

Rubber Fab

a Garlock Hygienic Technologies company

A Guide to O-Ring Applications, Specifications and Elastomeric Materials

Products Include:

- *FDA, 3A and Class VI*
- *Detectomer®*
- *Cord*
- *Quad Rings*

What is an O-ring?

O-ring Specifications and Applications

Seal design is an important factor in food, dairy, beverage and pharmaceutical processing. An o-ring is a very important part of that design. O-rings are generally installed in a seal to prevent leaking, or loss of fluid. Rubber Fab offers AS568 Standard o-rings, metric, DIN and custom sizes in a wide variety of materials.

There are many factors to consider when choosing an elastomer for your application. O-rings and gaskets are FDA Compliant for use in food applications and Class VI tested for pharmaceutical applications.

Rubber Fab Detectomer® products meet and exceed the standards set by the Food Safety Modernization Act. They are detectable by in-line x-ray inspection and metal detection systems, as well as, magnetic separators, therefore reducing costly product loss and recalls.

Physical Properties of an O-Ring

- **Hardness:** O-rings are available in medium-hard (70 durometer), softer (50 & 60 durometer) & harder (85+ durometer). Standard is 70, +/- 5 with other durometers available.
- **Tensile Strength:** is the force (measured in psi) needed to break an o-ring at its ultimate strain. This is a good measure to determine if an o-ring is at the end of its life from being exposed to certain fluids.
- **Creep:** the characteristic of all elastomers to show a gradual decrease in the o-rings shape under a constant load over time.
- **Temperature:** is important when choosing an o-ring. Not all elastomers will react the same way in the same application. Temperature plays a large part in how an o-ring will function.

Rubber Fab's FDA, Class VI and Detectomer® o-rings ship with a certificate of conformance, ensuring complete lot and batch traceability. Rubber Fab also offers solid cord stock for field fabrication.

Available Materials

- Detectomer®
- Tuf-Steel®
- Buna
- EPDM
- FKM & Aflas® FFKM
- Kalrez®
- PTFE
- Platinum and Peroxide-Cured Silicone
- FEP Encapsulated EPDM, FKM & Silicone
- Other materials are available upon request

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CERTIFICATE OF COMPLIANCE
U.S.P. CLASS VI

Rubber Fab Technologies Group certifies that the material from which we manufacture the below mentioned parts has passed U.S.P. Class VI Cytotoxicity Testing and meets 3A and USDA Standards and are BSE/TSE compliant. Elastomer parts are FDA CFR 21, 177.2600 compliant, and PTFE, FEP, PFA and Tuf-Steel® parts are FDA CFR 21, 177.1550 compliant.

CUSTOMER NAME:	Rubber Fab
CUSTOMER PO:	Sample
PART NO.:	Sample
DESCRIPTION:	Sample
MATERIAL:	Sample
LOT NUMBER:	Sample
CURE DATE:	Sample

Sean Mayer
Sean Mayer
Quality Assurance Manager

C E R T I F I E D



The material used to manufacture our EPDM, FKM Fluoroelastomer, Silicone, PTFE, and Tuf-Steel® parts is Animal-Derived Ingredient-Free.

◆ Gaskets ◆ Hose ◆ Hose Assemblies ◆ Tubing ◆ Fittings ◆ Pump and Replacement Parts
26 Brookfield Drive, Sparta, NJ 07871 • Phone: 973-579-2959 • Fax: 973-579-7275
www.rubberfab.com

Detectomer®

Metal Detectable/X-ray Inspectable O-rings



Detectomer® Patent
Number 9,701,827

Rubber Fab presents a full line of metal detectable/x-ray inspectable o-rings and cord. Over time and repeated clean-in-place, sterilization, and handling during equipment cleaning, component parts used in food, beverage and pharmaceutical processing equipment and pipework can degrade. As the o-ring degrades, there is a high risk of material fragments breaking off, resulting in product contamination, product recall, product loss and costly downtime.

Rubber Fab's line of Detectomer® products are manufactured using FDA and 3A compounds. O-rings can be spotted by in-line x-ray inspection and metal detection systems as well as magnetic separators. Detectomer® fragments can easily be detected allowing your system to quickly reject contaminated product, allowing worn elastomers to be replaced without great expense or costly downtime.



Available Detectomer® Materials (In Standard & FDA)

- Buna
- FKM
- Tuf-Steel®
- EPDM
- Silicone

Tuf-Steel®

Metal Detectable O-rings



Composed of a unique proprietary blend of non-pigmented PTFE and 316L passivated and atomized Stainless Steel, Tuf-Steel® o-rings, are the strongest o-rings in the pharmaceutical, biotech, food and beverage industries.

Tuf-Steel® is ideal for extreme temperature applications, such as steam, hot oil and friers, where temperatures range from -350°F to 550°F. Tuf-Steel® does not revert, eliminating creep and cold flow, resulting in a leak free seal. Because the superior strength and chemical resistance of Tuf-Steel® allows it to go the distance without leaking, it significantly reduces maintenance and system downtime by staying in place when cleaning and validating a system.

Testing and a decade of documented application usage has demonstrated that Tuf-Steel® is the choice for perfect surface performance, outstanding durability and extended service life in both SIP (steam in place) and WFI (water for injection) applications.

Tuf-Steel® Benefits

- 500 CIP/SIP cycles guaranteed
- Minimal expansion/contraction stability with minimal thermal expansion
- Excellent chemical resistance
- Semi-rigid material
- No obstruction of flow
- Maintains sealing stability in ΔT processes



Quad Rings

Double the Sealing Surface

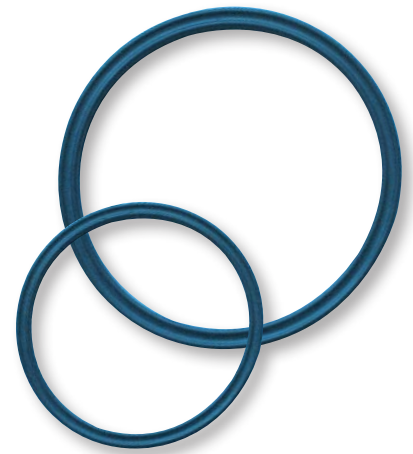
Quad rings are a unique o-ring with a unique profile, doubling the sealing surface of a traditional o-ring. This design also provides lower friction and because it has more of a square profile, and can resist spiral twisting.

Available Materials

- Detectomer® - Buna, EPDM, FKM, & Silicone
- FDA - Buna, FKM EPDM & Silicone
- Non FDA Standard Materials



Quad Ring Profile



O-ring Sizing Cone

For Sizing O-rings

Have an o-ring that you need to replace and you don't know what size it is? Rubber Fab's o-ring cone is the best solution for sizing o-rings when you are unsure of what to order. Slide the o-ring down the cone to see what size is needed. Makes for easy measuring as the numbers are printed directly on the cone.



Insert the o-ring to determine the cross section then slide the o-ring down the corresponding side.

How to Measure & Quote

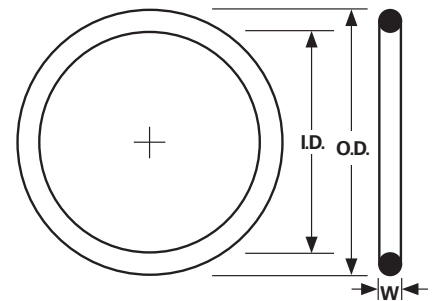
There is a simple way to measure an o-ring. Of course we suggest an o-ring cone to make sure that the size is exactly what you need.

Formula to determine an o-ring diameter is:

Cut length \div 3.1415 = xx – cross section = I.D.

When quoting an o-ring, the following needs to be considered.

1. Which AS568# number, I.D. x cross section, or O.D. cross section
2. Material and Durometer needed (70 is standard)
3. Compliance required (FDA, Class VI, ADI, 3A)
4. Quantity is important. O-Ring pricing is quantity sensitive.
5. What is the application?
6. Application Temperature?
7. Is the application static or dynamic?
This is extremely important when quoting Detectomer® O-Rings.

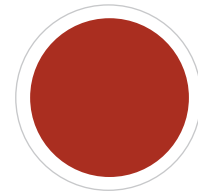


Encapsulated O-rings

FEP Encapsulated



Chemical attack and swelling are the primary causes of o-ring failure. Encapsulated o-rings match the chemical and temperature resistance of solid PTFE o-rings, and possess properties of elasticity and recovery, which are crucial in many sealing applications. Encapsulated o-rings are virtually chemically inert and provide easy cleanup of viscous materials. These o-rings economically and effectively replace Kalrez® and other exotic o-ring compounds. Encapsulated o-rings will decrease downtime and hence increase profitability wherever corrosive fluids and gases cause premature seal failure. Encapsulated o-rings are available in AS568 Dash sizes, metric and custom sizes. Encapsulated o-rings are phthalate free. PFA encapsulated o-rings available upon request.



