# AS568 Standard O-Rings 

## Quick Reference Chart


*'Apple Rubber

## Standard O-Rings

AS568 Simplified Reference: AS568 is the SAE Aerospace Size Standard for o-rings. The standard purpose is to specify inside diameters, cross-sections, tolerances, and size identification (dash numbers) for o-rings. Apple Rubber catalog numbers are identical to the AS568 number system. All sizes are listed by ascending inside diameter (I.D.) in fractional and decimal sizes.

## How to order

Apple Rubber o-rings are specified by three characteristics: size, hardness, and material.

Size: Standards are specified by their AS568 dash number. O-Ring size is defined by inside diameter and cross-section (width) and is listed in both fractional and decimal dimensions with tolerances. The standards range in I.D.'s from .029" to 26," and cross sections (widths) from .040" to . $275^{\prime \prime}$. Although we only include the AS568 standard sizes in this brochure, Apple Rubber has a vast inventory of non-standard and metric sizes. Visit our website at applerubber.com and use the O-Ring Size Search Tool to view our inventory.

Hardness: This is specified by a two-digit Shore A durometer number, ranging from 20 (soft) to 90 (hard), depending on the type of elastomer. Our standard durometer is 70 Shore A, except for Viton ${ }^{\text {TM }}$ which is 75 Shore A. Standard durometer tolerance is $\pm 5$.

Material: Our standard range of materials is designated by a two-letter abbreviation for each elastomer. See the Materials table on the next page for designations and further discussions of materials.

## Seal Types and Gland Design

## O-Ring Gland Design for Dynamic Seals

| O-Ring Cross Section | Gland Depth | Squeeze |  | Diametrical Clearance Max. | Groove Width. $\pm .005$ |  |  | Groove Radius | Eccentricity Max. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Inches | \% |  | $\begin{aligned} & \text { No } \\ & \text { Backup } \\ & \text { Rings } \end{aligned}$ | One Backup Ring | Two Backup Rings |  |  |
| . 040 | .031/.033 | .004/.012 | 11-28 | . 004 | . 063 | - | - | .005-.008 | . 002 |
| . 050 | .039/.041 | .006/.014 | 13-26 | . 004 | . 073 | - | - | .005-.008 | . 002 |
| . 060 | .047/.049 | .008/.016 | 14-25 | . 004 | . 084 | - | - | .005-.008 | . 002 |
| . 070 | .055/.057 | .010/.018 | 15-25 | . 004 | . 095 | . 150 | . 208 | .005-.015 | . 002 |
| . 103 | .087/.090 | .010/.019 | 10-18 | . 005 | . 145 | . 187 | . 249 | .005-.020 | . 003 |
| . 139 | .119/.123 | .012/.024 | 9-17 | . 006 | . 185 | . 222 | . 301 | .005-.030 | . 004 |
| . 210 | .183/.188 | .017/.032 | 8.5-15 | . 006 | . 285 | . 338 | . 428 | .005-.050 | . 006 |
| . 275 | .234/.240 | .029/.047 | 10.5-17 | . 007 | . 375 | . 440 | . 579 | .005-.060 | . 008 |

O-Ring Gland Design for Static Seals

| O-Ring Cross Section | Gland Depth |  | Squeeze |  |  |  | Diametrical Clearance Max. | Groove Width. $\pm .005$ |  |  | Groove Radius | Eccentricity Max. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Radial >0< |  | Axial ${ }^{\text {¢ }}$ |  |  |  |  |  |  |  |
|  |  |  | Inches | \% | Inches | \% |  | $\begin{gathered} \text { No } \\ \text { Backup } \\ \text { Rings } \end{gathered}$ | One Backup Ring | Two Backup Rings |  |  |
|  | Radial | Axial |  |  |  |  |  |  |  |  |  |  |
| . 040 | .027-.030 | .027-.030 | .007-.016 | 19-37 | .007-.016 | 19-37 | . 003 | . 060 | - | - | .005-.008 | . 002 |
| . 050 | .035-.039 | .034-.038 | .008-.018 | 17-34 | .009-019 | 19-36 | . 004 | . 075 | - | - | .005-008 | . 002 |
| . 060 | .042-.047 | .042-.046 | .010-. 021 | 18-33 | .011-.021 | 19-33 | . 004 | . 090 | - | - | .005-.008 | . 002 |
| . 070 | .050-.055 | .049-.054 | .012-. 023 | 18-32 | .013-.024 | 19-33 | . 004 | . 105 | . 150 | . 208 | .005-.015 | . 002 |
| . 103 | .080-.086 | .075-. 081 | .014-.026 | 14-25 | .019-.031 | 19-29 | . 005 | . 146 | . 182 | . 244 | .005-.020 | . 003 |
| . 139 | .110-.116 | .100-. 108 | .019-.033 | 14-23 | .027-.043 | 20-30 | . 006 | . 195 | . 217 | . 296 | .005-.030 | . 004 |
| . 210 | .170-176 | . $155-165$ | .029-.045 | 14-21 | .040-.060 | 20-28 | . 006 | . 280 | . 333 | . 423 | .005-.050 | . 006 |
| . 275 | .225-235 | .205-215 | .034-.056 | 13-20 | .054-076 | 20-27 | . 007 | . 350 | . 435 | . 574 | .005-.060 | . 008 |

## General Applications

Apple O-Rings are available in a choice of six basic materials, each in a range of optional durometer (Shore A) hardnesses. Other materials available upon request.

Nitrile/Buna-N: In the Nitrile family, you will find excellent compounds for fuel and oil applications. For better ozone resistance, try Hydrogenated Nitrile (HNBR).

Ethylene-Propylene: In the Ethylene-Propylene family, you will find compounds that are used extensively for outdoor, weather-resistant uses and water applications. The first choice for low torque drive belts.

Silicone: In the Silicone family, you will find compounds that are excellent as static seals in extreme temperature conditions.

Neoprene: In the Neoprene family, you will find compounds which are the superior sealing materials for the refrigeration industry featuring resistance to ammonia and Freon*.

Fluorocarbon: In the
Fluorocarbon family, you will find compounds that make up the preferred seals for aircraft engines, automotive fuel handling systems and hard vacuum service.

Fluorosilicone: In the Fluorosilicone family, you will find compounds that make up seals that are unparalleled for aerospace fuel systems and auto fuel emission control systems.

All materials are compounded under stringent quality control for uniformity of physical property and meet or exceed military/aerospace, FDA/ Medical, UL, automotive, and industrial specifications.

## To Determine Material:

1. Determine end use: static (stationary) or dynamic (moving).
2. List the substance that the seal will be exposed to and check o-ring material resistances in Chemical Compatibility Table(s) listed in the Apple Seal Design Guide.
3. List ALL factors of seal application and check material performance.
A. Pressure: determines material hardness and selection.
B. Heat/Cold: check material temperature range(s).
C. Friction: determines material hardness and selection.
D. Permeability: important for pneumatic and vacuum applications.
4. Medical applications: make sure an Apple representative is aware if medical grade materials are required.

