 | .010 | .053 | .003 |
| 8-023 | 1.080 | .010 | .053 | .003 |
| 8-024 | 1.143 | .010 | .053 | .003 |
| 8-025 | 1.205 | .011 | .053 | .003 |
| 8-026 | 1.268 | .011 | .053 | .003 |
| 8-027 | 1.330 | .011 | .053 | .003 |
| 8-028 | 1.393 | .013 | .053 | .003 |
| 8-029 | 1.518 | .013 | .053 | .003 |
| 8-030 | 1.643 | .013 | .053 | .003 |
| 8-031 | 1.768 | .015 | .053 | .003 |
| 8-032 | 1.893 | .015 | .053 | .003 |
| 8-033 | 2.018 | .018 | .053 | .003 |
| 8-034 | 2.143 | .018 | .053 | .003 |
| 8-035 | 2.268 | .018 | .053 | .003 |
| 8-036 | 2.393 | .018 | .053 | .003 |
| 8-037 | 2.519 | .018 | .053 | .003 |
| 8-038 | 2.643 | .018 | .053 | .003 |
| 8-039 | 2.768 | .020 | .053 | .003 |
| 8-040 | 2.893 | .020 | .053 | .003 |
| 8-041 | 3.018 | .024 | .053 | .003 |
| 8-042 | 3.268 | .024 | .053 | .003 |
| 8-043 | 3.518 | .024 | .053 | .003 |
| 8-044 | 3.768 | .027 | .053 | .003 |
| 8-045 | 4.018 | .027 | .053 | .003 |
| 8-046 | 4.268 | .030 | .053 | .003 |
| 8-047 | 4.518 | .030 | .053 | .003 |
| 8-048 | 4.768 | .030 | .053 | .003 |
| 8-049 | 5.018 | .037 | .053 | .003 |
| 8-050 | 5.268 | .037 | .053 | .003 |

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|-------|-----------|------|-----------|
| 8-102 | .077 | .005 | .086 | .003 |
| 8-103 | .109 | .005 | .086 | .003 |
| 8-104 | .140 | .005 | .086 | .003 |
| 8-105 | .171 | .005 | .086 | .003 |
| 8-106 | .202 | .005 | .086 | .003 |
| 8-107 | .234 | .005 | .086 | .003 |
| 8-108 | .265 | .005 | .086 | .003 |
| 8-109 | .327 | .005 | .086 | .003 |
| 8-110 | .390 | .005 | .086 | .003 |
| 8-111 | .452 | .005 | .086 | .003 |
| 8-112 | .515 | .007 | .086 | .003 |
| 8-113 | .577 | .007 | .086 | .003 |
| 8-114 | .640 | .009 | .086 | .003 |
| 8-115 | .702 | .009 | .086 | .003 |
| 8-116 | .765 | .009 | .086 | .003 |
| 8-117 | .831 | .010 | .086 | .003 |
| 8-118 | .893 | .010 | .086 | .003 |
| 8-119 | .956 | .010 | .086 | .003 |
| 8-120 | 1.018 | .010 | .086 | .003 |
| 8-121 | 1.081 | .010 | .086 | .003 |
| 8-122 | 1.143 | .010 | .086 | .003 |
| 8-123 | 1.206 | .012 | .086 | .003 |
| 8-124 | 1.268 | .012 | .086 | .003 |
| 8-125 | 1.331 | .012 | .086 | .003 |
| 8-126 | 1.393 | .012 | .086 | .003 |
| 8-127 | 1.456 | .012 | .086 | .003 |
| 8-128 | 1.518 | .012 | .086 | .003 |
| 8-129 | 1.581 | .015 | .086 | .003 |
| 8-130 | 1.643 | .015 | .086 | .003 |
| 8-131 | 1.706 | .015 | .086 | .003 |
| 8-132 | 1.768 | .015 | .086 | .003 |
| 8-133 | 1.831 | .015 | .086 | .003 |
| 8-134 | 1.893 | .015 | .086 | .003 |
| 8-135 | 1.956 | .017 | .086 | .003 |
| 8-136 | 2.018 | .017 | .086 | .003 |
| 8-137 | 2.081 | .017 | .086 | .003 |
| 8-138 | 2.143 | .017 | .086 | .003 |
| 8-139 | 2.206 | .017 | .086 | .003 |
| 8-140 | 2.268 | .017 | .086 | .003 |
| 8-141 | 2.331 | .020 | .086 | .003 |
| 8-142 | 2.393 | .020 | .086 | .003 |
| 8-143 | 2.456 | .020 | .086 | .003 |
| 8-144 | 2.518 | .020 | .086 | .003 |
| 8-145 | 2.581 | .020 | .086 | .003 |
| 8-146 | 2.643 | .020 | .086 | .003 |
| 8-147 | 2.706 | .022 | .086 | .003 |
| 8-148 | 2.768 | .022 | .086 | .003 |
| 8-149 | 2.831 | .022 | .086 | .003 |
| 8-150 | 2.893 | .022 | .086 | .003 |
| 8-151 | 3.018 | .024 | .086 | .003 |



Contoured Back-Up Rings - Series 8 (Continued)

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|-------|-----------|------|-----------|
| 8-152 | 3.268 | .024 | .086 | .003 |
| 8-153 | 3.518 | .024 | .086 | .003 |
| 8-154 | 3.768 | .028 | .086 | .003 |
| 8-155 | 4.018 | .028 | .086 | .003 |
| 8-156 | 4.268 | .030 | .086 | .003 |
| 8-157 | 4.518 | .030 | .086 | .003 |
| 8-158 | 4.768 | .030 | .086 | .003 |
| 8-159 | 5.018 | .035 | .086 | .003 |
| 8-160 | 5.268 | .035 | .086 | .003 |
| 8-161 | 5.518 | .035 | .086 | .003 |
| 8-162 | 5.768 | .035 | .086 | .003 |
| 8-163 | 6.018 | .035 | .086 | .003 |
| 8-164 | 6.268 | .040 | .086 | .003 |
| 8-165 | 6.518 | .040 | .086 | .003 |
| 8-166 | 6.768 | .040 | .086 | .003 |
| 8-167 | 7.018 | .040 | .086 | .003 |
| 8-168 | 7.268 | .045 | .086 | .003 |
| 8-169 | 7.518 | .045 | .086 | .003 |
| 8-170 | 7.768 | .045 | .086 | .003 |
| 8-171 | 8.018 | .045 | .086 | .003 |
| 8-172 | 8.268 | .050 | .086 | .003 |
| 8-173 | 8.518 | .050 | .086 | .003 |
| 8-174 | 8.768 | .050 | .086 | .003 |
| 8-175 | 9.018 | .050 | .086 | .003 |
| 8-176 | 9.268 | .050 | .086 | .003 |
| 8-177 | 9.518 | .055 | .086 | .003 |
| 8-178 | 9.768 | .055 | .086 | .003 |
| 8-201 | .202 | .005 | .118 | .004 |
| 8-202 | .265 | .005 | .118 | .004 |
| 8-203 | .327 | .005 | .118 | .004 |
| 8-204 | .390 | .005 | .118 | .004 |
| 8-205 | .455 | .005 | .118 | .004 |
| 8-206 | .518 | .007 | .118 | .004 |
| 8-207 | .580 | .007 | .118 | .004 |
| 8-208 | .643 | .009 | .118 | .004 |
| 8-209 | .705 | .009 | .118 | .004 |
| 8-210 | .765 | .010 | .118 | .004 |
| 8-211 | .828 | .010 | .118 | .004 |
| 8-212 | .891 | .010 | .118 | .004 |
| 8-213 | .953 | .010 | .118 | .004 |
| 8-214 | 1.016 | .010 | .118 | .004 |
| 8-215 | 1.078 | .010 | .118 | .004 |
| 8-216 | 1.141 | .012 | .118 | .004 |
| 8-217 | 1.203 | .012 | .118 | .004 |
| 8-218 | 1.266 | .012 | .118 | .004 |
| 8-219 | 1.334 | .012 | .118 | .004 |
| 8-220 | 1.397 | .012 | .118 | .004 |
| 8-221 | 1.459 | .012 | .118 | .004 |
| 8-222 | 1.522 | .015 | .118 | .004 |
| 8-223 | 1.647 | .015 | .118 | .004 |
| 8-224 | 1.772 | .015 | .118 | .004 |
| 8-225 | 1.897 | .018 | .118 | .004 |
| 8-226 | 2.022 | .018 | .118 | .004 |
| 8-227 | 2.147 | .018 | .118 | .004 |
| 8-228 | 2.272 | .020 | .118 | .004 |
| 8-229 | 2.397 | .020 | .118 | .004 |
| 8-230 | 2.522 | .020 | .118 | .004 |
| 8-231 | 2.631 | .020 | .118 | .004 |
| 8-232 | 2.756 | .024 | .118 | .004 |
| 8-233 | 2.881 | .024 | .118 | .004 |
| 8-234 | 3.006 | .024 | .118 | .004 |
| 8-235 | 3.131 | .024 | .118 | .004 |

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|--------|-----------|------|-----------|
| 8-236 | 3.256 | .024 | .118 | .004 |
| 8-237 | 3.381 | .024 | .118 | .004 |
| 8-238 | 3.506 | .024 | .118 | .004 |
| 8-239 | 3.631 | .028 | .118 | .004 |
| 8-240 | 3.756 | .028 | .118 | .004 |
| 8-241 | 3.881 | .028 | .118 | .004 |
| 8-242 | 4.006 | .028 | .118 | .004 |
| 8-243 | 4.131 | .028 | .118 | .004 |
| 8-244 | 4.256 | .030 | .118 | .004 |
| 8-245 | 4.381 | .030 | .118 | .004 |
| 8-246 | 4.506 | .030 | .118 | .004 |
| 8-247 | 4.631 | .030 | .118 | .004 |
| 8-248 | 4.768 | .030 | .118 | .004 |
| 8-249 | 4.893 | .035 | .118 | .004 |
| 8-250 | 5.018 | .035 | .118 | .004 |
| 8-251 | 5.143 | .035 | .118 | .004 |
| 8-252 | 5.268 | .035 | .118 | .004 |
| 8-253 | 5.393 | .035 | .118 | .004 |
| 8-254 | 5.518 | .035 | .118 | .004 |
| 8-255 | 5.643 | .035 | .118 | .004 |
| 8-256 | 5.768 | .035 | .118 | .004 |
| 8-257 | 5.893 | .035 | .118 | .004 |
| 8-258 | 6.018 | .035 | .118 | .004 |
| 8-259 | 6.268 | .040 | .118 | .004 |
| 8-260 | 6.518 | .040 | .118 | .004 |
| 8-261 | 6.768 | .040 | .118 | .004 |
| 8-262 | 7.018 | .040 | .118 | .004 |
| 8-263 | 7.268 | .045 | .118 | .004 |
| 8-264 | 7.518 | .045 | .118 | .004 |
| 8-265 | 7.768 | .045 | .118 | .004 |
| 8-266 | 8.018 | .045 | .118 | .004 |
| 8-267 | 8.268 | .050 | .118 | .004 |
| 8-268 | 8.518 | .050 | .118 | .004 |
| 8-269 | 8.768 | .050 | .118 | .004 |
| 8-270 | 9.018 | .050 | .118 | .004 |
| 8-271 | 9.268 | .055 | .118 | .004 |
| 8-272 | 9.518 | .055 | .118 | .004 |
| 8-273 | 9.768 | .055 | .118 | .004 |
| 8-274 | 10.018 | .055 | .118 | .004 |
| 8-275 | 10.518 | .055 | .118 | .004 |
| 8-276 | 11.018 | .065 | .118 | .004 |
| 8-277 | 11.518 | .065 | .118 | .004 |
| 8-278 | 12.018 | .065 | .118 | .004 |
| 8-279 | 13.018 | .065 | .118 | .004 |
| 8-280 | 14.018 | .065 | .118 | .004 |
| 8-281 | 15.018 | .065 | .118 | .004 |
| 8-282 | 15.989 | .075 | .118 | .004 |
| 8-283 | 16.989 | .080 | .118 | .004 |
| 8-284 | 17.989 | .085 | .118 | .004 |
| 8-309 | .450 | .005 | .183 | .005 |
| 8-310 | .513 | .007 | .183 | .005 |
| 8-311 | .575 | .007 | .183 | .005 |
| 8-312 | .638 | .009 | .183 | .005 |
| 8-313 | .700 | .009 | .183 | .005 |
| 8-314 | .763 | .010 | .183 | .005 |
| 8-315 | .825 | .010 | .183 | .005 |
| 8-316 | .888 | .010 | .183 | .005 |
| 8-317 | .950 | .010 | .183 | .005 |
| 8-318 | 1.013 | .010 | .183 | .005 |
| 8-319 | 1.075 | .010 | .183 | .005 |
| 8-320 | 1.138 | .012 | .183 | .005 |
| 8-321 | 1.200 | .012 | .183 | .005 |
| 8-322 | 1.263 | .012 | .183 | .005 |
| 8-323 | 1.316 | .012 | .183 | .005 |



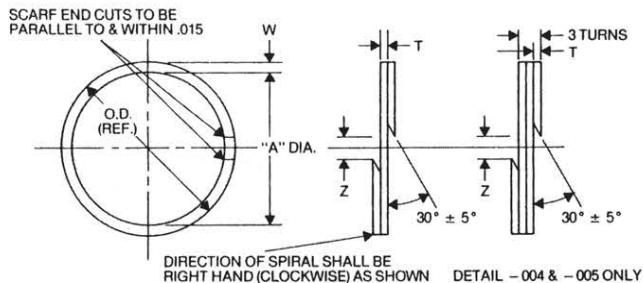
Contoured Back-Up Rings - Series 8 (Continued)

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|--------|-----------|------|-----------|
| 8-324 | 1.388 | .012 | .183 | .005 |
| 8-325 | 1.513 | .015 | .183 | .005 |
| 8-326 | 1.638 | .015 | .183 | .005 |
| 8-327 | 1.763 | .015 | .183 | .005 |
| 8-328 | 1.888 | .015 | .183 | .005 |
| 8-329 | 2.013 | .018 | .183 | .005 |
| 8-330 | 2.138 | .018 | .183 | .005 |
| 8-331 | 2.268 | .018 | .183 | .005 |
| 8-332 | 2.393 | .018 | .183 | .005 |
| 8-333 | 2.518 | .020 | .183 | .005 |
| 8-334 | 2.643 | .020 | .183 | .005 |
| 8-335 | 2.768 | .020 | .183 | .005 |
| 8-336 | 2.893 | .020 | .183 | .005 |
| 8-337 | 3.018 | .024 | .183 | .005 |
| 8-338 | 3.143 | .024 | .183 | .005 |
| 8-339 | 3.273 | .024 | .183 | .005 |
| 8-340 | 3.398 | .024 | .183 | .005 |
| 8-341 | 3.523 | .024 | .183 | .005 |
| 8-342 | 3.648 | .028 | .183 | .005 |
| 8-343 | 3.773 | .028 | .183 | .005 |
| 8-344 | 3.898 | .028 | .183 | .005 |
| 8-345 | 4.028 | .028 | .183 | .005 |
| 8-346 | 4.153 | .028 | .183 | .005 |
| 8-347 | 4.278 | .030 | .183 | .005 |
| 8-348 | 4.403 | .030 | .183 | .005 |
| 8-349 | 4.528 | .030 | .183 | .005 |
| 8-350 | 4.653 | .030 | .183 | .005 |
| 8-351 | 4.778 | .030 | .183 | .005 |
| 8-352 | 4.903 | .030 | .183 | .005 |
| 8-353 | 5.028 | .037 | .183 | .005 |
| 8-354 | 5.153 | .037 | .183 | .005 |
| 8-355 | 5.278 | .037 | .183 | .005 |
| 8-356 | 5.403 | .037 | .183 | .005 |
| 8-357 | 5.528 | .037 | .183 | .005 |
| 8-358 | 5.653 | .037 | .183 | .005 |
| 8-359 | 5.778 | .037 | .183 | .005 |
| 8-360 | 5.903 | .037 | .183 | .005 |
| 8-361 | 6.028 | .037 | .183 | .005 |
| 8-362 | 6.278 | .040 | .183 | .005 |
| 8-363 | 6.528 | .040 | .183 | .005 |
| 8-364 | 6.778 | .040 | .183 | .005 |
| 8-365 | 7.028 | .040 | .183 | .005 |
| 8-366 | 7.278 | .045 | .183 | .005 |
| 8-367 | 7.528 | .045 | .183 | .005 |
| 8-368 | 7.778 | .045 | .183 | .005 |
| 8-369 | 8.028 | .045 | .183 | .005 |
| 8-370 | 8.278 | .050 | .183 | .005 |
| 8-371 | 8.528 | .050 | .183 | .005 |
| 8-372 | 8.778 | .050 | .183 | .005 |
| 8-373 | 9.028 | .050 | .183 | .005 |
| 8-374 | 9.278 | .055 | .183 | .005 |
| 8-375 | 9.528 | .055 | .183 | .005 |
| 8-376 | 9.778 | .055 | .183 | .005 |
| 8-377 | 10.028 | .055 | .183 | .005 |
| 8-378 | 10.528 | .060 | .183 | .005 |
| 8-379 | 11.028 | .060 | .183 | .005 |
| 8-380 | 11.528 | .065 | .183 | .005 |
| 8-381 | 12.028 | .065 | .183 | .005 |
| 8-382 | 13.028 | .065 | .183 | .005 |
| 8-383 | 14.028 | .070 | .183 | .005 |
| 8-384 | 15.028 | .070 | .183 | .005 |
| 8-385 | 16.008 | .075 | .183 | .005 |
| 8-386 | 17.008 | .080 | .183 | .005 |
| 8-387 | 18.008 | .085 | .183 | .005 |
| 8-388 | 19.006 | .090 | .183 | .005 |
| 8-389 | 20.006 | .095 | .183 | .005 |
| 8-390 | 21.006 | .095 | .183 | .005 |
| 8-391 | 22.006 | .100 | .183 | .005 |
| 8-392 | 22.993 | .105 | .183 | .005 |
| 8-393 | 23.993 | .110 | .183 | .005 |
| 8-394 | 24.993 | .115 | .183 | .005 |
| 8-395 | 25.993 | .120 | .183 | .005 |

| DASH NO. | I.D. | TOL. ± | W | TOL. ± |
|----------|--------|-----------|------|-----------|
| 8-425 | 4.551 | .033 | .236 | .006 |
| 8-426 | 4.676 | .033 | .236 | .006 |
| 8-427 | 4.801 | .033 | .236 | .006 |
| 8-428 | 4.926 | .033 | .236 | .006 |
| 8-429 | 5.051 | .037 | .236 | .006 |
| 8-430 | 5.176 | .037 | .236 | .006 |
| 8-431 | 5.301 | .037 | .236 | .006 |
| 8-432 | 5.426 | .037 | .236 | .006 |
| 8-433 | 5.551 | .037 | .236 | .006 |
| 8-434 | 5.676 | .037 | .236 | .006 |
| 8-435 | 5.801 | .037 | .236 | .006 |
| 8-436 | 5.926 | .037 | .236 | .006 |
| 8-437 | 6.051 | .037 | .236 | .006 |
| 8-438 | 6.274 | .040 | .236 | .006 |
| 8-439 | 6.525 | .040 | .236 | .006 |
| 8-440 | 6.774 | .040 | .236 | .006 |
| 8-441 | 7.024 | .040 | .236 | .006 |
| 8-442 | 7.274 | .045 | .236 | .006 |
| 8-443 | 7.524 | .045 | .236 | .006 |
| 8-444 | 7.774 | .045 | .236 | .006 |
| 8-445 | 8.024 | .045 | .236 | .006 |
| 8-446 | 8.524 | .055 | .236 | .006 |
| 8-447 | 9.024 | .055 | .236 | .006 |
| 8-448 | 9.524 | .055 | .236 | .006 |
| 8-449 | 10.024 | .055 | .236 | .006 |
| 8-450 | 10.524 | .060 | .236 | .006 |
| 8-451 | 11.024 | .060 | .236 | .006 |
| 8-452 | 11.524 | .060 | .236 | .006 |
| 8-453 | 12.024 | .060 | .236 | .006 |
| 8-454 | 12.524 | .060 | .236 | .006 |
| 8-455 | 13.024 | .060 | .236 | .006 |
| 8-456 | 13.524 | .070 | .236 | .006 |
| 8-457 | 14.024 | .070 | .236 | .006 |
| 8-458 | 14.524 | .070 | .236 | .006 |
| 8-459 | 15.024 | .070 | .236 | .006 |
| 8-460 | 15.524 | .070 | .236 | .006 |
| 8-461 | 16.004 | .075 | .236 | .006 |
| 8-462 | 16.504 | .075 | .236 | .006 |
| 8-463 | 17.004 | .080 | .236 | .006 |
| 8-464 | 17.504 | .085 | .236 | .006 |
| 8-465 | 18.004 | .085 | .236 | .006 |
| 8-466 | 18.504 | .085 | .236 | .006 |
| 8-467 | 19.004 | .090 | .236 | .006 |
| 8-468 | 19.504 | .090 | .236 | .006 |
| 8-469 | 20.004 | .096 | .236 | .006 |
| 8-470 | 21.004 | .095 | .236 | .006 |
| 8-471 | 22.004 | .100 | .236 | .006 |
| 8-472 | 23.004 | .105 | .236 | .006 |
| 8-473 | 24.004 | .110 | .236 | .006 |
| 8-474 | 25.004 | .115 | .236 | .006 |
| 8-475 | 26.004 | .120 | .236 | .006 |



PTFE Spiral Back-Up Rings



| SERIES NO. | AS568 DASH NO | NOMINAL | | A-DIA. | T | W | Z |
|------------|---------------|---------|--------|--------|------|------|------|
| | | .I.D. | O.D. | | | | |
| 2107 | -004 | 5/64 | 3/16 | .078 | .019 | .054 | |
| 2107 | -005 | 7/64 | 7/32 | .110 | .016 | .052 | |
| 2107 | -006 | 1/8 | 1/4 | .125 | | | |
| 2107 | -007 | 5/32 | 9/32 | .156 | | | |
| 2107 | -008 | 3/16 | 5/16 | .188 | | | |
| 2107 | -009 | 7/32 | 11/32 | .219 | | | .062 |
| 2107 | -010 | 1/4 | 3/8 | .250 | | | .032 |
| 2107 | -011 | 5/16 | 7/16 | .312 | | | |
| 2107 | -012 | 3/8 | 1/2 | .375 | | | |
| 2107 | -013 | 7/16 | 9/16 | .437 | | | |
| 2107 | -014 | 1/2 | 5/8 | .500 | | | |
| 2107 | -015 | 9/16 | 11/16 | .562 | | | .078 |
| 2107 | -016 | 5/8 | 3/4 | .625 | | | .032 |
| 2107 | -017 | 11/16 | 13/16 | .687 | | | |
| 2107 | -018 | 3/4 | 7/8 | .750 | | | |
| 2107 | -019 | 13/16 | 15/16 | .812 | | | |
| 2107 | -020 | 7/8 | 1 | .875 | | | |
| 2107 | -021 | 15/16 | 1-1/16 | .937 | | | |
| 2107 | -022 | 1 | 1-1/8 | 1.000 | .029 | | .093 |
| 2107 | -023 | 1-1/16 | 1-3/16 | 1.062 | .025 | | .047 |
| 2107 | -024 | 1-1/8 | 1-1/4 | 1.125 | | | |
| 2107 | -025 | 1-3/16 | 1-5/16 | 1.187 | | | |
| 2107 | -026 | 1-1/4 | 1-3/8 | 1.250 | | | |
| 2107 | -027 | 1-5/16 | 1-7/16 | 1.312 | | | |
| 2107 | -028 | 1-3/8 | 1-1/2 | 1.375 | | | |
| 2107 | -110 | 3/8 | 9/16 | .375 | | | |
| 2107 | -111 | 7/16 | 5/8 | .438 | | | .078 |
| 2107 | -112 | 1/2 | 11/16 | .500 | | | .032 |
| 2107 | -113 | 9/16 | 3/4 | .562 | | | |
| 2107 | -114 | 5/8 | 13/16 | .625 | | | |
| 2107 | -115 | 11/16 | 7/8 | .687 | | | |
| 2107 | -116 | 3/4 | 15/16 | .750 | | | |
| 2107 | -117 | 13/16 | 1 | .812 | | | |
| 2107 | -118 | 7/8 | 1-1/16 | .875 | | | |
| 2107 | -119 | 15/16 | 1-1/8 | .937 | | | |
| 2107 | -120 | 1 | 1-3/16 | 1.000 | | | .093 |
| 2107 | -121 | 1-1/16 | 1-1/4 | 1.062 | | | .047 |
| 2107 | -122 | 1-1/8 | 1-5/16 | 1.125 | | | |
| 2107 | -123 | 1-3/16 | 1-3/8 | 1.187 | | | |



**PTFE Spiral
Back-Up Rings (Continued)**

| SERIES NO. | AS568 DASH NO. | NOMINAL | | A-DIA. | T | W | Z |
|------------|----------------|---------|---------|--------|---|---|---|
| | | I.D. | O.D. | | | | |
| 2107 | .124 | 1-1/4 | 1-7/16 | 1.250 | | | |
| 2107 | .125 | 1-5/16 | 1-1/2 | 1.312 | | | |
| 2107 | .126 | 1-3/8 | 1-9/16 | 1.375 | | | |
| 2107 | .127 | 1-7/16 | 1-5/8 | 1.437 | | | |
| 2107 | .128 | 1-1/2 | 1-11/16 | 1.500 | | | |
| 2107 | .129 | 1-9/16 | 1-3/4 | 1.562 | | | |
| 2107 | .130 | 1-5/8 | 1-13/16 | 1.625 | | | |
| 2107 | .131 | 1-11/16 | 1-7/8 | 1.687 | | | |
| 2107 | .132 | 1-3/4 | 1-15/16 | 1.750 | | | |
| 2107 | .133 | 1-13/16 | 2 | 1.812 | | | |
| 2107 | .134 | 1-7/8 | 2-1/16 | 1.875 | | | |
| 2107 | .135 | 1-15/16 | 2-1/8 | 1.937 | | | |
| 2107 | .136 | 2 | 2-3/16 | 2.000 | | | |
| 2107 | .137 | 2-1/16 | 2-1/4 | 2.062 | | | |
| 2107 | .138 | 2-1/8 | 2-5/16 | 2.125 | | | |
| 2107 | .139 | 2-3/16 | 2-3/8 | 2.187 | | | |
| 2107 | .140 | 2-1/4 | 2-7/16 | 2.250 | | | |
| 2107 | .141 | 2-5/16 | 2-1/2 | 2.312 | | | |
| 2107 | .142 | 2-3/8 | 2-9/16 | 2.375 | | | |
| 2107 | .143 | 2-7/16 | 2-5/8 | 2.437 | | | |
| 2107 | .144 | 2-1/2 | 2-11/16 | 2.500 | | | |
| 2107 | .145 | 2-9/16 | 2-3/4 | 2.562 | | | |
| 2107 | .146 | 2-5/8 | 2-13/16 | 2.625 | | | |
| 2107 | .147 | 2-11/16 | 2-7/8 | 2.687 | | | |
| 2107 | .148 | 2-3/4 | 2-15/16 | 2.750 | | | |
| 2107 | .149 | 2-13/16 | 3 | 2.812 | | | |
| 2107 | .210 | 3/4 | 1 | .750 | | | |
| 2107 | .211 | 13/16 | 1-1/16 | .812 | | | |
| 2107 | .212 | 7/8 | 1-1/8 | .875 | | | |
| 2107 | .213 | 15/16 | 1-3/16 | .938 | | | |
| 2107 | .214 | 1 | 1-1/4 | 1.000 | | | |
| 2107 | .215 | 1-1/16 | 1-5/16 | 1.062 | | | |
| 2107 | .216 | 1-1/8 | 1-3/8 | 1.125 | | | |
| 2107 | .217 | 1-3/16 | 1-7/16 | 1.188 | | | |
| 2107 | .218 | 1-1/4 | 1-1/2 | 1.250 | | | |
| 2107 | .219 | 1-5/16 | 1-9/16 | 1.312 | | | |
| 2107 | .220 | 1-3/8 | 1-5/8 | 1.375 | | | |
| 2107 | .221 | 1-7/16 | 1-5/8 | 1.438 | | | |
| 2107 | .222 | 1-1/2 | 1-3/4 | 1.500 | | | |
| 2107 | .223 | 1-5/8 | 1-7/8 | 1.625 | | | |
| 2107 | .224 | 1-3/4 | 2 | 1.750 | | | |
| 2107 | .225 | 1-7/8 | 2-1/8 | 1.875 | | | |
| 2107 | .226 | 2 | 2-1/4 | 2.000 | | | |
| 2107 | .227 | 2-1/8 | 2-3/8 | 2.125 | | | |
| 2107 | .228 | 2-1/4 | 2-1/2 | 2.250 | | | |
| 2107 | .229 | 2-3/8 | 2-5/8 | 2.375 | | | |
| 2107 | .230 | 2-1/2 | 2-3/4 | 2.500 | | | |
| 2107 | .231 | 2-5/8 | 2-7/8 | 2.625 | | | |
| 2107 | .232 | 2-3/4 | 3 | 2.750 | | | |
| 2107 | .233 | 2-7/8 | 3-1/8 | 2.875 | | | |
| 2107 | .234 | 3 | 3-1/4 | 3.000 | | | |