Encapsulated O-ring Profile

Temperature Ranges by Elastomer

- FEP/PFA Encapsulated FKM: -10°F to 300°F
- FEP Encapsulated Silicone: -80°F to 400°F
- PFA Encapsulated Silicone: -80°F to 500°F
- FEP Encapsulated EPDM: -65°F to 300°F

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Rubber Fab Has Cord

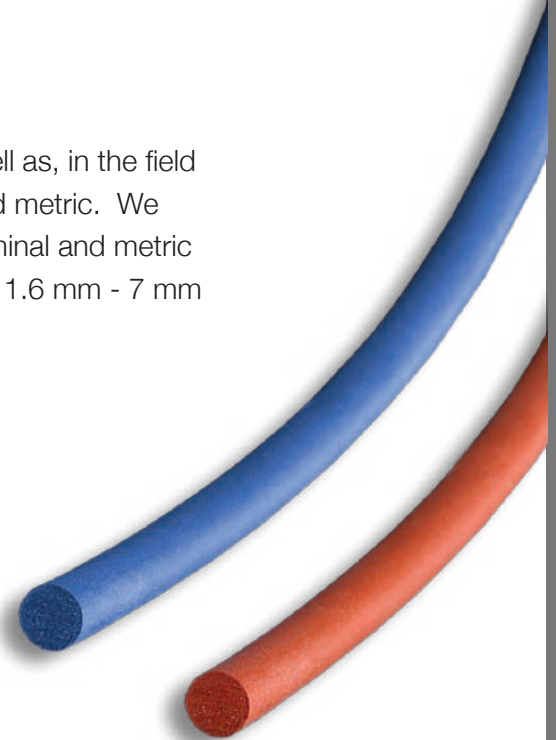
For Custom O-rings

Rubber Fab's cord is the perfect solution for custom o-ring sizes, as well as, in the field fabrication. FDA and Class VI materials are offered in both standard and metric. We stock metal detectable/x-ray inspectable FDA Blue Silicone cord in nominal and metric diameters, in 50 and 100 foot coils. Diameters range from .093" - 1" or 1.6 mm - 7 mm diameter. Consult factory for other sizes.

Available Materials

- Buna (Standard, FDA & Metal Detectable)
- EPDM (Standard, FDA & Class VI)
- FKM (Standard & FDA)
- Silicone (Detectomer®, Standard, FDA, Class VI)

Consult factory for other materials



Buna O-rings

Nitrile Rubber

Buna is one of the most versatile of materials due to its resistance to many chemicals and good physical properties. Buna is the material of choice for food applications. It should not be exposed to direct sunlight as it will deteriorate. Buna's operating temperature is -22°F to 212°F and is manufactured in black and white. Buna is available in phthalate free, Standard, FDA and Detectomer®.



Physical Properties* of Buna

	Excellent	Good	Fair	Poor
Abrasion Resistance	•			
Compression Set		•		
Elongation		•		
Flame Resistance				•
Gas Permeability		•		
Low Temperature Flexibility		•		
Tear Resistance		•		
Tensile Strength		•		

Chemical Resistance* of Buna

	Excellent	Good	Fair	Poor
Brake Fluid				•
Dilute Acids		•		
Dilute Alkalis		•		
Hydraulic Fluids		•		
Ketones				•
Ozone				•
Petroleum Oils	•			
Silicone Fluids	•			
Steam			•	
Strong Acids				•
Transmission Fluids		•		
Water	•			
Weather	•			

*Excellent, good, fair and poor are intended to serve as general guidelines only. Actual testing in the application environment is always recommended.

EPDM O-rings

Ethylene Propylene

EPDM is a versatile compound that works well in both low & high temperatures.

It has an acceptable level when it comes to using it with steam and water.

EPDM has moderate to good resistance to a variety of chemicals, making it compound of choice for a variety of applications. EPDM temperature range is

-58°F to 302°F and is manufactured in black and white. EPDM is available in phthalate free, Standard, FDA, Class VI and Detectomer®.



Physical Properties* of EPDM

	Excellent	Good	Fair	Poor
Abrasion Resistance		•		
Compression Set		•		
Elongation		•		
Flame Resistance		•		
Gas Permeability	•			
Low Temperature Flexibility	•			
Tear Resistance			•	
Tensile Strength		•		

Chemical Resistance* of EPDM

	Excellent	Good	Fair	Poor
Alcohols		•		
Dilute Acids	•			
Dilute Alkalis	•			
Gasoline				•
Hydraulic Fluids		•		
Oxygenated Solvents		•		
Ozone	•			
Petroleum Oils & Greases				•
Steam	•			
Water	•			
Weather	•			

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FKM and Aflas® FFKM O-rings

Fluorocarbon

FKM is a better grade compound which is well suited for prolonged exposure to oils at high operating temperatures.

FKM is also good for steam applications. Operating temperature range is 2°F to 392°F and is manufactured in black, white and brown. FKM is phthalate free, Standard, FDA, Class VI and Detectomer®.

FFKM - combines the great chemical resistance of PTFE & FKM. This perfluoroelastomer is great for chemical plants as it can withstand highly corrosive fluids. FFKM's operating temperature range is -10°F to 599°F.

FKM is available in phthalate free, Standard, FDA and Class VI.

Aflas® is unique due to its resistance to petroleum products, steam and phosphate-esters. Consult factory for availability.



Physical Properties* of FKM

	Excellent	Good	Fair	Poor
Abrasion Resistance		•		
Compression Set	•			
Elongation			•	
Flame Resistance	•			
Gas Permeability	•			
Low Temperature Flexibility				•
Tear Resistance			•	
Tensile Strength		•		

Chemical Resistance* of FKM

	Excellent	Good	Fair	Poor
Anhydrous Ammonia				•
Dilute Acids	•			
Dilute Alkalis	•			
Ketones			•	
Ozone	•			
Petroleum Oils	•			
Solvents	•			
Steam			•	
Water	•			
Weather	•			

*Excellent, good, fair and poor are intended to serve as general guidelines only. Actual testing in the application environment is always recommended.

PTFE O-rings

Polytetrafluoroethylene

PTFE is a premium grade material that works well in harsh chemical applications because of its low moisture absorption and wide temperature range. Operating temperature range for PTFE is -300°F to 500°F and is manufactured in white. PTFE is available in phthalate free, Standard, FDA and Class VI.



Physical Properties* of PTFE

	Excellent	Good	Fair	Poor
Abrasion Resistance	•			
Compression Set		•		
Elongation		•		
Flame Resistance	•			
Gas Permeability	•			
Low Temperature Flexibility			•	
Tear Resistance	•			
Tensile Strength		•		

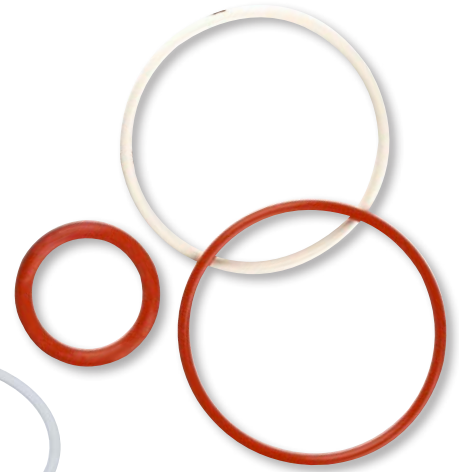
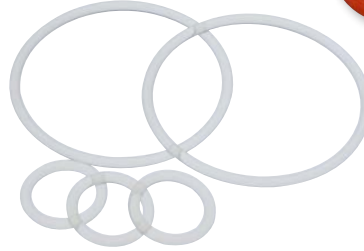
Chemical Resistance* of PTFE

	Excellent	Good	Fair	Poor
Brake Fluid	•			
Dilute Acids		•		
Dilute Alkalis		•		
Hydraulic Fluids	•			
Ketones	•			
Ozone	•			
Petroleum Oils	•			
Silicone Fluids	•			
Steam		•		
Strong Acids		•		
Transmission Fluids	•			
Water	•			
Weather	•			

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Silicone O-rings

Silicone is the material of choice in pharmaceutical applications, and in sanitary water systems when PTFE is not feasible due to severely misaligned fittings. Silicone is very flexible at low temperatures and will not impart any taste or odor. The operating range is -70°F to 390°F and is manufactured in clear, white and red. Silicone is available in phthalate free, Standard, FDA, Class VI and Detectomer®.