The most commonly used durometer is 70 . Although other durometers are offered, availability may be limited due to processing or shrinkage factors.

| Materials | Apple Material Designation | Durometers (Shore A) | Temperature Range* (Dry Heat Only) | Description |
| :---: | :---: | :---: | :---: | :---: |
| Nitrile/Buna-N (NBR) | BN | 40 thru 90 | $\begin{aligned} & -40 \text { to }+257^{\circ} \mathrm{F} \\ & -40 \text { to }+125^{\circ} \mathrm{C} \end{aligned}$ | Presently the seal industry's most widely used elastometer. Nitrile combines excellent resistance to petroleum-based oils and fuels, silicone greases, hydraulic fluids, water and alcohols. It has a good balance of such desirable working properties as low compression set, high tensile strength and high abrasion resistance. |
| Ethylene-Propylene (EPM/EPDM) | EP | 40 thru 90 | $\begin{aligned} & -40 \text { to }+275^{\circ} \mathrm{F} \\ & -40 \text { to }+135^{\circ} \mathrm{C} \end{aligned}$ | Features good resistance to such polar solvents as ketones (MEK \& Acetone). EPM/EPDM is also highly recommended for effective resistance to steam (to $400^{\circ} \mathrm{F}$ ), hot water, silicone oils and greases, dilute acids and alkalies, alcohols and automotive brake fluids. Properly compounded, Ethylene Propylene can provide extended temperature range of $-76^{\circ} \mathrm{F}$ to $+350^{\circ} \mathrm{F}$. |
| Silicone (MQ; PMQ; VMQ; PVMQ) | SL | 25 thru 80 | $\begin{aligned} & -85 \text { to }+400^{\circ} \mathrm{F} \\ & -65 \text { to }+230^{\circ} \mathrm{C} \end{aligned}$ | Especially resistant to high, dry heat in primarily static applications. Silicones are fungus resistant, odorless, tasteless, non-toxic elastomers and possess high-resistance to the aging effects of both sunlight and ozone attack. |
| Neoprene ${ }^{\text {® }}$ (Chloroprene) (CR) | CR | 40 thru 90 | $\begin{aligned} & -40 \text { to }+250^{\circ} \mathrm{F} \\ & -40 \text { to }+121^{\circ} \mathrm{C} \end{aligned}$ | An early developed, oil-resistant substitute for natural rubber, Neoprene features moderate resistance to petroleum oils, good resistance to ozone, sunlight and oxygen aging, relatively low compression set, good resilience, reasonable cost, and high resistance to attack by Freon ${ }^{\circ}$ and Ammonia. |
| Fluorocarbon (Viton ${ }^{\circledR}$ ) (Fluorel ${ }^{\circledR}$ ) (FKM) | VT | 55 thru 95 | $\begin{aligned} & -13 \text { to }+446^{\circ} \mathrm{F} \\ & -25 \text { to }+230^{\circ} \mathrm{C} \end{aligned}$ | Combines high-temperature toughness with wide chemical agent compatibility, Fluorocarbon compounds feature excellent resistance to petroleum products and solvents and good high-temperature compression set characteristics. |
| Fluorosilicone (FVMQ) | FS | 40 thru 80 | $\begin{aligned} & -75 \text { to }+400^{\circ} \mathrm{F} \\ & -60 \text { to }+200^{\circ} \mathrm{C} \end{aligned}$ | Combines the good high and low temperature stability of Silicones with the fuel, oil and solvent resistance of fluorocarbons. FS compounds feature good compression set and resilience properties. FS compounds are suitable for exposure to air, sunlight, ozone, chlorinated and aromatic hydrocarbons. |