**PTFE Spiral
Back-Up Rings (Continued)**

| SERIES NO. | AS568 DASH NO. | NOMINAL | | A-DIA. | T | W | Z |
|------------|----------------|---------|--------|--------|------|------|------|
| | | I.D. | O.D. | | | | |
| 2107 | -235 | 3-1/8 | 3-3/8 | 3.125 | | | |
| 2107 | -236 | 3-1/4 | 3-1/2 | 3.250 | | | |
| 2107 | -237 | 3-3/8 | 3-5/8 | 3.375 | | | |
| 2107 | -238 | 3-1/2 | 3-3/4 | 3.500 | | | |
| 2107 | -239 | 3-5/8 | 3-7/8 | 3.625 | | | |
| 2107 | -240 | 3-3/4 | 4 | 3.750 | | | |
| 2107 | -241 | 3-7/8 | 4-1/8 | 3.875 | | | |
| 2107 | -242 | 4 | 4-1/4 | 4.000 | | | |
| 2107 | -243 | 4-1/8 | 4-3/8 | 4.125 | | | |
| 2107 | -244 | 4-1/4 | 4-1/2 | 4.250 | | | |
| 2107 | -245 | 4-3/8 | 4-5/8 | 4.375 | | | |
| 2107 | -246 | 4-1/2 | 4-3/4 | 4.500 | | | |
| 2107 | -247 | 4-5/8 | 4-7/8 | 4.625 | | | |
| 2107 | -248 | 4-3/4 | 5 | 4.750 | | | |
| 2107 | -249 | 4-7/8 | 5-1/8 | 4.875 | | | |
| 2107 | -250 | 5 | 5-1/4 | 5.000 | | | |
| 2107 | -251 | 5-1/8 | 5-3/8 | 5.125 | | | |
| 2107 | -252 | 5-1/4 | 5-1/2 | 5.250 | | | |
| 2107 | -253 | 5-3/8 | 5-5/8 | 5.375 | | | |
| 2107 | -254 | 5-1/2 | 5-3/4 | 5.500 | | | |
| 2107 | -255 | 5-5/8 | 5-7/8 | 5.625 | .029 | .121 | .250 |
| 2107 | -256 | 5-3/4 | 6 | 5.750 | .025 | .119 | .093 |
| 2107 | -257 | 5-7/8 | 6-1/8 | 5.875 | | | |
| 2107 | -258 | 6 | 6-1/4 | 6.000 | | | |
| 2107 | -259 | 6-1/4 | 6-1/2 | 6.250 | | | |
| 2107 | -260 | 6-1/2 | 6-3/4 | 6.500 | | | |
| 2107 | -261 | 6-3/4 | 7 | 6.750 | | | |
| 2107 | -262 | 7 | 7-1/4 | 7.000 | | | |
| 2107 | -263 | 7-1/4 | 7-1/2 | 7.250 | | | |
| 2107 | -264 | 7-1/2 | 7-3/4 | 7.500 | | | |
| 2107 | -265 | 7-3/4 | 8 | 7.750 | | | |
| 2107 | -266 | 8 | 8-1/4 | 8.000 | | | |
| 2107 | -267 | 8-1/4 | 8-1/2 | 8.250 | | | |
| 2107 | -268 | 8-1/2 | 8-3/4 | 8.500 | | | |
| 2107 | -269 | 8-3/4 | 9 | 8.750 | | | |
| 2107 | -270 | 9 | 9-1/4 | 9.000 | | | |
| 2107 | -271 | 9-1/4 | 9-1/2 | 9.250 | | | |
| 2107 | -272 | 9-1/2 | 9-3/4 | 9.500 | | | |
| 2107 | -273 | 9-3/4 | 10 | 9.750 | | | |
| 2107 | -274 | 10 | 10-1/4 | 10.000 | | | |
| 2107 | -325 | 1-1/2 | 1-7/8 | 1.500 | | | |
| 2107 | -326 | 1-5/8 | 2 | 1.625 | | | |
| 2107 | -327 | 1-3/4 | 2-1/8 | 1.750 | | | |
| 2107 | -328 | 1-7/8 | 2-1/4 | 1.875 | | | |
| 2107 | -329 | 2 | 2-3/8 | 2.000 | | | |
| 2107 | -330 | 2-1/8 | 2-1/2 | 2.125 | .036 | .186 | .188 |
| 2107 | -331 | 2-1/4 | 2-5/8 | 2.250 | .031 | .184 | .062 |
| 2107 | -332 | 2-3/8 | 2-3/4 | 2.375 | | | |
| 2107 | -333 | 2-1/2 | 2-7/8 | 2.500 | | | |
| 2107 | -334 | 2-5/8 | 3 | 2.625 | | | |
| 2107 | -335 | 2-3/4 | 3-1/8 | 2.750 | | | |



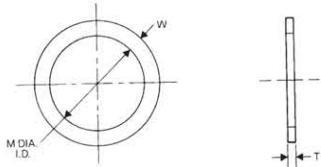
**PTFE Spiral
Back-Up Rings (Continued)**

| SERIES NO. | AS568 DASH NO. | NOMINAL | | A-DIA. | T | W | Z |
|------------|----------------|---------|--------|--------|------|------|-----------|
| | | I.D. | O.D. | | | | |
| 2107 | -336 | 2-7/8 | 3-1/4 | 2.875 | | | .188/.062 |
| 2107 | -337 | 3 | 3-3/8 | 3.000 | | | |
| 2107 | -338 | 3-1/8 | 3-1/2 | 3.125 | | | |
| 2107 | -339 | 3-1/4 | 3-5/8 | 3.250 | | | |
| 2107 | -340 | 3-3/8 | 3-3/4 | 3.375 | | | |
| 2107 | -341 | 3-1/2 | 3-7/8 | 3.500 | | | |
| 2107 | -342 | 3-5/8 | 4 | 3.625 | .036 | .186 | .250 |
| 2107 | -343 | 3-3/4 | 4-1/8 | 3.750 | .031 | .184 | .093 |
| 2107 | -344 | 3-7/8 | 4-1/4 | 3.875 | | | |
| 2107 | -345 | 4 | 4-3/8 | 4.000 | | | |
| 2107 | -346 | 4-1/8 | 4-1/2 | 4.125 | | | |
| 2107 | -347 | 4-1/4 | 4-5/8 | 4.250 | | | |
| 2107 | -348 | 4-3/8 | 4-3/4 | 4.375 | | | |
| 2107 | -349 | 4-1/2 | 4-7/8 | 4.500 | | | |
| 2107 | -425 | 4-1/2 | 5 | 4.500 | | | |
| 2107 | -426 | 4-5/8 | 5-1/8 | 4.625 | | | |
| 2107 | -427 | 4-3/4 | 5-1/4 | 4.750 | | | |
| 2107 | -428 | 4-7/8 | 5-3/8 | 4.875 | | | |
| 2107 | -429 | 5 | 5-1/2 | 5.000 | | | |
| 2107 | -430 | 5-1/8 | 5-5/8 | 5.125 | | | |
| 2107 | -431 | 5-1/4 | 5-3/4 | 5.250 | | | |
| 2107 | -432 | 5-3/8 | 5-7/8 | 5.375 | | | |
| 2107 | -433 | 5-1/2 | 6 | 5.500 | | | |
| 2107 | -434 | 5-5/8 | 6-1/8 | 5.625 | | | |
| 2107 | -435 | 5-3/4 | 6-1/4 | 5.750 | | | |
| 2107 | -436 | 5-7/8 | 6-3/8 | 5.875 | | | |
| 2107 | -437 | 6 | 6-1/2 | 6.000 | | | |
| 2107 | -438 | 6-1/4 | 6-3/4 | 6.250 | | | |
| 2107 | -439 | 6-1/2 | 7 | 6.500 | | | |
| 2107 | -440 | 6-3/4 | 7-1/4 | 6.750 | | | |
| 2107 | -441 | 7 | 7-1/2 | 7.000 | | | |
| 2107 | -442 | 7-1/4 | 7-3/4 | 7.250 | .052 | .239 | .312 |
| 2107 | -443 | 7-1/2 | 8 | 7.500 | .046 | .237 | .188 |
| 2107 | -444 | 7-3/4 | 8-1/4 | 7.750 | | | |
| 2107 | -445 | 8 | 8-1/2 | 8.000 | | | |
| 2107 | -446 | 8-1/2 | 9 | 8.500 | | | |
| 2107 | -447 | 9 | 9-1/2 | 9.000 | | | |
| 2107 | -448 | 9-1/2 | 10 | 9.500 | | | |
| 2107 | -449 | 10 | 10-1/2 | 10.000 | | | |
| 2107 | -450 | 10-1/2 | 11 | 10.500 | | | |
| 2107 | -451 | 11 | 11-1/2 | 11.000 | | | |
| 2107 | -452 | 11-1/2 | 12 | 11.500 | | | |
| 2107 | -453 | 12 | 12-1/2 | 12.000 | | | |
| 2107 | -454 | 12-1/2 | 13 | 12.500 | | | |
| 2107 | -455 | 13 | 13-1/2 | 13.000 | | | |
| 2107 | -456 | 13-1/2 | 14 | 13.500 | | | |
| 2107 | -457 | 14 | 14-1/2 | 14.000 | | | |
| 2107 | -458 | 14-1/2 | 15 | 14.500 | | | |
| 2107 | -459 | 15 | 15-1/2 | 15.000 | | | |
| 2107 | -460 | 15-1/2 | 16 | 15.500 | | | |

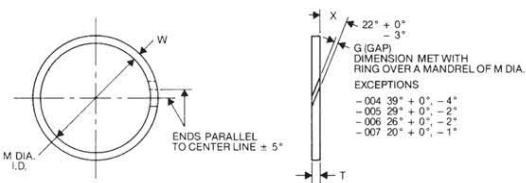


PTFE Back-Up Rings

Solid



Single Turn (Split)



| DASH NO. | | M DIA. | T | W | G |
|----------|-------------|--------|------------|-----------|-----------|
| 004 | Single Turn | .109 | | | |
| 005 | Single Turn | .124 | | | |
| 006 | Single Turn | .140 | | | |
| 007 | Single Turn | .171 | | | |
| 008 | Single Turn | .202 | | | |
| 009 | Single Turn | .234 | | | |
| 010 | Single Turn | .265 | | | |
| 011 | Single Turn | .327 | | | |
| 012 | Single Turn | .390 | | | |
| 013 | Single Turn | .455 | | | |
| 014 | Single Turn | .518 | | | |
| 015 | Single Turn | .580 | | | |
| 016 | Single Turn | .643 | $\pm .001$ | .052-.045 | .054-.052 |
| 017 | Single Turn | .705 | | | .005-.000 |
| 018 | Single Turn | .768 | | | |
| 019 | Single Turn | .830 | | | |
| 020 | Single Turn | .898 | | | |
| 021 | Single Turn | .960 | | | |
| 022 | Single Turn | 1.023 | | | |
| 023 | Single Turn | 1.085 | | | |
| 024 | Single Turn | 1.148 | | | |
| 025 | Single Turn | 1.210 | | | |
| 026 | Single Turn | 1.273 | | | |
| 027 | Single Turn | 1.335 | | | |
| 028 | Single Turn | 1.398 | | | |
| 110 | Single Turn | .390 | | | |
| 111 | Single Turn | .452 | | | |
| 112 | Single Turn | .515 | | | |
| 113 | Single Turn | .577 | | | |
| 114 | Single Turn | .640 | | | |
| 115 | Single Turn | .702 | | | |
| 116 | Single Turn | .765 | | | |
| 117 | Single Turn | .832 | | | |
| 118 | Single Turn | .895 | | | |
| 119 | Single Turn | .957 | | | |
| 120 | Single Turn | 1.020 | $\pm .001$ | .052-.045 | .087-.085 |
| 121 | Single Turn | 1.082 | | | .006-.000 |
| 122 | Single Turn | 1.145 | | | |
| 123 | Single Turn | 1.207 | | | |
| 124 | Single Turn | 1.270 | | | |
| 125 | Single Turn | 1.332 | | | |
| 126 | Single Turn | 1.397 | | | |
| 127 | Single Turn | 1.459 | | | |
| 128 | Single Turn | 1.522 | | | |

| DASH NO. | | M DIA. | T | W | G |
|----------|-------------|--------|------------|------------|-----------|
| 129 | Single Turn | 1.584 | | | |
| 130 | Single Turn | 1.647 | | | |
| 131 | Single Turn | 1.709 | | | |
| 132 | Single Turn | 1.772 | | | |
| 133 | Single Turn | 1.834 | $\pm .001$ | .052-.045 | .087-.085 |
| 134 | Single Turn | 1.897 | | | .006-.000 |
| 135 | Single Turn | 1.959 | | | |
| 136 | Single Turn | 2.022 | | | |
| 137 | Single Turn | 2.084 | | | |
| 138 | Single Turn | 2.147 | | | |
| 139 | Single Turn | 2.209 | | | |
| 140 | Solid | 2.254 | | | |
| 141 | Solid | 2.317 | | | |
| 142 | Solid | 2.379 | | | |
| 143 | Solid | 2.442 | | | |
| 144 | Solid | 2.504 | $\pm .002$ | .050 | .088 |
| 145 | Solid | 2.567 | $\pm .002$ | $\pm .001$ | N/A |
| 146 | Solid | 2.629 | | | |
| 147 | Solid | 2.692 | | | |
| 148 | Solid | 2.754 | | | |
| 149 | Solid | 2.817 | | | |
| 210 | Single Turn | .766 | | | |
| 211 | Single Turn | .828 | | | |
| 212 | Single Turn | .891 | | | |
| 213 | Single Turn | .953 | | | |
| 214 | Single Turn | 1.016 | | | |
| 215 | Single Turn | 1.078 | | | |
| 216 | Single Turn | 1.141 | | | |
| 217 | Single Turn | 1.203 | | | |
| 218 | Single Turn | 1.266 | | | |
| 219 | Single Turn | 1.334 | | | |
| 220 | Single Turn | 1.397 | $\pm .001$ | .052-.045 | .120-.118 |
| 221 | Single Turn | 1.459 | | | |
| 222 | Single Turn | 1.522 | | | |
| 223 | Single Turn | 1.647 | | | |
| 224 | Single Turn | 1.772 | | | |
| 225 | Single Turn | 1.897 | | | |
| 226 | Single Turn | 2.022 | | | |
| 227 | Single Turn | 2.147 | | | |
| 228 | Single Turn | 2.272 | | | |
| 229 | Single Turn | 2.397 | | | |
| 230 | Single Turn | 2.522 | | | |



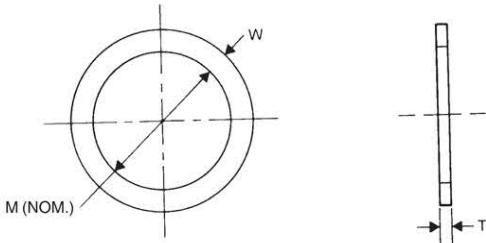
PTFE Back-Up Rings (Continued)

| DASH NO. | | M DIA. | | T | W | G | DASH NO. | | M DIA. | | T | W | G |
|----------|-------------|--------|--------|--------|--------|-------|----------|-------------|--------|--------|--------|--------|-------|
| 231 | Solid | 2.630 | | | | | 347 | Single Turn | 4.278 | | | | |
| 232 | Solid | 2.755 | | | | | 348 | Single Turn | 4.403 | | .075- | .184- | .007- |
| 233 | Solid | 2.880 | | | | | 349 | Single Turn | 4.528 | | .065 | .182 | .000 |
| 234 | Solid | 3.005 | | | | | 425 | Single Turn | 4.551 | | | | |
| 235 | Solid | 3.130 | | | | | 426 | Single Turn | 4.676 | | | | |
| 236 | Solid | 3.255 | | | | | 427 | Single Turn | 4.801 | | | | |
| 237 | Solid | 3.380 | ± .002 | .050 | .119 | N/A | 428 | Single Turn | 4.926 | | | | |
| 238 | Solid | 3.505 | | ± .002 | ± .001 | | 429 | Single Turn | 5.051 | | | | |
| 239 | Solid | 3.630 | | | | | 430 | Single Turn | 5.176 | | | | |
| 240 | Solid | 3.755 | | | | | 431 | Single Turn | 5.301 | ± .001 | .110- | .237- | .008- |
| 241 | Solid | 3.880 | | | | | 432 | Single Turn | 5.426 | | .100 | .236 | .000 |
| 242 | Solid | 4.005 | | | | | 433 | Single Turn | 5.551 | | | | |
| 243 | Solid | 4.130 | | | | | 434 | Single Turn | 5.676 | | | | |
| 244 | Solid | 4.255 | | | | | 435 | Single Turn | 5.801 | | | | |
| 245 | Solid | 4.380 | | | | | 436 | Single Turn | 5.926 | | | | |
| 246 | Solid | 4.505 | | | | | 437 | Single Turn | 6.051 | | | | |
| 247 | Solid | 4.630 | | | | | 438 | Solid | 6.252 | | | | |
| 325 | Single Turn | 1.513 | | | | | 439 | Solid | 6.502 | | | | |
| 326 | Single Turn | 1.638 | | | | | 440 | Solid | 6.752 | | | | |
| 327 | Single Turn | 1.763 | | | | | 441 | Solid | 7.002 | | | | |
| 328 | Single Turn | 1.888 | | | | | 442 | Solid | 7.252 | ± .002 | | | |
| 329 | Single Turn | 2.013 | | | | | 443 | Solid | 7.502 | | | | |
| 330 | Single Turn | 2.138 | | | | | 444 | Solid | 7.752 | | | | |
| 331 | Single Turn | 2.268 | | | | | 445 | Solid | 8.002 | | | | |
| 332 | Single Turn | 2.393 | | | | | 446 | Solid | 8.502 | | | | |
| 333 | Single Turn | 2.518 | | | | | 447 | Solid | 9.002 | | | | |
| 334 | Single Turn | 2.643 | | | | | 448 | Solid | 9.502 | ± .003 | | | |
| 335 | Single Turn | 2.768 | | | | | 449 | Solid | 10.002 | | .108 | .236 | N/A |
| 336 | Single Turn | 2.893 | | | | | 450 | Solid | 10.502 | | ± .002 | ± .001 | |
| 337 | Single Turn | 3.018 | ± .001 | .075- | .184- | .007- | 451 | Solid | 11.002 | | | | |
| 338 | Single Turn | 3.143 | | .065 | .182 | .000 | 452 | Solid | 11.502 | | | | |
| 339 | Single Turn | 3.273 | | | | | 453 | Solid | 12.002 | ± .004 | | | |
| 340 | Single Turn | 3.398 | | | | | 454 | Solid | 12.502 | | | | |
| 341 | Single Turn | 3.523 | | | | | 455 | Solid | 13.002 | | | | |
| 342 | Single Turn | 3.648 | | | | | 456 | Solid | 13.502 | | | | |
| 343 | Single Turn | 3.773 | | | | | 457 | Solid | 14.002 | | | | |
| 344 | Single Turn | 3.898 | | | | | 458 | Solid | 14.502 | ± .005 | | | |
| 345 | Single Turn | 4.028 | | | | | 459 | Solid | 15.002 | | | | |
| 346 | Single Turn | 4.153 | | | | | 460 | Solid | 15.502 | | | | |



Eagle Rock Specialties, LLC

PTFE Back-Up Rings (Extended Sizes*) (Solid)



| DASH NO. | M | T | W |
|----------|------|-------|-----------|
| 001 | 1/32 | .040- | .030+.001 |
| 002 | 3/64 | .045 | .040+.001 |
| 003 | 1/16 | | .047+.001 |

Dash Numbers 004-028 are listed on MS28774 and/or MS27595

| | | | |
|-----|-------|-------|-------|
| 029 | 1-1/2 | | |
| 030 | 1-5/8 | | |
| 031 | 1-3/4 | | |
| 032 | 1-7/8 | | |
| 033 | 2 | | |
| 034 | 2-1/8 | | |
| 035 | 2-1/4 | | |
| 036 | 2-3/8 | | |
| 037 | 2-1/2 | .052- | .054- |
| 038 | 2-5/8 | .045 | .052 |
| 039 | 2-3/4 | | |
| 040 | 2-7/8 | | |
| 041 | 3 | | |
| 042 | 3-1/4 | | |
| 043 | 3-1/2 | | |
| 044 | 3-3/4 | | |
| 045 | 4 | | |
| 046 | 4-1/4 | | |
| 047 | 4-1/2 | | |
| 048 | 4-3/4 | | |
| 049 | 5 | | |
| 050 | 5-1/4 | | |

| | | | |
|-----|------|-------|-------|
| 102 | 1/16 | | |
| 103 | 3/32 | | |
| 104 | 1/8 | | |
| 105 | 5/32 | .052- | .087- |
| 106 | 3/16 | .045 | .085 |
| 107 | 7/32 | | |
| 108 | 1/4 | | |
| 109 | 5/16 | | |

| DASH NO. | M | T | W |
|---|---|---|---|
| Dash Numbers 110-149 are listed on MS28774 and/or MS27595 | | | |

| | | | |
|-----|-------|-------|-------|
| 150 | 2-7/8 | | |
| 151 | 3 | | |
| 152 | 3-1/4 | | |
| 153 | 3-1/2 | | |
| 154 | 3-3/4 | | |
| 155 | 4 | | |
| 156 | 4-1/4 | | |
| 157 | 4-1/2 | | |
| 158 | 4-3/4 | | |
| 159 | 5 | | |
| 160 | 5-1/4 | | |
| 161 | 5-1/2 | | |
| 162 | 5-3/4 | | |
| 163 | 6 | .052- | .087- |
| 164 | 6-1/4 | .045 | .085 |
| 165 | 6-1/2 | | |
| 166 | 6-3/4 | | |
| 167 | 7 | | |
| 168 | 7-1/4 | | |
| 169 | 7-1/2 | | |
| 170 | 7-3/4 | | |
| 171 | 8 | | |
| 172 | 8-1/4 | | |
| 173 | 8-1/2 | | |
| 174 | 8-3/4 | | |
| 175 | 9 | | |
| 176 | 9-1/4 | | |
| 177 | 9-1/2 | | |
| 178 | 9-3/4 | | |
| 201 | 3/16 | | |
| 202 | 1/4 | | |
| 203 | 5/16 | | |
| 204 | 3/8 | .052- | .120- |
| 205 | 7/16 | .045 | .118 |
| 206 | 1/2 | | |
| 207 | 9/16 | | |
| 208 | 5/8 | | |
| 209 | 11/16 | | |

| DASH NO. | M | T | W |
|---|---|---|---|
| Dash Numbers 210-247 are listed on MS28774 and/or MS27595 | | | |

| | | | |
|-----|--------|-------|-------|
| 248 | 4-3/4 | | |
| 249 | 4-7/8 | | |
| 250 | 5 | | |
| 251 | 5-1/8 | | |
| 252 | 5-1/4 | | |
| 253 | 5-3/8 | | |
| 254 | 5-1/2 | | |
| 255 | 5-5/8 | | |
| 256 | 5-3/4 | | |
| 257 | 5-7/8 | | |
| 258 | 6 | | |
| 259 | 6-1/4 | | |
| 260 | 6-1/2 | | |
| 261 | 6-3/4 | .052- | .120- |
| 262 | 7 | .045 | .118 |
| 263 | 7-1/4 | | |
| 264 | 7-1/2 | | |
| 265 | 7-3/4 | | |
| 266 | 8 | | |
| 267 | 8-1/4 | | |
| 268 | 8-1/2 | | |
| 269 | 8-3/4 | | |
| 270 | 9 | | |
| 271 | 9-1/4 | | |
| 272 | 9-1/2 | | |
| 273 | 9-3/4 | | |
| 274 | 10 | | |
| 275 | 10-1/2 | | |
| 276 | 11 | | |
| 277 | 11-1/2 | | |
| 278 | 12 | | |
| 279 | 13 | | |
| 280 | 14 | | |
| 281 | 15 | | |
| 282 | 16 | | |
| 283 | 17 | | |
| 284 | 18 | | |



PTFE Back-Up Rings (Extended Sizes*) (Solid) (Continued)

| DASH NO. | M | T | W |
|----------|--------|-------|-------|
| 309 | 7/16 | | |
| 310 | 1/2 | | |
| 311 | 9/16 | | |
| 312 | 5/8 | | |
| 313 | 11/16 | | |
| 314 | 3/4 | | |
| 315 | 13/16 | .075- | .184- |
| 316 | 7/8 | .065 | .182 |
| 317 | 15/16 | | |
| 318 | 1 | | |
| 319 | 1-1/16 | | |
| 320 | 1-1/8 | | |
| 321 | 1-3/16 | | |
| 322 | 1-1/4 | | |
| 323 | 1-5/16 | | |
| 324 | 1-3/8 | | |

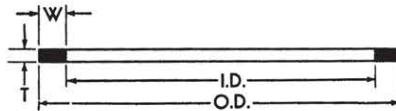
Dash Numbers 325-349 are listed on MS28774 and/or MS27595

| DASH NO. | M | T | W |
|----------|--------|-------|-------|
| 373 | 9 | | |
| 374 | 9-1/4 | | |
| 375 | 9-1/2 | | |
| 376 | 9-3/4 | | |
| 377 | 10 | | |
| 378 | 10-1/2 | | |
| 379 | 11 | | |
| 380 | 11-1/2 | | |
| 381 | 12 | | |
| 382 | 13 | | |
| 383 | 14 | .075- | .184- |
| 384 | 15 | .065 | .182 |
| 385 | 16 | | |
| 386 | 17 | | |
| 387 | 18 | | |
| 388 | 19 | | |
| 389 | 20 | | |
| 390 | 21 | | |
| 391 | 22 | | |
| 392 | 23 | | |
| 393 | 24 | | |
| 394 | 25 | | |
| 395 | 26 | | |

| DASH NO. | M | T | W |
|---|--------|---|---|
| Dash Numbers 425-460 are listed on MS28774 and/or MS27595 | | | |
| 461 | 16 | | |
| 462 | 16-1/2 | | |
| 463 | 17 | | |
| 464 | 17-1/2 | | |
| 465 | 18 | | |
| 466 | 18-1/2 | | |
| 467 | 19 | | |
| 468 | 19-1/2 | | |
| 469 | 20 | | |
| 470 | 21 | | |
| 471 | 22 | | |
| 472 | 23 | | |
| 473 | 24 | | |
| 474 | 25 | | |
| 475 | 26 | | |



**Leather Back-Up Rings
Series 6244
(For Use With Series 6230 "O" Rings)**



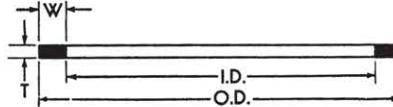
| SERIES | FOR USE WITH | | O.D. + 1/64" | I.D. (NOM.) | W +.010 -.005 | T ± .015 |
|--------|--------------|-------|-----------------|----------------|---------------------|-------------|
| | 6230 - | 568 - | | | | |
| 1 | 1 | 223 | 1-7/8 | 1-5/8 | 1/8 | 1/16 |
| 2 | 2 | 224 | 2 | 1-3/4 | 1/8 | 1/16 |
| 3 | 3 | 225 | 2-1/8 | 1-7/8 | 1/8 | 1/16 |
| 4 | 4 | 226 | 2-1/4 | 2 | 1/8 | 1/16 |
| 5 | 5 | 227 | 2-3/8 | 2-1/8 | 1/8 | 1/16 |
| 6 | 6 | 228 | 2-1/2 | 2-1/4 | 1/8 | 1/16 |
| 7 | 7 | 229 | 2-5/8 | 2-3/8 | 1/8 | 1/16 |
| 8 | 8 | 230 | 2-3/4 | 2-1/2 | 1/8 | 1/16 |
| 9 | 9 | 231 | 2-7/8 | 2-5/8 | 1/8 | 1/16 |
| 10 | 10 | 232 | 3 | 2-3/4 | 1/8 | 1/16 |
| 11 | 11 | 233 | 3-1/8 | 2-7/8 | 1/8 | 1/16 |
| 12 | 12 | 234 | 3-1/4 | 3 | 1/8 | 1/16 |
| 13 | 13 | 235 | 3-3/8 | 3-1/8 | 1/8 | 1/16 |
| 14 | 14 | 236 | 3-1/2 | 3-1/4 | 1/8 | 1/16 |
| 15 | 15 | 237 | 3-5/8 | 3-3/8 | 1/8 | 1/16 |
| 16 | 16 | 238 | 3-3/4 | 3-1/2 | 1/8 | 1/16 |
| 17 | 17 | 239 | 3-7/8 | 3-5/8 | 1/8 | 1/16 |
| 18 | 18 | 240 | 4 | 3-3/4 | 1/8 | 1/16 |
| 19 | 19 | 241 | 4-1/8 | 3-7/8 | 1/8 | 1/16 |
| 20 | 20 | 242 | 4-1/4 | 4 | 1/8 | 1/16 |
| 21 | 21 | 243 | 4-3/8 | 4-1/8 | 1/8 | 1/16 |
| 22 | 22 | 244 | 4-1/2 | 4-1/4 | 1/8 | 1/16 |
| 23 | 23 | 245 | 4-5/8 | 4-3/8 | 1/8 | 1/16 |
| 24 | 24 | 246 | 4-3/4 | 4-1/2 | 1/8 | 1/16 |
| 25 | 25 | 247 | 4-7/8 | 4-5/8 | 1/8 | 1/16 |
| 26 | 26 | 248 | 5 | 4-3/4 | 1/8 | 1/16 |
| 27 | 27 | 249 | 5-1/8 | 4-7/8 | 1/8 | 1/16 |
| 28 | 28 | 250 | 5-1/4 | 5 | 1/8 | 1/16 |
| 29 | 29 | 251 | 5-3/8 | 5-1/8 | 1/8 | 1/16 |
| 30 | 30 | 252 | 5-1/2 | 5-1/4 | 1/8 | 1/16 |
| 31 | 31 | 253 | 5-5/8 | 5-3/8 | 1/8 | 1/16 |
| 32 | 32 | 254 | 5-3/4 | 5-1/2 | 1/8 | 1/16 |
| 33 | 33 | 255 | 5-7/8 | 5-5/8 | 1/8 | 1/16 |
| 34 | 34 | 256 | 6 | 5-3/4 | 1/8 | 1/16 |
| 35 | 35 | 257 | 6-1/8 | 5-7/8 | 1/8 | 1/16 |
| 36 | 36 | 258 | 6-1/4 | 6 | 1/8 | 1/16 |
| 37 | 37 | 259 | 6-1/2 | 6-1/4 | 1/8 | 1/16 |
| 38 | 38 | 260 | 6-3/4 | 6-1/2 | 1/8 | 1/16 |
| 39 | 39 | 261 | 7 | 6-3/4 | 1/8 | 1/16 |
| 40 | 40 | 262 | 7-1/4 | 7 | 1/8 | 1/16 |
| 41 | 41 | 263 | 7-1/2 | 7-1/4 | 1/8 | 1/16 |
| 42 | 42 | 264 | 7-3/4 | 7-1/2 | 1/8 | 1/16 |
| 43 | 43 | 265 | 8 | 7-3/4 | 1/8 | 1/16 |
| 44 | 44 | 266 | 8-1/4 | 8 | 1/8 | 1/16 |
| 45 | 45 | 267 | 8-1/2 | 8-1/4 | 1/8 | 1/16 |
| 46 | 46 | 268 | 8-3/4 | 8-1/2 | 1/8 | 1/16 |
| 47 | 47 | 269 | 9 | 8-3/4 | 1/8 | 1/16 |
| 48 | 48 | 270 | 9-1/4 | 9 | 1/8 | 1/16 |
| 49 | 49 | 271 | 9-1/2 | 9-1/4 | 1/8 | 1/16 |
| 50 | 50 | 272 | 9-3/4 | 9-1/2 | 1/8 | 1/16 |
| 51 | 51 | 273 | 10 | 9-3/4 | 1/8 | 1/16 |
| 52 | 52 | 274 | 10-1/4 | 10 | 1/8 | 1/16 |

All sizes in inches.