Physical Properties* of Silicone

	Excellent	Good	Fair	Poor
Abrasion Resistance				•
Compression Set		•		
Elongation	•			
Flame Resistance		•		
Gas Permeability				•
Low Temperature Flexibility	•			
Tear Resistance				•
Tensile Strength				•

Chemical Resistance* of Silicone

	Excellent	Good	Fair	Poor
Dilute Acids		•		
Dilute Alkalis	•			
Ketones				•
Ozone	•			
Petroleum Oils				•
Steam			•	
Vegetable Oils	•			
Water			•	
Weather	•			

*Excellent, good, fair and poor are intended to serve as general guidelines only. Actual testing in the application environment is always recommended.

Standard O-ring Sizes

by AS 568 Dash Numbers

Custom Sizes are Available
Call 973.579.2959 for Details

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#001	1/32	3/32	1/32	.029 ± .004	.004 ± .003	.0003	0.74 ± 0.10	1.02 ± 0.08	.005
#002	3/64	9/64	3/64	0.42 ± .004	.050 ± .003	.0006	1.07 ± 0.10	1.27 ± 0.08	.010
#003	1/16	3/16	1/16	.056 ± .004	.060 ± .003	.0010	1.42 ± 0.10	1.53 ± 0.08	.016
#004	5/64	13/64	1/16	.070 ± .005	.070 ± .003	.0017	1.78 ± 0.12	1.78 ± 0.08	.028
#005	7/64	15/64	1/16	.101 ± .005	.070 ± .003	.0021	2.57 ± 0.12	1.78 ± 0.08	.034
#006	1/8	1/4	1/16	.114 ± .005	.070 ± .003	.0022	2.90 ± 0.12	1.78 ± 0.08	.036
#007	5/32	9/32	1/16	.145 ± .005	.070 ± .003	.0026	3.69 ± 0.12	1.78 ± 0.08	.043
#008	3/16	5/16	1/16	.176 ± .005	.070 ± .003	.0030	4.47 ± 0.12	1.78 ± 0.08	.049
#009	7/32	11/32	1/16	.208 ± .005	.070 ± .003	.0034	5.29 ± 0.12	1.78 ± 0.08	.056
#010	1/4	3/8	1/16	.239 ± .005	.070 ± .003	.0037	6.07 ± 0.12	1.78 ± 0.08	.061
#011	5/16	7/16	1/16	.301 ± .005	.070 ± .003	.0045	7.65 ± 0.12	1.78 ± 0.08	.074
#012	3/8	1/2	1/16	.364 ± .005	.070 ± .003	.0052	9.25 ± 0.12	1.78 ± 0.08	.085
#013	7/16	9/16	1/16	.426 ± .005	.070 ± .003	.0060	10.82 ± 0.12	1.78 ± 0.08	.098
#014	1/2	5/8	1/16	.489 ± .005	.070 ± .003	.0068	12.42 ± 1.12	1.78 ± 0.08	.111
#015	9/16	11/16	1/16	.551 ± .007	.070 ± .003	.0075	14.00 ± 0.17	1.78 ± 0.08	.123
#016	5/8	3/4	1/16	.614 ± .009	.070 ± .003	.0083	15.60 ± 0.22	1.78 ± 0.08	.136
#017	11/16	13/16	1/16	.676 ± .009	.070 ± .003	.0090	17.17 ± 0.22	1.78 ± 0.08	.147
#018	3/4	7/8	1/16	.739 ± .009	.070 ± .003	.0098	18.77 ± 0.22	1.78 ± 0.08	.161
#019	13/16	15/16	1/16	.801 ± .009	.070 ± .003	.0105	20.35 ± 0.22	1.78 ± 0.08	.172
#020	7/8	1	1/16	.864 ± .009	.070 ± .003	.0113	21.95 ± 0.22	1.78 ± 0.08	.185
#021	15/16	1-1/16	1/16	.926 ± .009	.070 ± .003	.0120	23.52 ± 0.22	1.78 ± 0.08	.197
#022	1	1-1/8	1/16	.989 ± .010	.070 ± .003	.0128	25.12 ± 0.25	1.78 ± 0.08	.210
#023	1-1/16	1-3/16	1/16	1.051 ± .010	.070 ± .003	.0136	26.70 ± 0.25	1.78 ± 0.08	.223
#024	1-1/8	1-1/4	1/16	1.114 ± 0.10	.070 ± .003	.0143	28.30 ± 0.25	1.78 ± 0.08	.234
#025	1-3/16	1-5/16	1/16	1.176 ± .011	.070 ± .003	.0151	29.87 ± 0.28	1.78 ± 0.08	.247
#026	1-1/4	1-3/8	1/16	1.239 ± .011	.070 ± .003	.0158	31.47 ± 0.28	1.78 ± 0.08	.259
#027	1-5/16	1-7/16	1/16	1.301 ± .011	.070 ± .003	.0166	33.05 ± 0.28	1.78 ± 0.08	.272
#028	1-3/8	1-1/2	1/16	1.364 ± .013	.070 ± .003	.0173	34.65 ± 0.33	1.78 ± 0.08	.283
#029	1-1/2	1-5/8	1/16	1.489 ± .013	.070 ± .003	.0188	37.82 ± 0.33	1.78 ± 0.08	.308
#030	1-5/8	1-3/4	1/16	1.614 ± .013	.070 ± .003	.0204	41.00 ± 0.33	1.78 ± 0.08	.334
#031	1-3/4	1-7/8	1/16	1.739 ± .015	.070 ± .003	.0219	44.17 ± 0.38	1.78 ± 0.08	.359
#032	1-7/8	2	1/16	1.864 ± .015	.070 ± .003	.0234	47.35 ± 0.38	1.78 ± 0.08	.383
#033	2	2-1/8	1/16	1.989 ± .018	.070 ± .003	.0249	50.52 ± 0.46	1.78 ± 0.08	.408
#034	2-1/8	2-1/4	1/16	2.114 ± .018	.070 ± .003	.0264	53.70 ± 0.46	1.78 ± 0.08	.433
#035	2-1/4	2-7/8	1/16	2.239 ± .018	.070 ± .003	.0279	56.87 ± 0.46	1.78 ± 0.08	.457
#036	2-3/8	2-1/2	1/16	2.364 ± .018	.070 ± .003	.0294	60.04 ± 0.46	1.78 ± 0.08	.482
#037	2-1/2	2-5/8	1/16	2.489 ± .018	.070 ± .003	.0309	63.22 ± 0.46	1.78 ± 0.08	.506
#038	2-5/8	2-3/4	1/16	2.614 ± .020	.070 ± .003	.0325	66.40 ± 0.50	1.78 ± 0.08	.533
#039	2-3/4	2-7/8	1/16	2.739 ± .020	.070 ± .003	.0340	69.57 ± 0.50	1.78 ± 0.08	.557
#040	2-7/8	3	1/16	2.864 ± .020	.070 ± .003	.0355	72.75 ± 0.50	1.78 ± 0.08	.582