[^0]| $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  | $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |
| -001 | . $029 \pm .004$ | . $040 \pm .003$ | 1/32 | 3/32 | 1/32 | -050 | $5.239 \pm .037$ | . $070 \pm .003$ | $51 / 4$ | $53 / 8$ | 1/16 |
| -0011/2 | . $070 \pm .004$ | . $040 \pm .003$ | 1/16 | 1/8 | 1/32 | -102 | . $049 \pm .005$ | . $103 \pm .003$ | 1/16 | 1/4 | 3/32 |
| -002 | . $042 \pm .004$ | . $050 \pm .003$ | 3/64 | 9/64 | 3/64 | -103 | . $081 \pm .005$ | . $103 \pm .003$ | 3/32 | 9/32 | 3/32 |
| -003 | . $056 \pm .004$ | . $060 \pm .003$ | 1/16 | 3/16 | 1/16 | -104 | . $112 \pm .005$ | . $103 \pm .003$ | 1/8 | 5/16 | 3/32 |
| -004 | . $070 \pm .005$ | . $070 \pm .003$ | 5/64 | 13/64 | 1/16 | -105 | . $143 \pm .005$ | . $103 \pm .003$ | 5/32 | 11/32 | 3/32 |
| -005 | $.101 \pm .005$ | . $070 \pm .003$ | 3/32 | 7/32 | 1/16 | -106 | . $174 \pm .005$ | . $103 \pm .003$ | 3/16 | 3/8 | 3/32 |
| -006 | . $114 \pm .005$ | . $070 \pm .003$ | 1/8 | 1/4 | 1/16 | -107 | . $206 \pm .005$ | . $103 \pm .003$ | 7/32 | 13/32 | 3/32 |
| -007 | $.145 \pm .005$ | . $070 \pm .003$ | 5/32 | 9/32 | 1/16 | -108 | . $237 \pm .005$ | . $103 \pm .003$ | 1/4 | 7/16 | 3/32 |
| -008 | $.176 \pm .005$ | . $070 \pm .003$ | 3/16 | 5/16 | 1/16 | -109 | . $299 \pm .005$ | . $103 \pm .003$ | 5/16 | 1/2 | 3/32 |
| -009 | . $208 \pm .005$ | . $070 \pm .003$ | 7/32 | 11/32 | 1/16 | -110 | . $362 \pm .005$ | . $103 \pm .003$ | 3/8 | 9/16 | 3/32 |
| -010 | . $239 \pm .005$ | . $070 \pm .003$ | 1/4 | 3/8 | 1/16 | -111 | . $424 \pm .005$ | . $103 \pm .003$ | 7/16 | 5/8 | 3/32 |
| -011 | . $301 \pm .005$ | . $070 \pm .003$ | 5/16 | 7/16 | 1/16 | -112 | . $487 \pm .005$ | . $103 \pm .003$ | 1/2 | 11/16 | 3/32 |
| -012 | $.364 \pm .005$ | . $070 \pm .003$ | 3/8 | 1/2 | 1/16 | -113 | $.549 \pm .007$ | . $103 \pm .003$ | 9/16 | 3/4 | 3/32 |
| -013 | . $426 \pm .005$ | . $070 \pm .003$ | 7/16 | 9/16 | 1/16 | -114 | $.612 \pm .009$ | . $103 \pm .003$ | 5/8 | 13/16 | 3/32 |
| -014 | $.489 \pm .005$ | . $070 \pm .003$ | 1/2 | 5/8 | 1/16 | -115 | . $674 \pm .009$ | . $103 \pm .003$ | 11/16 | 7/8 | 3/32 |
| -015 | . $551 \pm .007$ | . $070 \pm .003$ | 9/16 | 11/16 | 1/16 | -116 | . $737 \pm .009$ | . $103 \pm .003$ | 3/4 | 15/16 | 3/32 |
| -016 | $.614 \pm .009$ | . $070 \pm .003$ | 5/8 | 3/4 | 1/16 | -117 | $.799 \pm .010$ | . $103 \pm .003$ | 13/16 | 1 | 3/32 |
| -017 | . $676 \pm .009$ | . $070 \pm .003$ | 11/16 | 13/16 | 1/16 | -118 | . $862 \pm .010$ | . $103 \pm .003$ | 7/8 | 11/16 | 3/32 |
| -018 | $.739 \pm .009$ | . $070 \pm .003$ | 3/4 | 7/8 | 1/16 | -119 | . $924 \pm .010$ | . $103 \pm .003$ | 15/16 | 11/8 | 3/32 |
| -019 | . $801 \pm .009$ | . $070 \pm .003$ | 13/16 | 15/16 | 1/16 | -120 | . $987 \pm .010$ | . $103 \pm .003$ | 1 | 13/16 | 3/32 |
| -020 | . $864 \pm .009$ | . $070 \pm .003$ | 7/8 | 1 | 1/16 | -121 | $1.049 \pm .010$ | . $103 \pm .003$ | 11/16 | 11/4 | 3/32 |
| -021 | . $926 \pm .009$ | . $070 \pm .003$ | 15/16 | 11/16 | 1/16 | -122 | $1.112 \pm .010$ | . $103 \pm .003$ | $11 / 8$ | 15/16 | 3/32 |
| -022 | . $989 \pm .010$ | . $070 \pm .003$ | 1 | 11/8 | 1/16 | -123 | $1.174 \pm .012$ | . $103 \pm .003$ | 13/16 | $13 / 8$ | 3/32 |
| -023 | $1.051 \pm .010$ | . $070 \pm .003$ | 11/16 | 13/16 | 1/16 | -124 | $1.237 \pm .012$ | . $103 \pm .003$ | $11 / 4$ | $17 / 16$ | 3/32 |
| -024 | $1.114 \pm .010$ | . $070 \pm .003$ | $11 / 8$ | 11/4 | 1/16 | -125 | $1.299 \pm .012$ | . $103 \pm .003$ | 15/16 | 11/2 | 3/32 |
| -025 | $1.176 \pm .011$ | . $070 \pm .003$ | 13/16 | 15/16 | 1/16 | -126 | $1.362 \pm .012$ | . $103 \pm .003$ | $13 / 8$ | 19/16 | 3/32 |
| -026 | $1.239 \pm .011$ | . $070 \pm .003$ | 11/4 | $13 / 8$ | 1/16 | -127 | $1.424 \pm .012$ | . $103 \pm .003$ | 17/16 | 15/8 | 3/32 |
| -027 | $1.301 \pm .011$ | . $070 \pm .003$ | 15/16 | 17/16 | 1/16 | -128 | $1.487 \pm .012$ | . $103 \pm .003$ | $11 / 2$ | 111/16 | 3/32 |
| -028 | $1.364 \pm .013$ | . $070 \pm .003$ | 13/8 | 11/2 | 1/16 | -129 | $1.549 \pm .015$ | . $103 \pm .003$ | 19/16 | 13/4 | 3/32 |
| -029 | $1.489 \pm .013$ | . $070 \pm .003$ | $11 / 2$ | 15/8 | 1/16 | -130 | $1.612 \pm .015$ | . $103 \pm .003$ | 15/8 | 113/16 | 3/32 |
| -030 | $1.614 \pm .013$ | . $070 \pm .003$ | 15/8 | $13 / 4$ | 1/16 | -131 | $1.674 \pm .015$ | $.103 \pm .003$ | 111/16 | 17/8 | 3/32 |
| -031 | $1.739 \pm .015$ | . $070 \pm .003$ | $13 / 4$ | 17/8 | 1/16 | -132 | $1.737 \pm .015$ | $.103 \pm .003$ | 13/4 | 115/16 | 3/32 |
| -032 | $1.864 \pm .015$ | . $070 \pm .003$ | 17/8 | 2 | 1/16 | -133 | $1.799 \pm .015$ | . $103 \pm .003$ | 113/16 | 2 | 3/32 |
| -033 | $1.989 \pm .018$ | . $070 \pm .003$ | 2 | $21 / 8$ | 1/16 | -134 | $1.862 \pm .015$ | . $103 \pm .003$ | 17/8 | 21/16 | 3/32 |
| -034 | $2.114 \pm .018$ | . $070 \pm .003$ | $21 / 8$ | $21 / 4$ | 1/16 | -135 | $1.925 \pm .017$ | . $103 \pm .003$ | 115/16 | $21 / 8$ | 3/32 |
| -035 | $2.239 \pm .018$ | . $070 \pm .003$ | $21 / 4$ | $23 / 8$ | 1/16 | -136 | $1.987 \pm .017$ | . $103 \pm .003$ | 2 | $23 / 16$ | 3/32 |
| -036 | $2.364 \pm .018$ | . $070 \pm .003$ | $23 / 8$ | $21 / 2$ | 1/16 | -137 | $2.050 \pm .017$ | . $103 \pm .003$ | 21/16 | $21 / 4$ | 3/32 |
| -037 | $2.489 \pm .018$ | . $070 \pm .003$ | $21 / 2$ | $25 / 8$ | 1/16 | -138 | $2.112 \pm .017$ | . $103 \pm .003$ | $21 / 8$ | $25 / 16$ | 3/32 |
| -038 | $2.614 \pm .020$ | . $070 \pm .003$ | $25 / 8$ | $23 / 4$ | 1/16 | -139 | $2.175 \pm .017$ | . $103 \pm .003$ | 23/16 | $23 / 8$ | 3/32 |
| -039 | $2.739 \pm .020$ | . $070 \pm .003$ | $23 / 4$ | $27 / 8$ | 1/16 | -140 | $2.237 \pm .017$ | . $103 \pm .003$ | $21 / 4$ | $27 / 16$ | 3/32 |
| -040 | $2.864 \pm .020$ | . $070 \pm .003$ | $27 / 8$ | 3 | 1/16 | -141 | $2.300 \pm .020$ | . $103 \pm .003$ | 25/16 | $21 / 2$ | 3/32 |
| -041 | $2.989 \pm .024$ | . $070 \pm .003$ | 3 | $31 / 8$ | 1/16 | -142 | $2.362 \pm .020$ | . $103 \pm .003$ | $23 / 8$ | $29 / 16$ | 3/32 |
| -042 | $3.239 \pm .024$ | . $070 \pm .003$ | $31 / 4$ | $33 / 8$ | 1/16 | -143 | $2.425 \pm .020$ | . $103 \pm .003$ | 27/16 | $25 / 8$ | 3/32 |
| -043 | $3.489 \pm .024$ | . $070 \pm .003$ | $31 / 2$ | $35 / 8$ | 1/16 | -144 | $2.487 \pm .020$ | . $103 \pm .003$ | $21 / 2$ | 2 11/16 | 3/32 |
| -044 | $3.739 \pm .027$ | . $070 \pm .003$ | $33 / 4$ | $37 / 8$ | 1/16 | -145 | $2.550 \pm .020$ | . $103 \pm .003$ | 29/16 | 23/4 | 3/32 |
| -045 | $3.989 \pm .027$ | . $070 \pm .003$ | 4 | $41 / 8$ | 1/16 | -146 | $2.612 \pm .020$ | . $103 \pm .003$ | $25 / 8$ | $213 / 16$ | 3/32 |
| -046 | $4.239 \pm .030$ | . $070 \pm .003$ | $41 / 4$ | $43 / 8$ | 1/16 | -147 | $2.675 \pm .022$ | . $103 \pm .003$ | 211/16 | $27 / 8$ | 3/32 |
| -047 | $4.489 \pm .030$ | . $070 \pm .003$ | $41 / 2$ | $45 / 8$ | 1/16 | -148 | $2.737 \pm .022$ | . $103 \pm .003$ | $23 / 4$ | 215/16 | 3/32 |
| -048 | $4.739 \pm .030$ | . $070 \pm .003$ | 43/4 | $47 / 8$ | 1/16 | -149 | $2.800 \pm .022$ | . $103 \pm .003$ | $213 / 16$ | 3 | 3/32 |
| -049 | $4.989 \pm .037$ | . $070 \pm .003$ | 5 | $51 / 8$ | 1/16 | -150 | $2.862 \pm .022$ | . $103 \pm .003$ | $27 / 8$ | $31 / 16$ | 3/32 |