Eagle Rock Specialties, LLC

**Leather Back-Up Rings
Series 6246
(For Use With Series 6227 "O" Rings)**



| SERIES | FOR USE WITH | | O.D. $\pm .007$ | I.D. (NOM.) | W $\pm .007$ | T $\pm .015$ |
|--------|--------------|-------|--------------------|----------------|-----------------|-----------------|
| 6246 — | 6227 — | 568 — | | | | |
| 1 | 1 | .006 | .250 | 1/8 | .057 | .062 |
| 2 | 2 | .007 | .281 | 5/32 | .057 | .062 |
| 3 | 3 | .008 | .312 | 3/16 | .057 | .062 |
| 4 | 4 | .009 | .344 | 7/32 | .057 | .062 |
| 5 | 5 | .010 | .375 | 1/4 | .057 | .062 |
| 6 | 6 | .011 | .438 | 5/16 | .057 | .062 |
| 7 | 7 | .012 | .500 | 3/8 | .057 | .062 |
| 8 | 8 | .110 | .562 | 3/8 | .090 | .062 |
| 9 | 9 | .111 | .625 | 7/16 | .090 | .062 |
| 10 | 10 | .112 | .688 | 1/2 | .090 | .062 |
| 11 | 11 | .113 | .750 | 9/16 | .090 | .062 |
| 12 | 12 | .114 | .812 | 5/8 | .090 | .062 |
| 13 | 13 | .115 | .875 | 11/16 | .090 | .062 |
| 14 | 14 | .116 | .938 | 3/4 | .090 | .062 |

| SERIES | FOR USE WITH | | O.D. $\pm 1/64$ | I.D. (NOM.) | W $+ .010 - .005$ | T $\pm .015$ |
|--------|--------------|-------|--------------------|----------------|----------------------|-----------------|
| 6246 — | 6227 — | 568 — | | | | |
| 15 | 15 | .210 | 1 | 3/4 | .123 | .062 |
| 16 | 16 | .211 | 1-1/16 | 13/16 | .123 | .062 |
| 17 | 17 | .212 | 1-1/8 | 7/8 | .123 | .062 |
| 18 | 18 | .213 | 1-3/16 | 15/16 | .123 | .062 |
| 19 | 19 | .214 | 1-1/4 | 1 | .123 | .062 |
| 20 | 20 | .215 | 1-5/16 | 1-1/16 | .123 | .062 |
| 21 | 21 | .216 | 1-3/8 | 1-1/8 | .123 | .062 |
| 22 | 22 | .217 | 1-7/16 | 1-3/16 | .123 | .062 |
| 23 | 23 | .218 | 1-1/2 | 1-1/4 | .123 | .062 |
| 24 | 24 | .219 | 1-9/16 | 1-5/16 | .123 | .062 |
| 25 | 25 | .220 | 1-5/8 | 1-3/8 | .123 | .062 |
| 26 | 26 | .221 | 1-11/16 | 1-7/16 | .123 | .062 |
| 27 | 27 | .222 | 1-3/4 | 1-1/2 | .123 | .062 |
| 28 | 28 | .325 | 1-7/8 | 1-1/2 | .188 | .094 |
| 29 | 29 | .326 | 2 | 1-5/8 | .188 | .094 |
| 30 | 30 | .327 | 2-1/8 | 1-3/4 | .188 | .094 |
| 31 | 31 | .328 | 2-1/4 | 1-7/8 | .188 | .094 |
| 32 | 32 | .329 | 2-3/8 | 2 | .188 | .094 |
| 33 | 33 | .330 | 2-1/2 | 2-1/8 | .188 | .094 |
| 34 | 34 | .331 | 2-5/8 | 2-1/4 | .188 | .094 |
| 35 | 35 | .332 | 2-3/4 | 2-3/8 | .188 | .094 |
| 36 | 36 | .333 | 2-7/8 | 2-1/2 | .188 | .094 |
| 37 | 37 | .334 | 3 | 2-5/8 | .188 | .094 |
| 38 | 38 | .335 | 3-1/8 | 2-3/4 | .188 | .094 |
| 39 | 39 | .336 | 3-1/4 | 2-7/8 | .188 | .094 |
| 40 | 40 | .337 | 3-3/8 | 3 | .188 | .094 |
| 41 | 41 | .338 | 3-1/2 | 3-1/8 | .188 | .094 |
| 42 | 42 | .339 | 3-5/8 | 3-1/4 | .188 | .094 |
| 43 | 43 | .340 | 3-3/4 | 3-3/8 | .188 | .094 |
| 44 | 44 | .341 | 3-7/8 | 3-1/2 | .188 | .094 |
| 45 | 45 | .342 | 4 | 3-5/8 | .188 | .094 |
| 46 | 46 | .343 | 4-1/8 | 3-3/4 | .188 | .094 |
| 47 | 47 | .344 | 4-1/4 | 3-7/8 | .188 | .094 |
| 48 | 48 | .345 | 4-3/8 | 4 | .188 | .094 |
| 49 | 49 | .346 | 4-1/2 | 4-1/8 | .188 | .094 |
| 50 | 50 | .347 | 4-5/8 | 4-1/4 | .188 | .094 |
| 51 | 51 | .348 | 4-3/4 | 4-3/8 | .188 | .094 |
| 52 | 52 | .349 | 4-7/8 | 4-1/2 | .188 | .094 |
| 53 | 53 | .426 | 5-1/8 | 4-5/8 | .240 | .125 |
| 54 | 54 | .427 | 5-1/4 | 4-3/4 | .240 | .125 |
| 55 | 55 | .428 | 5-3/8 | 4-7/8 | .240 | .125 |
| 56 | 56 | .429 | 5-1/2 | 5 | .240 | .125 |
| 57 | 57 | .430 | 5-5/8 | 5-1/8 | .240 | .125 |
| 58 | 58 | .431 | 5-3/4 | 5-1/4 | .240 | .125 |
| 59 | 59 | .432 | 5-7/8 | 5-3/8 | .240 | .125 |
| 60 | 60 | .433 | 6 | 5-1/2 | .240 | .125 |
| 61 | 61 | .434 | 6-1/8 | 5-5/8 | .240 | .125 |
| 62 | 62 | .435 | 6-1/4 | 5-3/4 | .240 | .125 |
| 63 | 63 | .436 | 6-3/8 | 5-7/8 | .240 | .125 |
| 64 | 64 | .437 | 6-1/2 | 6 | .240 | .125 |
| 65 | 65 | .438 | 6-3/4 | 6-1/4 | .240 | .125 |
| 66 | 66 | .439 | 7 | 6-1/2 | .240 | .125 |
| 67 | 67 | .440 | 7-1/4 | 6-3/4 | .240 | .125 |
| 68 | 68 | .441 | 7-1/2 | 7 | .240 | .125 |
| 69 | 69 | .442 | 7-3/4 | 7-1/4 | .240 | .125 |
| 70 | 70 | .443 | 8 | 7-1/2 | .240 | .125 |
| 71 | 71 | .444 | 8-1/4 | 7-3/4 | .240 | .125 |
| 72 | 72 | .445 | 8-1/2 | 8 | .240 | .125 |
| 73 | 73 | .446 | 9 | 8-1/2 | .240 | .125 |
| 74 | 74 | .447 | 9-1/2 | 9 | .240 | .125 |
| 75 | 75 | .448 | 10 | 9-1/2 | .240 | .125 |
| 76 | 76 | .449 | 10-1/2 | 10 | .240 | .125 |
| 77 | 77 | .450 | 11 | 10-1/2 | .240 | .125 |
| 78 | 78 | .451 | 11-1/2 | 11 | .240 | .125 |

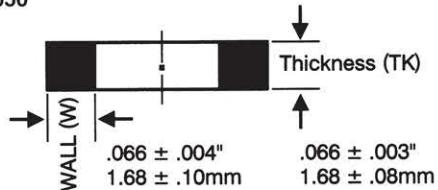
All sizes in inches.



Square Cut Ring Sizes & Dimensions

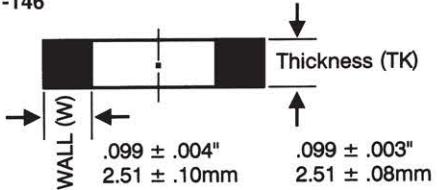
DASH NO. -006 to -050

NOMINAL
CROSS SECTION
1/16 INCH



DASH NO. -106 to -146

NOMINAL
CROSS SECTION
3/32 INCH



| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|-------------|-----------------|--------|-----------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 006 | 1/8 | 1/4 | .114 | .005 |
| 007 | 5/32 | 9/32 | .145 | .005 |
| 008 | 3/16 | 5/16 | .176 | .005 |
| 009 | 7/32 | 11/32 | .208 | .005 |
| 010 | 1/4 | 3/8 | .239 | .005 |
| 011 | 5/16 | 7/16 | .301 | .005 |
| 012 | 3/8 | 1/2 | .364 | .005 |
| 013 | 7/16 | 9/16 | .426 | .005 |
| 014 | 1/2 | 5/8 | .489 | .005 |
| 015 | 9/16 | 11/16 | .551 | .007 |
| 016 | 5/8 | 3/4 | .614 | .009 |
| 017 | 11/16 | 13/16 | .676 | .009 |
| 018 | 3/4 | 7/8 | .739 | .009 |
| 019 | 1-3/16 | 15/16 | .801 | .009 |
| 020 | 7/8 | 1 | .864 | .009 |
| 021 | 15/16 | 1-1/16 | .926 | .009 |
| 022 | 1 | 1-1/8 | .989 | .010 |
| 023 | 1-1/16 | 1-3/16 | 1.051 | .010 |
| 024 | 1-1/8 | 1-1/4 | 1.114 | .010 |
| 025 | 1-3/16 | 1-5/16 | 1.176 | .011 |
| 026 | 1-1/4 | 1-3/8 | 1.239 | .011 |
| 027 | 1-5/16 | 1-7/16 | 1.301 | .011 |
| 028 | 1-3/8 | 1-1/2 | 1.364 | .013 |
| 029 | 1-1/2 | 1-5/8 | 1.489 | .013 |
| 030 | 1-5/8 | 1-3/4 | 1.614 | .013 |
| 031 | 1-3/4 | 1-7/8 | 1.739 | .015 |
| 032 | 1-7/8 | 2 | 1.864 | .015 |
| 033 | 2 | 2-1/8 | 1.989 | .018 |
| 034 | 2-1/8 | 2-1/4 | 2.114 | .018 |
| 035 | 2-1/4 | 2-3/8 | 2.239 | .018 |
| 036 | 2-3/8 | 2-1/2 | 2.364 | .018 |
| 037 | 2-1/2 | 2-5/8 | 2.489 | .018 |
| 038 | 2-5/8 | 2-3/4 | 2.614 | .020 |
| 039 | 2-3/4 | 2-7/8 | 2.739 | .020 |
| 040 | 2-7/8 | 3 | 2.864 | .020 |
| 041 | 3 | 3-1/8 | 2.989 | .024 |
| 042 | 3-1/4 | 3-3/8 | 3.239 | .024 |
| 043 | 3-1/2 | 3-5/8 | 3.489 | .024 |
| 044 | 3-3/4 | 3-7/8 | 3.739 | .027 |
| 045 | 4 | 4-1/4 | 3.989 | .027 |
| 046 | 4-1/4 | 4-3/8 | 4.239 | .030 |
| 047 | 4-1/2 | 4-5/8 | 4.489 | .030 |
| 048 | 4-3/4 | 4-7/8 | 4.739 | .030 |
| 049 | 5 | 5-1/8 | 4.989 | .037 |
| 050 | 5-1/4 | 5-3/8 | 5.239 | .037 |

| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|-------------|-----------------|---------|-----------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 106 | 3/16 | 3/8 | .174 | .005 |
| 107 | 7/32 | 13/32 | .206 | .005 |
| 108 | 1/4 | 7/16 | .237 | .005 |
| 109 | 5/16 | 1/2 | .299 | .005 |
| 110 | 3/8 | 9/16 | .362 | .005 |
| 111 | 7/16 | 5/8 | .424 | .005 |
| 112 | 1/2 | 11/16 | .487 | .005 |
| 113 | 9/16 | 3/4 | .549 | .007 |
| 114 | 5/8 | 13/16 | .612 | .009 |
| 115 | 11/16 | 7/8 | .674 | .009 |
| 116 | 3/4 | 15/16 | .737 | .009 |
| 117 | 13/16 | 1 | .799 | .010 |
| 118 | 7/8 | 1-1/16 | .862 | .010 |
| 119 | 15/16 | 1-1/8 | .924 | .010 |
| 120 | 1 | 1-3/16 | .987 | .010 |
| 121 | 1-1/16 | 1-1/4 | 1.049 | .010 |
| 122 | 1-1/8 | 1-5/16 | 1.112 | .010 |
| 123 | 1-3/16 | 1-3/8 | 1.174 | .012 |
| 124 | 1-1/4 | 1-7/16 | 1.237 | .012 |
| 125 | 1-5/16 | 1-1/2 | 1.299 | .012 |
| 126 | 1-3/8 | 1-9/16 | 1.362 | .012 |
| 127 | 1-7/16 | 1-5/8 | 1.424 | .012 |
| 128 | 1-1/2 | 1-11/16 | 1.487 | .012 |
| 129 | 1-9/16 | 1-3/4 | 1.549 | .015 |
| 130 | 1-5/8 | 1-13/16 | 1.612 | .015 |
| 131 | 1-11/16 | 1-7/8 | 1.674 | .015 |
| 132 | 1-3/4 | 1-15/16 | 1.737 | .015 |
| 133 | 1-13/16 | 2 | 1.799 | |
| .015 | | | | |
| 134 | 1-7/8 | 2-1/16 | 1.862 | .015 |
| 135 | 1-15/16 | 2-1/8 | 1.925 | .017 |
| 136 | 2 | 2-3/16 | 1.987 | .017 |
| 137 | 2-1/16 | 2-1/4 | 2.050 | .017 |
| 138 | 2-1/8 | 2-5/16 | 2.112 | .017 |
| 139 | 2-3/16 | 2-3/8 | 2.175 | .017 |
| 140 | 2-1/4 | 2-7/16 | 2.237 | .017 |
| 141 | 2-5/16 | 2-1/2 | 2.300 | .020 |
| 142 | 2-3/8 | 2-9/16 | 2.362 | .020 |
| 143 | 2-7/16 | 2-5/8 | 2.425 | .020 |
| 144 | 2-1/2 | 2-11/16 | 2.487 | .020 |
| 145 | 2-9/16 | 2-3/4 | 2.550 | .020 |
| 146 | 2-5/8 | 2-13/16 | 2.612 | .020 |

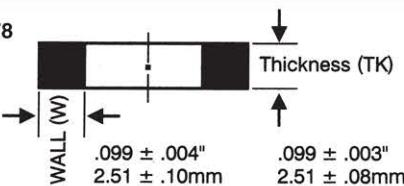


Eagle Rock Specialties, LLC

Square Cut Ring Sizes & Dimensions (Continued)

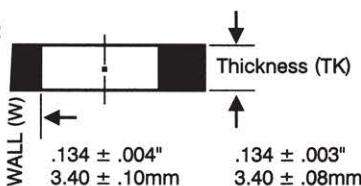
DASH NO.-147 to -178

NOMINAL
CROSS SECTION
3/32 INCH



DASH NO.-201 TO -242

NOMINAL
CROSS SECTION
1/8 INCH

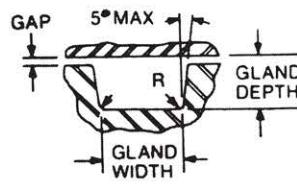


| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|-------------|-----------------|---------|-----------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 147 | 2-11/16 | 2-7/8 | 2.675 | .022 |
| 148 | 2-3/4 | 2-15/16 | 2.737 | .022 |
| 149 | 2-13/16 | 3 | 2.800 | .022 |
| 150 | 2-7/8 | 3-1/16 | 2.862 | .022 |
| 151 | 3 | 3-3/16 | 2.987 | .024 |
| 152 | 3-1/4 | 3-7/16 | 3.237 | .024 |
| 153 | 3-1/2 | 3-11/16 | 3.487 | .024 |
| 154 | 3-3/4 | 3-15/16 | 3.737 | .028 |
| 155 | 4 | 4-3/16 | 3.987 | .028 |
| 156 | 4-1/4 | 4-7/16 | 4.237 | .030 |
| 157 | 4-1/2 | 4-11/16 | 4.487 | .030 |
| 158 | 4-3/4 | 4-15/16 | 4.737 | .030 |
| 159 | 5 | 5-3/16 | 4.987 | .035 |
| 160 | 5-1/4 | 5-7/16 | 5.237 | .035 |
| 161 | 5-1/2 | 5-11/16 | 5.487 | .035 |
| 162 | 5-3/4 | 5-15/16 | 5.737 | .035 |
| 163 | 6 | 6-3/16 | 5.987 | .035 |
| 164 | 6-1/4 | 6-7/16 | 6.237 | .040 |
| 165 | 6-1/2 | 6-11/16 | 6.487 | .040 |
| 166 | 6-3/4 | 6-15/16 | 6.737 | .040 |
| 167 | 7 | 7-3/16 | 6.987 | .040 |
| 168 | 7-1/4 | 7-7/16 | 7.237 | .045 |
| 169 | 7-1/2 | 7-11/16 | 7.487 | .045 |
| 170 | 7-3/4 | 7-15/16 | 7.737 | .045 |
| 171 | 8 | 8-3/16 | 7.987 | .045 |
| 172 | 8-1/4 | 8-7/16 | 8.237 | .050 |
| 173 | 8-1/2 | 8-11/16 | 8.487 | .050 |
| 174 | 8-3/4 | 8-15/16 | 8.737 | .050 |
| 175 | 9 | 9-3/16 | 8.987 | .050 |
| 176 | 9-1/4 | 9-7/16 | 9.237 | .055 |
| 177 | 9-1/2 | 9-11/16 | 9.487 | .055 |
| 178 | 9-3/4 | 9-15/16 | 9.737 | .055 |

| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|-------------|-----------------|---------|-----------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 201 | 3/16 | 7/16 | .171 | .005 |
| 202 | 1/4 | 1/2 | .234 | .005 |
| 203 | 5/16 | 9/16 | .296 | .005 |
| 204 | 3/8 | 5/8 | .359 | .005 |
| 205 | 7/16 | 11/16 | .421 | .005 |
| 206 | 1/2 | 3/4 | .484 | .005 |
| 207 | 9/16 | 13/16 | .546 | .007 |
| 208 | 5/8 | 7/8 | .609 | .009 |
| 209 | 11/16 | 15/16 | .671 | .009 |
| 210 | 3/4 | 1 | .734 | .010 |
| 211 | 13/16 | 1-1/16 | .796 | .010 |
| 212 | 7/8 | 1-1/8 | .859 | .010 |
| 213 | 15/16 | 1-3/16 | .921 | .010 |
| 214 | 1 | 1-1/4 | .984 | .010 |
| 215 | 1-1/16 | 1-5/16 | 1.046 | .010 |
| 216 | 1-1/8 | 1-3/8 | 1.109 | .012 |
| 217 | 1-3/16 | 1-7/16 | 1.171 | .012 |
| 218 | 1-1/4 | 1-1/2 | 1.234 | .012 |
| 219 | 1-5/16 | 1-9/16 | 1.296 | .012 |
| 220 | 1-3/8 | 1-5/8 | 1.359 | .012 |
| 221 | 1-7/16 | 1-11/16 | 1.421 | .012 |
| 222 | 1-1/2 | 1-3/4 | 1.484 | .015 |
| 223 | 1-5/8 | 1-7/8 | 1.609 | .015 |
| 224 | 1-3/4 | 2 | 1.734 | .015 |
| 225 | 1-7/8 | 2-1/8 | 1.859 | .018 |
| 226 | 2 | 2-1/4 | 1.984 | .018 |
| 227 | 2-1/8 | 2-3/8 | 2.109 | .018 |
| 228 | 2-1/4 | 2-1/2 | 2.234 | .020 |
| 229 | 2-3/8 | 3-5/8 | 2.359 | .020 |
| 230 | 2-1/2 | 2-3/4 | 2.484 | .020 |
| 231 | 2-5/8 | 2-7/8 | 2.609 | .020 |
| 232 | 2-3/4 | 3 | 2.734 | .024 |
| 233 | 2-7/8 | 3-1/8 | 2.859 | .024 |
| 234 | 3 | 3-1/4 | 2.984 | .024 |
| 235 | 3-1/8 | 3-3/8 | 3.109 | .024 |
| 236 | 3-1/4 | 3-1/2 | 3.234 | .024 |
| 237 | 3-3/8 | 3-5/8 | 3.359 | .024 |
| 238 | 3-1/2 | 3-3/4 | 3.484 | .024 |
| 239 | 3-5/8 | 3-7/8 | 3.609 | .028 |
| 240 | 3-3/4 | 4 | 3.734 | .028 |
| 241 | 3-7/8 | 4-1/8 | 3.859 | .028 |
| 242 | 4 | 4-1/4 | 3.984 | .028 |

Gland Dimensions

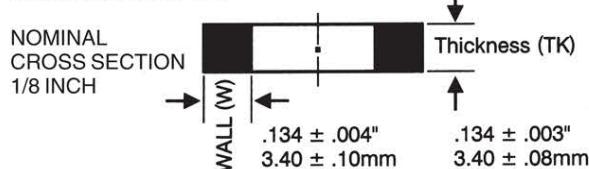
| DASH NO. | WIDTH | DEPTH | GAP |
|------------------------|--------------|------------------------|--------|
| -006 to -050 | .099" ± .005 | .057" + .000 -.002 | .002" |
| -106 to -146 | .146" ± .005 | .090" + .000 -.002 | .0025" |
| -147 to -178 | .146" ± .005 | .090" + .000 -.002 | .0025" |
| -201 to -242 .003" | .193" ± .005 | .1225" + -.002 | .000 |
| -243 to -284 | .193" ± .005 | .1225" + .000 -.002 | .003" |
| -309 to -350 | .286" ± .005 | .187" + .000 -.002 | .0035" |
| -351 to -387 .0035" | .286" ± .005 | .187" + .000 -.002 | +.000 |



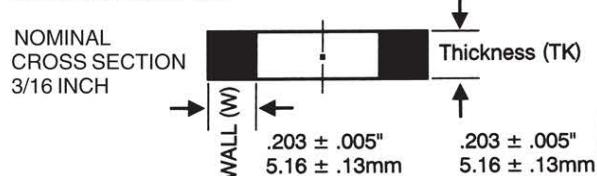


Square Cut Ring Sizes & Dimensions (Continued)

DASH NO.-243 to -284



DASH NO.-309 to -350



| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|----------|--------------|--------|--------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 243 | 4-1/8 | 4-3/8 | 4.109 | .028 |
| 244 | 4-1/4 | 4-1/2 | 4.234 | .030 |
| 245 | 4-3/8 | 4-5/8 | 4.359 | .030 |
| 246 | 4-1/2 | 4-3/4 | 4.484 | .030 |
| 247 | 4-5/8 | 4-7/8 | 4.609 | .030 |
| 248 | 4-3/4 | 5 | 4.734 | .030 |
| 249 | 4-7/8 | 5-1/8 | 4.859 | .035 |
| 250 | 5 | 5-1/4 | 4.984 | .035 |
| 251 | 5-1/8 | 5-3/8 | 5.109 | .035 |
| 252 | 5-1/4 | 5-1/2 | 5.234 | .035 |
| 253 | 5-3/8 | 5-5/8 | 5.359 | .035 |
| 254 | 5-1/2 | 5-3/4 | 5.484 | .035 |
| 255 | 5-5/8 | 5-7/8 | 5.609 | .035 |
| 256 | 5-3/4 | 6 | 5.734 | .035 |
| 257 | 5-7/8 | 6-1/8 | 5.859 | .035 |
| 258 | 6 | 6-1/4 | 5.984 | .035 |
| 259 | 6-1/4 | 6-1/2 | 6.234 | .040 |
| 260 | 6-1/2 | 6-3/4 | 6.484 | .040 |
| 261 | 6-3/4 | 7 | 6.734 | .040 |
| 262 | 7 | 7-1/4 | 6.984 | .040 |
| 263 | 7-1/4 | 7-1/2 | 7.234 | .045 |
| 264 | 7-1/2 | 7-3/4 | 7.484 | .045 |
| 265 | 7-3/4 | 8 | 7.734 | .045 |
| 266 | 8 | 8-1/4 | 7.984 | .045 |
| 267 | 8-1/4 | 8-1/2 | 8.234 | .050 |
| 268 | 8-1/2 | 8-3/4 | 8.484 | .050 |
| 269 | 8-3/4 | 9 | 8.734 | .050 |
| 270 | 9 | 9-1/4 | 8.894 | .050 |
| 271 | 9-1/4 | 9-1/2 | 9.234 | .055 |
| 272 | 9-1/2 | 9-3/4 | 9.484 | .055 |
| 273 | 9-3/4 | 10 | 9.734 | .055 |
| 274 | 10 | 10-1/4 | 9.984 | .055 |
| 275 | 10-1/2 | 10-3/4 | 10.484 | .055 |
| 276 | 11 | 11-1/4 | 10.984 | .065 |
| 277 | 11-1/2 | 11-3/4 | 11.484 | .065 |
| 278 | 12 | 12-1/4 | 11.984 | .065 |
| 279 | 13 | 13-1/4 | 12.984 | .065 |
| 280 | 14 | 14-1/4 | 13.984 | .065 |
| 281 | 15 | 15-1/4 | 14.984 | .065 |
| 282 | 16 | 16-1/4 | 15.955 | .075 |
| 283 | 17 | 17-1/4 | 16.955 | .080 |
| 284 | 18 | 18-1/4 | 17.955 | .085 |