Standard O-ring Sizes

by AS 568 Dash Numbers

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#041	3	3-1/8	1/16	2.989 ± .024	.070 ± .003	.0370	75.92 ± 0.61	1.78 ± 0.08	.606
#042	3-1/4	3-3/8	1/16	3.239 ± .024	.070 ± .003	.0400	82.27 ± 0.61	1.78 ± 0.08	.655
#043	3-1/2	3-5/8	1/16	3.489 ± .024	.070 ± .003	.0430	88.62 ± 0.61	1.78 ± 0.08	.705
#044	3-3/4	3-7/8	1/16	3.739 ± .027	.070 ± .003	.0461	94.97 ± 0.69	1.78 ± 0.08	.755
#045	4	4-1/8	1/16	3.989 ± .027	.070 ± .003	.0491	101.32 ± 0.69	1.78 ± 0.08	.805
#046	4-1/4	4-3/8	1/16	4.239 ± .030	.070 ± .003	.0521	107.67 ± 0.76	1.78 ± 0.08	.854
#047	4-1/2	4-5/8	1/16	4.489 ± .030	.070 ± .003	.0551	114.02 ± 0.76	1.78 ± 0.08	.903
#048	4-3/4	4-7/8	1/16	4.739 ± .030	.070 ± .003	.0581	120.37 ± 0.76	1.78 ± 0.08	.952
#049	5	5-1/8	1/16	4.989 ± .037	.070 ± .003	.0612	126.72 ± 0.94	1.78 ± 0.08	1.003
#050	5-1/4	5-3/8	1/16	5.239 ± .037	.070 ± .003	.0642	133.07 ± 0.94	1.78 ± 0.08	1.052
#051 to #101	O-Ring Sizes that are Custom - Consult Factory								
#102	1/16	1/4	3/32	.049 ± .005	.103 ± .003	.0040	1.24 ± 0.12	2.62 ± 0.08	.066
#103	3/32	9/32	3/32	.081 ± .005	.103 ± .003	.0048	2.05 ± 0.12	2.62 ± 0.08	.079
#104	1/8	5/16	3/32	.112 ± .005	.103 ± .003	.0056	2.84 ± 0.12	2.62 ± 0.08	.092
#105	5/32	11/32	3/32	.143 ± .005	.103 ± .003	.0064	3.63 ± 0.12	2.62 ± 0.08	.105
#106	3/16	3/8	3/32	.174 ± .005	.103 ± .003	.0073	4.42 ± 0.12	2.62 ± 0.08	.120
#107	7/32	13/32	3/32	.206 ± .005	.103 ± .003	.0081	5.23 ± 0.12	2.62 ± 0.08	.133
#108	1/4	7/16	3/32	.237 ± .005	.103 ± .003	.0089	6.02 ± 0.12	2.62 ± 0.08	.146
#109	5/16	1/2	3/32	.299 ± .005	.103 ± .003	.0105	7.60 ± 0.12	2.62 ± 0.08	.172
#110	3/8	9/16	3/32	.362 ± .005	.103 ± .003	.0122	9.19 ± 0.12	2.62 ± 0.08	.200
#111	7/16	5/8	3/32	.424 ± .005	.103 ± .003	.0138	10.77 ± 0.12	2.62 ± 0.08	.226
#112	1/2	11/16	3/32	.487 ± .005	.103 ± .003	.0154	12.37 ± 0.12	2.62 ± 0.08	.252
#113	9/16	3/4	3/32	.549 ± .005	.103 ± .003	.0171	13.95 ± 0.17	2.62 ± 0.08	.280
#114	5/8	13/16	3/32	.612 ± .009	.103 ± .003	.0187	15.54 ± 0.22	2.62 ± 0.08	.306
#115	11/16	7/8	3/32	.674 ± .009	.103 ± .003	.0203	17.12 ± 0.22	2.62 ± 0.08	.333
#116	3/4	15/16	3/32	.737 ± .009	.103 ± .003	.0220	18.72 ± 0.22	2.62 ± 0.08	.361
#117	13/16	1	3/32	.799 ± .010	.103 ± .003	.0236	20.29 ± 0.25	2.62 ± 0.08	.387
#118	7/8	1-1/16	3/32	.862 ± 0.10	.103 ± .003	.0253	21.90 ± 0.25	2.62 ± 0.08	.415
#119	15/16	1-1/8	3/32	.924 ± .010	.103 ± .003	.0269	23.47 ± 0.25	2.62 ± 0.08	.441
#120	1	1-3/16	3/32	.987 ± .010	.103 ± .003	.0285	25.07 ± 0.25	2.62 ± 0.08	.467
#121	1-1/16	1-1/4	3/32	1.049 ± .010	.103 ± .003	.0302	26.65 ± 0.25	2.62 ± 0.08	.495
#122	1-1/8	1-5/16	3/32	1.112 ± .010	.103 ± .003	.0318	28.25 ± 0.25	2.62 ± 0.08	.521
#123	1-3/16	1-3/8	3/32	1.174 ± .012	.103 ± .003	.0334	29.82 ± 0.30	2.62 ± 0.08	.547
#124	1-1/4	1-7/16	3/32	1.237 ± .012	.103 ± .003	.0351	31.42 ± 0.30	2.62 ± 0.08	.575
#125	1-5/16	1-1/2	3/32	1.299 ± .012	.103 ± .003	.0367	32.99 ± 0.30	2.62 ± 0.08	.601
#126	1-3/8	1-9/16	3/32	1.362 ± .012	.103 ± .003	.0383	34.60 ± 0.30	2.62 ± 0.08	.628
#127	1-7/16	1-5/8	3/32	1.424 ± .012	.103 ± .003	.0400	36.17 ± 0.30	2.62 ± 0.08	.655
#128	1-1/2	1-11/16	3/32	1.487 ± .012	.103 ± .003	.0416	37.77 ± 0.30	2.62 ± 0.08	.682
#129	1-9/16	1-3/4	3/32	1.549 ± .015	.103 ± .003	.0432	39.35 ± 0.38	2.62 ± 0.08	.708

Standard O-ring Sizes

by AS 568 Dash Numbers

Custom Sizes are Available
Call 973.579.2959 for Details

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#130	1-5/8	1-13/16	3/32	1.612 ± .015	.103 ± .003	.0449	40.95 ± 0.38	2.62 ± 0.08	.736
#131	1-11/16	1-7/8	3/32	1.674 ± .015	.103 ± .003	.0465	42.52 ± 0.38	2.62 ± 0.08	.762
#132	1-3/4	1-15/16	3/32	1.737 ± .015	.103 ± .003	.0482	44.12 ± 0.38	2.62 ± 0.08	.790
#133	1-13/16	2	3/32	1.799 ± .015	.103 ± .003	.0498	45.70 ± 0.38	2.62 ± 0.08	.816
#134	1-7/8	2-1/16	3/32	1.862 ± 0.15	.103 ± .003	.0514	47.30 ± 0.38	2.62 ± 0.08	.842
#135	1-15/16	2-1/8	3/32	1.925 ± .017	.103 ± .003	.0531	48.90 ± 0.43	2.62 ± 0.08	.870
#136	2	2-3/16	3/32	1.987 ± .017	.103 ± .003	.0547	50.47 ± 0.43	2.62 ± 0.08	.896
#137	2-1/16	2-1/4	3/32	2.050 ± .017	.103 ± .003	.0564	52.07 ± 0.43	2.62 ± 0.08	.924
#138	2-1/8	2-5/16	3/32	2.112 ± .017	.103 ± .003	.0580	53.65 ± 0.43	2.62 ± 0.08	.950
#139	2-3/16	2-3/8	3/32	2.175 ± .017	.103 ± .003	.0596	55.25 ± 0.43	2.62 ± 0.08	.977
#140	2-1/4	2-7/16	3/32	2.237 ± 0.17	.103 ± .003	.0613	56.82 ± 0.43	2.62 ± 0.08	1.005
#141	2-5/16	2-1/2	3/32	2.300 ± .020	.103 ± .003	.0629	58.42 ± 0.50	2.62 ± 0.08	1.031
#142	2-3/8	2-9/16	3/32	2.362 ± .020	.103 ± .003	.0645	60.00 ± 0.50	2.62 ± 0.08	1.057
#143	2-7/16	2-5/8	3/32	2.425 ± .020	.103 ± .003	.0662	61.60 ± 0.50	2.62 ± 0.08	1.085
#144	2-1/2	2-11/16	3/32	2.487 ± .020	.103 ± .003	.0678	63.17 ± 0.50	2.62 ± 0.08	1.111
#145	2-9/16	2-3/4	3/32	2.550 ± .020	.103 ± .003	.0694	64.77 ± 0.50	2.62 ± 0.08	1.137
#146	2-5/8	2-13/16	3/32	2.612 ± .020	.103 ± .003	.0711	66.35 ± 0.50	2.62 ± 0.08	1.165
#147	2-11/16	2-7/8	3/32	2.675 ± .022	.103 ± .003	.0727	67.95 ± 0.55	2.62 ± 0.08	1.191
#148	2-3/4	2-15/16	3/32	2.737 ± .022	.103 ± .003	.0743	69.52 ± 0.55	2.62 ± 0.08	1.218
#149	2-13/16	3	3/32	2.800 ± .022	.103 ± .003	.0760	71.12 ± 0.55	2.62 ± 0.08	1.245
#150	2-7/8	3-1/16	3/32	2.862 ± .022	.103 ± .003	.0776	72.70 ± 0.55	2.62 ± 0.08	1.272
#151	3	3-3/16	3/32	2.987 ± .024	.103 ± .003	.0809	75.87 ± 0.61	2.62 ± 0.08	1.326
#152	3-1/4	3-7/16	3/32	3.237 ± .024	.103 ± .003	.0874	82.22 ± 0.61	2.62 ± 0.08	1.432
#153	3-1/2	3-11/16	3/32	3.487 ± .024	.103 ± .003	.0940	88.57 ± 0.61	2.62 ± 0.08	1.540
#154	3-3/4	3-15/16	3/32	3.737 ± .028	.103 ± .003	.1005	94.92 ± 0.71	2.62 ± 0.08	1.647
#155	4	4-3/16	3/32	3.987 ± .028	.103 ± .003	.1071	101.27 ± 0.71	2.62 ± 0.08	1.755
#156	4-1/4	4-7/16	3/32	4.237 ± 0.30	.103 ± .003	.1136	107.62 ± 0.76	2.62 ± 0.08	1.862
#157	4-1/2	4-11/16	3/32	4.487 ± .030	.103 ± .003	.1202	113.97 ± 0.76	2.62 ± 0.08	1.970
#158	4-3/4	4-15/16	3/32	4.737 ± .030	.103 ± .003	.1267	120.32 ± 0.76	2.62 ± 0.08	2.076
#159	5	5-3/16	3/32	4.987 ± .035	.103 ± .003	.1332	126.67 ± 0.89	2.62 ± 0.08	2.183
#160	5-1/4	5-7/16	3/32	5.237 ± .035	.103 ± .003	.1398	133.02 ± 0.89	2.62 ± 0.08	2.291
#161	5-1/2	5-11/16	3/32	5.487 ± .035	.103 ± .003	.1463	139.37 ± 0.89	2.62 ± 0.08	2.397
#162	5-3/4	5-15/16	3/32	5.737 ± .035	.103 ± .003	.1529	145.72 ± 0.89	2.62 ± 0.08	2.506
#163	6	6-3/16	3/32	5.987 ± .035	.103 ± .003	.1594	152.07 ± 0.89	2.62 ± 0.08	2.612
#164	6-1/4	6-7/16	3/32	6.237 ± .040	.103 ± .003	.1660	158.42 ± 1.02	2.62 ± 0.08	2.720
#165	6-1/2	6-11/16	3/32	6.487 ± .040	.103 ± .003	.1725	164.77 ± 1.02	2.62 ± 0.08	2.827
#166	6-3/4	6-15/16	3/32	6.737 ± .040	.103 ± .003	.1790	171.12 ± 1.02	2.62 ± 0.08	2.933
#167	7	7-3/16	3/32	6.987 ± .040	.103 ± .003	.1856	177.47 ± 1.02	2.62 ± 0.08	3.041
#168	7-1/4	7-7/16	3/32	7.237 ± .045	.103 ± .003	.1921	183.82 ± 1.14	2.62 ± 0.08	3.148
#169	7-1/2	7-11/16	3/32	7.487 ± .045	.103 ± .003	.1987	190.17 ± 1.14	2.62 ± 0.08	3.256