| $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  | $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |
| -151 | $2.987 \pm .024$ | . $103 \pm .003$ | 3 | 3 3/16 | 3/32 | -223 | $1.609 \pm .015$ | . $139 \pm .004$ | 15/8 | 17/8 | 1/8 |
| -152 | $3.237 \pm .024$ | . $103 \pm .003$ | $31 / 4$ | $37 / 16$ | 3/32 | -224 | $1.734 \pm .015$ | . $139 \pm .004$ | 13/4 | 2 | 1/8 |
| -153 | $3.487 \pm .024$ | . $103 \pm .003$ | $31 / 2$ | $311 / 16$ | 3/32 | -225 | $1.859 \pm .018$ | . $139 \pm .004$ | $17 / 8$ | $21 / 8$ | 1/8 |
| -154 | $3.737 \pm .028$ | . $103 \pm .003$ | $33 / 4$ | $315 / 16$ | 3/32 | -226 | $1.984 \pm .018$ | . $139 \pm .004$ | 2 | $21 / 4$ | 1/8 |
| -155 | $3.987 \pm .028$ | . $103 \pm .003$ | 4 | 43/16 | 3/32 | -227 | $2.109 \pm .018$ | . $139 \pm .004$ | $21 / 8$ | $23 / 8$ | 1/8 |
| -156 | $4.237 \pm .030$ | . $103 \pm .003$ | $41 / 4$ | $47 / 16$ | 3/32 | -228 | $2.234 \pm .020$ | . $139 \pm .004$ | $21 / 4$ | $21 / 2$ | 1/8 |
| -157 | $4.487 \pm .030$ | . $103 \pm .003$ | $41 / 2$ | $411 / 16$ | 3/32 | -229 | $2.359 \pm .020$ | . $139 \pm .004$ | $23 / 8$ | $25 / 8$ | 1/8 |
| -158 | $4.737 \pm .030$ | . $103 \pm .003$ | $43 / 4$ | $415 / 16$ | 3/32 | -230 | $2.484 \pm .020$ | . $139 \pm .004$ | $21 / 2$ | $23 / 4$ | 1/8 |
| -159 | $4.987 \pm .035$ | . $103 \pm .003$ | 5 | $53 / 16$ | 3/32 | -231 | $2.609 \pm .020$ | . $139 \pm .004$ | $25 / 8$ | $27 / 8$ | 1/8 |
| -160 | $5.237 \pm .035$ | . $103 \pm .003$ | $51 / 4$ | $57 / 16$ | 3/32 | -232 | $2.734 \pm .024$ | . $139 \pm .004$ | $23 / 4$ | 3 | 1/8 |
| -161 | $5.487 \pm .035$ | . $103 \pm .003$ | 51/2 | $511 / 16$ | 3/32 | -233 | $2.859 \pm .024$ | . $139 \pm .004$ | $27 / 8$ | $31 / 8$ | 1/8 |
| -162 | $5.737 \pm .035$ | . $103 \pm .003$ | $53 / 4$ | $515 / 16$ | 3/32 | -234 | $2.984 \pm .024$ | . $139 \pm .004$ | 3 | $31 / 4$ | 1/8 |
| -163 | $5.987 \pm .035$ | . $103 \pm .003$ | 6 | 63/16 | 3/32 | -235 | $3.109 \pm .024$ | . $139 \pm .004$ | $31 / 8$ | $33 / 8$ | 1/8 |
| -164 | $6.237 \pm .040$ | . $103 \pm .003$ | $61 / 4$ | 67/16 | 3/32 | -236 | $3.234 \pm .024$ | . $139 \pm .004$ | $31 / 4$ | $31 / 2$ | 1/8 |
| -165 | $6.487 \pm .040$ | . $103 \pm .003$ | $61 / 2$ | 611/16 | 3/32 | -237 | $3.359 \pm .024$ | . $139 \pm .004$ | $33 / 8$ | $35 / 8$ | 1/8 |
| -166 | $6.737 \pm .040$ | . $103 \pm .003$ | 63/4 | $615 / 16$ | 3/32 | -238 | $3.484 \pm .024$ | . $139 \pm .004$ | $31 / 2$ | $33 / 4$ | 1/8 |
| -167 | $6.987 \pm .040$ | . $103 \pm .003$ | 7 | 73/16 | 3/32 | -239 | $3.609 \pm .028$ | . $139 \pm .004$ | $35 / 8$ | $37 / 8$ | 1/8 |
| -168 | $7.237 \pm .045$ | . $103 \pm .003$ | $71 / 4$ | 77/16 | 3/32 | -240 | $3.734 \pm .028$ | . $139 \pm .004$ | $33 / 4$ | 4 | 1/8 |
| -169 | $7.487 \pm .045$ | . $103 \pm .003$ | $71 / 2$ | $711 / 16$ | 3/32 | -241 | $3.859 \pm .028$ | . $139 \pm .004$ | $37 / 8$ | $41 / 8$ | 1/8 |
| -170 | $7.737 \pm .045$ | . $103 \pm .003$ | 73/4 | $715 / 16$ | 3/32 | -242 | $3.984 \pm .028$ | . $139 \pm .004$ | 4 | $41 / 4$ | 1/8 |
| -171 | $7.987 \pm .045$ | . $103 \pm .003$ | 8 | 83/16 | 3/32 | -243 | $4.109 \pm .028$ | . $139 \pm .004$ | $41 / 8$ | $43 / 8$ | 1/8 |
| -172 | $8.237 \pm .050$ | . $103 \pm .003$ | $81 / 4$ | $87 / 16$ | 3/32 | -244 | $4.234 \pm .030$ | . $139 \pm .004$ | $41 / 4$ | $41 / 2$ | 1/8 |
| -173 | $8.487 \pm .050$ | . $103 \pm .003$ | 81/2 | 811/16 | 3/32 | -245 | $4.359 \pm .030$ | . $139 \pm .004$ | $43 / 8$ | $45 / 8$ | 1/8 |
| -174 | $8.737 \pm .050$ | . $103 \pm .003$ | 83/4 | 815/16 | 3/32 | -246 | $4.484 \pm .030$ | . $139 \pm .004$ | $41 / 2$ | 43/4 | 1/8 |