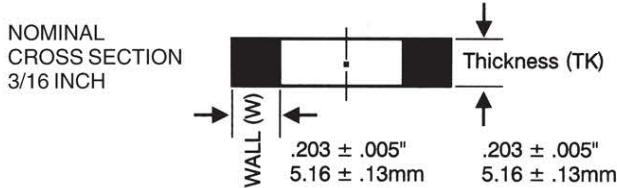
| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|----------|--------------|---------|--------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 309 | 7/16 | 13/16 | .412 | .005 |
| 310 | 1/2 | 7/8 | .475 | .005 |
| 311 | 9/16 | 15/16 | .537 | .007 |
| 312 | 5/8 | 1 | .600 | .009 |
| 313 | 11/16 | 1-1/16 | .662 | .009 |
| 314 | 3/4 | 1-1/8 | .725 | .010 |
| 315 | 13/16 | 1-3/16 | .787 | .010 |
| 316 | 7/8 | 1-1/4 | .850 | .010 |
| 317 | 15/16 | 1-5/16 | .912 | .010 |
| 318 | 1 | 1-3/8 | .975 | .010 |
| 319 | 1-1/16 | 1-7/16 | 1.037 | .010 |
| 320 | 1-1/8 | 1-1/2 | 1.100 | .012 |
| 321 | 1-3/16 | 1-9/16 | 1.162 | .012 |
| 322 | 1-1/4 | 1-5/8 | 1.225 | .012 |
| 323 | 1-5/16 | 1-11/16 | 1.287 | .012 |
| 324 | 1-3/8 | 1-3/4 | 1.350 | .012 |
| 325 | 1-1/2 | 1-7/8 | 1.475 | .015 |
| 326 | 1-5/8 | 2 | 1.600 | .015 |
| 327 | 1-3/4 | 2-1/8 | 1.725 | .015 |
| 328 | 1-7/8 | 2-1/4 | 1.850 | .015 |
| 329 | 2 | 2-3/8 | 1.975 | .018 |
| 330 | 2-1/8 | 2-1/2 | 2.100 | .018 |
| 331 | 2-1/4 | 2-5/8 | 2.225 | .018 |
| 332 | 2-3/8 | 2-3/4 | 2.350 | .018 |
| 333 | 2-1/2 | 2-7/8 | 2.475 | .020 |
| 334 | 2-5/8 | 3 | 2.600 | .020 |
| 335 | 2-3/4 | 3-1/8 | 2.725 | .020 |
| 336 | 2-7/8 | 3-1/4 | 2.850 | .020 |
| 337 | 3 | 3-3/8 | 2.975 | .024 |
| 338 | 3-1/8 | 3-1/2 | 3.100 | .024 |
| 339 | 3-1/4 | 3-5/8 | 3.225 | .024 |
| 340 | 3-3/8 | 3-3/4 | 3.350 | .024 |
| 341 | 3-1/2 | 3-7/8 | 3.475 | .024 |
| 342 | 3-5/8 | 4 | 3.600 | .028 |
| 343 | 3-3/4 | 4-1/8 | 3.725 | .028 |
| 344 | 3-7/8 | 4-1/4 | 3.850 | .028 |
| 345 | 4 | 4-3/8 | 3.975 | .028 |
| 346 | 4-1/8 | 4-1/2 | 4.100 | .028 |
| 347 | 4-1/4 | 4-5/8 | 4.225 | .030 |
| 348 | 4-3/8 | 4-3/4 | 4.350 | .030 |
| 349 | 4-1/2 | 4-7/8 | 4.475 | .030 |
| 350 | 4-5/8 | 5 | 4.600 | .030 |



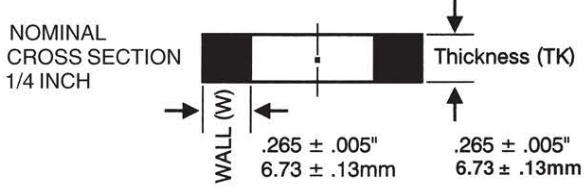
Eagle Rock Specialties, LLC

Square Cut Ring Sizes & Dimensions (Continued)

DASH NO.-351 to -387



DASH NO.-425 to -465



| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|----------|--------------|--------|--------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 351 | 4-3/4 | 5-1/8 | 4.725 | .030 |
| 352 | 4-7/8 | 5-1/4 | 4.850 | .030 |
| 353 | 5 | 5-3/8 | 4.975 | .037 |
| 354 | 5-1/8 | 5-1/2 | 5.100 | .037 |
| 355 | 5-1/4 | 5-5/8 | 5.225 | .037 |
| 356 | 5-3/8 | 5-3/4 | 5.350 | .037 |
| 357 | 5-1/2 | 5-7/8 | 5.475 | .037 |
| 358 | 5-5/8 | 6 | 5.600 | .037 |
| 359 | 5-3/4 | 6-1/8 | 5.725 | .037 |
| 360 | 5-7/8 | 6-1/4 | 5.850 | .037 |
| 361 | 6 | 6-3/8 | 5.975 | .037 |
| 362 | 6-1/4 | 6-5/8 | 6.225 | .040 |
| 363 | 6-1/2 | 6-7/8 | 6.475 | .040 |
| 364 | 6-3/4 | 7-1/8 | 6.725 | .040 |
| 365 | 7 | 7-3/8 | 6.975 | .040 |
| 366 | 7-1/4 | 7-5/8 | 7.225 | .045 |
| 367 | 7-1/2 | 7-7/8 | 7.475 | .045 |
| 368 | 7-3/4 | 8-1/8 | 7.725 | .045 |
| 369 | 8 | 8-3/8 | 7.975 | .045 |
| 370 | 8-1/4 | 8-5/8 | 8.225 | .050 |
| 371 | 8-1/2 | 8-7/8 | 8.475 | .050 |
| 372 | 8-3/4 | 9-1/8 | 8.725 | .050 |
| 373 | 9 | 9-3/8 | 8.975 | .050 |
| 374 | 9-1/4 | 9-5/8 | 9.225 | .055 |
| 375 | 9-1/2 | 9-7/8 | 9.475 | .055 |
| 376 | 9-3/4 | 10-1/8 | 9.725 | .055 |
| 377 | 10 | 10-3/8 | 9.975 | .055 |
| 378 | 10-1/2 | 10-7/8 | 10.475 | .060 |
| 379 | 11 | 11-3/8 | 10.975 | .060 |
| 380 | 11-1/2 | 11-7/8 | 11.475 | .065 |
| 381 | 12 | 12-3/8 | 11.975 | .065 |
| 382 | 13 | 13-3/8 | 12.975 | .065 |
| 383 | 14 | 14-3/8 | 13.975 | .070 |
| 384 | 15 | 15-3/8 | 14.975 | .070 |
| 385 | 16 | 16-3/8 | 15.955 | .075 |
| 386 | 17 | 17-3/8 | 16.955 | .075 |
| 387 | 18 | 18-3/8 | 17.955 | .080 |

| DASH NO. | NOMINAL SIZE | | ACTUAL SIZE (INCH) | |
|----------|--------------|--------|--------------------|-------|
| | I.D. | O.D. | I.D. | TOL.± |
| 425 | 4-1/2 | 5 | 4.475 | .033 |
| 426 | 4-5/8 | 5-1/8 | 4.600 | .033 |
| 427 | 4-3/4 | 5-1/4 | 4.725 | .033 |
| 428 | 4-7/8 | 5-3/8 | 4.850 | .033 |
| 429 | 5 | 5-1/2 | 4.975 | .037 |
| 430 | 5-1/8 | 5-5/8 | 5.100 | .037 |
| 431 | 5-1/4 | 5-3/4 | 5.225 | .037 |
| 432 | 5-3/8 | 5-7/8 | 5.350 | .037 |
| 433 | 5-1/2 | 6 | 5.475 | .037 |
| 434 | 5-5/8 | 6-1/8 | 5.600 | .037 |
| 435 | 5-3/4 | 6-1/4 | 5.725 | .037 |
| 436 | 5-7/8 | 6-3/8 | 5.850 | .037 |
| 437 | 6 | 6-1/2 | 5.975 | .037 |
| 438 | 6-1/4 | 6-3/4 | 6.225 | .040 |
| 439 | 6-1/2 | 7 | 6.475 | .040 |
| 440 | 6-3/4 | 7-1/4 | 6.725 | .040 |
| 441 | 7 | 7-1/2 | 6.975 | .040 |
| 442 | 7-1/4 | 7-3/4 | 7.225 | .045 |
| 443 | 7-1/2 | 8 | 7.475 | .045 |
| 444 | 7-3/4 | 8-1/4 | 7.725 | .045 |
| 445 | 8 | 8-1/2 | 7.975 | .045 |
| 446 | 8-1/2 | 9 | 8.475 | .055 |
| 447 | 9 | 9-1/2 | 8.975 | .055 |
| 448 | 9-1/2 | 10 | 9.475 | .055 |
| 449 | 10 | 10-1/2 | 9.975 | .055 |
| 450 | 10-1/2 | 11 | 10.475 | .060 |
| 451 | 11 | 11-1/2 | 10.975 | .060 |
| 452 | 11-1/2 | 12 | 11.475 | .060 |
| 453 | 12 | 12-1/2 | 11.975 | .060 |
| 454 | 12-1/2 | 13 | 12.475 | .060 |
| 455 | 13 | 13-1/2 | 12.975 | .060 |
| 456 | 13-1/2 | 14 | 13.475 | .070 |
| 457 | 14 | 14-1/2 | 13.975 | .070 |
| 458 | 14-1/2 | 15 | 14.475 | .070 |
| 459 | 15 | 15-1/2 | 14.975 | .070 |
| 460 | 15-1/2 | 16 | 15.475 | .070 |
| 461 | 16 | 16-1/2 | 15.955 | .075 |
| 462 | 16-1/2 | 17 | 16.455 | .075 |
| 463 | 17 | 17-1/2 | 16.955 | .080 |
| 464 | 17-1/2 | 18 | 17.455 | .085 |
| 465 | 18 | 18-1/2 | 17.955 | .085 |



O-Ring Groove Design Criteria and Installation Data*

Seal Applications

All seal applications may be broken down into static (the O-Ring and metal surfaces remain relatively fixed) or dynamic (the O-Ring moves relative to the mating surface).

Static Sealing

Most O-Rings are used in static service. They may be applied as face seals or radial seals. In face seal applications, the O-Ring should seat against the low pressure side of the groove.

Dynamic Sealing

A moving seal may be further classified by the type of motion: reciprocating, oscillating, or rotating. The greatest number of dynamic seals are used in reciprocating service in cylinders, valves, and linear actuators. Oscillating motion is encountered in swivels and valve stems. When an O-Ring is used on a rotating shaft, it should be limited to light duty where the shaft speed is low and some fluid bypass is acceptable.

In all dynamic applications, proper lubrication and good heat dissipation are essential to long seal life and performance. In pneumatic applications, supplemental lubrication should be provided. Lubricants should be selected on the basis of the material of which the O-Ring is made and the type of service to which it will be subjected. (See lubricant descriptions and applications information on page 71.)

Design standards have been developed for each of the standard O-Ring cross sections and diameters. These are published as SAE, MIL-Spec, and company standards. Adherence to the standard design recommendation will guarantee satisfactory seal performance in most instances. Special consideration should be given to the following areas:

Gland Shape

A basic rectangular groove is generally best. Special groove configurations are sometimes employed but are not recommended.

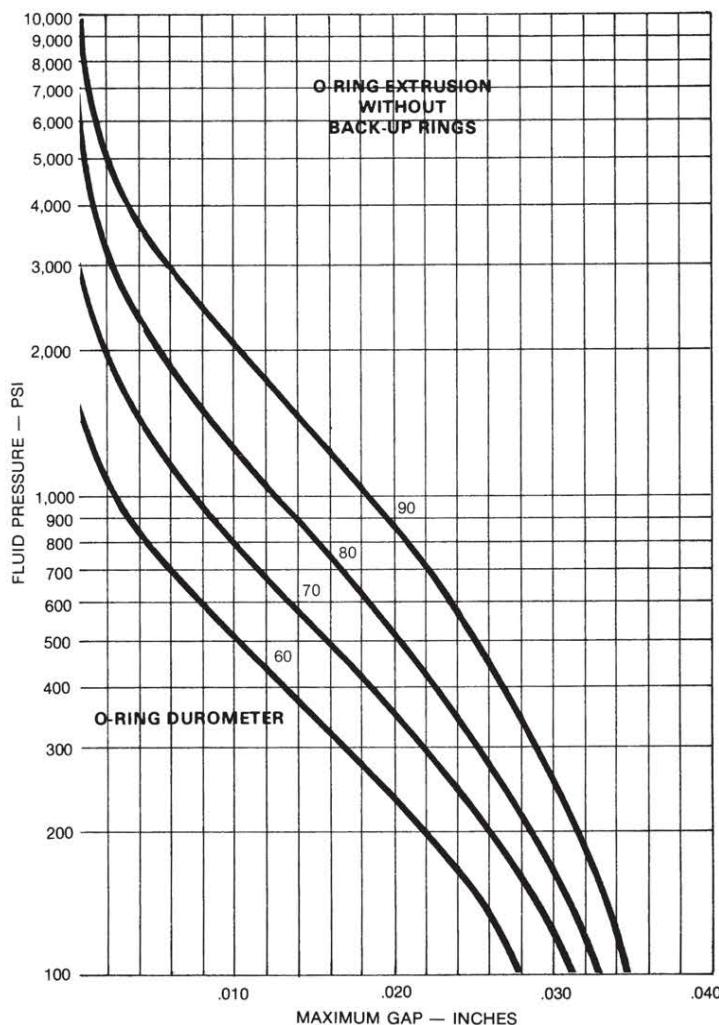


Squeeze

Initial design squeeze or compression provides for low pressure sealing. Depending on the cross section (CS), a squeeze from 10% to 35% is recommended. Higher percentage squeeze may be tolerated in static seals where friction and wear are not considerations. In dynamic service, it is often desirable to reduce O-Ring compression to a minimum. As a rule, design squeeze should not fall below 0.010 inch.

Pressure

Up to a certain point, sealing is enhanced by pressure. However, pressure may cause an increase in friction and wear. Above 1500 psi, pressure may cause extrusion and seal failure in a standard gland configuration. An anti-extrusion back-up ring, made of a tough, cut-resistant material such as leather, PTFE, or hard rubber, is suggested. In static applications, it may be possible to modify the gland design to withstand the higher pressures without the addition of a back-up ring.





Surface Finish

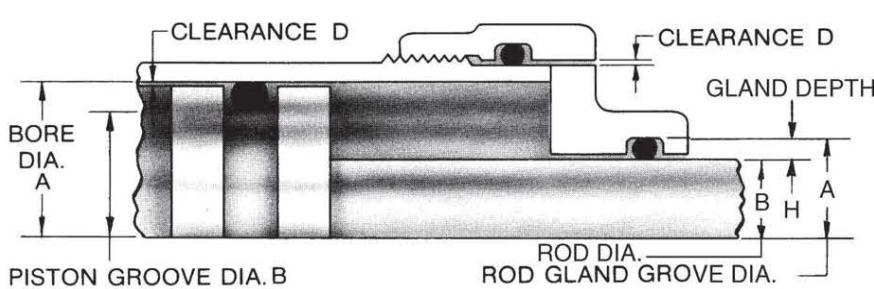
The ideal surface finish for dynamic surfaces against which the O-Ring will rub is 5 to 16 μ inch RMS. Rougher and smoother surfaces may result in increased friction and reduced seal life. Rougher finishes up to 64 μ inch RMS can be tolerated in static applications.

Final Specification

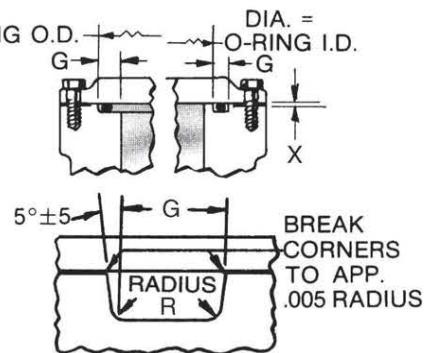
End use plays a key role in O-Ring design. Dynamic seals, whether reciprocating, oscillating or rotating motion (or any combination of these) call for the highest degree of precision in O-Ring design because of the dimensional variations involved. Static applications on the other hand, permit wider tolerances, rougher surface finishes and greater applied pressure limits without danger of failure.

1. Improper mechanical design - may cause excessive pressure on O-Ring, abrasion from friction (particularly with dynamic seals), compression set.
2. Fluid attack - chemicals or oils may degrade O-Ring material; high fluid pressure may work O-Ring beyond its limits, cause extrusion flow.
3. O-Ring design - dimension or cross-section may not be properly matched to the application; material may not be sufficient to withstand fluids, pressures, dynamic friction abrasion.
4. _____
Temperatures - excessive heat (either from ambient or fluid conditions) can cause degradation; excessive

Illustration of Industrial O-Ring Application



O-Ring Gland Design





| Gland Dimensional Data (Inches) | | | | | | | | |
|------------------------------------|---------------------|--------------------|----------------|-----------------------------|--------------------|--------------------|--------------------|--------------------|
| AS 568A DASH NOS. | H GLAND DEPTH | SQUEEZE | | D DIAMETRAL CLEARANCE | G GROOVE WIDTH | | | R RADIUS |
| | | ACTUAL | % | | NO BACK-UPS | ONE BACK-UP | TWO BACK-UPS | |
| Reciprocating Seals | | | | | | | | |
| 006-012 | .055 to .057 | .010 to .018 | 15 to 25 | .002 to .005 | .093 to .098 | .138 to .143 | .205 to .210 | .005 to .015 |
| 104-116 | .088 to .090 | .010 to .018 | 10 to 17 | .002 to .005 | .140 to .145 | .171 to .176 | .238 to .243 | .005 to .015 |
| 201-222 | .121 to .123 | .012 to .022 | 9 to 16 | .003 to .006 | .187 to .192 | .208 to .213 | .275 to .280 | .010 to .025 |
| 309-349 | .185 to .188 | .017 to .030 | 8 to 14 | .003 to .006 | .281 to .286 | .311 to .316 | .410 to .415 | .020 to .035 |
| 425-460 | .237 to .240 | .029 to .044 | 11 to 16 | .004 to .007 | .375 to .380 | .408 to .413 | .538 to .543 | .020 to .035 |
| Static Seals | | | | | | | | |
| 004-050 | .050 to .052 | .015 to .023 | 22 to 32 | .002 to .005 | .093 to .098 | .138 to .143 | .205 to .210 | .005 to .015 |
| 102-178 | .081 to .083 | .017 to .025 | 17 to 24 | .002 to .005 | .140 to .145 | .171 to .176 | .238 to .243 | .005 to .015 |
| 201-284 | .111 to .113 | .022 to .032 | 16 to 23 | .003 to .006 | .187 to .192 | .208 to .213 | .275 to .280 | .010 to .025 |
| 309-395 | .170 to .173 | .032 to .045 | 15 to 21 | .003 to .006 | .281 to .286 | .311 to .316 | .410 to .415 | .020 to .035 |
| 425-475 | .226 to .229 | .040 to .055 | 15 to 20 | .004 to .007 | .375 to .380 | .408 to .413 | .538 to .543 | .020 to .035 |

| AS 568A DASH NOS. | X GROOVE DEPTH | SQUEEZE | | G GROOVE WIDTH | | R RADIUS |
|----------------------|----------------------|--------------------|----------------|--------------------|------------------------|--------------------|
| | | ACTUAL | % | LIQUIDS | VACUUM AND GASES | |
| Face Seals | | | | | | |
| 004-050 | .050 to .054 | .013 to .023 | 19 to 32 | .101 to .107 | .084 to .089 | .005 to .015 |
| 102-178 | .074 to .080 | .020 to .032 | 20 to 30 | .136 to .142 | .120 to .125 | .005 to .015 |
| 201-284 | .101 to .107 | .028 to .042 | 20 to 30 | .177 to .187 | .158 to .164 | .010 to .025 |
| 309-395 | .152 to .162 | .043 to .063 | 21 to 30 | .270 to .290 | .239 to .244 | .020 to .035 |
| 425-475 | .201 to .211 | .058 to .080 | 21 to 29 | .342 to .362 | .309 to .314 | .020 to .035 |

| AS 568A DASH NOS. | H GLAND DEPTH | SQUEEZE | D | G | R |
|----------------------|---------------------|---------|------------------------|--------------------|--------------------|
| | | % | DIAMETRAL CLEARANCE | GROOVE WIDTH | RADIUS |
| Rotary Seals | | | | | |
| 004-045 | .065 to .067 | 0-11 | .012 to .016 | .075 to .079 | .005 to .015 |
| 102-163 | .097 to .099 | 1-8.5 | .012 to .016 | .108 to .112 | .005 to .015 |
| 201-258 | .133 to .135 | 0-7 | .016 to .020 | .144 to .148 | .010 to .025 |



Installation Data (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|-------|------------|-------|---------------------|------|------------|------|--------------|-------|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -001 | .101 | .040 | .105 | .044 | | | | | | |
| -001-1/2 | .142 | .081 | .146 | .085 | | | | | | |
| -002 | .132 | .053 | .138 | .059 | | | | | | |
| -003 | .162 | .067 | .172 | .077 | | | | | | |
| -004 | .181 | .081 | .206 | .106 | | | | | | |
| -005 | .212 | .112 | .237 | .137 | | | | | | |
| -006 | .225 | .125 | .250 | .150 | .234 | .124 | .249 | .139 | .246 | .116 |
| -007 | .256 | .156 | .281 | .181 | .265 | .155 | .280 | .170 | .277 | .147 |
| -008 | .287 | .187 | .312 | .212 | .296 | .186 | .311 | .201 | .308 | .178 |
| -009 | .318 | .218 | .343 | .243 | .328 | .218 | .343 | .233 | .340 | .210 |
| -010 | .350 | .250 | .375 | .275 | .359 | .249 | .374 | .264 | .371 | .241 |
| -011 | .412 | .312 | .437 | .337 | .421 | .311 | .436 | .326 | .433 | .303 |
| -012 | .475 | .375 | .500 | .400 | .484 | .374 | .439 | .389 | .496 | .366 |
| -013 | .537 | .437 | .562 | .462 | | | | | .558 | .428 |
| -014 | .600 | .500 | .625 | .525 | | | | | .621 | .491 |
| -015 | .662 | .562 | .687 | .587 | | | | | .683 | .553 |
| -016 | .725 | .625 | .750 | .650 | | | | | .746 | .616 |
| -017 | .787 | .687 | .812 | .712 | | | | | .808 | .678 |
| -018 | .850 | .750 | .875 | .775 | | | | | .871 | .741 |
| -019 | .912 | .812 | .937 | .837 | | | | | .933 | .803 |
| -020 | .975 | .875 | 1.000 | .900 | | | | | .996 | .866 |
| -021 | 1.037 | .937 | 1.062 | .962 | | | | | 1.058 | .928 |
| -022 | 1.100 | 1.000 | 1.125 | 1.025 | | | | | 1.121 | .991 |
| -023 | 1.162 | 1.062 | 1.187 | 1.087 | | | | | 1.183 | 1.053 |
| -024 | 1.225 | 1.125 | 1.250 | 1.150 | | | | | 1.246 | 1.116 |
| -025 | 1.287 | 1.187 | 1.312 | 1.212 | | | | | 1.308 | 1.178 |
| -026 | 1.350 | 1.250 | 1.375 | 1.275 | | | | | 1.371 | 1.241 |
| -027 | 1.412 | 1.312 | 1.437 | 1.337 | | | | | 1.433 | 1.303 |
| -028 | 1.475 | 1.375 | 1.500 | 1.400 | | | | | 1.496 | 1.366 |
| -029 | 1.600 | 1.500 | 1.625 | 1.525 | | | | | 1.621 | 1.491 |
| -030 | 1.725 | 1.625 | 1.750 | 1.650 | | | | | 1.746 | 1.616 |
| -031 | 1.850 | 1.750 | 1.875 | 1.775 | | | | | 1.871 | 1.741 |
| -032 | 1.975 | 1.875 | 2.000 | 1.900 | | | | | 1.996 | 1.866 |
| -033 | 2.100 | 2.000 | 2.125 | 2.025 | | | | | 2.121 | 1.991 |
| -034 | 2.225 | 2.125 | 2.250 | 2.150 | | | | | 2.246 | 2.116 |
| -035 | 2.350 | 2.250 | 2.375 | 2.275 | | | | | 2.371 | 2.241 |
| -036 | 2.475 | 2.375 | 2.500 | 2.400 | | | | | 2.496 | 2.366 |
| -037 | 2.600 | 2.500 | 2.625 | 2.525 | | | | | 2.621 | 2.491 |
| -038 | 2.725 | 2.625 | 2.750 | 2.650 | | | | | 2.746 | 2.616 |
| -039 | 2.850 | 2.750 | 2.875 | 2.775 | | | | | 2.871 | 2.741 |
| -040 | 2.975 | 2.875 | 3.000 | 2.900 | | | | | 2.996 | 2.865 |

| Recommended Tolerances (Inches) | | |
|------------------------------------|-----------------|-----------------|
| AS 568A DASH NOS. | A | B |
| -004 through -012 | + .000 -.001 | + .000 -.001 |
| -013 through -050 | | |
| -120 through -178 | + .002 -.000 | + .000 -.002 |
| -201 through -284 | | |
| -309 through -395 | | |
| -425 through -475 | + .003 -.000 | + .000 -.003 |



Installation Data (Continued) (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|-------|------------|-------|---------------------|------|------------|------|--------------|-------|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -041 | 3.100 | 3.000 | 3.125 | 3.025 | | | | | 3.121 | 2.991 |
| -042 | 3.350 | 3.250 | 3.375 | 3.275 | | | | | 3.371 | 3.241 |
| -043 | 3.600 | 3.500 | 3.625 | 3.525 | | | | | 3.621 | 3.491 |
| -044 | 3.850 | 3.750 | 3.875 | 3.775 | | | | | 3.871 | 3.741 |
| -045 | 4.100 | 4.000 | 4.125 | 4.025 | | | | | 4.121 | 3.991 |
| -046 | 4.350 | 4.250 | 4.375 | 4.275 | | | | | | |
| -047 | 4.600 | 4.500 | 4.625 | 4.525 | | | | | | |
| -048 | 4.850 | 4.750 | 4.875 | 4.775 | | | | | | |
| -049 | 5.100 | 5.000 | 5.125 | 5.025 | | | | | | |
| -050 | 5.350 | 5.250 | 5.375 | 5.275 | | | | | | |
| -102 | .224 | .062 | .249 | .087 | .237 | .061 | .249 | .073 | .245 | .051 |
| -103 | .256 | .094 | .281 | .119 | .269 | .093 | .281 | .105 | .277 | .083 |
| -104 | .287 | .125 | .312 | .150 | .300 | .124 | .312 | .136 | .308 | .114 |
| -105 | .318 | .156 | .343 | .181 | .331 | .155 | .343 | .167 | .339 | .145 |
| -106 | .349 | .187 | .374 | .212 | .362 | .186 | .374 | .198 | .370 | .176 |
| -107 | .381 | .219 | .406 | .244 | .394 | .218 | .406 | .230 | .402 | .208 |
| -108 | .412 | .250 | .437 | .275 | .425 | .249 | .437 | .261 | .433 | .239 |
| -109 | .474 | .312 | .499 | .337 | .487 | .311 | .499 | .323 | .495 | .301 |
| -110 | .537 | .375 | .562 | .400 | .550 | .374 | .562 | .386 | .558 | .364 |
| -111 | .599 | .437 | .625 | .463 | .612 | .436 | .624 | .448 | .620 | .426 |
| -112 | .662 | .500 | .687 | .525 | .675 | .499 | .687 | .511 | .683 | .489 |
| -113 | .724 | .562 | .750 | .588 | .737 | .561 | .749 | .573 | .745 | .551 |
| -114 | .787 | .625 | .812 | .650 | .800 | .624 | .812 | .636 | .808 | .614 |
| -115 | .849 | .687 | .875 | .713 | .862 | .686 | .874 | .698 | .870 | .676 |
| -116 | .912 | .750 | .937 | .775 | .925 | .749 | .937 | .761 | .933 | .739 |
| -117 | .974 | .812 | 1.000 | .838 | | | | | .995 | .801 |
| -118 | 1.037 | .875 | 1.062 | .900 | | | | | 1.058 | .864 |
| -119 | 1.099 | .937 | 1.125 | .963 | | | | | 1.120 | .926 |
| -120 | 1.162 | 1.000 | 1.187 | 1.025 | | | | | 1.183 | .989 |
| -121 | 1.224 | 1.062 | 1.250 | 1.088 | | | | | 1.245 | 1.051 |
| -122 | 1.287 | 1.125 | 1.312 | 1.150 | | | | | 1.308 | 1.114 |
| -123 | 1.349 | 1.187 | 1.375 | 1.213 | | | | | 1.370 | 1.176 |
| -124 | 1.412 | 1.250 | 1.437 | 1.275 | | | | | 1.433 | 1.239 |
| -125 | 1.474 | 1.312 | 1.500 | 1.338 | | | | | 1.495 | 1.301 |
| -126 | 1.537 | 1.375 | 1.562 | 1.400 | | | | | 1.558 | 1.364 |
| -127 | 1.599 | 1.437 | 1.625 | 1.463 | | | | | 1.620 | 1.426 |
| -128 | 1.662 | 1.500 | 1.687 | 1.525 | | | | | 1.683 | 1.489 |
| -129 | 1.724 | 1.562 | 1.750 | 1.588 | | | | | 1.745 | 1.551 |
| -130 | 1.787 | 1.625 | 1.812 | 1.650 | | | | | 1.808 | 1.614 |
| -131 | 1.849 | 1.687 | 1.875 | 1.713 | | | | | 1.870 | 1.676 |
| -132 | 1.912 | 1.750 | 1.937 | 1.775 | | | | | 1.933 | 1.739 |
| -133 | 1.974 | 1.812 | 2.000 | 1.838 | | | | | 1.995 | 1.801 |
| -134 | 2.037 | 1.875 | 2.062 | 1.900 | | | | | 2.058 | 1.864 |
| -135 | 2.099 | 1.937 | 2.125 | 1.963 | | | | | 2.121 | 1.927 |
| -136 | 2.162 | 2.000 | 2.187 | 2.025 | | | | | 2.183 | 1.989 |
| -137 | 2.224 | 2.062 | 2.250 | 2.088 | | | | | 2.246 | 2.052 |
| -138 | 2.287 | 2.125 | 2.312 | 2.150 | | | | | 2.308 | 2.114 |
| -139 | 2.349 | 2.187 | 2.375 | 2.213 | | | | | 2.371 | 2.177 |
| -140 | 2.412 | 2.250 | 2.437 | 2.275 | | | | | 2.433 | 2.239 |
| -141 | 2.474 | 2.312 | 2.500 | 2.338 | | | | | 2.496 | 2.302 |
| -142 | 2.537 | 2.375 | 2.562 | 2.400 | | | | | 2.558 | 2.364 |
| -143 | 2.599 | 2.437 | 2.625 | 2.463 | | | | | 2.621 | 2.427 |
| -144 | 2.662 | 2.500 | 2.687 | 2.525 | | | | | 2.683 | 2.489 |
| -145 | 2.724 | 2.562 | 2.750 | 2.588 | | | | | 2.746 | 2.552 |