Standard O-ring Sizes

by AS 568 Dash Numbers

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#170	7-3/4	7-15/16	3/32	7.737 ± .045	.103 ± .003	.2052	196.52 ± 1.14	2.62 ± 0.08	3.363
#171	8	8-3/16	3/32	7.987 ± .045	.103 ± .003	.2118	202.87 ± 1.14	2.62 ± 0.08	3.471
#172	8-1/4	8-7/16	3/32	8.237 ± .050	.103 ± .003	.2183	209.22 ± 1.25	2.62 ± 0.08	3.577
#173	8-1/2	8-11/16	3/32	8.487 ± .050	.103 ± .003	.2249	215.57 ± 1.25	2.62 ± 0.08	3.685
#174	8-3/4	8-15/16	3/32	8.737 ± .050	.103 ± .003	.2314	221.92 ± 1.25	2.62 ± 0.08	3.792
#175	9	9-3/16	3/32	8.987 ± .050	.103 ± .003	.2379	228.27 ± 1.25	2.62 ± 0.08	3.898
#176	9-1/4	9-7/16	3/32	9.237 ± .055	.103 ± .003	.2445	234.62 ± 1.40	2.62 ± 0.08	4.007
#177	9-1/2	9-11/16	3/32	9.487 ± .055	.103 ± .003	.2510	240.97 ± 1.40	2.62 ± 0.08	4.113
#178	9-3/4	9-15/16	3/32	9.737 ± .055	.103 ± .003	.2576	247.32 ± 1.40	2.62 ± 0.08	4.221
#179 - #200	O-Ring Sizes that are Custom - Consult Factory								
#201	3/16	7/16	1/8	.171 ± .005	.139 ± .004	.0148	4.34 ± 0.12	3.53 ± 0.10	.243
#202	1/4	1/2	1/8	.234 ± .005	.139 ± .004	.0178	5.94 ± 0.12	3.53 ± 0.10	.292
#203	5/16	9/16	1/8	.296 ± .005	.139 ± .004	.0207	7.52 ± 0.12	3.53 ± 0.10	.339
#204	3/8	5/8	1/8	.359 ± .005	.139 ± .004	.0237	9.12 ± 0.12	3.53 ± 0.10	.388
#205	7/16	11/16	1/8	.421 ± .005	.139 ± .004	.0267	10.69 ± 0.12	3.53 ± 0.10	.438
#206	1/2	3/4	1/8	.484 ± .005	.139 ± .004	.0297	12.29 ± 0.12	3.53 ± 0.10	.487
#207	9/16	13/16	1/8	.546 ± .007	.139 ± .004	.0327	13.87 ± 0.17	3.53 ± 0.10	.536
#208	5/8	7/8	1/8	.609 ± .009	.139 ± .004	.0357	15.47 ± 0.23	3.53 ± 0.10	.585
#209	11/16	15/16	1/8	.671 ± .009	.139 ± .004	.0386	17.04 ± 0.23	3.53 ± 0.10	.633
#210	3/4	1	1/8	.734 ± .010	.139 ± .004	.0416	18.64 ± 0.25	3.53 ± 0.10	.682
#211	13/16	1-1/16	1/8	.796 ± .010	.139 ± .004	.0446	20.22 ± 0.25	3.53 ± 0.10	.731
#212	7/8	1-1/8	1/8	.859 ± .010	.139 ± .004	.0476	21.82 ± 0.25	3.53 ± 0.10	.780
#213	15/16	1-3/16	1/8	.921 ± .010	.139 ± .004	.0505	23.40 ± 0.25	3.53 ± 0.10	.828
#214	1	1-1/4	1/8	.984 ± .010	.139 ± .004	.0535	25.00 ± 0.25	3.53 ± 0.10	.877
#215	1-1/16	1-5/16	1/8	1.046 ± .010	.139 ± .004	.0565	26.57 ± 0.25	3.53 ± 0.10	.926
#216	1-1/8	1-3/8	1/8	1.109 ± .012	.139 ± .004	.0595	28.17 ± 0.30	3.53 ± 0.10	.975
#217	1-3/16	1-7/16	1/8	1.171 ± .012	.139 ± .004	.0625	29.75 ± 0.30	3.53 ± 0.10	1.024
#218	1-1/4	1-1/2	1/8	1.234 ± .012	.139 ± .004	.0655	31.34 ± 0.30	3.53 ± 0.10	1.073
#219	1-5/16	1-9/16	1/8	1.296 ± .012	.139 ± .004	.0684	32.92 ± 0.30	3.53 ± 0.10	1.121
#220	1-3/8	1-5/8	1/8	1.359 ± .012	.139 ± .004	.0714	34.52 ± 0.30	3.53 ± 0.10	1.170
#221	1-7/16	1-11/16	1/8	1.421 ± .012	.139 ± .004	.0744	36.10 ± 0.30	3.53 ± 0.10	1.219
#222	1-1/2	1-3/4	1/8	1.484 ± .015	.139 ± .004	.0774	37.70 ± 0.38	3.53 ± 0.10	1.268
#223	1-5/8	1-7/8	1/8	1.609 ± .015	.139 ± .004	.0833	40.87 ± 0.38	3.53 ± 0.10	1.365
#224	1-3/4	2	1/8	1.734 ± .015	.139 ± .004	.0893	44.05 ± 0.38	3.53 ± 0.10	1.463
#225	1-7/8	2-1/8	1/8	1.859 ± .018	.139 ± .004	.0952	47.22 ± 0.46	3.53 ± 0.10	1.560
#226	2	2-1/4	1/8	1.984 ± .018	.139 ± .004	.1012	50.40 ± 0.46	3.53 ± 0.10	1.658
#227	2-1/8	2-3/8	1/8	2.109 ± .018	.139 ± .004	.1072	53.57 ± 0.46	3.53 ± 0.10	1.757
#228	2-1/4	2-1/2	1/8	2.234 ± .020	.139 ± .004	.1131	56.75 ± 0.50	3.53 ± 0.10	1.853
#229	2-3/8	2-5/8	1/8	2.359 ± .020	.139 ± .004	.1191	59.92 ± 0.50	3.53 ± 0.10	1.952