| -175 | $8.987 \pm .050$ | . $103 \pm .003$ | 9 | $93 / 16$ | 3/32 | -247 | $4.609 \pm .030$ | . $139 \pm .004$ | $45 / 8$ | $47 / 8$ | 1/8 |
| -176 | $9.237 \pm .055$ | . $103 \pm .003$ | $91 / 4$ | $97 / 16$ | 3/32 | -248 | $4.734 \pm .030$ | . $139 \pm .004$ | $43 / 4$ | 5 | 1/8 |
| -177 | $9.487 \pm .055$ | . $103 \pm .003$ | $91 / 2$ | $911 / 16$ | 3/32 | -249 | $4.859 \pm .035$ | . $139 \pm .004$ | $47 / 8$ | $51 / 8$ | 1/8 |
| -178 | $9.737 \pm .055$ | . $103 \pm .003$ | $93 / 4$ | $915 / 16$ | 3/32 | -250 | $4.984 \pm .035$ | . $139 \pm .004$ | 5 | $51 / 4$ | 1/8 |
| -201 | . $171 \pm .005$ | . $139 \pm .004$ | 3/16 | 7/16 | 1/8 | -251 | $5.109 \pm .035$ | . $139 \pm .004$ | $51 / 8$ | $53 / 8$ | 1/8 |
| -202 | . $234 \pm .005$ | . $139 \pm .004$ | 1/4 | 1/2 | 1/8 | -252 | $5.234 \pm .035$ | . $139 \pm .004$ | $51 / 4$ | $51 / 2$ | 1/8 |
| -203 | . $296 \pm .005$ | . $139 \pm .004$ | 5/16 | 9/16 | 1/8 | -253 | $5.359 \pm .035$ | . $139 \pm .004$ | $53 / 8$ | 5 5/8 | 1/8 |
| -204 | . $359 \pm .005$ | . $139 \pm .004$ | 3/8 | 5/8 | 1/8 | -254 | $5.484 \pm .035$ | . $139 \pm .004$ | $51 / 2$ | $53 / 4$ | 1/8 |
| -205 | . $421 \pm .005$ | . $139 \pm .004$ | 7/16 | 11/16 | 1/8 | -255 | $5.609 \pm .035$ | . $139 \pm .004$ | 5 5/8 | $57 / 8$ | 1/8 |
| -206 | . $484 \pm .005$ | . $139 \pm .004$ | 1/2 | 3/4 | 1/8 | -256 | $5.734 \pm .035$ | . $139 \pm .004$ | $53 / 4$ | 6 | 1/8 |
| -207 | . $546 \pm .007$ | . $139 \pm .004$ | 9/16 | 13/16 | 1/8 | -257 | $5.859 \pm .035$ | . $139 \pm .004$ | $57 / 8$ | $61 / 8$ | 1/8 |
| -208 | . $609 \pm .009$ | . $139 \pm .004$ | 5/8 | 7/8 | 1/8 | -258 | $5.984 \pm .035$ | . $139 \pm .004$ | 6 | $61 / 4$ | 1/8 |
| -209 | . $671 \pm .009$ | . $139 \pm .004$ | 11/16 | 15/16 | 1/8 | -259 | $6.234 \pm .040$ | . $139 \pm .004$ | $61 / 4$ | $61 / 2$ | 1/8 |
| -210 | . $734 \pm .010$ | . $139 \pm .004$ | 3/4 | 1 | 1/8 | -260 | $6.484 \pm .040$ | . $139 \pm .004$ | $61 / 2$ | $63 / 4$ | 1/8 |
| -211 | . $796 \pm .010$ | . $139 \pm .004$ | 13/16 | 11/16 | 1/8 | -261 | $6.734 \pm .040$ | . $139 \pm .004$ | $63 / 4$ | 7 | 1/8 |
| -212 | . $859 \pm .010$ | . $139 \pm .004$ | 7/8 | $11 / 8$ | 1/8 | -262 | $6.984 \pm .040$ | . $139 \pm .004$ | 7 | $71 / 4$ | 1/8 |
| -213 | . $921 \pm .010$ | . $139 \pm .004$ | 15/16 | 13/16 | 1/8 | -263 | $7.234 \pm .045$ | . $139 \pm .004$ | $71 / 4$ | $71 / 2$ | 1/8 |
| -214 | . $984 \pm .010$ | . $139 \pm .004$ | 1 | $11 / 4$ | 1/8 | -264 | $7.484 \pm .045$ | . $139 \pm .004$ | $71 / 2$ | 73/4 | 1/8 |
| -215 | $1.046 \pm .010$ | . $139 \pm .004$ | 11/16 | 15/16 | 1/8 | -265 | $7.734 \pm .045$ | . $139 \pm .004$ | 73/4 | 8 | 1/8 |
| -216 | $1.109 \pm .012$ | . $139 \pm .004$ | 11/8 | $13 / 8$ | 1/8 | -266 | $7.984 \pm .045$ | . $139 \pm .004$ | 8 | $81 / 4$ | 1/8 |
| -217 | $1.171 \pm .012$ | . $139 \pm .004$ | 13/16 | 17/16 | 1/8 | -267 | $8.234 \pm .050$ | . $139 \pm .004$ | $81 / 4$ | $81 / 2$ | 1/8 |
| -218 | $1.234 \pm .012$ | . $139 \pm .004$ | 11/4 | $11 / 2$ | 1/8 | -268 | $8.484 \pm .050$ | . $139 \pm .004$ | $81 / 2$ | 83/4 | 1/8 |
| -219 | $1.296 \pm .012$ | . $139 \pm .004$ | 15/16 | 19/16 | 1/8 | -269 | $8.734 \pm .050$ | . $139 \pm .004$ | $83 / 4$ | 9 | 1/8 |
| -220 | $1.359 \pm .012$ | . $139 \pm .004$ | 13/8 | $15 / 8$ | 1/8 | -270 | $8.984 \pm .050$ | . $139 \pm .004$ | 9 | $91 / 4$ | 1/8 |
| -221 | $1.421 \pm .012$ | . $139 \pm .004$ | $17 / 16$ | 111/16 | 1/8 | -271 | $9.234 \pm .055$ | . $139 \pm .004$ | $91 / 4$ | $91 / 2$ | 1/8 |
| -222 | $1.484 \pm .015$ | . $139 \pm .004$ | 11/2 | 13/4 | 1/8 | -272 | $9.484 \pm .055$ | . $139 \pm .004$ | $91 / 2$ | $93 / 4$ | 1/8 |