Installation Data (Continued) (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|-------|------------|-------|---------------------|-------|------------|-------|--------------|-------|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -146 | 2.787 | 2.625 | 2.812 | 2.650 | | | | | 2.808 | 2.614 |
| -147 | 2.849 | 2.687 | 2.875 | 2.713 | | | | | 2.871 | 2.677 |
| -148 | 2.912 | 2.750 | 2.937 | 2.775 | | | | | 2.933 | 2.739 |
| -149 | 2.974 | 2.812 | 3.000 | 2.838 | | | | | 2.996 | 2.802 |
| -150 | 2.037 | 2.875 | 3.062 | 2.900 | | | | | 3.058 | 2.864 |
| -151 | 3.162 | 3.000 | 3.187 | 3.025 | | | | | 3.183 | 2.989 |
| -152 | 3.412 | 3.250 | 3.437 | 3.275 | | | | | 3.433 | 3.239 |
| -153 | 3.662 | 3.500 | 3.687 | 3.525 | | | | | 3.683 | 3.489 |
| -154 | 3.912 | 3.750 | 3.937 | 3.775 | | | | | 3.933 | 3.739 |
| -155 | 4.162 | 4.000 | 4.187 | 4.025 | | | | | 4.183 | 3.989 |
| -156 | 4.412 | 4.250 | 4.437 | 4.275 | | | | | 4.433 | 4.239 |
| -157 | 4.662 | 4.500 | 4.687 | 4.525 | | | | | 4.683 | 4.489 |
| -158 | 4.912 | 4.750 | 4.937 | 4.775 | | | | | 4.933 | 4.739 |
| -159 | 5.162 | 5.000 | 5.187 | 5.025 | | | | | 5.183 | 4.989 |
| -160 | 5.412 | 5.250 | 5.437 | 5.275 | | | | | 5.433 | 5.239 |
| -161 | 5.662 | 5.500 | 5.687 | 5.525 | | | | | 5.683 | 5.489 |
| -162 | 5.912 | 5.750 | 5.937 | 5.775 | | | | | 5.933 | 5.739 |
| -163 | 6.162 | 6.000 | 6.187 | 6.025 | | | | | 6.183 | 5.989 |
| -164 | 6.412 | 6.250 | 6.437 | 6.275 | | | | | | |
| -165 | 6.662 | 6.500 | 6.687 | 6.525 | | | | | | |
| -166 | 6.912 | 6.750 | 6.937 | 6.775 | | | | | | |
| -167 | 7.162 | 7.000 | 7.187 | 7.025 | | | | | | |
| -168 | 7.412 | 7.250 | 7.437 | 7.275 | | | | | | |
| -169 | 7.662 | 7.500 | 7.687 | 7.525 | | | | | | |
| -170 | 7.912 | 7.750 | 7.937 | 7.775 | | | | | | |
| -171 | 8.162 | 8.000 | 8.187 | 8.025 | | | | | | |
| -172 | 8.412 | 8.250 | 8.437 | 8.275 | | | | | | |
| -173 | 8.662 | 8.500 | 8.687 | 8.525 | | | | | | |
| -174 | 8.912 | 8.750 | 8.937 | 8.775 | | | | | | |
| -175 | 9.162 | 9.000 | 9.187 | 9.025 | | | | | | |
| -176 | 9.412 | 9.250 | 9.437 | 9.275 | | | | | | |
| -177 | 9.662 | 9.500 | 9.687 | 9.525 | | | | | | |
| -178 | 9.912 | 9.750 | 9.937 | 9.775 | | | | | | |
| -201 | .409 | .187 | .437 | .215 | .427 | .185 | .437 | .195 | .439 | .173 |
| -202 | .472 | .250 | .500 | .278 | .500 | .248 | .500 | .258 | .502 | .236 |
| -203 | .534 | .312 | .562 | .340 | .562 | .310 | .562 | .320 | .564 | .298 |
| -204 | .597 | .375 | .625 | .403 | .625 | .373 | .625 | .383 | .627 | .361 |
| -205 | .659 | .437 | .687 | .465 | .687 | .435 | .687 | .445 | .689 | .423 |
| -206 | .722 | .500 | .750 | .528 | .750 | .498 | .750 | .508 | .752 | .486 |
| -207 | .784 | .562 | .812 | .590 | .812 | .560 | .812 | .570 | .814 | .548 |
| -208 | .847 | .625 | .875 | .653 | .875 | .623 | .875 | .633 | .877 | .611 |
| -209 | .909 | .687 | .937 | .715 | .937 | .685 | .937 | .695 | .939 | .673 |
| -210 | .972 | .750 | 1.000 | .778 | .990 | .748 | 1.000 | .758 | 1.002 | .736 |
| -211 | 1.034 | .812 | 1.062 | .840 | 1.052 | .810 | 1.062 | .820 | 1.064 | .798 |
| -212 | 1.097 | .875 | 1.125 | .903 | 1.115 | .873 | 1.125 | .883 | 1.127 | .861 |
| -213 | 1.159 | .937 | 1.187 | .965 | 1.177 | .935 | 1.187 | .945 | 1.189 | .923 |
| -214 | 1.222 | 1.000 | 1.250 | 1.028 | 1.240 | .998 | 1.250 | 1.008 | 1.252 | .986 |
| -215 | 1.284 | 1.062 | 1.312 | 1.090 | 1.302 | 1.060 | 1.312 | 1.070 | 1.314 | 1.048 |
| -216 | 1.347 | 1.125 | 1.375 | 1.153 | 1.365 | 1.123 | 1.375 | 1.133 | 1.377 | 1.111 |
| -217 | 1.409 | 1.187 | 1.437 | 1.215 | 1.427 | 1.185 | 1.437 | 1.195 | 1.439 | 1.173 |
| -218 | 1.472 | 1.250 | 1.500 | 1.278 | 1.490 | 1.248 | 1.500 | 1.258 | 1.502 | 1.236 |
| -219 | 1.534 | 1.312 | 1.562 | 1.340 | 1.552 | 1.310 | 1.562 | 1.320 | 1.564 | 1.298 |
| -220 | 1.597 | 1.375 | 1.625 | 1.403 | 1.615 | 1.373 | 1.625 | 1.383 | 1.627 | 1.361 |



Eagle Rock Specialties, LLC

Installation Data (Continued) (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|--------|------------|--------|---------------------|-------|------------|-------|--------------|-------|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -221 | 1.659 | 1.437 | 1.687 | 1.465 | 1.677 | 1.435 | 1.687 | 1.445 | 1.689 | 1.423 |
| -222 | 1.722 | 1.500 | 1.750 | 1.528 | 1.740 | 1.498 | 1.750 | 1.508 | 1.752 | 1.486 |
| -223 | 1.847 | 1.625 | 1.875 | 1.653 | | | | | 1.877 | 1.611 |
| -224 | 1.972 | 1.750 | 2.000 | 1.778 | | | | | 2.002 | 1.736 |
| -225 | 2.097 | 1.875 | 2.125 | 1.903 | | | | | 2.127 | 1.861 |
| -226 | 2.222 | 2.000 | 2.250 | 2.028 | | | | | 2.252 | 1.986 |
| -227 | 2.347 | 2.125 | 2.375 | 2.153 | | | | | 2.377 | 2.111 |
| -228 | 2.472 | 2.250 | 2.500 | 2.278 | | | | | 2.502 | 2.236 |
| -229 | 2.597 | 2.375 | 2.625 | 2.403 | | | | | 2.627 | 2.361 |
| -230 | 2.722 | 2.500 | 2.750 | 2.528 | | | | | 2.752 | 2.486 |
| -231 | 2.847 | 2.625 | 2.875 | 2.653 | | | | | 2.877 | 2.611 |
| -232 | 2.972 | 2.750 | 3.000 | 2.778 | | | | | 3.002 | 2.736 |
| -233 | 3.097 | 2.875 | 3.125 | 2.903 | | | | | 3.127 | 2.861 |
| -234 | 3.222 | 3.000 | 3.250 | 3.028 | | | | | 3.252 | 2.986 |
| -235 | 3.347 | 3.125 | 3.375 | 3.153 | | | | | 3.377 | 3.111 |
| -236 | 3.472 | 3.250 | 3.500 | 3.278 | | | | | 3.502 | 3.236 |
| -237 | 3.597 | 3.375 | 3.625 | 3.403 | | | | | 3.627 | 3.361 |
| -238 | 3.722 | 3.500 | 3.750 | 3.528 | | | | | 3.752 | 3.486 |
| -239 | 3.847 | 3.625 | 3.875 | 3.653 | | | | | 3.877 | 3.611 |
| -240 | 3.972 | 3.750 | 4.000 | 3.778 | | | | | 4.002 | 3.736 |
| -241 | 4.097 | 3.875 | 4.125 | 3.903 | | | | | 4.127 | 3.861 |
| -242 | 4.222 | 4.000 | 4.250 | 4.028 | | | | | 4.252 | 3.986 |
| -243 | 4.347 | 4.125 | 4.375 | 4.153 | | | | | 4.377 | 4.111 |
| -244 | 4.472 | 4.250 | 4.500 | 4.278 | | | | | 4.502 | 4.236 |
| -245 | 4.597 | 4.375 | 4.625 | 4.403 | | | | | 4.627 | 4.361 |
| -246 | 4.722 | 4.500 | 4.750 | 4.528 | | | | | 4.752 | 4.486 |
| -247 | 4.847 | 4.625 | 4.875 | 4.653 | | | | | 4.877 | 4.611 |
| -248 | 4.972 | 4.750 | 5.000 | 4.778 | | | | | 5.002 | 4.736 |
| -249 | 5.097 | 4.875 | 5.125 | 4.903 | | | | | 5.127 | 4.861 |
| -250 | 5.222 | 5.000 | 5.250 | 5.028 | | | | | 5.252 | 4.986 |
| -251 | 5.347 | 5.125 | 5.375 | 5.153 | | | | | 5.377 | 5.111 |
| -252 | 5.472 | 5.250 | 5.500 | 5.278 | | | | | 5.502 | 5.236 |
| -253 | 5.597 | 5.375 | 5.625 | 5.403 | | | | | 5.627 | 5.361 |
| -254 | 5.722 | 5.500 | 5.750 | 5.528 | | | | | 5.752 | 5.486 |
| -255 | 5.847 | 5.625 | 5.875 | 5.653 | | | | | 5.877 | 5.611 |
| -256 | 5.972 | 5.750 | 6.000 | 5.778 | | | | | 6.002 | 5.736 |
| -257 | 6.097 | 5.875 | 6.125 | 5.903 | | | | | 6.127 | 5.861 |
| -258 | 6.222 | 6.000 | 6.250 | 6.028 | | | | | 6.252 | 5.986 |
| -259 | 6.472 | 6.250 | 6.500 | 6.278 | | | | | | |
| -260 | 6.722 | 6.500 | 6.750 | 6.528 | | | | | | |
| -261 | 6.972 | 6.750 | 7.000 | 6.778 | | | | | | |
| -262 | 7.222 | 7.000 | 7.250 | 7.028 | | | | | | |
| -263 | 7.472 | 7.250 | 7.500 | 7.278 | | | | | | |
| -264 | 7.722 | 7.500 | 7.750 | 7.528 | | | | | | |
| -265 | 7.972 | 7.750 | 8.000 | 7.778 | | | | | | |
| -266 | 8.222 | 8.000 | 8.250 | 8.028 | | | | | | |
| -267 | 8.472 | 8.250 | 8.500 | 8.278 | | | | | | |
| -268 | 8.722 | 8.500 | 8.750 | 8.528 | | | | | | |
| -269 | 8.972 | 8.750 | 9.000 | 8.778 | | | | | | |
| -270 | 9.222 | 9.000 | 9.250 | 9.028 | | | | | | |
| -271 | 9.472 | 9.250 | 9.500 | 9.278 | | | | | | |
| -272 | 9.722 | 9.500 | 9.750 | 9.528 | | | | | | |
| -273 | 9.972 | 9.750 | 10.000 | 9.778 | | | | | | |
| -274 | 10.222 | 10.000 | 10.250 | 10.028 | | | | | | |
| -275 | 10.722 | 10.500 | 10.750 | 10.528 | | | | | | |



Installation Data (Continued) (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|--------|------------|--------|---------------------|-------|------------|-------|--------------|---|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -276 | 11.222 | 11.000 | 11.250 | 11.028 | | | | | | |
| -277 | 11.722 | 11.500 | 11.750 | 11.528 | | | | | | |
| -278 | 12.222 | 12.000 | 12.250 | 12.028 | | | | | | |
| -279 | 13.222 | 13.000 | 13.250 | 13.028 | | | | | | |
| -280 | 14.222 | 14.000 | 14.250 | 14.028 | | | | | | |
| -281 | 15.222 | 15.000 | 15.250 | 15.028 | | | | | | |
| -282 | 16.222 | 16.000 | 16.250 | 16.028 | | | | | | |
| -283 | 17.222 | 17.000 | 17.250 | 17.028 | | | | | | |
| -284 | 18.222 | 18.000 | 18.250 | 18.028 | | | | | | |
| -309 | .777 | .437 | .812 | .472 | .805 | .435 | .812 | .442 | | |
| -310 | .840 | .500 | .875 | .535 | .868 | .498 | .875 | .505 | | |
| -311 | .902 | .562 | .937 | .597 | .930 | .560 | .937 | .567 | | |
| -312 | .965 | .625 | 1.000 | .660 | .993 | .623 | 1.000 | .630 | | |
| -313 | 1.027 | .687 | 1.062 | .722 | 1.055 | .685 | 1.062 | .692 | | |
| -314 | 1.090 | .750 | 1.125 | .785 | 1.118 | .748 | 1.125 | .755 | | |
| -315 | 1.152 | .812 | 1.187 | .847 | 1.180 | .810 | 1.187 | .817 | | |
| -316 | 1.215 | .875 | 1.250 | .910 | 1.243 | .873 | 1.250 | .880 | | |
| -317 | 1.277 | .937 | 1.312 | .972 | 1.305 | .935 | 1.312 | .942 | | |
| -318 | 1.340 | 1.000 | 1.375 | 1.035 | 1.368 | .998 | 1.375 | 1.005 | | |
| -319 | 1.402 | 1.062 | 1.437 | 1.097 | 1.430 | 1.060 | 1.437 | 1.067 | | |
| -320 | 1.465 | 1.125 | 1.500 | 1.160 | 1.493 | 1.123 | 1.500 | 1.130 | | |
| -321 | 1.527 | 1.187 | 1.562 | 1.222 | 1.555 | 1.185 | 1.562 | 1.192 | | |
| -322 | 1.590 | 1.250 | 1.625 | 1.285 | 1.618 | 1.248 | 1.625 | 1.255 | | |
| -323 | 1.652 | 1.312 | 1.687 | 1.347 | 1.680 | 1.310 | 1.687 | 1.317 | | |
| -324 | 1.715 | 1.375 | 1.750 | 1.410 | 1.743 | 1.373 | 1.750 | 1.380 | | |
| -325 | 1.840 | 1.500 | 1.875 | 1.535 | 1.868 | 1.498 | 1.875 | 1.505 | | |
| -326 | 1.965 | 1.625 | 2.000 | 1.660 | 1.993 | 1.623 | 2.000 | 1.630 | | |
| -327 | 2.090 | 1.750 | 2.125 | 1.785 | 2.118 | 1.748 | 2.125 | 1.755 | | |
| -328 | 2.215 | 1.875 | 2.250 | 1.910 | 2.243 | 1.873 | 2.250 | 1.880 | | |
| -329 | 2.340 | 2.000 | 2.375 | 2.035 | 2.368 | 1.998 | 2.375 | 2.005 | | |
| -330 | 2.465 | 2.125 | 2.500 | 2.160 | 2.493 | 2.123 | 2.500 | 2.130 | | |
| -331 | 2.590 | 2.250 | 2.625 | 2.285 | 2.618 | 2.248 | 2.625 | 2.255 | | |
| -332 | 2.715 | 2.375 | 2.750 | 2.410 | 2.743 | 2.373 | 2.750 | 2.380 | | |
| -333 | 2.840 | 2.500 | 2.875 | 2.535 | 2.868 | 2.498 | 2.875 | 2.505 | | |
| -334 | 3.965 | 2.625 | 3.000 | 2.660 | 2.993 | 2.623 | 3.000 | 2.630 | | |
| -335 | 3.090 | 2.750 | 3.125 | 2.785 | 3.118 | 2.748 | 3.125 | 2.755 | | |
| -336 | 3.215 | 2.875 | 3.250 | 2.910 | 3.243 | 2.873 | 3.250 | 2.880 | | |
| -337 | 3.340 | 3.000 | 3.375 | 3.035 | 3.368 | 2.998 | 3.375 | 3.005 | | |
| -338 | 3.465 | 3.125 | 3.500 | 3.160 | 3.493 | 3.123 | 3.500 | 3.130 | | |
| -339 | 3.590 | 3.250 | 3.625 | 3.285 | 3.618 | 3.248 | 3.625 | 3.255 | | |
| -340 | 3.715 | 3.375 | 3.750 | 3.410 | 3.743 | 3.373 | 3.750 | 3.380 | | |
| -341 | 3.840 | 3.500 | 3.875 | 3.535 | 3.868 | 3.498 | 3.875 | 3.505 | | |
| -342 | 3.965 | 3.625 | 4.000 | 3.660 | 3.993 | 3.623 | 4.000 | 3.630 | | |
| -343 | 4.090 | 3.750 | 4.125 | 3.785 | 4.118 | 3.748 | 4.125 | 3.755 | | |
| -344 | 4.215 | 3.875 | 4.250 | 3.910 | 4.243 | 3.873 | 4.250 | 3.880 | | |
| -345 | 4.340 | 4.000 | 4.375 | 4.035 | 4.368 | 3.998 | 4.375 | 4.005 | | |
| -346 | 4.465 | 4.125 | 4.500 | 4.160 | 4.493 | 4.123 | 4.500 | 4.130 | | |
| -347 | 4.590 | 4.250 | 4.625 | 4.285 | 4.618 | 4.248 | 4.625 | 4.255 | | |
| -348 | 4.715 | 4.375 | 4.750 | 4.410 | 4.743 | 4.373 | 4.750 | 4.380 | | |
| -349 | 4.840 | 4.500 | 4.875 | 4.535 | 4.868 | 4.498 | 4.875 | 4.505 | | |
| -350 | 4.965 | 4.625 | 5.000 | 4.660 | | | | | | |
| -351 | 5.090 | 4.750 | 5.125 | 4.785 | | | | | | |
| -352 | 5.215 | 4.875 | 5.250 | 4.910 | | | | | | |
| -353 | 5.340 | 5.000 | 5.375 | 5.035 | | | | | | |
| -354 | 5.465 | 5.125 | 5.500 | 5.160 | | | | | | |
| -355 | 5.590 | 5.250 | 5.625 | 5.285 | | | | | | |



Installation Data (Continued) (Inches)

| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|--------|------------|--------|---------------------|-------|------------|-------|--------------|---|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -356 | 5.715 | 5.375 | 5.750 | 5.410 | | | | | | |
| -357 | 5.840 | 5.500 | 5.875 | 5.535 | | | | | | |
| -358 | 5.965 | 5.625 | 6.000 | 5.660 | | | | | | |
| -359 | 6.090 | 5.750 | 6.125 | 5.785 | | | | | | |
| -360 | 6.215 | 5.875 | 6.250 | 5.910 | | | | | | |
| -361 | 6.340 | 6.000 | 6.375 | 6.035 | | | | | | |
| -362 | 6.590 | 6.250 | 6.625 | 6.285 | | | | | | |
| -363 | 6.840 | 6.500 | 6.875 | 6.535 | | | | | | |
| -364 | 7.090 | 6.750 | 7.125 | 6.785 | | | | | | |
| -365 | 7.340 | 7.000 | 7.375 | 7.035 | | | | | | |
| -366 | 7.590 | 7.250 | 7.625 | 7.285 | | | | | | |
| -367 | 7.840 | 7.500 | 7.875 | 7.535 | | | | | | |
| -368 | 8.090 | 7.750 | 8.125 | 7.785 | | | | | | |
| -369 | 8.340 | 8.000 | 8.375 | 8.035 | | | | | | |
| -370 | 8.590 | 8.250 | 8.625 | 8.285 | | | | | | |
| -371 | 8.840 | 8.500 | 8.875 | 8.535 | | | | | | |
| -372 | 9.090 | 8.750 | 9.125 | 8.785 | | | | | | |
| -373 | 9.340 | 9.000 | 9.375 | 9.035 | | | | | | |
| -374 | 9.590 | 9.250 | 9.625 | 9.285 | | | | | | |
| -375 | 9.840 | 9.500 | 9.875 | 9.535 | | | | | | |
| -376 | 10.090 | 9.750 | 10.125 | 9.785 | | | | | | |
| -377 | 10.340 | 10.000 | 10.375 | 10.035 | | | | | | |
| -378 | 10.840 | 10.500 | 10.875 | 10.535 | | | | | | |
| -379 | 11.340 | 11.000 | 11.375 | 11.035 | | | | | | |
| -380 | 11.840 | 11.500 | 11.875 | 11.535 | | | | | | |
| -381 | 12.340 | 12.000 | 12.375 | 12.035 | | | | | | |
| -382 | 13.340 | 13.000 | 13.375 | 13.035 | | | | | | |
| -383 | 14.340 | 14.000 | 14.375 | 14.035 | | | | | | |
| -384 | 15.340 | 15.000 | 15.375 | 15.035 | | | | | | |
| -385 | 16.340 | 16.000 | 16.375 | 16.035 | | | | | | |
| -386 | 17.340 | 17.000 | 17.375 | 17.035 | | | | | | |
| -387 | 18.340 | 18.000 | 18.375 | 18.035 | | | | | | |
| -388 | 19.340 | 19.000 | 19.375 | 19.035 | | | | | | |
| -389 | 20.340 | 20.000 | 20.375 | 20.035 | | | | | | |
| -390 | 21.340 | 21.000 | 21.375 | 21.035 | | | | | | |
| -391 | 22.340 | 22.000 | 22.375 | 22.035 | | | | | | |
| -392 | 23.340 | 23.000 | 23.375 | 23.035 | | | | | | |
| -393 | 24.340 | 24.000 | 24.375 | 24.035 | | | | | | |
| -394 | 25.340 | 25.000 | 25.375 | 25.035 | | | | | | |
| -395 | 26.340 | 26.000 | 26.375 | 26.035 | | | | | | |
| -425 | 4.952 | 4.500 | 5.000 | 4.584 | 4.971 | 4.497 | 5.002 | 4.528 | | |
| -426 | 5.077 | 4.625 | 5.125 | 4.673 | 5.096 | 4.622 | 5.127 | 4.653 | | |
| -427 | 5.202 | 4.750 | 5.250 | 4.798 | 5.221 | 4.747 | 5.252 | 4.778 | | |
| -428 | 5.327 | 4.875 | 5.373 | 4.923 | 5.346 | 4.872 | 5.377 | 4.903 | | |
| -429 | 5.452 | 5.000 | 5.500 | 5.048 | 5.471 | 4.997 | 5.502 | 5.028 | | |
| -430 | 5.577 | 5.125 | 5.625 | 5.173 | 5.596 | 5.122 | 5.627 | 5.153 | | |
| -431 | 5.702 | 5.250 | 5.750 | 5.298 | 5.721 | 5.247 | 5.752 | 5.278 | | |
| -432 | 5.827 | 5.375 | 5.875 | 5.423 | 5.846 | 5.372 | 5.877 | 5.403 | | |
| -433 | 5.952 | 5.500 | 6.000 | 5.548 | 5.971 | 5.497 | 6.002 | 5.528 | | |
| -434 | 6.077 | 5.625 | 6.125 | 5.673 | 6.096 | 5.622 | 6.127 | 5.653 | | |
| -435 | 6.202 | 5.750 | 6.250 | 5.798 | 6.221 | 5.747 | 6.252 | 5.778 | | |
| -436 | 6.327 | 5.875 | 6.375 | 5.923 | 6.346 | 5.872 | 6.377 | 5.903 | | |
| -437 | 6.452 | 6.000 | 6.500 | 6.048 | 6.471 | 5.997 | 6.502 | 6.028 | | |
| -438 | 6.702 | 6.250 | 6.750 | 6.298 | 6.721 | 6.247 | 6.752 | 6.278 | | |
| -439 | 6.952 | 6.500 | 7.000 | 6.548 | 6.971 | 6.497 | 7.002 | 6.528 | | |
| -440 | 7.202 | 6.750 | 7.250 | 6.798 | 7.221 | 6.747 | 7.252 | 6.778 | | |

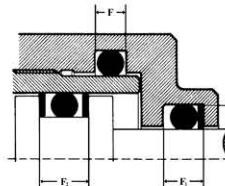


Installation Data (Continued) (Inches)

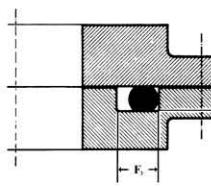
| AS 568A DASH NOS. | STATIC SEALS | | | | RECIPROCATING SEALS | | | | ROTARY SEALS | |
|-------------------------|--------------|--------|------------|--------|---------------------|--------|------------|--------|--------------|---|
| | ID SEALING | | OD SEALING | | ID SEALING | | OD SEALING | | ID SEALING | |
| | A | B | A | B | A | B | A | B | A | B |
| -441 | 7.452 | 7.000 | 7.500 | 7.048 | 7.471 | 6.997 | 7.502 | 7.028 | | |
| -442 | 7.702 | 7.250 | 7.750 | 7.298 | 7.721 | 7.247 | 7.752 | 7.278 | | |
| -443 | 7.952 | 7.500 | 8.000 | 7.548 | 7.971 | 7.497 | 8.002 | 7.528 | | |
| -444 | 8.202 | 7.750 | 8.250 | 7.798 | 8.221 | 7.747 | 8.252 | 7.778 | | |
| -445 | 8.452 | 8.000 | 8.500 | 8.048 | 8.471 | 7.997 | 8.502 | 8.028 | | |
| -446 | 8.952 | 8.500 | 9.000 | 8.548 | 8.971 | 8.497 | 9.002 | 8.528 | | |
| -447 | 9.452 | 9.000 | 9.500 | 9.048 | 9.471 | 8.997 | 9.502 | 9.028 | | |
| -448 | 9.952 | 9.500 | 10.000 | 9.548 | 9.971 | 9.497 | 10.002 | 9.528 | | |
| -449 | 10.452 | 10.000 | 10.500 | 10.048 | 10.471 | 9.997 | 10.502 | 10.028 | | |
| -450 | 10.952 | 10.500 | 11.000 | 10.548 | 10.971 | 10.497 | 11.002 | 10.528 | | |
| -451 | 11.452 | 11.000 | 11.500 | 11.048 | 11.471 | 10.997 | 11.502 | 11.028 | | |
| -452 | 11.952 | 11.500 | 12.000 | 11.548 | 11.971 | 11.497 | 12.002 | 11.528 | | |
| -453 | 12.452 | 12.000 | 12.500 | 12.048 | 12.471 | 11.997 | 12.502 | 12.028 | | |
| -454 | 12.592 | 12.500 | 13.000 | 12.548 | 12.971 | 12.497 | 13.002 | 12.528 | | |
| -455 | 13.452 | 13.000 | 13.500 | 13.048 | 13.471 | 12.997 | 13.502 | 13.028 | | |
| -456 | 13.952 | 13.500 | 14.000 | 13.548 | 13.971 | 13.497 | 14.002 | 13.528 | | |
| -457 | 14.452 | 14.000 | 14.500 | 14.048 | 14.471 | 13.997 | 14.502 | 14.028 | | |
| -458 | 14.952 | 14.500 | 15.000 | 14.548 | 14.971 | 14.497 | 15.002 | 14.528 | | |
| -459 | 15.452 | 15.000 | 15.500 | 15.048 | 15.471 | 14.997 | 15.502 | 15.028 | | |
| -460 | 15.952 | 15.500 | 16.000 | 15.548 | 15.971 | 15.497 | 16.002 | 15.528 | | |
| -461 | 16.452 | 16.000 | 16.500 | 16.048 | | | | | | |
| -462 | 16.952 | 16.500 | 17.000 | 16.548 | | | | | | |
| -463 | 17.452 | 17.000 | 17.500 | 17.048 | | | | | | |
| -464 | 17.952 | 17.500 | 18.000 | 17.548 | | | | | | |
| -465 | 18.452 | 18.000 | 18.500 | 18.048 | | | | | | |
| -466 | 18.952 | 18.500 | 19.000 | 18.548 | | | | | | |
| -467 | 19.452 | 19.000 | 19.500 | 19.048 | | | | | | |
| -468 | 19.952 | 19.500 | 20.000 | 19.548 | | | | | | |
| -469 | 20.452 | 20.000 | 20.500 | 20.048 | | | | | | |
| -470 | 21.452 | 21.000 | 21.500 | 21.048 | | | | | | |
| -471 | 22.452 | 22.000 | 22.500 | 22.048 | | | | | | |
| -472 | 23.452 | 23.000 | 23.500 | 23.048 | | | | | | |
| -473 | 24.452 | 24.000 | 24.500 | 24.048 | | | | | | |
| -474 | 25.452 | 25.000 | 25.500 | 25.048 | | | | | | |
| -475 | 26.452 | 26.000 | 26.500 | 26.048 | | | | | | |