Standard O-ring Sizes

by AS 568 Dash Numbers

Custom Sizes are Available
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Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#230	2-1/2	2-3/4	1/8	2.484 ± .020	.139 ± .004	.1250	63.10 ± 0.50	3.53 ± 0.10	2.048
#231	2-5/8	2-7/8	1/8	2.609 ± .020	.139 ± .004	.1310	66.27 ± 0.50	3.53 ± 0.10	2.147
#232	2-3/4	3	1/8	2.734 ± .024	.139 ± .004	.1370	69.44 ± 0.61	3.53 ± 0.10	2.245
#233	2-7/8	3-1/8	1/8	2.859 ± .024	.139 ± .004	.1429	72.62 ± 0.61	3.53 ± 0.10	2.342
#234	3	3-1/4	1/8	2.984 ± .024	.139 ± .004	.1489	75.79 ± 0.61	3.53 ± 0.10	2.440
#235	3-1/8	3-3/8	1/8	3.109 ± .024	.139 ± .004	.1548	78.97 ± 0.61	3.53 ± 0.10	2.537
#236	3-1/4	3-1/2	1/8	3.234 ± .024	.139 ± .004	.1608	82.14 ± 0.61	3.53 ± 0.10	2.635
#237	3-3/8	3-5/8	1/8	3.359 ± .024	.139 ± .004	.1668	85.32 ± 0.61	3.53 ± 0.10	2.733
#238	3-1/2	3-3/4	1/8	3.484 ± .024	.139 ± .004	.1727	88.49 ± 0.61	3.53 ± 0.10	2.830
#239	3-5/8	3-7/8	1/8	3.609 ± .028	.139 ± .004	.1787	91.67 ± 0.71	3.53 ± 0.10	2.928
#240	3-3/4	4	1/8	3.734 ± .028	.139 ± .004	.1846	94.84 ± 0.71	3.53 ± 0.10	3.025
#241	3-7/8	4-1/8	1/8	3.859 ± .028	.139 ± .004	.1906	98.02 ± 0.71	3.53 ± 0.10	3.123
#242	4	4-1/4	1/8	3.984 ± .028	.139 ± .004	.1966	101.19 ± 0.71	3.53 ± 0.10	3.222
#243	4-1/8	4-3/8	1/8	4.109 ± .028	.139 ± .004	.2025	104.37 ± 0.71	3.53 ± 0.10	3.318
#244	4-1/4	4-1/2	1/8	4.234 ± .030	.139 ± .004	.2085	107.54 ± 0.76	3.53 ± 0.10	3.417
#245	4-3/8	4-5/8	1/8	4.359 ± .030	.139 ± .004	.2144	110.72 ± 0.76	3.53 ± 0.10	3.513
#246	4-1/2	4-3/4	1/8	4.484 ± .030	.139 ± .004	.2204	113.89 ± 0.76	3.53 ± 0.10	3.612
#247	4-5/8	4-7/8	1/8	4.609 ± .030	.139 ± .004	.2263	117.07 ± 0.76	3.53 ± 0.10	3.708
#248	4-3/4	5	1/8	4.734 ± .030	.139 ± .004	.2323	120.24 ± 0.76	3.53 ± 0.10	3.807
#249	4-7/8	5-1/8	1/8	4.859 ± .035	.139 ± .004	.2383	123.42 ± 0.89	3.53 ± 0.10	3.905
#250	5	5-1/4	1/8	4.984 ± .035	.139 ± .004	.2442	126.59 ± 0.89	3.53 ± 0.10	4.002
#251	5-1/8	5-3/8	1/8	5.109 ± .035	.139 ± .004	.2502	129.77 ± 0.89	3.53 ± 0.10	4.100
#252	5-1/4	5-1/2	1/8	5.234 ± .035	.139 ± .004	.2561	132.94 ± 0.89	3.53 ± 0.10	4.197
#253	5-3/8	5-5/8	1/8	5.359 ± .035	.139 ± .004	.2621	136.12 ± 0.89	3.53 ± 0.10	4.295
#254	5-1/2	5-3/4	1/8	5.484 ± .035	.139 ± .004	.2681	139.30 ± 0.89	3.53 ± 0.10	4.393
#255	5-5/8	5-7/8	1/8	5.609 ± .035	.139 ± .004	.2740	142.47 ± 0.89	3.53 ± 0.10	4.490
#256	5-3/4	6	1/8	5.734 ± .035	.139 ± .004	.2800	145.65 ± 0.89	3.53 ± 0.10	4.588
#257	5-7/8	6-1/8	1/8	5.859 ± .035	.139 ± .004	.2859	148.82 ± 0.89	3.53 ± 0.10	4.685
#258	6	6-1/4	1/8	5.984 ± .035	.139 ± .004	.2919	152.00 ± 0.89	3.53 ± 0.10	4.783
#259	6-1/4	6-1/2	1/8	6.234 ± .040	.139 ± .004	.3038	158.35 ± 1.02	3.53 ± 0.10	4.978
#260	6-1/2	6-3/4	1/8	6.484 ± .040	.139 ± .004	.3157	164.70 ± 1.02	3.53 ± 0.10	5.173
#261	6-3/4	7	1/8	6.734 ± .040	.139 ± .004	.3277	171.05 ± 1.02	3.53 ± 0.10	5.370
#262	7	7-1/4	1/8	6.984 ± .040	.139 ± .004	.3396	177.40 ± 1.02	3.53 ± 0.10	5.565
#263	7-1/4	7-1/2	1/8	7.234 ± .045	.139 ± .004	.3515	183.75 ± 1.14	3.53 ± 0.10	5.760
#264	7-1/2	7-3/4	1/8	7.484 ± .045	.139 ± .004	.3634	190.10 ± 1.14	3.53 ± 0.10	5.955
#265	7-3/4	8	1/8	7.734 ± .045	.139 ± .004	.3753	196.45 ± 1.14	3.53 ± 0.10	6.150
#266	8	8-1/4	1/8	7.984 ± .045	.139 ± .004	.3872	202.80 ± 1.14	3.53 ± 0.10	6.345
#267	8-1/4	8-1/2	1/8	8.234 ± .050	.139 ± .004	.3992	209.15 ± 1.25	3.53 ± 0.10	6.542
#268	8-1/2	8-3/4	1/8	8.484 ± .050	.139 ± .004	.4111	215.50 ± 1.25	3.53 ± 0.10	6.737