| $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  | $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |
| -273 | $9.734 \pm .055$ | . $139 \pm .004$ | $93 / 4$ | 10 | 1/8 | -347 | $4.225 \pm .030$ | . $210 \pm .005$ | $41 / 4$ | 45/8 | 3/16 |
| -274 | $9.984 \pm .055$ | . $139 \pm .004$ | 10 | $101 / 4$ | 1/8 | -348 | $4.350 \pm .030$ | . $210 \pm .005$ | 43/8 | 43/4 | 3/16 |
| -275 | $10.484 \pm .055$ | . $139 \pm .004$ | 10 1/2 | $103 / 4$ | 1/8 | -349 | $4.475 \pm .030$ | . $210 \pm .005$ | $41 / 2$ | 47/8 | 3/16 |
| -276 | $10.984 \pm .065$ | . $139 \pm .004$ | 11 | $111 / 4$ | 1/8 | -350 | $4.600 \pm .030$ | . $210 \pm .005$ | 45/8 | 5 | 3/16 |
| -277 | $11.484 \pm .065$ | . $139 \pm .004$ | $111 / 2$ | $113 / 4$ | 1/8 | -351 | $4.725 \pm .030$ | . $210 \pm .005$ | 43/4 | $51 / 8$ | 3/16 |
| -278 | $11.984 \pm .065$ | . $139 \pm .004$ | 12 | $121 / 4$ | 1/8 | -352 | $4.850 \pm .030$ | . $210 \pm .005$ | 47/8 | $51 / 4$ | 3/16 |
| -279 | $12.984 \pm .065$ | . $139 \pm .004$ | 13 | $131 / 4$ | 1/8 | -353 | $4.975 \pm .037$ | . $210 \pm .005$ | 5 | $53 / 8$ | 3/16 |
| -280 | $13.984 \pm .065$ | . $139 \pm .004$ | 14 | $141 / 4$ | 1/8 | -354 | $5.100 \pm .037$ | . $210 \pm .005$ | $51 / 8$ | $51 / 2$ | 3/16 |
| -281 | $14.984 \pm .065$ | . $139 \pm .004$ | 15 | $151 / 4$ | 1/8 | -355 | $5.225 \pm .037$ | . $210 \pm .005$ | $51 / 4$ | $55 / 8$ | 3/16 |
| -282 | $15.955 \pm .075$ | . $139 \pm .004$ | 16 | $161 / 4$ | 1/8 | -356 | $5.350 \pm .037$ | . $210 \pm .005$ | $53 / 8$ | $53 / 4$ | 3/16 |
| -283 | $16.955 \pm .080$ | . $139 \pm .004$ | 17 | $171 / 4$ | 1/8 | -357 | $5.475 \pm .037$ | . $210 \pm .005$ | $51 / 2$ | $57 / 8$ | 3/16 |
| -284 | $17.955 \pm .085$ | . $139 \pm .004$ | 18 | 181/4 | 1/8 | -358 | $5.600 \pm .037$ | . $210 \pm .005$ | 5 5/8 | 6 | 3/16 |
| -309 | . $412 \pm .005$ | . $210 \pm .005$ | 7/16 | 13/16 | 3/16 | -359 | $5.725 \pm .037$ | . $210 \pm .005$ | 53/4 | $61 / 8$ | 3/16 |
| -310 | $.475 \pm .005$ | . $210 \pm .005$ | 1/2 | 7/8 | 3/16 | -360 | $5.850 \pm .037$ | . $210 \pm .005$ | $57 / 8$ | $61 / 4$ | 3/16 |
| -311 | . $537 \pm .007$ | . $210 \pm .005$ | 9/16 | 15/16 | 3/16 | -361 | $5.975 \pm .037$ | . $210 \pm .005$ | 6 | $63 / 8$ | 3/16 |
| -312 | . $600 \pm .009$ | . $210 \pm .005$ | 5/8 | 1 | 3/16 | -362 | $6.225 \pm .040$ | . $210 \pm .005$ | $61 / 4$ | $65 / 8$ | 3/16 |
| -313 | . $662 \pm .009$ | . $210 \pm .005$ | 11/16 | 11/16 | 3/16 | -363 | $6.475 \pm .040$ | . $210 \pm .005$ | $61 / 2$ | $67 / 8$ | 3/16 |
| -314 | $.725 \pm .010$ | . $210 \pm .005$ | 3/4 | $11 / 8$ | 3/16 | -364 | $6.725 \pm .040$ | . $210 \pm .005$ | $63 / 4$ | 71/8 | 3/16 |
| -315 | $.787 \pm .010$ | . $210 \pm .005$ | 13/16 | 13/16 | 3/16 | -365 | $6.975 \pm .040$ | . $210 \pm .005$ | 7 | 73/8 | 3/16 |
| -316 | . $850 \pm .010$ | . $210 \pm .005$ | 7/8 | $11 / 4$ | 3/16 | -366 | $7.225 \pm .045$ | . $210 \pm .005$ | $71 / 4$ | 75/8 | 3/16 |
| -317 | . $912 \pm .010$ | . $210 \pm .005$ | 15/16 | 15/16 | 3/16 | -367 | $7.475 \pm .045$ | . $210 \pm .005$ | $71 / 2$ | 77/8 | 3/16 |
| -318 | . $975 \pm .010$ | . $210 \pm .005$ | 1 | $13 / 8$ | 3/16 | -368 | $7.725 \pm .045$ | . $210 \pm .005$ | $73 / 4$ | $81 / 8$ | 3/16 |
| -319 | $1.037 \pm .010$ | . $210 \pm .005$ | 11/16 | 17/16 | 3/16 | -369 | $7.975 \pm .045$ | . $210 \pm .005$ | 8 | 83/8 | 3/16 |
| -320 | $1.100 \pm .012$ | . $210 \pm .005$ | $11 / 8$ | $11 / 2$ | 3/16 | -370 | $8.225 \pm .050$ | . $210 \pm .005$ | $81 / 4$ | 85/8 | 3/16 |
| -321 | $1.162 \pm .012$ | . $210 \pm .005$ | 13/16 | 19/16 | 3/16 | -371 | $8.475 \pm .050$ | . $210 \pm .005$ | $81 / 2$ | $87 / 8$ | 3/16 |
| -322 | $1.225 \pm .012$ | . $210 \pm .005$ | $11 / 4$ | $15 / 8$ | 3/16 | -372 | $8.725 \pm .050$ | . $210 \pm .005$ | 83/4 | $91 / 8$ | 3/16 |
| -323 | $1.287 \pm .012$ | . $210 \pm .005$ | 15/16 | 111/16 | 3/16 | -373 | $8.975 \pm .050$ | . $210 \pm .005$ | 9 | $93 / 8$ | 3/16 |
| -324 | $1.350 \pm .012$ | . $210 \pm .005$ | 13/8 | $13 / 4$ | 3/16 | -374 | $9.225 \pm .055$ | . $210 \pm .005$ | $91 / 4$ | $95 / 8$ | 3/16 |
| -325 | $1.475 \pm .015$ | . $210 \pm .005$ | 11/2 | $17 / 8$ | 3/16 | -375 | $9.475 \pm .055$ | . $210 \pm .005$ | $91 / 2$ | $97 / 8$ | 3/16 |
| -326 | $1.600 \pm .015$ | . $210 \pm .005$ | 15/8 | 2 | 3/16 | -376 | $9.725 \pm .055$ | . $210 \pm .005$ | 93/4 | $101 / 8$ | 3/16 |
| -327 | $1.725 \pm .015$ | . $210 \pm .005$ | 13/4 | $21 / 8$ | 3/16 | -377 | $9.975 \pm .055$ | . $210 \pm .005$ | 10 | $103 / 8$ | 3/16 |
| -328 | $1.850 \pm .015$ | . $210 \pm .005$ | 17/8 | $21 / 4$ | 3/16 | -378 | $10.475 \pm .060$ | . $210 \pm .005$ | $101 / 2$ | $107 / 8$ | 3/16 |
| -329 | $1.975 \pm .018$ | . $210 \pm .005$ | 2 | $23 / 8$ | 3/16 | -379 | $10.975 \pm .060$ | . $210 \pm .005$ | 11 | $113 / 8$ | 3/16 |
| -330 | $2.100 \pm .018$ | . $210 \pm .005$ | 21/8 | $21 / 2$ | 3/16 | -380 | $11.475 \pm .065$ | . $210 \pm .005$ | $111 / 2$ | 117/8 | 3/16 |
| -331 | $2.225 \pm .018$ | . $210 \pm .005$ | $21 / 4$ | $25 / 8$ | 3/16 | -381 | $11.975 \pm .065$ | $.210 \pm .005$ | 12 | $123 / 8$ | 3/16 |
| -332 | $2.350 \pm .018$ | . $210 \pm .005$ | $23 / 8$ | $23 / 4$ | 3/16 | -382 | $12.975 \pm .065$ | . $210 \pm .005$ | 13 | $133 / 8$ | 3/16 |
| -333 | $2.475 \pm .020$ | . $210 \pm .005$ | $21 / 2$ | $27 / 8$ | 3/16 | -383 | $13.975 \pm .070$ | . $210 \pm .005$ | 14 | $143 / 8$ | 3/16 |
| -334 | $2.600 \pm .020$ | . $210 \pm .005$ | $25 / 8$ | 3 | 3/16 | -384 | $14.975 \pm .070$ | . $210 \pm .005$ | 15 | $153 / 8$ | 3/16 |
| -335 | $2.725 \pm .020$ | . $210 \pm .005$ | $23 / 4$ | $31 / 8$ | 3/16 | -385 | $15.955 \pm .075$ | . $210 \pm .005$ | 16 | $163 / 8$ | 3/16 |
| -336 | $2.850 \pm .020$ | . $210 \pm .005$ | $27 / 8$ | $31 / 4$ | 3/16 | -386 | $16.955 \pm .080$ | . $210 \pm .005$ | 17 | $173 / 8$ | 3/16 |
| -337 | $2.975 \pm .024$ | . $210 \pm .005$ | 3 | $33 / 8$ | 3/16 | -387 | $17.955 \pm .085$ | . $210 \pm .005$ | 18 | $183 / 8$ | 3/16 |
| -338 | $3.100 \pm .024$ | . $210 \pm .005$ | $31 / 8$ | $31 / 2$ | 3/16 | -388 | $18.955 \pm .090$ | . $210 \pm .005$ | 19 | $193 / 8$ | 3/16 |
| -339 | $3.225 \pm .024$ | . $210 \pm .005$ | $31 / 4$ | $35 / 8$ | 3/16 | -389 | $19.955 \pm .095$ | . $210 \pm .005$ | 20 | $203 / 8$ | 3/16 |
| -340 | $3.350 \pm .024$ | . $210 \pm .005$ | $33 / 8$ | $33 / 4$ | 3/16 | -390 | $20.955 \pm .095$ | . $210 \pm .005$ | 21 | $213 / 8$ | 3/16 |
| -341 | $3.475 \pm .024$ | . $210 \pm .005$ | $31 / 2$ | $37 / 8$ | 3/16 | -391 | $21.955 \pm .100$ | . $210 \pm .005$ | 22 | $223 / 8$ | 3/16 |
| -342 | $3.600 \pm .028$ | . $210 \pm .005$ | $35 / 8$ | 4 | 3/16 | -392 | $22.940 \pm .105$ | . $210 \pm .005$ | 23 | $233 / 8$ | 3/16 |
| -343 | $3.725 \pm .028$ | . $210 \pm .005$ | $33 / 4$ | $41 / 8$ | 3/16 | -393 | $23.940 \pm .110$ | . $210 \pm .005$ | 24 | $243 / 8$ | 3/16 |
| -344 | $3.850 \pm .028$ | . $210 \pm .005$ | $37 / 8$ | $41 / 4$ | 3/16 | -394 | $24.940 \pm .115$ | . $210 \pm .005$ | 25 | $253 / 8$ | 3/16 |
| -345 | $3.975 \pm .028$ | . $210 \pm .005$ | 4 | $43 / 8$ | 3/16 | -395 | $25.940 \pm .120$ | . $210 \pm .005$ | 26 | $263 / 8$ | 3/16 |
| -346 | $4.100 \pm .028$ | . $210 \pm .005$ | 41/8 | $41 / 2$ | 3/16 | -425 | $4.475 \pm .033$ | . $275 \pm .006$ | $41 / 2$ | 5 | 1/4 |