Eagle Rock Specialties, LLC



Radial Dynamic and Static
Surface roughness:
rod/cylinderbore
 $R_t=1\text{-}4\mu$
base of groove,
static $R_t=6\text{-}16\mu$
base of groove,
dynamic $R_t=6\text{-}10\mu$



Axial Static
Surface
roughness:
seal contact
area and base
of groove
 $R_t=6\text{-}16\mu$
pulsating
pressure
 $R_t=6\text{-}16\mu$

Installation Data (Millimeters)

| O-Ring Cross Section | Radial Dynamic and Static | | | Axial Static Only | | Radius | |
|---------------------------|---|----------------------------|---|---|--|---|--------------------------|
| | GROOVE DEPTH $E=+0.06$ TOL. ± 0.06 | Groove Width* | | | GROOVE DEPTH E_1 TOL. ± 0.1 | GROOVE WIDTH* F_3 TOL. ± 0.2 | R WITHOUT BACKRING |
| | | F $+0.2$ TOL. ± 0.2 | F $_1+0.2$ 1 BACKRING TOL. ± 0.2 | F $_2+0.2$ 2 BACKRING TOL. ± 0.2 | | | |
| 0.40 | 0.28 | 0.60 | - | - | 0.28 | 0.60 | - |
| 0.50 | 0.35 | 0.70 | - | - | 0.35 | 0.70 | - |
| 0.60 | 0.45 | 0.80 | - | - | 0.40 | 0.80 | - |
| 1.00 and 1.02 | 0.80 | 1.40 | - | - | 0.65 | 1.40 | 0.2 |
| 1.10, 1.12 and 1.15 | 0.90 | 1.50 | - | - | 0.75 | 1.50 | 0.2 |
| 1.20 | 0.95 | 1.70 | - | - | 0.80 | 1.70 | 0.2 |
| 1.25 and 1.27 | 1.00 | 1.80 | - | - | 0.85 | 1.80 | 0.2 |
| 1.30 | 1.05 | 1.80 | - | - | 0.90 | 1.80 | 0.2 |
| 1.42 and 1.45 | 1.15 | 1.90 | - | - | 0.95 | 1.90 | 0.2 |
| 1.50 and 1.52 | 1.20 | 2.10 | - | - | 1.00 | 2.10 | 0.2 |
| 1.57, 1.60 and 1.63 | 1.30 | 2.20 | - | - | 1.10 | 2.20 | 0.3 |
| 1.78 and 1.8 | 1.45 | 2.40 | 3.80 | 5.20 | 1.20 | 2.40 | 0.4 |
| 1.83 | 1.50 | 2.40 | 3.80 | 5.20 | 1.25 | 2.40 | 0.5 |
| 1.90, 1.98, 2.00 and 2.02 | 1.65 | 2.50 | 3.90 | 5.30 | 1.40 | 2.50 | 0.5 |
| 2.08 and 2.1 | 1.70 | 2.80 | 4.20 | 5.60 | 1.45 | 2.80 | 0.5 |
| 2.20 and 2.21 | 1.85 | 2.90 | 4.30 | 5.70 | 1.55 | 2.90 | 0.5 |
| 2.26 | 1.85 | 3.00 | 4.40 | 5.80 | 1.55 | 3.00 | 0.5 |
| 2.30 | 1.90 | 3.00 | 4.40 | 5.80 | 1.60 | 3.00 | 0.5 |
| 2.40 | 2.00 | 3.20 | 4.60 | 6.00 | 1.70 | 3.20 | 0.5 |
| 2.46 | 2.05 | 3.30 | 4.70 | 6.10 | 1.75 | 3.30 | 0.5 |
| 2.50 | 2.10 | 3.40 | 4.80 | 6.20 | 1.80 | 3.40 | 0.5 |
| 2.60, 2.62 and 2.70 | 2.25 | 3.60 | 5.00 | 6.40 | 1.90 | 3.60 | 0.6 |
| 2.70 and 2.75 | 2.30 | 3.70 | 5.10 | 6.50 | 1.95 | 3.70 | 0.6 |
| 2.95 and 3.00 | 2.50 | 3.90 | 5.30 | 6.70 | 2.20 | 3.90 | 0.8 |
| 3.15 | 2.70 | 4.00 | 5.40 | 6.80 | 2.30 | 4.00 | 0.8 |
| 3.50, 3.53 and 3.60 | 3.10 | 4.80 | 6.20 | 7.60 | 2.70 | 4.80 | 1.0 |
| 4.00 | 3.50 | 5.40 | 7.10 | 8.80 | 3.10 | 5.40 | 1.0 |
| 4.50 | 4.00 | 6.00 | 7.70 | 9.40 | 3.40 | 6.00 | 1.0 |
| 5.00 | 4.30 | 6.70 | 8.40 | 10.10 | 3.90 | 6.70 | 1.0 |
| 5.33 | 4.70 | 7.10 | 8.80 | 10.50 | 4.30 | 7.10 | 1.2 |
| 5.50 | 4.80 | 7.30 | 9.00 | 10.70 | 4.40 | 7.30 | 1.2 |
| 5.70 and 5.80 | 5.00 | 7.70 | 9.40 | 11.10 | 4.60 | 7.70 | 1.2 |
| 6.00 | 5.30 | 8.20 | 9.90 | 11.60 | 4.80 | 8.20 | 1.2 |
| 6.30 and 6.35 | 5.60 | 8.70 | 10.40 | 12.10 | 5.10 | 8.70 | 1.2 |
| 6.50 | 5.70 | 8.90 | 10.60 | 12.30 | 5.40 | 8.90 | 1.2 |
| 7.00 | 6.10 | 9.50 | 12.00 | 14.50 | 5.80 | 9.50 | 1.5 |
| 7.20 | 6.20 | 9.80 | 12.30 | 14.80 | 5.90 | 9.80 | 1.5 |
| 7.50 | 6.50 | 10.40 | 12.90 | 15.40 | 6.20 | 10.40 | 1.5 |
| 8.00 | 7.00 | 11.00 | 13.50 | 16.00 | 6.60 | 11.00 | 1.5 |
| 8.20 | 7.10 | 11.20 | 13.70 | 16.20 | 6.70 | 11.20 | 1.5 |
| 8.40 | 7.50 | 11.70 | 14.20 | 16.70 | 6.90 | 11.70 | 2.0 |
| 9.00 | 7.80 | 12.50 | 15.00 | 17.50 | 7.40 | 12.50 | 2.0 |
| 9.50 | 8.30 | 13.30 | 15.80 | 18.30 | 7.80 | 13.30 | 2.0 |
| 10.00 | 8.70 | 13.50 | 16.00 | 18.50 | 8.30 | 13.50 | 2.0 |
| 11.00 | 9.60 | 15.50 | 18.00 | 20.50 | 9.10 | 15.50 | 3.0 |
| 12.00 | 10.50 | 16.80 | 19.30 | 21.80 | 10.30 | 16.80 | 3.0 |
| 14.00 | 12.20 | 19.00 | 21.50 | 24.00 | 11.60 | 19.00 | 3.0 |
| 15.00 | 13.20 | 20.00 | 22.50 | 25.00 | 12.50 | 20.00 | 3.0 |
| 16.00 | 14.00 | 21.50 | 24.00 | 26.50 | 13.50 | 21.50 | 3.0 |

*Recommendation if the free swell of the O-Rings is less than 10% the groove width can be up to 15% smaller.



Kits

O-Ring Kits

Kits are ready to use in compact, self-contained, cases. The most popular standard and metric sizes are available in several different compounds. The charts below indicate available configurations.



| STANDARD KITS | | | | METRIC KITS | | | | HYDRAULIC FITTING KIT* | |
|---------------|------------------------|-------------------------|---|----------------------|------------------------------|-----------------------|------------------------------|------------------------|------------------------------|
| SIZE | NUMBER OF PIECES | | | EUROPEAN ASSORTMENT† | | JAPANESE ASSORTMENT†† | | SIZE | NO. OF PIECES (620 TOTAL) |
| | TYPE B* (382 Total) | TYPE A** (380 Total) | CONTOURED BACK-UP RINGS *** (756 TOTAL) | SIZE | NO. OF PIECES (385 Total) | SIZE | NO. OF PIECES (396 Total) | | |
| 006 | 20 | 16 | 26 | 2.00 x 3.00 | 16 | 1.90 x 2.80 | 20 | 011 | 30 |
| 007 | 20 | 16 | 26 | 2.00 x 4.00 | 16 | 1.90 x 3.80 | 20 | 012 | 30 |
| 008 | 20 | 16 | 26 | 2.00 x 5.00 | 16 | 1.90 x 4.80 | 18 | 014 | 30 |
| 009 | 20 | 16 | 26 | 2.00 x 6.00 | 16 | 1.90 x 5.80 | 18 | 016 | 30 |
| 010 | 20 | 16 | 26 | 2.00 x 7.00 | 16 | 1.90 x 6.80 | 18 | 018 | 30 |
| 011 | 20 | 16 | 26 | 2.00 x 8.00 | 16 | 1.90 x 7.80 | 18 | 021 | 30 |
| 012 | 20 | 16 | 26 | 2.00 x 10.00 | 16 | 1.90 x 8.80 | 18 | 025 | 30 |
| 110 | 13 | 16 | 26 | 2.50 x 10.00 | 13 | 2.40 x 9.80 | 14 | 029 | 30 |
| 111 | 13 | 16 | 26 | 2.50 x 11.00 | 13 | 2.40 x 10.80 | 14 | 210 | 20 |
| 112 | 13 | 16 | 26 | 2.50 x 12.00 | 13 | 2.40 x 11.80 | 14 | 214 | 20 |
| 113 | 13 | 16 | 26 | 2.50 x 14.00 | 13 | 2.40 x 13.80 | 14 | 219 | 20 |
| 114 | 13 | 16 | 26 | 2.50 x 16.00 | 13 | 2.40 x 15.80 | 14 | 222 | 20 |
| 115 | 13 | 16 | 26 | 2.50 x 17.00 | 13 | 2.40 x 17.80 | 14 | 225 | 10 |
| 116 | 13 | 16 | 26 | 2.50 x 19.00 | 13 | 2.40 x 19.80 | 13 | 228 | 10 |
| 210 | 10 | 12 | 26 | 3.00 x 19.00 | 11 | 3.00 x 20.00 | 11 | 232 | 10 |
| 211 | 10 | 12 | 26 | 3.00 x 20.00 | 12 | 3.00 x 22.00 | 12 | 904 | 30 |
| 212 | 10 | 12 | 26 | 3.00 x 22.00 | 12 | 3.10 x 24.40 | 12 | 905 | 30 |
| 213 | 10 | 12 | 26 | 3.00 x 24.00 | 12 | 3.10 x 29.40 | 11 | 906 | 30 |
| 214 | 10 | 12 | 26 | 3.00 x 25.00 | 12 | 3.10 x 34.40 | 11 | 908 | 30 |
| 215 | 10 | 12 | 26 | 3.00 x 27.00 | 12 | 3.10 x 39.40 | 11 | 910 | 30 |
| 216 | 10 | 12 | 26 | 3.00 x 28.00 | 12 | 3.10 x 44.40 | 11 | 912 | 30 |
| 217 | 10 | 12 | 26 | 3.00 x 30.00 | 12 | 3.50 x 22.10 | 10 | 914 | 30 |
| 218 | 10 | 12 | 26 | 3.00 x 32.00 | 12 | 3.50 x 24.70 | 10 | 916 | 30 |
| 219 | 10 | 12 | 26 | 3.00 x 33.00 | 12 | 3.50 x 25.70 | 10 | 920 | 10 |
| 220 | 10 | 7 | 26 | 3.00 x 35.00 | 12 | 3.50 x 29.70 | 10 | 924 | 10 |
| 221 | 10 | 7 | 26 | 3.00 x 36.00 | 12 | 3.50 x 31.70 | 10 | 932 | 10 |
| 222 | 10 | 7 | 26 | 3.00 x 38.00 | 12 | 3.50 x 33.70 | 10 | | |
| 325 | 7 | 5 | 18 | 4.00 x 38.00 | 9 | 3.50 x 35.70 | 10 | | |
| 326 | 7 | 5 | 18 | 4.00 x 41.00 | 9 | 3.50 x 39.70 | 10 | | |
| 327 | 7 | 5 | 18 | 4.00 x 44.00 | 9 | 3.50 x 47.70 | 10 | | |

*Type B - H70K Nitrile 70 Durometer †European Kits - M70K Metric Nitrile 70 Durometer
H90K Nitrile 90 Durometer MV75K Metric Fluoroelastomer (Black) 75 Durometer
V70K Fluoroelastomer (Black) 75 Durometer
VB75K Fluoroelastomer (Brown) 75 Durometer
V90K Fluoroelastomer (Black) 90 Durometer
VB90K Fluoroelastomer (Brown) 90 Durometer
S70K Silicone 70 Durometer
A80K Aflas® 80 Durometer ††Japanese Kits - M70KJ Metric Nitrile 70 Durometer
N70K Chloroprene 70 Durometer
E70K EPR 70 Durometer M90KJ Metric Nitrile 90 Durometer
QH70K Nitrile Q-Rings 70 Durometer
U90K Urethane 90 Durometer
SH70K Nitrile Square Cut Rings 70 Durometer

**Type A - TFEK PTFE

***Contoured HB90K Back-up Rings Nitrite 90 Durometer

H90KHYDKIT Nitrile 90 Durometer
VB90KHYDKIT Fluoroelastomer 90 Durometer

* Combines 3 popular Hydraulic Fitting Kits:
ORS Flat Face, Boss,
and Split Flange.



O-Ring Cord Stock and Extrusions



Style 0281

Aflas® O-Ring Cord
75 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| .3/32" | .103 – .006/+ .012 | 0281103 |
| 1/8" | .139 – .006/+ .014 | 0281139 |
| 3/16" | .210 – .006/+ .014 | 0281210 |
| 1/4" | .250 – .010/+ .022 | 0281250 |
| 5/16" | .275 – .010/+ .022 | 0281275 |
| 3/8" | .312 – .010/+ .022 | 0281312 |
| | .375 – .010/+ .022 | 0281375 |

Style 0282

EPDM (EPR) O-Ring Cord
70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .005 | 0282070 |
| 3/32" | .093 ± .005 | 0282093 |
| | .103 ± .005 | 0282103 |
| 1/8" | .125 ± .005 | 0282125 |
| | .139 ± .007 | 0282139 |
| 3/16" | .187 ± .007 | 0282187 |
| | .210 ± .007 | 0282210 |
| 1/4" | .250 ± .008 | 0282250 |
| | .275 ± .008 | 0282275 |
| 5/16" | .312 ± .010 | 0282312 |
| 3/8" | .375 ± .010 | 0282375 |
| 7/16" | .437 ± .010 | 0282437 |
| 1/2" | .500 ± .012 | 0282500 |
| 5/8" | .625 ± .012 | 0282625 |
| 3/4" | .750 ± .016 | 0282750 |
| 1" | 1.000 ± .020 | 02821 |



Style 0283

Fluoroelastomer O-Ring Cord 75 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .010 | 0283070 |
| 3/32" | .093 ± .010 | 0283093 |
| | .103 ± .013 | 0283103 |
| 1/8" | .125 ± .013 | 0283125 |
| | .139 ± .016 | 0283139 |
| 3/16" | .187 ± .016 | 0283187 |
| | .210 ± .016 | 0283210 |
| 1/4" | .250 ± .016 | 0283250 |
| | .275 ± .020 | 0283275 |
| 5/16" | .312 ± .020 | 0283312 |
| 3/8" | .375 ± .020 | 0283375 |
| 7/16" | .437 ± .025 | 0283437 |
| 1/2" | .500 ± .025 | 0283500 |
| 5/8" | .625 ± .025 | 0283625 |
| 3/4" | .750 ± .032 | 0283750 |
| 1" | 1.000 ± .032 | 02831 |

Style 0283H

Fluoroelastomer O-Ring Cord
90 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .004 | 0283H070 |
| 3/32" | .103 ± .006 | 0283H103 |
| | .125 ± .013 | 0283H125 |
| 1/8" | .139 ± .016 | 0283H139 |
| 3/16" | .187 ± .016 | 0283H187 |
| | .210 ± .016 | 0283H210 |
| 1/4" | .250 ± .016 | 0283H250 |
| | .275 ± .020 | 0283H275 |
| 5/16" | .312 ± .020 | 0283H312 |
| 3/8" | .375 ± .020 | 0283H375 |



Eagle Rock Specialties, LLC

Style 0283VB

Brown Fluoroelastomer
O-Ring Cord
75 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 3/32" | .103 ± .006 | 0283VB103 |
| 1/8" | .125 ± .013 | 0283VB125 |
| | .139 ± .016 | 0283VB139 |
| 3/16" | .187 ± .016 | 0283VB187 |
| | .210 ± .016 | 0283VB210 |
| 1/4" | .250 ± .016 | 0283VB250 |
| | .275 ± .020 | 0283VB275 |
| 5/16" | .312 ± .020 | 0283VB312 |
| 3/8" | .375 ± .020 | 0283VB375 |
| 7/16" | .437 ± .025 | 0283VB437 |
| 1/2" | .500 ± .025 | 0283VB500 |

Style 0284H

Buna-N O-Ring Cord
90 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 3/32" | .103 ± .005 | 0284H103 |
| 1/8" | .125 ± .005 | 0284H125 |
| | .139 ± .007 | 0284H139 |
| 3/16" | .187 ± .007 | 0284H187 |
| | .210 ± .007 | 0284H210 |
| 1/4" | .250 ± .008 | 0284H250 |
| | .275 ± .008 | 0284H275 |
| 5/16" | .312 ± .010 | 0284H312 |
| 3/8" | .375 ± .010 | 0284H375 |
| 7/16" | .437 ± .010 | 0284H437 |
| 1/2" | .500 ± .012 | 0284H500 |

Style 0284

Buna-N O-Ring Cord
70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .062 ± .005 | 0284062 |
| | .070 ± .005 | 0284070 |
| 3/32" | .093 ± .005 | 0284093 |
| | .103 ± .005 | 0284103 |
| 1/8" | .125 ± .005 | 0284125 |
| | .139 ± .007 | 0284139 |
| 3/16" | .187 ± .007 | 0284187 |
| | .210 ± .007 | 0284210 |
| 1/4" | .250 ± .008 | 0284250 |
| | .275 ± .008 | 0284275 |
| 5/16" | .312 ± .010 | 0284312 |
| 3/8" | .375 ± .010 | 0284375 |
| 7/16" | .437 ± .010 | 0284437 |
| 1/2" | .500 ± .012 | 0284500 |
| 9/16" | .562 ± .012 | 0284562 |
| 5/8" | .625 ± .012 | 0284625 |
| 3/4" | .750 ± .016 | 0284750 |
| 13/16" | .812 ± .018 | 0284812 |
| 7/8" | .875 ± .020 | 0284875 |
| 1" | 1.000 ± .020 | 02841 |
| 1 1/4" | 1.250 ± .046 | 02841250 |
| 1 1/2" | 1.500 ± .051 | 02841500 |

Style 0284S

Buna-N O-Ring Cord
50 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/8" | .139 ± .007 | 0284S139 |
| 3/16" | .210 ± .007 | 0284S210 |
| 1/4" | .250 ± .008 | 0284S250 |
| | .275 ± .008 | 0284S275 |
| 5/16" | .312 ± .010 | 0284S312 |
| 3/8" | .375 ± .010 | 0284S375 |
| 1/2" | .500 ± .012 | 0284S500 |
| 5/8" | .625 ± .012 | 0284S625 |

Style 0285

Neoprene O-Ring Cord
70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .005 | 0285070 |
| 3/32" | .093 ± .005 | 0285093 |
| | .103 ± .005 | 0285103 |
| 1/8" | .125 ± .005 | 0285125 |
| | .139 ± .007 | 0285139 |
| 3/16" | .187 ± .007 | 0285187 |
| | .210 ± .007 | 0285210 |
| 1/4" | .250 ± .008 | 0285250 |
| | .275 ± .008 | 0285275 |
| 5/16" | .312 ± .010 | 0285312 |
| 3/8" | .375 ± .010 | 0285375 |
| 7/16" | .437 ± .010 | 0285437 |
| 1/2" | .500 ± .012 | 0285500 |
| 9/16" | .562 ± .012 | 0285562 |
| 5/8" | .625 ± .012 | 0285625 |
| 3/4" | .750 ± .016 | 0285750 |
| 1" | 1.000 ± .020 | 02851 |



Eagle Rock Specialties, LLC

Style 0286

Silicone O-Ring Cord
70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .007 | 0286070 |
| 3/32" | .093 ± .007 | 0286093 |
| | .103 ± .007 | 0286103 |
| 1/8" | .125 ± .007 | 0286125 |
| | .139 ± .007 | 0286139 |
| 3/16" | .187 ± .007 | 0286187 |
| | .210 ± .007 | 0286210 |
| 1/4" | .250 ± .008 | 0286250 |
| | .275 ± .008 | 0286275 |
| 5/16" | .312 ± .008 | 0286312 |
| 3/8" | .375 ± .010 | 0286375 |
| 7/16" | .437 ± .012 | 0286437 |
| 1/2" | .500 ± .015 | 0286500 |
| 5/8" | .625 ± .015 | 0286625 |
| 3/4" | .750 ± .020 | 0286750 |
| 7/8" | .875 ± .039 | 0286875 |
| 1" | 1.000 ± .051 | 02861 |

Style 0286T

70 Durometer
Silicone Tubing

| SIZE (INCHES) | PART NUMBER |
|-------------------------|------------------------|
| 1/16" I.D. x 3/16" O.D. | 0286T.062 ID x .187 OD |
| 1/8" I.D. x 1/4" O.D. | 0286T.125 ID x .250 OD |

Style 0287

Closed Cell Neoprene
Sponge Cord

| DIAMETER (IN.) | PART NUMBER |
|----------------|-------------|
| 1/8" | 0287125 |
| 3/16" | 0287187 |
| 1/4" | 0287250 |
| 5/16" | 0287312 |
| 3/8" | 0287375 |
| 1/2" | 0287500 |
| 5/8" | 0287625 |
| 3/4" | 0287750 |
| 1" | 02871 |

Style 0292

60 Durometer EPR
Extrusion

| DIAMETER (IN.) | PART NUMBER |
|----------------|--------------|
| 1/2" x 1/2" | 0292500 |
| 5/8" x 5/8" | 0292625 |
| 1/2" x 3/4" | 029500 x 750 |

Style 0293

70 Durometer
Fluorelastomer Extrusion

| DIAMETER (IN.) | PART NUMBER |
|----------------|-------------|
| 5/8" x 7/8" | 0293625x875 |

Style 0294

60 Durometer
Silicone Extrusion

Style 0295W

60 Durometer White
Neoprene Extrusion

| DIAMETER (IN.) | PART NUMBER |
|----------------|-------------|
| 1/2" x 1/2" | 0295W500 |

Style 0296

Buna-N O-Ring Cord
70 Durometer (Square)

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 3/32" | .098 ± .007 | 0296098 |
| 1/8" | .133 ± .007 | 0296133 |
| 3/16" | .202 ± .010 | 0296202 |
| 1/4" | .264 ± .016 | 0296264 |
| 5/16" | .313 ± .020 | 0296313 |
| 3/8" | .375 ± .020 | 0296375 |
| 1/2" | .500 ± .025 | 0296500 |
| 5/8" | .625 ± .025 | 0296625 |
| 3/4" | .750 ± .025 | 0296750 |
| 1" | 1.000 ± .025 | 0296100 |

Style 0297

Fluoroelastomer
Square/Rectangular
Cord 70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/8" | .125 ± .007 | 0297125 |
| | .134 ± .007 | 0297134 |
| 3/16" | .187 ± .009 | 0297187 |
| 1/4" | .250 ± .010 | 0297250 |
| 5/16" | .313 ± .012 | 0297313 |
| 3/8" | .375 ± .012 | 0297375 |
| 3/8" x 1/2" | .375 x .500 ± .018 | 0297375X500 |
| 1/2" | .500 ± .018 | 0297500 |
| 5/8" | .625 ± .022 | 0297625 |
| 3/4" | .750 ± .025 | 0297750 |



Eagle Rock Specialties, LLC

Style 0M283V

Fluoroelastomer O-Ring Cord
75 Durometer (Metric)

| CROSS SECTION | | PART NUMBER |
|---------------|-------------------------|-------------|
| MILLIMETERS | INCHES | |
| 1.6 | .062 ± .004 | 0M283V1.6 |
| 2 | .079 ± .004 | 0M283V2 |
| 2.4 | .094 ± .005 | 0M283V2.4 |
| 2.5 | .098 ± .005 | 0M283V2.5 |
| 3 | .119 ± .005 | 0M283V3 |
| 3.5 | SEE PART NUMBER 0283139 | |
| 4 | .157 ± .007 | 0M283V4 |
| 4.5 | .177 ± .008 | 0M283V4.5 |
| 5 | .196 ± .008 | 0M283V5 |
| 5.7 | .224 ± .010 | 0M283V5.7 |
| 6 | .236 ± .010 | 0M283V6 |
| 7.5 | .295 ± .010 | 0M283V7.5 |
| 8 | .315 ± .012 | 0M283V8 |
| 9 | .354 ± .013 | 0M283V9 |
| 10 | .393 ± .014 | 0M283V10 |
| 12 | .472 ± .018 | 0M283V12 |
| 14 | .551 ± .020 | 0M283V14 |

Style 0Q283

Fluoroelastomer
Q-Ring Cord 75
Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/16" | .070 ± .007 | 0Q283070 |
| 3/32" | .103 ± .007 | 0Q283103 |
| 1/8" | .139 ± .010 | 0Q283139 |
| 3/16" | .210 ± .012 | 0Q283210 |
| 1/4" | .275 ± .012 | 0Q283275 |
| 3/8" | .375 ± .014 | 0Q283375 |
| 1/2" | .500 ± .018 | 0Q283500 |

Style 0M284B

Buna-N O-Ring Cord
70 Durometer (Metric)

| CROSS SECTION | | PART NUMBER |
|---------------|--------------------------|-------------|
| MILLIMETERS | INCHES | |
| 1 | .040 ± .005 | 0M284B1 |
| 1.6 | SEE PART NUMBER 0284062 | |
| 2 | .079 ± .005 | 0M284B2 |
| 2.4 | .094 ± .005 | 0M284B2.4 |
| 2.5 | .098 ± .005 | 0M284B2.5 |
| 3 | .118 ± .006 | 0M284B3 |
| 3.5 | SEE PART NUMBER 0284139 | |
| 4 | .157 ± .007 | 0M284B4 |
| 4.5 | .177 ± .007 | 0M284B4.5 |
| 5 | .196 ± .007 | 0M284B5 |
| 5.7 | .224 ± .007 | 0M284B5.7 |
| 6 | .236 ± .007 | 0M284B6 |
| 7 | SEE PART NUMBER 02840275 | |
| 7.5 | .295 ± .008 | 0M284B7.5 |
| 8 | .315 ± .010 | 0M284B8 |
| 8.4 | .331 ± .010 | 0M284B8.4 |
| 9 | .354 ± .010 | 0M284B9 |
| 10 | .394 ± .010 | 0M284B10 |
| 11 | SEE PART NUMBER 0284437 | |
| 12 | .472 ± .010 | 0M284B12 |
| 13 | .512 ± .012 | 0M284B13 |
| 14 | .551 ± .015 | 0M284B14 |

Style 0Q284

Buna-N Q-Ring Cord
70 Durometer

| CROSS SECTION | | PART NUMBER |
|---------------|--------------|-------------|
| NOMINAL (IN.) | ACTUAL (IN.) | |
| 1/8" | .139 ± .010 | 0Q284139 |
| 3/16" | .210 ± .010 | 0Q284210 |
| 1/4" | .275 ± .010 | 0Q284275 |
| 1/2" | .500 ± .010 | 0Q284500 |

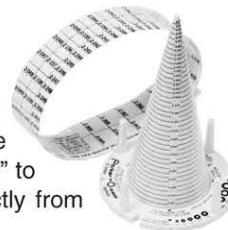


Related O-Ring Items

Style ORC

O-Ring Measuring Cone and Tape

Unique device for measuring o-rings up to 8" inside diameter. The base of the cone is used to determine the cross section of the o-ring. Then, for o-rings 1/4" to 3" inside diameter, the ring is simply dropped over the cone, and the size is read above the o-ring. For o-rings from 3" to 8" inside diameter, the tape is simply expanded inside the o-ring, and the size is read directly from the tape. All size numbers correspond to industry ARP standard size series.



Style ORCB

Large O-Ring Measuring Cone

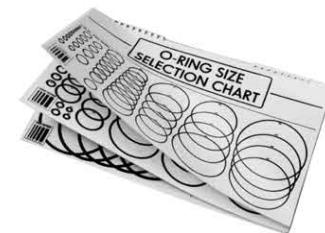
Similar to Style ORC, but will measure o-rings up to 5 5/8" inside diameter on the cone. No tape is included.



Style ORCH

O-Ring Sizing Chart

Laminated flip-chart pictures actual o-ring sizes up to 8" inside diameter. The o-ring is simply placed on the chart and lined up with the correct inside diameter and cross section. The standard size is then read directly from the chart.