Standard O-ring Sizes

by AS 568 Dash Numbers

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#269	8-3/4	9	1/8	8.734 ± .050	.139 ± .004	.4230	221.85 ± 1.25	3.53 ± 0.10	6.932
#270	9	9-1/4	1/8	8.984 ± .050	.139 ± .004	.4349	228.20 ± 1.25	3.53 ± 0.10	7.127
#271	9-1/4	9-1/2	1/8	9.234 ± .055	.139 ± .004	.4468	234.55 ± 1.40	3.53 ± 0.10	7.322
#272	9-1/2	9-3/4	1/8	9.484 ± .055	.139 ± .004	.4588	240.90 ± 1.40	3.53 ± 0.10	7.518
#273	9-3/4	10	1/8	9.734 ± .055	.139 ± .004	.4707	247.25 ± 1.40	3.53 ± 0.10	7.713
#274	10	10-1/4	1/8	9.984 ± .055	.139 ± .004	.4826	253.60 ± 1.40	3.53 ± 0.10	7.908
#275	10-1/2	10-3/4	1/8	10.484 ± .055	.139 ± .004	.5064	266.30 ± 1.40	3.53 ± 0.10	8.298
#276	11	11-1/4	1/8	10.984 ± .065	.139 ± .004	.5303	279.00 ± 1.65	3.53 ± 0.10	8.690
#277	11-1/2	11-3/4	1/8	11.484 ± .065	.139 ± .004	.5541	291.70 ± 1.65	3.53 ± 0.10	9.080
#278	12	12-1/4	1/8	11.984 ± .065	.139 ± .004	.5779	304.40 ± 1.65	3.53 ± 0.10	9.470
#279	13	13-1/4	1/8	12.984 ± .065	.139 ± .004	.6256	329.80 ± 1.65	3.53 ± 0.10	10.252
#280	14	14-1/4	1/8	13.984 ± .065	.139 ± .004	.6733	355.20 ± 1.65	3.53 ± 0.10	11.033
#281	15	15-1/4	1/8	14.984 ± .065	.139 ± .004	.7210	380.60 ± 1.65	3.53 ± 0.10	11.815
#282	16	16-1/4	1/8	15.955 ± .075	.139 ± .004	.7672	405.26 ± 1.90	3.53 ± 0.10	12.572
#283	17	17-1/4	1/8	16.955 ± .080	.139 ± .004	.8149	430.66 ± 2.05	3.53 ± 0.10	13.354
#284	18	18-1/4	1/8	17.955 ± .085	.139 ± .004	.8626	456.06 ± 2.15	3.53 ± 0.10	14.136
#285 to #308	O-Ring Sizes that are Custom - Consult Factory								
#309	7/16	13/16	3/16	.412 ± .005	.210 ± .005	.0677	10.46 ± 0.12	5.34 ± 0.12	1.109
#312	5/8	1	3/16	.600 ± .009	.210 ± .005	.0881	15.24 ± 0.22	5.34 ± 0.12	1.444
#313	11/16	1-1/16	3/16	.662 ± .009	.210 ± .005	.0949	16.81 ± 0.22	5.34 ± 0.12	1.555
#314	3/4	1-1/8	3/16	.725 ± .010	.210 ± .005	.1017	18.42 ± 0.25	5.34 ± 0.12	1.667
#315	13/16	1-1/2	3/16	.787 ± .010	.210 ± .005	.1085	19.99 ± 0.25	5.34 ± 0.12	1.778
#316	7/8	1-1/4	3/16	.850 ± .010	.210 ± .005	.1153	21.59 ± 0.25	5.34 ± 0.12	1.889
#317	15/16	1-5/16	3/16	.912 ± .010	.210 ± .005	.1221	23.16 ± 0.25	5.34 ± 0.12	2.001
#318	1	1-3/8	3/16	.975 ± .010	.210 ± .005	.1289	24.77 ± 0.25	5.34 ± 0.12	2.112
#319	1-1/16	1-7/16	3/16	1.037 ± .010	.210 ± .005	.1357	26.34 ± 0.25	5.34 ± 0.12	2.224
#320	1-1/8	1-1/2	3/16	1.100 ± .012	.210 ± .005	.1425	27.94 ± 0.30	5.34 ± 0.12	2.335
#321	1-3/16	1-9/16	3/16	1.162 ± .012	.210 ± .005	.1493	29.51 ± 0.30	5.34 ± 0.12	2.447
#322	1-1/4	1-5/8	3/16	1.225 ± .012	.210 ± .005	.1561	31.12 ± 0.30	5.34 ± 0.12	2.558
#323	1-5/16	1-11/16	3/16	1.287 ± .012	.210 ± .005	.1629	32.69 ± 0.30	5.34 ± 0.12	2.669
#324	1-3/8	1-3/4	3/16	1.350 ± .012	.210 ± .005	.1697	34.29 ± 0.30	5.34 ± 0.12	2.781
#325	1-1/2	1-7/8	3/16	1.475 ± .015	.210 ± .005	.1833	37.47 ± 0.38	5.34 ± 0.12	3.004
#326	1-5/8	2	3/16	1.600 ± .015	.210 ± .005	.1970	40.65 ± 0.38	5.34 ± 0.12	3.228
#327	1-3/4	2-1/8	3/16	1.725 ± .015	.210 ± .005	.2106	43.82 ± 0.38	5.34 ± 0.12	3.451
#328	1-7/8	2-1/4	3/16	1.850 ± 0.15	.210 ± .005	.2242	46.99 ± 0.38	5.34 ± 0.12	3.674
#329	2	2-3/8	3/16	1.975 ± 0.18	.210 ± .005	.2378	50.16 ± 0.46	5.34 ± 0.12	3.897
#330	2-1/8	2-1/2	3/16	2.100 ± 0.18	.210 ± .005	.2514	53.34 ± 0.46	5.34 ± 0.12	4.120
#331	2-1/4	2-5/8	3/16	2.225 ± .018	.210 ± .005	.2650	56.52 ± 0.46	5.34 ± 0.12	4.343

Standard O-ring Sizes

by AS 568 Dash Numbers

Custom Sizes are Available
Call 973.579.2959 for Details

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#332	2-3/8	2-3/4	3/16	2.350 ± .018	.210 ± .005	.2786	59.69 ± 0.46	5.34 ± 0.12	4.565
#333	2-1/2	2-7/8	3/16	2.475 ± .020	.210 ± .005	.2922	62.87 ± 0.50	5.34 ± 0.12	4.788
#334	2-5/8	3	3/16	2.600 ± .020	.210 ± .005	.3058	66.04 ± 0.50	5.34 ± 0.12	5.011
#335	2-3/4	3-1/8	3/16	2.725 ± .020	.210 ± .005	.3194	69.22 ± 0.50	5.34 ± 0.12	5.234
#336	2-7/8	3-1/4	3/16	2.850 ± .020	.210 ± .005	.3330	72.39 ± 0.50	5.34 ± 0.12	5.457
#337	3	3-3/8	3/16	2.975 ± .024	.210 ± .005	.3466	75.57 ± 0.61	5.34 ± 0.12	5.680
#338	3-1/8	3-1/2	3/16	3.100 ± .024	.210 ± .005	.3602	78.74 ± 0.61	5.34 ± 0.12	5.903
#339	3-1/4	3-5/8	3/16	3.225 ± .024	.210 ± .005	.3738	81.92 ± 0.61	5.34 ± 0.12	6.125
#340	3-3/8	3-3/4	3/16	3.350 ± .024	.210 ± .005	.3874	85.09 ± 0.61	5.34 ± 0.12	6.348
#341	3-1/2	3-7/8	3/16	3.475 ± .024	.210 ± .005	.4010	88.27 ± 0.61	5.34 ± 0.12	6.571
#342	3-5/8	4	3/16	3.600 ± .028	.210 ± .005	.4146	91.44 ± 0.71	5.34 ± 0.12	6.794
#343	3-3/4	4-1/8	3/16	3.725 ± .028	.210 ± .005	.4282	94.62 ± 0.71	5.34 ± 0.12	7.017
#344	3-7/8	4-1/4	3/16	3.850 ± .028	.210 ± .005	.4418	97.79 ± 0.71	5.34 ± 0.12	7.240
#345	4	4-3/8	3/16	3.975 ± .028	.210 ± .005	.4554	100.96 ± 0.71	5.34 ± 0.12	7.463
#346	4-1/8	4-1/2	3/16	4.100 ± .028	.210 ± .005	.4690	104.14 ± 0.71	5.34 ± 0.12	7.686
#347	4-1/4	4-5/8	3/16	4.225 ± .030	.210 ± .005	.4826	107.32 ± 0.76	5.34 ± 0.12	7.908
#348	4-3/8	4-3/4	3/16	4.350 ± .030	.210 ± .005	.4962	110.49 ± 0.76	5.34 ± 0.12	8.131
#349	4-1/2	4-7/8	3/16	4.475 ± .030	.210 ± .005	.5098	113.67 ± 0.76	5.34 ± 0.12	8.354
#350	4-5/8	5	3/16	4.600 ± .030	.210 ± .005	.5234	116.84 ± 0.76	5.34 ± 0.12	8.577
#351	4-3/4	5-1/8	3/16	4.725 ± .030	.210 ± .005	.5370	120.02 ± 0.76	5.34 ± 0.12	8.800
#352	4-7/8	5-1/4	3/16	4.850 ± .030	.210 ± .005	.5506	123.19 ± 0.76	5.34 ± 0.12	9.023
#353	5	5-3/8	3/16	4.975 ± .037	.210 ± .005	.5642	126.37 ± 0.94	5.34 ± 0.12	9.246
#354	5-1/8	5-1/2	3/16	5.100 ± .037	.210 ± .005	.5778	129.54 ± 0.94	5.34 ± 0.12	9.468
#355	5-1/4	5-5/8	3/16	5.225 ± 0.37	.210 ± .005	.5914	132.72 ± 0.94	5.34 ± 0.12	9.691
#356	5-3/8	5-3/4	3/16	5.350 ± .037	.210 ± .005	.6050	135.89 ± 0.94	5.34 ± 0.12	9.914
#357	5-1/2	5-7/8	3/16	5.475 ± .037	.210 ± .005	.6186	139.07 ± 0.94	5.34 ± 0.12	10.137
#358	5-5/8	6	3/16	5.600 ± .037	.210 ± .005	.6322	142.24 ± 0.94	5.34 ± 0.12	10.360
#359	5-3/4	6-1/8	3/16	5.725 ± .037	.210 ± .005	.6458	145.42 ± 0.94	5.34 ± 0.12	10.583
#360	5-7/8	6-1/4	3/16	5.850 ± .037	.210 ± .005	.6594	148.59 ± 0.94	5.34 ± 0.12	10.806
#361	6	6-3/8	3/16	5.975 ± .037	.210 ± .005	.6730	151.77 ± 0.94	5.34 ± 0.12	11.029
#362	6-1/4	6-5/8	3/16	6.225 ± .040	.210 ± .005	.7002	158.120 ± 1.02	5.34 ± 0.12	11.474
#363	6-1/2	6-7/8	3/16	6.475 ± .040	.210 ± .005	.7274	164.47 ± 1.02	5.34 ± 0.12	11.920
#364	6-3/4	7-1/8	3/16	6.725 ± .040	.210 ± .005	.7546	170.82 ± 1.02	5.34 ± 0.12	12.366
#365	7	7-3/8	3/16	6.975 ± .040	.210 ± .005	.7818	177.17 ± 1.02	5.34 ± 0.12	12.811
#366	7-1/4	7-5/8	3/16	7.225 ± .045	.210 ± .005	.8090	183.52 ± 1.14	5.34 ± 0.12	13.257
#367	7-1/2	7-7/8	3/16	7.475 ± .045	.210 ± .005	.8362	189.87 ± 1.14	5.34 ± 0.12	13.703
#368	7-3/4	8-1/8	3/16	7.725 ± .045	.210 ± .005	.8634	196.22 ± 1.14	5.34 ± 0.12	14.149
#369	8	8-3/8	3/16	7.975 ± .045	.210 ± .005	.8906	202.57 ± 1.14	5.34 ± 0.12	14.594
#370	8-1/4	8-5/8	3/16	8.225 ± .050	.210 ± .005	.9178	208.92 ± 1.30	5.34 ± 0.12	15.040