| $\begin{aligned} & \text { AS568 } \\ & \text { No. } \end{aligned}$ | Actual Dimensions |  | Nominal Reference |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I.D. Tol. | W. Tol. | I.D. | 0.D. | Width |
| -426 | $4.600 \pm .033$ | . $275 \pm .006$ | 45/8 | $51 / 8$ | 1/4 |
| -427 | $4.725 \pm .033$ | . $275 \pm .006$ | $43 / 4$ | $51 / 4$ | 1/4 |
| -428 | $4.850 \pm .033$ | . $275 \pm .006$ | $47 / 8$ | $53 / 8$ | 1/4 |
| -429 | $4.975 \pm .037$ | . $275 \pm .006$ | 5 | $51 / 2$ | 1/4 |
| -430 | $5.100 \pm .037$ | . $275 \pm .006$ | $51 / 8$ | 5 5/8 | 1/4 |
| -431 | $5.225 \pm .037$ | . $275 \pm .006$ | $51 / 4$ | $53 / 4$ | 1/4 |
| -432 | $5.350 \pm .037$ | . $275 \pm .006$ | $53 / 8$ | $57 / 8$ | 1/4 |
| -433 | $5.475 \pm .037$ | . $275 \pm .006$ | $51 / 2$ | 6 | 1/4 |
| -434 | $5.600 \pm .037$ | . $275 \pm .006$ | 5 5/8 | $61 / 8$ | 1/4 |
| -435 | $5.725 \pm .037$ | . $275 \pm .006$ | 53/4 | $61 / 4$ | 1/4 |
| -436 | $5.850 \pm .037$ | . $275 \pm .006$ | $57 / 8$ | 63/8 | 1/4 |
| -437 | $5.975 \pm .037$ | . $275 \pm .006$ | 6 | $61 / 2$ | 1/4 |
| -438 | $6.225 \pm .040$ | . $275 \pm .006$ | $61 / 4$ | 63/4 | 1/4 |
| -439 | $6.475 \pm .040$ | . $275 \pm .006$ | $61 / 2$ | 7 | 1/4 |
| -440 | $6.725 \pm .040$ | . $275 \pm .006$ | 63/4 | 71/4 | 1/4 |
| -441 | $6.975 \pm .040$ | . $275 \pm .006$ | 7 | $71 / 2$ | 1/4 |
| -442 | $7.225 \pm .045$ | . $275 \pm .006$ | $71 / 4$ | 73/4 | 1/4 |
| -443 | $7.475 \pm .045$ | . $275 \pm .006$ | $71 / 2$ | 8 | 1/4 |
| -444 | $7.725 \pm .045$ | . $275 \pm .006$ | $73 / 4$ | $81 / 4$ | 1/4 |
| -445 | $7.975 \pm .045$ | . $275 \pm .006$ | 8 | 81/2 | 1/4 |
| -446 | $8.475 \pm .055$ | . $275 \pm .006$ | 81/2 | 9 | 1/4 |
| -447 | $8.975 \pm .055$ | . $275 \pm .006$ | 9 | $91 / 2$ | 1/4 |
| -448 | $9.475 \pm .055$ | . $275 \pm .006$ | $91 / 2$ | 10 | 1/4 |
| -449 | $9.975 \pm .055$ | . $275 \pm .006$ | 10 | 10 1/2 | 1/4 |
| -450 | $10.475 \pm .060$ | . $275 \pm .006$ | 10 1/2 | 11 | 1/4 |
| -451 | $10.975 \pm .060$ | . $275 \pm .006$ | 11 | $111 / 2$ | 1/4 |
| -452 | $11.475 \pm .060$ | . $275 \pm .006$ | $111 / 2$ | 12 | 1/4 |
| -453 | $11.975 \pm .060$ | . $275 \pm .006$ | 12 | 121/2 | 1/4 |
| -454 | $12.475 \pm .060$ | . $275 \pm .006$ | $121 / 2$ | 13 | 1/4 |
| -455 | $12.975 \pm .060$ | . $275 \pm .006$ | 13 | $131 / 2$ | 1/4 |
| -456 | $13.475 \pm .070$ | . $275 \pm .006$ | $131 / 2$ | 14 | 1/4 |
| -457 | $13.975 \pm .070$ | . $275 \pm .006$ | 14 | 141/2 | 1/4 |
| -458 | $14.475 \pm .070$ | . $275 \pm .006$ | $141 / 4$ | 15 | 1/4 |
| -459 | $14.975 \pm .070$ | . $275 \pm .006$ | 15 | 151/2 | 1/4 |
| -460 | $15.475 \pm .070$ | . $275 \pm .006$ | $151 / 2$ | 16 | 1/4 |
| -461 | $15.955 \pm .075$ | . $275 \pm .006$ | 16 | 161/2 | 1/4 |
| -462 | $16.455 \pm .075$ | . $275 \pm .006$ | $161 / 2$ | 17 | 1/4 |
| -463 | $16.955 \pm .080$ | . $275 \pm .006$ | 17 | 171/2 | 1/4 |
| -464 | $17.455 \pm .085$ | . $275 \pm .006$ | $171 / 2$ | 18 | 1/4 |
| -465 | $17.955 \pm .085$ | . $275 \pm .006$ | 18 | 181/2 | 1/4 |
| -466 | $18.455 \pm .085$ | . $275 \pm .006$ | $181 / 2$ | 19 | 1/4 |
| -467 | $18.955 \pm .090$ | . $275 \pm .006$ | 19 | 19 1/2 | 1/4 |
| -468 | $19.455 \pm .090$ | . $275 \pm .006$ | 19 1/2 | 20 | 1/4 |
| -469 | $19.955 \pm .090$ | . $275 \pm .006$ | 20 | $201 / 2$ | 1/4 |
| -470 | $20.955 \pm .090$ | . $275 \pm .006$ | 21 | $211 / 2$ | 1/4 |
| -471 | $21.955 \pm .100$ | . $275 \pm .006$ | 22 | $221 / 2$ | 1/4 |
| -472 | $22.940 \pm .105$ | . $275 \pm .006$ | 23 | $231 / 2$ | 1/4 |
| -473 | $23.940 \pm .110$ | . $275 \pm .006$ | 24 | $241 / 2$ | 1/4 |
| -474 | $24.940 \pm .115$ | . $275 \pm .006$ | 25 | $251 / 2$ | 1/4 |
| -475 | $25.940 \pm .120$ | . $275 \pm .006$ | 26 | $261 / 2$ | 1/4 |