Style ORMMT

Measuring Tape for Metric O-Rings

Measures metric o-rings on one side and standard o-rings on the other. Measures metric o-rings from 70 mm to 254 mm inside diameter and standard o-rings from 3 1/8" to 10" inside diameter.



Style ORMMTL

Measuring Tape for Metric O-Rings (Large)

Same as Style ORMMT, but measures metric o-rings from 65mm to 484mm inside diameter and standard o-rings from 2-1/2" to 19" inside diameter.

Style ORSG

O-Ring Slide Gauge

Slide gauge for measuring standard O-Rings up to 13" inside diameter.



Style ORID

O-Ring Identifier

Used to verify the material composition of 60-80 durometer O-Rings that are known to be either Viton®, Kalrez®, Nitrile, or EPDM. Stainless steel tubular construction.





Eagle Rock Specialties, LLC

Style ORP

O-Ring Picks

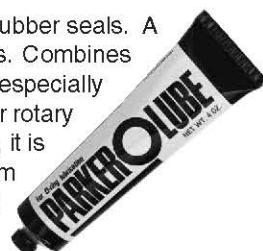
Set of two brass picks with two working ends on each pick. Plastic storage pouch is included. Used to extract o-rings that have been installed. Particularly useful when o-rings have been in service or when close tolerances are involved.



Style ORL

O-Ring Lubricant

Barium base petroleum grease formulated to facilitate installation and extend service life of synthetic rubber seals. A film applied to the seal itself as well as surfaces over which the seal will travel is suggested for best results. Combines excellent surface adherence characteristics and lubricity with inherent water resistance. It is especially recommended for low pressure pneumatic systems as well as reciprocating and low speed oscillating or rotary applications. Well suited for most sealing service within a -20° to +300°F temperature range. However, it is not recommended for use in systems having micronic filters or in contact with seals unsuited for petroleum oil service such as silicone, butyl, or ethylene propylene rubber. If the conditions exist, use of Style ORLS (see below) should be considered. (4 ounce tube)



Style ORLS

O-Ring Lubricant (Super)

Silicone lubricant intended to complement Style ORL (above) in that it can be used with virtually any rubber polymer. It can also be used over a wider temperature range and in most cases will provide better environmental protection to the elastomer. It is recommended that this lubricant be used sparingly as only a thin film is necessary for best results. It is useful with a wide variety of fluid media since it is quite inert. High pressure systems as well as vacuum uses are typical applications where this lubricant is beneficial. It is useful from -65° to +400°F. It is non-toxic and non irritating under normal conditions. It will not clog 30 micron filters and is unusually moisture resistant and adheres with unusual tenacity. (2 ounce tube)



| | STYLE ORL | STYLE ORLS |
|---|---|---|
| Type | Barium grease | High viscosity silicone fluid |
| Temperature Range °F °(C) | -20 to +180 ⁽¹⁾ (-29 to +82) | -65 to +400 ⁽²⁾ (-54 to +204) |
| Seal Use | Hydrocarbon fluids Pneumatic systems under 200 psi | General purpose High pressure pneumatic |
| Suitable For Use With Rubber Compounds: | Fluorocarbon Fluorosilicone Neoprene Nitrile Polyphosphazine Polyacrylate Polysulfide Polyurethane | Fluorocarbon Fluorosilicone Neoprene Nitrile Polyphosphazine Polyacrylate Polysulfide Polyurethane Butadiene Butyl Ethylene Propylene Isoprene SBR (GRS) Silicone ⁽²⁾ |
| Will Pass Through Micronic Filters? | No | Yes |

NOTES:

Assembly lubricants should always be used sparingly during application. A light film is all that is required. This is doubly important in cases 1 and 2 below.

1. When a thin film of Style ORL is used for assembly purposes only, the assembly may be subjected to higher temperatures, with limits determined by the fluid and elastomer being used.

2. Use only a thin film of Style ORLS on silicone rubber if the temperature will exceed 300°F.



Compound Selection for Fluids and Chemicals

| | NITRILE | CHLORO-PRENE | ETHYLENE PROPYLENE (EPR) | FLUORO-ELASTOMER | SILICONE | STYRENE BUTADIENE (SBR) | FLUORO-SILICONE | BUTYL | AFLAS® | URETHANE |
|---------------------------------|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| Acetaldehyde | D | C | A | D | B | C | D | A | D | D |
| Acetamide | A | B | A | B | B | D | A | A | B | D |
| Acetic Acid, Glacial | C | D | A | C | B | B | D | B | C | D |
| Acetic Acid, 30% | B | A | A | B | A | B | B | B | D | D |
| Acetic Anhydride | C | B | B | D | C | B | D | B | D | D |
| Acetone | D | C | A | D | C | C | D | A | D | D |
| Acetophenone | D | D | A | D | D | D | D | A | D | D |
| Acetyl Chloride | D | D | D | A | C | D | A | D | D | D |
| Acetylene | A | B | A | A | B | B | E | A | A | D |
| Acrylonitrile | D | D | D | C | D | D | E | D | B | D |
| Adipic Acid | A | A | A | E | E | A | A | A | D | E |
| Alkazene (Dibromoethyl-benzene) | D | D | D | B | D | D | B | D | B | D |
| Alum-NH ₃ -Cr-K (aq) | A | A | A | D | A | A | D | A | A | E |
| Aluminum Acetate (aq) | B | B | A | D | D | B | D | A | A | D |
| Aluminum Chloride (aq) | A | A | A | A | B | A | A | A | A | C |
| Aluminum Fluoride (aq) | A | A | A | A | B | A | A | A | A | C |
| Aluminum Nitrate (aq) | A | A | A | A | B | A | E | A | A | C |
| Aluminum Phosphate (aq) | A | A | A | A | A | A | E | A | D | E |
| Aluminum Sulfate (aq) | A | A | A | A | A | A | A | A | A | D |
| Ammonia, Anhydrous | B | A | A | D | C | D | D | A | A | D |
| Ammonia Gas (cold) | A | A | A | D | A | A | D | A | A | E |
| Ammonia Gas (hot) | D | B | B | D | A | D | D | B | A | E |
| Ammonium Carbonate (aq) | D | A | B | E | E | A | E | A | A | D |
| Ammonium Chloride (aq) | A | A | A | A | E | A | E | A | A | A |
| Ammonium Hydroxide(conc.) | D | A | A | B | A | D | B | A | A | D |
| Ammonium Nitrate (aq) | A | A | A | E | E | B | E | A | A | E |
| Ammonium Nitrite (aq) | A | A | A | E | B | A | E | A | A | E |
| Ammonium Persulfate (aq) | D | A | A | E | E | D | E | A | A | D |
| Ammonium Phosphate (aq) | A | A | A | E | A | A | E | A | A | E |
| Ammonium Sulfate (aq) | A | A | A | D | E | A | E | A | A | E |
| Amyl Acetate(Banana Oil) | D | D | A | D | D | D | D | C | D | D |
| Amyl Alcohol | B | B | A | B | D | B | A | A | A | D |
| Amyl Borate | A | A | D | A | E | D | E | D | A | E |
| Amyl Chloronaphthalene | D | D | D | A | D | D | B | D | B | E |
| Amyl Naphthalene | D | D | D | A | D | D | A | D | B | D |
| Aniline | D | D | A | C | D | D | C | A | A | D |
| Aniline Dyes | D | B | A | B | C | B | B | B | A | D |
| Aniline Hydrochloride | B | D | B | B | D | D | B | B | A | D |
| Animal Fats | A | B | B | A | B | D | A | B | A | B |
| Ansul Ether(Anesthetics) | C | D | C | D | D | D | C | C | D | B |
| Aqua Regia | D | D | C | B | D | D | C | D | B | E |
| Aroclor, 1248 | C | D | C | A | B | D | B | C | A | D |
| Aroclor, 1254 | D | D | C | A | C | D | B | D | A | D |
| Aroclor, 1260 | A | A | A | A | B | A | A | A | A | D |
| Arsenic Acid | A | A | A | A | A | A | A | A | A | C |
| Arsenic Trichloride (aq) | A | A | C | E | E | D | E | C | D | E |
| Askarel | B | D | D | A | D | D | B | D | A | D |
| Asphalt | B | B | D | A | D | D | B | D | A | B |
| ASTM Fuel A | A | B | D | A | D | D | A | D | B | A |
| ASTM Fuel B | A | C | D | A | D | D | A | D | D | B |
| ASTM Fuel C | A | C | D | A | D | D | A | D | D | D |
| ASTM Fuel D | A | C | D | A | D | D | A | D | D | E |
| ASTM Oil One | A | A | D | A | C | D | A | D | A | A |
| ASTM Oil Two | A | B | D | A | C | D | A | D | A | B |

A. SATISFACTORY B. FAIR C. SEVERE EFFECT – EXCEPT FOR SOME STATIC APPLICATIONS D. UNSATISFACTORY E. INSUFFICIENT INFORMATION

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Eagle Rock Specialties, LLC

Compound Selection for Fluids and Chemicals (Continued)

| | NITRILE | CHLORO-PRENE | ETHYLENE PROPYLENE (EPR) | FLUORO-ELASTOMER | SILICONE | STYRENE BUTADIENE (SBR) | FLUORO-SILICONE | BUTYL | AFLAS® | URETHANE |
|----------------------------------|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| ASTM Oil Three | A | B | D | A | C | D | A | D | A | B |
| Barium Chloride (aq) | A | A | A | A | A | A | A | A | A | A |
| Barium Hydroxide (aq) | A | A | A | A | A | A | A | A | A | D |
| Barium Sulfate (aq) | A | A | A | A | A | A | A | A | A | E |
| Barium Sulfide (aq) | A | A | A | A | A | B | A | A | A | A |
| Beer | A | A | A | A | A | A | A | A | A | B |
| Beet Sugar Liquors | A | B | A | A | A | A | A | A | A | D |
| Benzaldehyde | D | D | A | D | B | D | C | A | B | D |
| Benzene | D | D | D | A | D | D | C | D | C | D |
| Benzene Sulfonic Acid | D | B | C | A | D | D | B | D | D | D |
| Benzine (Ligroin) (Nitrobenzine) | A | B | D | A | D | D | A | D | B | B |
| Benzoic Acid | C | D | C | A | C | D | B | D | A | D |
| Benzoyl Chloride | D | D | D | A | E | D | B | D | A | E |
| Benzyl Alcohol | D | B | A | A | B | D | B | A | A | D |
| Benzyl Benzoate | D | D | B | A | E | D | A | B | A | D |
| Benzyl Chloride | D | D | D | A | D | D | B | D | A | D |
| Biphenyl (Phenylbenzene) | D | D | D | A | D | D | B | D | D | D |
| Bleach Solutions | D | D | A | A | B | D | B | A | A | D |
| Borax | B | A | A | A | B | B | B | A | A | A |
| Bordeaux Mixture | B | B | A | A | B | B | B | A | A | D |
| Boric Acid | A | A | A | A | A | A | A | A | A | A |
| Brine | A | A | A | A | A | A | A | A | D | B |
| Bromine, Anhydrous | D | D | D | A | D | D | B | D | E | D |
| Bromine Trifluoride | D | D | D | D | D | D | D | D | E | D |
| Bromine Water | D | D | B | A | D | D | B | C | A | D |
| Bromobenzene | D | D | D | A | D | D | A | D | D | D |
| Bunker Oil | A | D | D | A | B | D | A | D | A | B |
| Butadiene | D | D | C | A | D | D | B | D | E | D |
| Butane | A | A | D | A | D | D | A | D | B | A |
| Butter (Animal Fat) | A | B | A | A | B | D | A | B | A | A |
| Butyl Acetate | D | D | C | D | D | D | D | C | D | D |
| Butyl Acetyl Ricinoleate | C | B | A | A | E | D | B | A | A | D |
| Butyl Acrylate | D | D | D | D | E | D | D | D | D | E |
| Butyl Alcohol | A | A | B | A | B | A | B | B | A | D |
| Butyl Amine | C | D | B | D | D | D | D | C | B | D |
| Butyl Benzoate | D | D | B | A | E | B | A | B | A | E |
| Butyl Carbitol | D | C | A | A | D | D | D | A | B | E |
| Butyl Cellosolve | D | C | A | D | E | D | D | A | E | D |
| Butyl Oleate | D | D | B | A | E | D | B | B | A | E |
| Butyl Stearate | B | D | C | A | E | D | B | C | A | E |
| Butylene | B | C | D | A | D | D | B | D | A | D |
| Butyraldehyde | D | C | B | D | D | D | D | B | D | D |
| Calcium Acetate (aq) | B | B | A | D | D | D | D | A | A | D |
| Calcium Bisulfite (aq) | B | A | A | A | A | D | A | D | A | C |
| Calcium Chloride (aq) | A | A | A | A | A | A | A | A | A | A |
| Calcium Hydroxide (aq) | A | A | A | A | A | A | A | A | A | B |
| Calcium Hypochlorite(aq) | B | C | A | A | B | C | B | A | A | D |
| Calcium Nitrate (aq) | A | A | A | A | B | A | A | A | A | A |
| Calcium Sulfide (aq) | A | A | A | A | B | B | A | A | A | A |
| Cane Sugar Liquors | A | A | A | A | A | A | A | A | A | D |
| Carbamate | C | B | B | A | E | D | A | B | A | D |
| Carbitol | B | B | B | B | B | B | B | B | A | D |
| Carbolic Acid (Phenol) | D | C | B | A | D | E | A | B | A | C |
| Carbon Bisulfide | C | D | D | A | D | D | A | D | A | E |

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|-------------------------------------|---------|-------------|--------------------------|------------------|----------|-------------------------|----------------|-------|--------|----------|
| Carbon Dioxide | A | B | B | A | B | B | A | B | A | A |
| Carbonic Acid | B | A | A | A | A | B | A | A | A | A |
| Carbon Monoxide | A | B | A | A | A | B | B | A | A | A |
| Carbon Tetrachloride | C | D | D | A | D | D | C | D | C | D |
| Castor Oil | A | A | B | A | A | A | A | B | A | A |
| Cellosolve | D | D | B | C | D | D | D | B | A | D |
| Cellosolve Acetate | D | D | B | D | D | D | D | B | C | D |
| Cellulube (Fryquel) | D | D | A | A | E | D | C | A | B | D |
| China Wood Oil (Tung Oil) | A | B | C | A | D | D | B | C | A | C |
| Chlorine (dry) | D | C | D | A | D | D | A | D | E | E |
| Chlorine (wet) | D | C | C | A | D | D | B | C | E | E |
| Chlorine Dioxide | D | D | C | A | E | D | B | C | E | D |
| Chlorine Trifluoride | D | D | D | D | D | D | C | D | E | D |
| Chloroacetic Acid | D | D | A | D | E | D | D | B | E | E |
| Chloroacetone | D | C | A | D | D | D | D | B | D | D |
| Chlorobenzene | D | D | D | A | D | D | B | D | C | D |
| Chlorobromomethane | D | D | B | A | D | D | B | B | E | D |
| Chlorobutadiene | D | D | D | A | D | D | B | D | C | D |
| Chlorododecane | D | D | D | A | D | D | A | D | B | D |
| Chloroform | D | D | D | A | D | D | D | D | D | D |
| O-Chloronaphthalene | D | D | D | A | D | D | B | D | E | D |
| 1-Chloro 1-Nitro Ethane | D | D | D | D | D | D | D | D | E | D |
| Chlorosulfonic Acid | D | D | D | D | D | D | D | D | B | D |
| Chlorotoluene | D | D | D | A | D | D | B | D | D | D |
| Chlorox (Sodium Hypochlorite NaOCl) | B | A | B | A | B | D | B | B | A | D |
| Chrome Plating Solutions | D | D | B | A | B | D | B | B | A | D |
| Chromic Acid | D | C | C | A | C | D | C | C | E | E |
| Citric Acid | A | A | A | A | A | A | A | A | A | A |
| Coal Tar (Creosote) | A | B | D | A | D | D | A | D | E | C |
| Cobalt Chloride (aq) | A | A | A | A | B | A | A | A | A | E |
| Coconut Oil | A | B | C | A | A | D | A | C | A | C |
| Cod Liver Oil | A | B | A | A | B | D | A | A | A | A |
| Coke Oven Gas | D | D | D | A | B | D | B | D | A | D |
| Copper Acetate (aq) | B | B | A | D | D | D | D | A | D | D |
| Copper Chloride (aq) | A | B | A | A | A | A | A | A | A | A |
| Copper Cyanide (aq) | A | A | A | A | A | A | A | A | B | A |
| Copper Sulfate (aq) | A | A | A | A | A | B | A | B | A | E |
| Corn Oil | A | C | C | A | A | D | A | C | A | A |
| Cottonseed Oil | A | B | B | A | A | D | A | C | A | A |
| Creosote (coal tar) | A | B | D | A | D | D | A | D | A | C |
| Cresol | D | C | D | A | D | D | B | D | A | E |
| Cresylic Acid | D | C | D | A | D | D | B | D | A | D |
| Cumene | D | D | D | A | D | D | B | D | C | D |
| Cyclohexane | A | C | D | A | D | D | B | D | B | A |
| Cyclohexanol | C | A | C | A | D | D | A | D | A | E |
| Cyclohexanone | D | D | B | D | D | D | D | B | C | D |
| P-Cymene | D | D | D | A | D | D | B | D | C | D |
| Decalin | D | D | D | A | D | D | A | D | B | E |
| Decane | A | D | D | A | B | D | A | D | B | B |
| Denatured Alcohol | A | A | A | A | A | A | A | A | A | D |
| Detergent Solutions | A | B | A | A | A | B | A | A | A | D |
| Developing Fluids | A | A | B | A | A | B | A | A | A | E |
| Diacetone | D | D | A | D | D | D | D | A | C | D |
| Diacetone Alcohol | D | B | A | D | B | D | D | A | C | D |

A. SATISFACTORY B. FAIR C. SEVERE EFFECT – EXCEPT FOR SOME STATIC APPLICATIONS D. UNSATISFACTORY E. INSUFFICIENT INFORMATION

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|---------------------------------|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| Dibenzyl Ether | D | C | B | D | E | D | E | B | D | B |
| Dibenzyl Sebacate | D | D | B | B | C | D | C | B | A | B |
| Dibromoethyl benzene (Alkazene) | D | D | D | B | D | D | B | D | D | D |
| Diethyl Amine | D | D | C | D | C | D | D | D | A | D |
| Diethyl Ether | D | C | C | C | D | D | C | C | D | B |
| Diethyl Phthalate | D | D | B | C | B | D | C | C | B | C |
| Diethyl Sebacate | D | D | B | B | B | D | B | B | B | D |
| O-Dichlorobenzene | D | D | D | A | D | D | B | D | D | D |
| Dichloro-Isopropyl Ether | D | D | C | C | D | D | C | D | D | B |
| Dicyclohexylamine | C | D | D | D | E | D | D | D | B | D |
| Diesel Oil | A | C | D | A | D | D | A | D | A | C |
| Diethylamine | B | B | B | D | B | B | D | B | B | C |
| Diethyl Benzene | D | D | D | A | D | D | C | D | E | E |
| Diethyl Ether | D | C | D | D | D | D | C | D | D | A |
| Diethylene Glycol | A | A | A | A | B | A | A | A | A | D |
| Diethyl Sebacate | B | D | B | B | B | D | B | B | B | D |
| Diisobutylene | B | D | D | A | D | D | C | D | B | D |
| Diisopropyl Benzene | D | D | D | A | E | D | B | D | E | E |
| Diisopropyl Ketone | D | D | A | D | D | D | D | A | D | D |
| Diisopropylidene Acetone | D | D | C | D | D | D | D | C | E | E |
| Dimethyl Aniline (Xyldine) | C | C | B | D | D | C | D | C | E | E |
| Dimethyl Ether (Methyl Ether) | A | C | D | A | A | D | A | D | E | E |
| Dimethyl Formamide | B | C | B | D | B | D | D | B | B | D |
| Dimethyl Phthalate | D | D | B | B | E | D | B | B | B | E |
| Dinitrotoluene | D | D | D | D | D | D | D | D | D | D |
| Diocyl Phthalate | C | D | B | B | C | D | B | B | B | D |
| Diocyl Sebacate | D | D | B | B | C | D | C | B | B | B |
| Dioxane | D | D | B | D | D | D | C | B | D | D |
| Dioxolane | D | D | B | D | D | D | D | C | D | D |
| Dipentene | A | D | D | A | D | D | C | D | C | D |
| Diphenyl (Phenylbenzene) | D | D | D | A | D | D | B | D | D | D |
| Diphenyl Oxides | D | D | D | A | C | D | B | D | B | D |
| Dowtherm Oil | D | D | D | A | C | D | B | D | E | E |
| Dry Cleaning Fluids | C | D | D | A | D | D | B | D | C | D |
| Epichlorohydrin | D | D | B | D | D | D | D | B | D | D |
| Ethane | A | B | D | A | D | D | B | D | A | C |
| Ethanolamine | B | B | B | D | B | B | D | B | A | C |
| Ethyl Acetate | D | C | B | D | B | D | D | B | D | D |
| Ethyl Acetoacetate | D | C | B | D | B | C | D | B | D | D |
| Ethyl Acrylate | D | D | B | D | B | D | D | B | D | D |
| Ethyl Alcohol | A | A | A | C | A | A | A | A | A | D |
| Ethyl Benzene | D | D | D | A | D | D | A | D | D | D |
| Ethyl Benzoate | D | D | A | A | D | A | A | A | C | D |
| Ethyl Cellosolve | D | D | B | D | D | D | D | D | A | D |
| Ethyl Cellulose | B | B | B | D | C | B | D | B | A | B |
| Ethyl Chloride | A | D | C | A | D | D | A | D | B | B |
| Ethyl Chlorocarbonate | D | D | B | A | D | D | B | C | B | D |
| Ethyl Chloroformate | D | D | B | D | D | D | D | C | B | D |
| Ethyl Ether | C | C | C | D | D | D | C | C | D | D |
| Ethyl Formate | D | B | B | A | E | D | A | B | A | D |
| Ethyl Mercaptan | D | C | C | B | C | D | E | D | B | E |
| Ethyl Oxalate | D | C | A | A | D | A | B | A | E | E |
| Ethyl Pentachlorobenzene | D | D | D | A | D | D | B | D | D | D |
| Ethyl Silicate | A | A | A | A | E | B | A | A | A | E |

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|---------------------------|---------|-------------|--------------------------|------------------|----------|-------------------------|----------------|-------|--------|----------|
| Ethylene | A | C | B | A | E | C | A | B | E | E |
| Ethylene Chloride | D | D | C | B | D | D | C | C | A | D |
| Ethylene Chlorohydrin | D | B | B | A | C | B | B | B | A | D |
| Ethylene Diamine | A | A | A | D | A | B | D | A | A | D |
| Ethylene Dichloride | D | D | C | A | D | D | C | C | E | D |
| Ethylene Glycol | A | A | A | A | A | A | A | A | A | B |
| Ethylene Oxide | D | D | C | D | D | D | D | C | D | D |
| Ethylene Trichloride | D | D | C | A | D | D | C | C | E | D |
| Fatty Acids | B | B | C | A | C | D | E | C | A | E |
| Ferric Chloride (aq) | A | A | A | A | B | A | A | A | A | A |
| Ferric Nitrate (aq) | A | A | A | A | C | A | A | A | A | A |
| Ferric Sulfate (aq) | A | A | A | A | B | A | A | A | A | E |
| Fish Oil | A | D | D | A | A | D | A | D | E | E |
| Fluorinated Cyclic Ethers | E | D | A | E | E | D | E | A | E | E |
| Fluorine (liquid) | D | D | D | E | D | D | E | D | E | E |
| Fluorobenzene | D | D | D | A | D | D | B | D | E | E |
| Fluoroboric Acid | A | A | A | E | E | A | E | A | E | E |
| Fluorocarbon Oils | E | B | A | E | E | B | E | A | E | E |
| Fluorolube | A | B | A | B | A | C | B | A | B | E |
| Fluorosilicic Acid | A | B | B | A | D | C | D | B | E | E |
| Formaldehyde (RT) | C | B | A | D | B | B | D | A | B | D |
| Formic Acid | B | A | A | C | B | A | C | A | E | E |
| Freon 11 | B | C | D | A | D | D | B | D | D | E |
| Freon 12 | A | A | B | B | D | A | C | B | D | A |
| Freon 13 | A | A | A | A | D | A | D | A | D | E |
| Freon 21 | D | D | D | D | D | D | E | D | D | E |
| Freon 22 | D | A | A | D | D | A | D | A | D | D |
| Freon 31 | D | B | A | D | E | B | E | A | D | E |
| Freon 32 | A | A | A | D | E | A | E | A | D | E |
| Freon 112 | B | C | D | A | D | C | E | D | D | E |
| Freon 113 | A | A | C | B | D | B | D | D | D | A |
| Freon 114 | A | A | A | B | D | A | B | A | D | E |
| Freon 115 | A | A | A | B | E | A | E | A | D | E |
| Freon 142b | A | A | B | D | E | B | E | A | D | E |
| Freon 152a | A | A | A | D | E | A | E | A | D | E |
| Freon 218 | A | A | A | A | E | A | E | A | D | E |
| Freon C316 | A | A | A | E | E | A | E | A | D | E |
| Freon C318 | A | A | A | B | E | A | E | A | D | E |
| Freon 13B1 | A | A | A | A | D | A | E | A | D | E |
| Freon 114B2 | B | B | D | B | D | C | E | D | D | E |
| Freon 502 | B | A | A | B | E | A | E | A | D | E |
| Freon TF | A | A | D | B | D | C | E | D | D | A |
| Freon T-WD602 | B | B | B | A | D | C | E | B | D | E |
| Freon TMC | B | C | C | A | C | D | E | C | D | E |
| Freon T-P35 | A | A | A | A | A | A | E | A | E | E |
| Freon TA | A | B | B | C | C | C | E | B | E | E |
| Freon TC | A | A | B | A | D | C | E | B | E | E |
| Freon MF | A | C | D | B | D | D | E | D | D | C |
| Freon BF | B | C | D | A | D | D | E | D | D | E |
| Fuel Oil | A | B | D | A | D | D | A | D | A | B |
| Fumaric Acid | A | B | B | A | B | C | A | B | A | E |
| Furan, Furfuran | D | D | C | E | E | D | E | D | E | E |
| Furfural | D | C | B | D | D | D | E | B | E | C |
| Fyrquel (Cellulube) | D | D | A | A | E | D | C | A | E | D |

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|----------------------------------|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| Gallic Acid | B | B | B | A | E | B | A | B | A | D |
| Gasoline | B | C | D | A | D | D | A | D | C | B |
| Gelatin | A | A | A | A | A | A | A | A | A | D |
| Glauber's Salt (aq) | D | B | B | A | E | D | A | B | A | E |
| Glucose | A | A | A | A | A | A | A | A | A | D |
| Glue | A | A | A | A | A | B | A | B | E | E |
| Glycerin | A | A | A | A | A | A | A | A | A | D |
| Glycols | A | A | A | A | A | A | A | A | A | D |
| Green Sulfate Liquor | B | B | A | A | A | B | B | A | A | D |
| Halowax Oil | D | D | D | A | D | D | A | D | A | E |
| N-Hexaldehyde | D | A | A | D | B | D | D | B | D | B |
| Hexane | A | B | D | A | D | D | A | D | B | B |
| N-Hexene-1 | B | B | D | A | D | D | A | D | B | B |
| Hexyl Alcohol | A | B | C | A | B | B | B | C | A | D |
| Hydrazine | B | B | A | D | C | A | D | A | E | D |
| Hydraulic Oil(Petroleum) | A | B | D | A | C | D | A | D | A | A |
| Hydrobromic Acid | D | D | A | A | D | D | C | A | A | D |
| Hydrobromic Acid 40% | D | B | A | A | D | D | C | A | A | D |
| Hydrochloric Acid (cold) 37% | C | B | A | A | C | B | B | A | E | D |
| Hydrochloric Acid (hot) 37% | D | D | C | B | D | D | C | C | E | D |
| Hydrocyanic Acid | B | B | A | A | C | B | B | A | A | E |
| Hydrofluoric Acid (conc.) cold | D | D | C | A | D | D | D | C | A | E |
| Hydrofluoric Acid (conc.) hot | D | D | D | C | D | D | D | C | D | E |
| Hydrofluoric Acid-Anhydrous | D | D | C | D | D | D | D | C | D | E |
| Hydrofluosilicic Acid | B | B | B | A | D | C | D | B | A | E |
| Hydrogen Gas | A | A | A | A | C | A | C | A | A | A |
| Hydrogen Peroxide (90%) | D | D | B | B | B | D | B | C | A | A |
| Hydrogen Sulfide (wet) cold | D | B | A | D | C | D | C | A | A | E |
| Hydrogen Sulfide (wet) hot | D | C | A | D | C | D | C | A | B | E |
| Hydroquinone | C | D | B | B | E | D | B | B | E | E |
| Hypochlorous Acid | D | D | B | A | E | D | E | B | E | E |
| Iodine Pentafluoride | D | D | D | D | D | D | D | D | D | D |
| Iodoform | E | D | D | E | E | D | E | D | E | E |
| Isobutyl Alcohol | B | A | A | A | A | B | B | A | A | D |
| Isooctane | A | B | D | A | D | D | A | D | B | B |
| Isophorone | D | D | B | D | D | D | D | C | C | D |
| Isopropyl Acetate | D | D | B | D | D | D | D | B | D | D |
| Isopropyl Alcohol | B | B | A | A | A | B | B | A | A | D |
| Isopropyl Chloride | D | D | D | A | D | D | B | D | E | D |
| Isopropyl Ether | B | C | D | D | D | D | C | D | D | B |
| Kerosene | A | B | D | A | D | D | A | D | A | A |
| Lacquers | D | D | D | D | D | D | D | D | D | D |
| Lacquer Solvents | D | D | D | D | D | D | D | D | D | D |
| Lactic Acid (cold) | A | A | A | A | A | A | A | A | A | E |
| Lactic Acid (hot) | D | D | D | A | B | D | B | D | A | E |
| Lard | A | B | B | A | B | D | A | B | A | A |
| Lavender Oil | B | D | D | A | D | D | B | D | A | E |
| Lead Acetate (aq) | B | B | A | D | D | D | D | A | D | D |
| Lead Nitrite (aq) | A | A | A | E | B | A | A | A | E | E |
| Lead Sulfamate (aq) | B | A | A | A | B | B | A | A | A | E |
| Ligroin (Benzine) (Nitrobenzine) | A | B | D | A | D | D | A | D | B | B |
| Lime Bleach | A | B | A | A | B | B | A | A | A | E |
| Lime Sulfur | D | A | A | A | A | D | A | A | A | E |
| Lindol (Hydraulic fluid) | D | D | A | B | C | D | C | A | A | D |