| Standard O-Ring Boss Gaskets for Straight Thread Tube Fittings |  |  |  |
| :---: | :---: | :---: | :---: |
| AS568 <br> NO. | Actual Dimensions |  | Tube Size (0.D.) Fractional |
|  | I.D. Tol. | W. Tol. |  |
| -901 | . $185 \pm .005$ | . $056 \pm .003$ | 3/32 |
| -902 | . $239 \pm .005$ | . $064 \pm .003$ | 1/8 |
| -903 | . $301 \pm .005$ | . $064 \pm .003$ | 3/16 |
| -904 | . $351 \pm .005$ | . $072 \pm .003$ | 1/4 |
| -905 | . $414 \pm .005$ | . $072 \pm .003$ | 5/16 |
| -906 | . $468 \pm .005$ | . $078 \pm .003$ | 3/8 |
| -907 | . $530 \pm .007$ | . $082 \pm .003$ | 7/16 |
| -908 | . $644 \pm .009$ | . $087 \pm .003$ | 1/2 |
| -909 | . $706 \pm .009$ | . $097 \pm .003$ | 9/16 |
| -910 | . $755 \pm .009$ | . $097 \pm .003$ | 5/8 |
| -911 | . $863 \pm .009$ | . $116 \pm .004$ | 11/16 |
| -912 | . $924 \pm .009$ | . $116 \pm .004$ | 3/4 |
| -913 | . $986 \pm .010$ | . $116 \pm .004$ | 13/16 |
| -914 | $1.047 \pm .010$ | . $116 \pm .004$ | 7/8 |
| -916 | $1.171 \pm .010$ | . $116 \pm .004$ | 1 |
| -918 | $1.355 \pm .012$ | . $116 \pm .004$ | $11 / 8$ |
| -920 | $1.475 \pm .014$ | . $118 \pm .004$ | $11 / 4$ |
| -924 | $1.720 \pm .014$ | . $118 \pm .004$ | $11 / 2$ |
| -928 | $2.090 \pm .018$ | . $118 \pm .004$ | $13 / 4$ |
| -932 | $2.337 \pm .018$ | . $118 \pm .004$ | 2 |



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[^0]:    *The temperatures listed are general operating range.