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|-----------------------------|---------|-------------|--------------------------|------------------|----------|-------------------------|----------------|-------|--------|----------|
| Linoleic Acid | B | D | D | B | B | D | E | D | A | E |
| Linseed Oil | A | B | C | A | A | D | A | C | A | B |
| Liquefied Petroleum Gas | A | B | D | A | C | D | C | D | C | A |
| Lubricating Oils(petroleum) | A | B | D | A | D | D | A | D | A | B |
| Lye | B | B | A | B | B | B | A | A | A | D |
| Magnesium Chloride (aq) | A | A | A | A | A | A | A | A | A | A |
| Magnesium Hydroxide (aq) | B | A | A | A | E | B | E | A | A | D |
| Magnesium Sulfate (aq) | A | A | A | A | A | B | A | A | A | E |
| Maleic Acid | D | C | B | A | E | C | E | B | A | E |
| Maleic Anhydride | D | C | B | D | E | B | E | B | A | E |
| Malic Acid | A | C | B | A | B | C | A | B | A | E |
| Mercury Chloride (aq) | A | A | A | A | E | A | E | A | A | E |
| Mercury | A | A | A | A | E | A | E | A | A | E |
| Mesityl Oxide | D | D | B | D | D | D | D | B | C | D |
| Methane | A | B | D | B | D | D | B | D | B | C |
| Methyl Acetate | D | B | A | D | D | C | D | A | D | D |
| Methyl Acrylate | D | B | B | D | D | D | D | B | E | D |
| Methylacrylic Acid | D | B | B | D | D | D | D | B | E | D |
| Methyl Alcohol | A | A | A | D | A | A | A | A | A | D |
| Methyl Bromide | B | D | D | A | E | D | A | D | A | E |
| Methyl Butyl Ketone | D | D | A | D | C | D | D | A | C | D |
| Methyl Cellosolve | C | C | B | D | D | D | D | B | E | D |
| Methyl Chloride | D | D | C | B | D | D | B | C | E | D |
| Methyl Cyclopentane | D | D | D | B | D | D | B | D | B | D |
| Methylene Chloride | D | D | C | B | D | D | B | D | E | D |
| Methyl Ether | A | C | D | A | A | D | A | D | C | E |
| Methyl Ethyl Ketone | D | C | A | D | D | D | D | B | D | D |
| Methyl Formate | D | B | B | E | E | D | E | B | E | E |
| Methyl Isobutyl Ketone | D | D | B | D | D | D | D | C | D | D |
| Methyl Methacrylate | D | D | C | D | D | D | D | D | E | E |
| Methyl Oleate | D | D | B | B | E | D | B | B | A | E |
| Methyl Salicylate | D | D | B | E | E | C | E | B | E | E |
| Milk | A | A | A | A | A | A | A | A | A | D |
| Mineral Oil | A | B | C | A | B | D | A | C | A | A |
| Monochlorobenzene | D | D | D | A | D | D | B | D | D | D |
| Monomethyl Aniline | D | D | B | B | E | D | E | B | E | D |
| Monoethanol Amine | D | D | A | D | B | B | D | B | A | D |
| Monomethyl Ether | A | C | D | A | A | D | A | D | E | E |
| Monovinyl Acetylene | A | B | A | A | B | B | E | B | A | E |
| Mustard Gas | E | A | A | E | A | B | E | A | E | E |
| Naphtha | B | C | D | A | D | D | B | D | B | B |
| Naphthalene | D | D | D | A | D | D | A | D | C | B |
| Naphthalenic Acid | B | D | D | A | D | D | A | D | B | E |
| Natural Gas | A | A | D | A | A | A | C | D | A | B |
| Neats Foot Oil | A | D | B | A | B | D | A | B | A | A |
| Neville Acid | D | D | B | A | D | D | B | B | A | E |
| Nickel Acetate (aq) | B | B | A | D | D | D | D | A | D | D |
| Nickel Chloride (aq) | A | A | A | A | A | A | A | A | A | C |
| Nickel Sulfate (aq) | A | A | A | A | A | B | A | A | A | C |
| Niter Cake | A | A | A | A | A | A | A | A | A | A |
| Nitric Acid (conc.) | D | D | D | C | D | D | C | D | B | D |
| Nitric Acid (dilute) | D | B | B | A | B | D | B | B | E | D |
| Nitric Acid - Red Fuming | D | D | D | D | D | D | D | D | C | E |
| Nitrobenzene | D | D | A | B | D | D | D | A | E | D |

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|--------------------------------------|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| Nitrobenzene (ligroin) | A | B | D | A | D | D | A | D | E | D |
| Nitroethane | D | C | B | D | D | B | D | B | E | D |
| Nitrogen | A | A | A | A | A | A | A | A | A | A |
| Nitrogen Tetroxide | D | D | C | D | D | D | D | C | E | D |
| Nitromethane | D | B | B | D | D | B | D | B | E | D |
| Octachlorotoluene | D | D | D | A | D | D | B | D | C | D |
| Octadecane | A | B | D | A | D | D | A | D | B | A |
| N-Octane | B | B | D | A | D | D | B | D | B | D |
| Octyl Alcohol | B | A | C | A | B | B | B | C | A | D |
| Oleic Acid | C | C | D | B | D | D | E | D | A | B |
| Oleum Spirits | B | C | D | A | D | D | B | D | A | C |
| Olive Oil | A | B | B | A | C | D | A | B | A | A |
| O-Dichlorobenzene | D | D | D | A | D | D | B | D | D | D |
| Oxalic Acid | B | B | A | A | B | B | A | A | A | E |
| Oxygen - Cold | B | A | A | A | A | B | A | A | A | A |
| Oxygen - (200-400°F) | D | D | C | B | B | D | D | B | E | D |
| Ozone | D | C | A | A | A | D | B | D | A | A |
| Paint Thinner, Duco | D | D | D | B | D | D | B | D | B | D |
| Palmitic Acid | A | B | B | A | D | B | A | B | A | A |
| Peanut Oil | A | C | C | A | A | D | A | C | A | B |
| Perchloric Acid | D | B | B | A | D | D | A | B | A | D |
| Perchloroethylene | B | D | D | A | D | D | B | D | E | D |
| Petroleum - below 250°F | A | B | D | A | B | D | B | D | A | B |
| Petroleum - above 250°F | D | B | D | B | D | D | D | D | B | D |
| Phenol (Carbolic Acid) | D | C | B | A | D | E | A | B | E | D |
| Phenylbenzene (Biphenyl) | D | D | D | A | D | D | B | D | D | D |
| Phenyl Ethyl Ether | D | D | D | D | D | D | D | D | D | D |
| Phenyl Hydrazine | D | D | B | A | E | B | E | B | A | E |
| Phorone (Diisopropylidene Acetone) | D | D | C | D | D | D | D | C | D | D |
| Phosphoric Acid - 20% | B | B | A | A | B | B | B | B | A | D |
| Phosphoric Acid - 45% | D | B | A | A | C | C | B | B | A | D |
| Phosphorus Trichloride | D | D | A | A | E | D | A | A | A | E |
| Pickling Solution | D | D | C | B | D | D | D | C | B | D |
| Picric Acid | B | A | B | A | D | B | B | B | A | E |
| Pinene | B | C | D | A | D | D | B | D | A | B |
| Pine Oil | A | D | D | A | D | D | A | D | A | E |
| Piperidine | D | D | A | D | D | D | D | D | E | D |
| Plating Solution - Chrome | E | D | A | A | D | D | E | A | E | E |
| Plating Solution - Others | A | D | A | A | D | D | E | A | E | E |
| Polyvinyl Acetate Emulsion | E | B | A | E | E | D | E | A | E | E |
| Potassium Acetate (aq) | B | B | A | D | D | D | D | A | E | D |
| Potassium Chloride (aq) | A | A | A | A | A | A | A | A | A | A |
| Potassium Cupro Cyanide (aq) | A | A | A | A | A | A | A | A | A | A |
| Potassium Cyanide (aq) | A | A | A | A | A | A | A | A | A | A |
| Potassium Dichromate (aq) | A | A | A | A | A | B | A | A | A | B |
| Potassium Hydroxide (aq) | B | B | A | D | C | B | C | A | A | D |
| Potassium Nitrate (aq) | A | A | A | A | A | A | A | A | A | A |
| Potassium Sulfate (aq) | A | A | A | A | A | A | A | A | A | A |
| Producer Gas | A | B | D | A | B | D | B | D | A | A |
| Propane | A | B | D | A | D | D | D | D | B | C |
| i-Propyl Acetate | D | D | B | D | D | D | D | B | D | D |
| n-Propyl Acetate | D | D | B | D | D | D | D | B | D | E |
| Propyl Acetone (Methyl Butyl Ketone) | D | D | A | D | C | D | D | A | C | D |
| Propyl Alcohol | A | A | A | A | A | A | A | A | A | D |

A. SATISFACTORY B. FAIR C. SEVERE EFFECT - EXCEPT FOR SOME STATIC APPLICATIONS D. UNSATISFACTORY E. INSUFFICIENT INFORMATION

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Eagle Rock Specialties, LLC

Compound Selection for Fluids and Chemicals (Continued)

| | NITRILE | CHLOROPRENE | ETHYLENE PROPYLENE (EPR) | FLUORO-ELASTOMER | SILICONE | STYRENE BUTADIENE (SBR) | FLUOROSILICONE | BUTYL | AFLAS® | URETHANE |
|---------------------------------------|---------|-------------|--------------------------|------------------|----------|-------------------------|----------------|-------|--------|----------|
| Propyl Nitrate | D | D | B | D | D | D | D | B | E | E |
| Propylene | D | D | D | A | D | D | B | D | A | D |
| Propylene Oxide | D | D | B | D | D | D | D | B | D | D |
| Pydraul, 10E, 29 ELT | D | D | A | A | D | D | D | A | A | D |
| Pydraul, 30E, 50E, 65E, 90E | D | D | A | A | A | D | A | A | A | D |
| Pydraul, 115E | D | D | A | A | D | D | C | A | A | D |
| Pydraul, 230E, 312C, 540C | D | D | D | A | D | D | D | D | A | D |
| Pyranol, Transformer Oil | A | B | D | A | D | D | A | D | A | B |
| Pyridine | D | D | B | D | D | D | D | B | E | E |
| Pyroligeneous Acid | D | B | B | D | E | D | D | B | E | D |
| Pyrrole | D | D | C | D | B | C | C | D | E | E |
| Radiation | C | B | B | D | C | C | D | D | A | D |
| Rapeseed Oil | B | B | A | A | D | D | A | A | A | B |
| Red Oil (MIL-H-5606) | A | B | D | A | D | D | A | D | A | A |
| RJ-1 (MIL-F-25558 B) | A | B | D | A | D | D | A | D | A | A |
| RP-1 (MIL-F-25576 C) | A | B | D | A | D | D | A | D | A | A |
| Sal Ammoniac | A | A | A | A | B | A | A | A | A | A |
| Salicylic Acid | B | A | A | A | E | B | A | A | A | E |
| Salt Water | A | B | A | A | A | A | A | A | A | B |
| Sewage | A | B | B | A | B | B | A | B | A | D |
| Silicate Esters | B | A | D | A | D | D | A | D | A | A |
| Silicone Greases | A | A | A | A | C | A | A | A | A | A |
| Silicone Oils | A | A | A | A | C | A | A | A | A | A |
| Silver Nitrate | B | A | A | A | A | A | A | A | A | A |
| Skydrol 500 | D | D | A | D | C | D | C | B | B | D |
| Skydrol 7000 | D | D | A | B | C | D | C | A | A | E |
| Soap Solutions | A | B | A | A | A | A | A | A | A | D |
| Soda Ash | A | A | A | A | A | A | A | A | A | E |
| Sodium Acetate (aq) | B | B | A | D | D | D | D | A | D | C |
| Sodium Bicarbonate (aq) (Baking Soda) | A | A | A | A | A | A | A | A | A | E |
| Sodium Bisulfite (aq) | A | A | A | A | A | B | A | A | A | E |
| Sodium Borate (aq) | A | A | A | A | A | A | A | A | A | E |
| Sodium Chloride (aq) | A | A | A | A | A | A | A | A | A | A |
| Sodium Cyanide (aq) | A | A | A | A | A | A | A | A | A | E |
| Sodium Hydroxide (aq) | B | A | A | B | B | A | B | A | A | B |
| Sodium Hypochlorite (aq) (Chlorox) | B | A | B | A | B | D | B | B | A | D |
| Sodium Metaphosphate(aq) | A | B | A | A | E | A | A | A | A | E |
| Sodium Nitrate (aq) | B | B | A | E | D | A | E | A | A | E |
| Sodium Perborate (aq) | B | B | A | A | B | B | A | A | A | E |
| Sodium Peroxide (aq) | B | B | A | A | D | B | A | A | A | D |
| Sodium Phosphate (aq) | A | B | A | A | D | A | E | A | A | A |
| Sodium Silicate (aq) | A | A | A | A | E | A | E | A | A | E |
| Sodium Sulfate (aq) | A | A | A | A | A | B | A | A | A | A |
| Sodium Thiosulfate (aq) | B | A | A | A | A | B | A | A | A | A |
| Soybean Oil | A | B | C | A | A | D | A | C | A | E |
| Stannic Chloride (aq) | A | B | A | A | B | A | A | A | A | E |
| Stannous Chloride (aq) | A | A | A | A | B | A | A | A | A | E |
| Steam, under 300°F | D | C | A | D | C | D | D | B | A | D |
| Steam, over 300°F | D | D | C | D | D | D | D | D | A | D |
| Stearic Acid | B | B | B | E | B | B | E | B | A | E |
| Stoddard Solvent | A | B | D | A | D | D | A | D | B | A |
| Styrene | D | D | D | B | D | D | C | D | E | E |
| Sucrose Solution | A | B | A | A | A | A | A | A | A | D |
| Sulfite Liquors | B | B | B | A | D | B | B | B | E | E |

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Eagle Rock Specialties, LLC

Compound Selection for Fluids and Chemicals (Continued)

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|---|---------|--------------|--------------------------|------------------|----------|-------------------------|-----------------|-------|--------|----------|
| Sulfur | D | A | A | A | C | D | A | A | A | E |
| Sulfur Chloride (aq) | C | C | D | A | C | D | A | D | A | E |
| Sulfur Dioxide (Dry) | D | D | A | A | B | B | B | B | E | E |
| Sulfur Dioxide (Wet) | D | B | A | A | B | D | B | A | E | E |
| Sulfur Dioxide (liquified under pressure) | D | D | A | A | B | D | B | B | E | E |
| Sulfur Hexafluoride | B | A | A | A | B | D | B | A | C | E |
| Sulfur Trioxide | D | D | B | A | B | B | B | B | A | E |
| Sulfuric Acid (dilute) | C | B | B | A | D | C | C | B | A | D |
| Sulfuric Acid (conc.) | D | D | C | B | D | D | D | D | A | D |
| Sulfuric Acid (20% Oleum) | D | D | D | A | D | D | D | D | E | D |
| Sulfurous Acid | B | B | B | A | D | B | E | B | A | C |
| Tannic Acid | A | A | A | A | B | B | E | A | A | E |
| Tar, Bituminous | B | C | C | A | B | D | A | C | A | E |
| Tartaric Acid | A | B | B | A | A | D | A | B | A | A |
| Terpineol | B | D | C | A | E | D | A | C | A | B |
| Tertiary Butyl Alcohol | B | B | B | A | B | B | B | B | A | D |
| Tertiary Butyl Catechol | D | B | B | A | E | B | A | B | A | D |
| Tertiary Butyl Mercaptan | D | D | D | A | D | D | E | D | E | D |
| Tetrabromoethane | D | D | D | A | D | D | B | D | E | E |
| Tetrabromomethane | D | D | D | A | D | D | B | D | E | E |
| Tetrabutyl Titanate | B | B | A | A | E | B | A | B | A | E |
| Tetrachloroethylene | D | D | D | A | D | D | B | D | E | D |
| Tetraethyl Lead | B | B | D | A | E | D | B | D | E | E |
| Tetrahydrofuran | D | D | B | D | D | D | D | C | D | C |
| Tetralin | D | D | D | A | D | D | A | D | E | E |
| Thionyl Chloride | D | D | C | B | E | D | E | D | E | E |
| Titanium Tetrachloride | B | D | D | A | D | D | B | D | E | D |
| Toluene | D | D | D | A | D | D | B | D | C | D |
| Toluene Diisocyanate | D | D | B | D | D | D | D | B | D | E |
| Transformer Oil | A | B | D | A | B | D | A | D | A | A |
| Transmission Fluid Type A | A | B | D | A | B | D | A | D | A | A |
| Triacetin | B | B | A | D | E | B | D | A | E | D |
| Triaryl Phosphate | D | D | A | A | C | D | B | A | A | D |
| Tributoxy Ethyl Phosphate | D | D | A | A | E | B | B | A | A | D |
| Tributyl Mercaptan | D | D | D | A | D | D | C | D | E | E |
| Tributyl Phosphate | D | D | B | D | D | D | D | B | E | D |
| Trichloroacetic Acid | B | D | B | C | E | B | D | B | C | D |
| Trichloroethane | D | D | D | A | D | D | B | D | E | D |
| Trichloroethylene | D | D | D | A | D | D | B | D | E | D |
| Tricresyl Phosphate | D | C | A | A | C | A | B | A | A | D |
| Triethanol Amine | B | A | A | D | E | B | D | B | A | D |
| Triethyl Aluminum | D | D | C | B | E | D | E | C | E | E |
| Triethyl Borane | D | D | C | A | E | D | E | C | E | E |
| Trinitrotoluene | D | B | D | B | E | D | B | D | E | E |
| Trioctyl Phosphate | D | D | A | B | C | D | B | A | A | D |
| Tung Oil (China Wood Oil) | A | B | C | A | D | D | B | C | A | C |
| Turbine Oil | B | D | D | A | D | D | B | D | A | A |
| Turpentine | A | D | D | A | D | D | B | D | A | D |
| Unsymmetrical Dimethyl Hydrazine (UDMH) | B | B | A | D | D | A | D | A | E | E |
| Varnish | B | D | D | A | D | D | B | D | E | C |
| Vegetable Oils | A | C | C | A | B | D | A | C | A | E |
| Versilube F-50 | A | A | A | A | C | A | A | A | A | A |
| Vinegar | B | B | A | A | A | B | C | A | A | D |

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|-------------------------------|---------|-------------|--------------------------|------------------|----------|-------------------------|----------------|-------|--------|----------|
| Vinyl Chloride | D | D | D | A | E | D | E | D | E | E |
| Wagner 21B Brake Fluid | C | B | A | D | C | A | D | B | A | E |
| Water | A | A | A | A | A | A | A | A | A | D |
| Whiskey, Wines | A | A | A | A | A | A | A | A | A | D |
| White Pine Oil | B | D | D | A | D | D | A | D | A | E |
| White Oil | A | B | D | A | D | D | A | D | A | A |
| Wood Oil | A | B | D | A | D | D | B | D | A | C |
| Xylene | D | D | D | A | D | D | A | D | B | D |
| Xyliidine (Di-methyl Aniline) | C | C | B | D | D | C | D | C | E | E |
| Zeolites | A | A | A | A | E | A | A | A | A | E |
| Zinc Acetate (aq) | B | B | A | D | D | D | D | A | D | D |
| Zinc Chloride (aq) | A | A | A | A | A | A | A | A | A | E |
| Zinc Sulfate (aq) | A | A | A | A | A | B | A | A | A | E |

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Age Controls

Because of short shelf life of very early Neoprene and/or Neoprene/Nitrile blends, the Government imposed an Age Control Program known as ANA Bulletin 438C on Military O-Rings. Its step-by-step schedule allowed the manufacturer (or his agent) four quarters beyond the part curing date to deliver it to the component builder. They had two more quarters to install the oldest part in their equipment. These components then had a maximum of 12 quarters (3 years) until delivery of the aircraft to the Government. This applied only to Nitrile Compounds. Those of other polymers were not covered.

As a result of long-term evaluations of stored O-Rings by a number of Air Force, Army, and Navy laboratories and a long-term study by the O-Ring industries laboratories and investigations of long stored and long lost crashed aircraft hydraulic systems, it is concluded that modern Nitrile Compounds are safe to use 5 to 10 years (varying on who makes the conclusion) after the date of the manufacture. Further information may be found in Air Force Technical Report AFML-TR-67-235, if desired.

MIL-STD-1523A dated Feb. 1, 1984 replaced MIL-STD-1523 and now allows the manufacturer of the O-Ring or his agent a full 40 quarters (10 years) to deliver his product to the procuring activity or contracting officer. MIL-STD-1523A does not control the age beyond this point for O-Rings although it is still very restrictive for hose which is also covered. Military Material specifications covered by MIL-STD-1523 include: MIL-P-5315, MIL-P-5510, MIL-P-5516, MIL-S-6855Cl.I, MIL-R-7362, MIL-P-25732, MIL-P-83461.

Age Resistance of Elastomers

Although when properly stored, elastomers have been known to shelf age for very long periods of time, the following chart indicates the generally accepted age resistance for various elastomers (from MIL-HDBK-695):

| 5 TO 10 YEARS |
|---|
| Nitrile |
| SBR |
| Urethane (Polyester) |
| Hypalon |
| Butyl |
| Chloroprene |
| Ethylene Propylene |
| Epichlorohydrin |
| Urethane (Polyether) |
| HSN- Not listed in MIL-HDBK-695 (Data to date indicates shelf life of 5 to 10 years) |

| UP TO 20 YEARS |
|--|
| Silicone |
| Fluorosilicone |
| Fluoroelastomer |
| Polyacrylate |
| Polysulfide |
| Aflas® - Not listed in MIL-HDBK-695 (Data to date indicates shelf life of up to 20 years) |

Suggested proper storage conditions

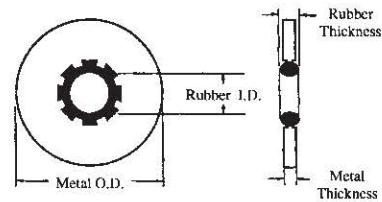
O-Rings should be stored in clean, dry, containers away from ozone, contaminates, sunlight, radiation at a temperature not to exceed 120°F.



Fastener Seals and Thread Seals

Fastener Seals

Fastener seals are one-piece, molded-in-place seals with the rubber sealing element mechanically locked to the metal retainer. They are designed to seal beneath the head of the fastener for both internal and external pressure systems.



The principle of controlled confinement is utilized in the design of fastener seals. As the fastener is tightened, the rubber seal is compressed, forcing the sealing surfaces securely around the fastener shank - but without squeezing the rubber beyond its elastic limit, or destroying its inherent memory. With fastener seals, there is full metal-to-metal contact at the joining surfaces.

Fastener seals provide self-centering for the seal, vacuum sealing, high-pressure sealing, long service, easy installation, moderate torquing, no retorquing, and quick visual inspection.

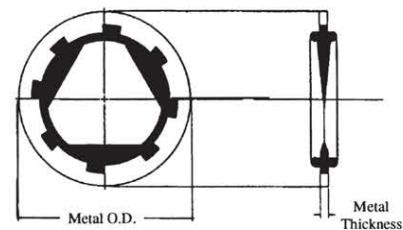
The 600-Series fastener seals are 70 durometer nitrile and commercial CAD plated steel, or 70 durometer silicone and commercial CAD plated steel. They are available in standard sizes for bolts and screws as listed below.

| SIZE DASH NUMBER | PART NUMBER | | THREAD MAJOR DIAMETER | RUBBER I.D. | METAL O.D. | METAL THICKNESS | RUBBER THICKNESS |
|------------------------|---------------------------------|----------------------------|-----------------------------|----------------|---------------|--------------------|---------------------|
| | NITRILE | SILICONE | | | | | |
| -6 | AFS600-0101-6 | * | .138 | .130 | .385 | .040 | .050 |
| -8 | * | * | .164 | .156 | .385 | .040 | .050 |
| -10 | AFS600-0101-10 | * | .190 | .180 | .443 | .050 | .072 |
| -10 O.S. | AFS600-0101-10OS | * | .190 | .186 | .468 | .050 | .072 |
| - $\frac{1}{4}$ | AFS600-0101- $\frac{1}{4}$ | AFS600-6230- $\frac{1}{4}$ | .250 | .240 | .505 | .050 | .072 |
| - $\frac{1}{4}$ O.S. | AFS600-0101- $\frac{1}{4}$ O.S. | * | .250 | .245 | .531 | .050 | .072 |
| - $\frac{3}{16}$ | AFS600-0101- $\frac{3}{16}$ | * | .312 | .301 | .603 | .050 | .072 |
| - $\frac{3}{8}$ | AFS600-0101- $\frac{3}{8}$ | AFS600-6230- $\frac{3}{8}$ | .375 | .364 | .666 | .050 | .072 |
| - $\frac{7}{16}$ | AFS600-0101- $\frac{7}{16}$ | * | .438 | .427 | .760 | .050 | .072 |
| - $\frac{1}{2}$ | AFS600-0101- $\frac{1}{2}$ | * | .500 | .490 | .880 | .050 | .072 |
| - $\frac{9}{16}$ | AFS600-0101- $\frac{9}{16}$ | * | .562 | .552 | 1.067 | .050 | .072 |
| - $\frac{5}{8}$ | AFS600-0101- $\frac{5}{8}$ | * | .625 | .615 | 1.193 | .050 | .072 |
| - $\frac{3}{4}$ | AFS600-0101- $\frac{3}{4}$ | * | .750 | .740 | 1.322 | .064 | .096 |
| - $\frac{7}{8}$ | AFS600-0101- $\frac{7}{8}$ | * | .875 | .864 | 1.510 | .064 | .096 |
| -1 | AFS600-0101-1 | * | 1.000 | .988 | 1.760 | .064 | .096 |



Thread Seals

Like fastener seals, thread seals are one-piece molded-in-place seals with the rubber sealing element mechanically locked to the metal



retainer. They are designed to seal beneath the nut of the fastener and seal directly against the threads of the fastener. This design allows thread seals to block the spiral passage created by the threads that might permit the fluid to wind its way through the helix. When the thread seal is compressed between the nut and the mating surface, the squeeze on the crown causes the inside of the seal to bulge inward and hug the crest of the thread. This blocks the axial outside leak path. The thread seal also has three wedge-shaped protrusions inside the cylinder hole. Since all standard screw threads have only a single V-shaped spiral channel, one of these wedges will always be in a position to block the flow of fluid through this channel.

Thread seals are self-centering and non-directional. Their low cost can provide considerable savings because they make possible the use of low cost standard fasteners and full threaded fittings. No special tools or skills are needed for assembly.

The 7500-Series thread seals are 70 durometer nitrile and commercial CAD plated steel, or 70 durometer fluoroelastomer and commercial CAD plated steel. They are available in standard sizes for bolts and screws as listed below.

| SIZE DASH NUMBER | PART NUMBER | | METAL O.D. | METAL THICKNESS |
|------------------------|-------------------------|---------------------------|---------------|--------------------|
| | NITRILE | FLUROELASTOMER | | |
| -6 | * | * | .406 | .051 |
| -8 | * | * | .406 | .051 |
| -10 | ATS7500-10 | * | .469 | .051 |
| - $\frac{1}{4}$ | ATS7500- $\frac{1}{4}$ | * | .562 | .051 |
| - $\frac{5}{16}$ | ATS7500- $\frac{5}{16}$ | * | .687 | .064 |
| - $\frac{3}{8}$ | ATS7500- $\frac{3}{8}$ | ATS7500- $\frac{3}{8}$ VT | .750 | .064 |
| - $\frac{7}{16}$ | * | * | .906 | .078 |
| - $\frac{1}{2}$ | ATS7500- $\frac{1}{2}$ | * | 1.000 | .078 |
| - $\frac{9}{16}$ | * | * | 1.094 | .094 |
| - $\frac{5}{8}$ | ATS7500- $\frac{5}{8}$ | ATS7500- $\frac{5}{8}$ VT | 1.187 | .094 |
| - $\frac{3}{4}$ | ATS7500- $\frac{3}{4}$ | * | 1.375 | .109 |
| - $\frac{7}{8}$ | ATS7500- $\frac{7}{8}$ | * | 1.562 | .109 |
| -1 | ATS7500-1 | * | 1.750 | .120 |