Standard O-ring Sizes

by AS 568 Dash Numbers

Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#371	8-1/2	8-7/8	3/16	8.475 ± .050	.210 ± .005	.9450	215.27 ± 1.30	5.34 ± 0.12	15.486
#372	8-3/4	9-1/8	3/16	8.725 ± .050	.210 ± .005	.9722	221.62 ± 1.30	5.34 ± 0.12	15.932
#373	9	9-3/8	3/16	8.975 ± .050	.210 ± .005	.9994	227.97 ± 1.30	5.34 ± 0.12	16.377
#374	9-1/4	9-5/8	3/16	9.225 ± .055	.210 ± .005	1.0266	234.32 ± 1.40	5.34 ± 0.12	16.823
#375	9-1/2	9-7/8	3/16	9.475 ± .055	.210 ± .005	1.0538	240.67 ± 1.40	5.34 ± 0.12	17.269
#376	9-3/4	10-1/8	3/16	9.725 ± .055	.210 ± .005	1.0811	247.02 ± 1.40	5.34 ± 0.12	17.716
#377	10	10-3/8	3/16	9.975 ± .055	.210 ± .005	1.1083	253.37 ± 1.40	5.34 ± 0.12	18.162
#378	10-1/2	10-7/8	3/16	10.475 ± .060	.210 ± .005	1.1627	266.07 ± 1.52	5.34 ± 0.12	19.053
#379	11	11-3/8	3/16	10.975 ± .060	.210 ± .005	1.2171	278.77 ± 1.52	5.34 ± 0.12	19.945
#380	11-1/2	11-7/8	3/16	11.475 ± .065	.210 ± .005	1.2715	291.47 ± 1.65	5.34 ± 0.12	20.836
#381	12	12-3/8	3/16	11.975 ± .065	.210 ± .005	1.3259	304.17 ± 1.65	5.34 ± 0.12	21.728
#382	13	13-3/8	3/16	12.975 ± .065	.210 ± .005	1.4347	329.55 ± 1.65	5.34 ± 0.12	23.511
#383	14	14-3/8	3/16	13.975 ± .070	.210 ± .005	1.5435	354.97 ± 1.78	5.34 ± 0.12	25.293
#384	15	15-3/8	3/16	14.975 ± .070	.210 ± .005	1.6523	380.37 ± 1.78	5.34 ± 0.12	27.076
#385	16	16-3/8	3/16	15.955 ± .075	.210 ± .005	1.7590	405.26 ± 1.90	5.34 ± 0.12	28.825
#386	17	17-3/8	3/16	16.955 ± .080	.210 ± .005	1.8678	430.65 ± 2.05	5.34 ± 0.12	30.608
#387	18	18-3/8	3/16	17.955 ± .085	.210 ± .005	1.9766	456.06 ± 2.15	5.34 ± 0.12	32.391
#388	19	19-3/8	3/16	18.955 ± .090	.210 ± .005	2.0854	481.56 ± 2.25	5.34 ± 0.12	34.174
#389	20	20-3/8	3/16	19.955 ± .095	.210 ± .005	2.1942	506.86 ± 2.25	5.34 ± 0.12	35.957
#390	21	21-3/8	3/16	20.955 ± .095	.210 ± .005	2.3030	532.26 ± 2.25	5.34 ± 0.12	37.739
#391	22	22-3/8	3/16	21.955 ± .100	.210 ± .005	2.4118	557.66 ± 2.55	5.34 ± 0.12	39.522
#392	23	23-3/8	3/16	22.940 ± .105	.210 ± .005	2.5190	582.65 ± 2.65	5.34 ± 0.12	41.279
#393	24	24-3/8	3/16	23.940 ± .110	.210 ± .005	2.6278	608.10 ± 2.80	5.34 ± 0.12	43.062
#394	25	25-3/8	3/16	24.940 ± .115	.210 ± .005	2.7366	633.50 ± 2.90	5.34 ± 0.12	44.845
#395	26	26-3/8	3/16	25.940 ± .120	.210 ± .005	2.8454	658.85 ± 3.05	5.34 ± 0.12	46.628
#396 to #424	O-Ring Sizes that are Custom - Consult Factory								
#425	4-1/2	5	1/4	4.475 ± .033	.275 ± .006	.8863	113.67 ± 0.83	6.98 ± 0.15	14.524
#426	4-5/8	5-1/8	1/4	4.600 ± .033	.275 ± .006	.9097	116.84 ± 0.83	6.98 ± 0.15	14.907
#427	4-3/4	5-1/4	1/4	4.725 ± .033	.275 ± .006	.9330	120.02 ± 0.83	6.98 ± 0.15	15.289
#428	4-7/8	5-3/8	1/4	4.850 ± .033	.275 ± .006	.9563	123.19 ± 0.83	6.98 ± 0.15	15.671
#429	5	5-1/2	1/4	4.975 ± .037	.275 ± .006	.9796	126.37 ± 0.93	6.98 ± 0.15	16.053
#430	5-1/8	5-5/8	1/4	5.100 ± .037	.275 ± .006	1.0030	129.54 ± 0.93	6.98 ± 0.15	16.436
#431	5-1/4	5-3/4	1/4	5.225 ± .037	.275 ± .006	1.0263	132.72 ± 0.93	6.98 ± 0.15	16.818
#432	5-3/8	5-7/8	1/4	5.350 ± .037	.275 ± .006	1.0496	135.89 ± 0.93	6.98 ± 0.15	17.200
#433	5-1/2	6	1/4	5.475 ± .037	.275 ± .006	1.0729	139.07 ± 0.93	6.98 ± 0.15	17.582
#434	5-5/8	6-1/8	1/4	5.600 ± .037	.275 ± .006	1.0963	142.24 ± 0.93	6.98 ± 0.15	17.965
#435	5-3/4	6-1/4	1/4	5.725 ± .037	.275 ± .006	1.1196	145.42 ± 0.93	6.98 ± 0.15	18.347
#436	5-7/8	6-3/8	1/4	5.850 ± .037	.275 ± .006	1.1429	148.59 ± 0.93	6.98 ± 0.15	18.729

Standard O-ring Sizes

by AS 568 Dash Numbers

Custom Sizes are Available
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Size Ref. AS 568	Nominal Size (inches)			Actual Size (inches)		Vol.Cu.In.	Actual Size (Millimeters)		Vol. Cu.Cent.
	I.D.	O.D.	Width	I.D.	C.S.		I.D.	C.S.	
#437	6	6-1/2	1/4	5.975 ± .037	.275 ± .006	1.1662	151.77 ± 0.93	6.98 ± 0.15	19.111
#438	6-1/4	6-3/4	1/4	6.225 ± .040	.275 ± .006	1.2129	158.12 ± 1.01	6.98 ± 0.15	19.876
#439	6-1/2	7	1/4	6.475 ± .040	.275 ± .006	1.2595	164.47 ± 1.01	6.98 ± 0.15	20.640
#440	6-3/4	7-1/4	1/4	6.725 ± .040	.275 ± .006	1.3062	170.82 ± 1.01	6.98 ± 0.15	21.405
#441	7	7-1/2	1/4	6.975 ± .040	.275 ± .006	1.3528	177.17 ± 1.01	6.98 ± 0.15	22.168
#442	7-1/4	7-3/4	1/4	7.225 ± .045	.275 ± .006	1.3995	183.52 ± 1.14	6.98 ± 0.15	22.934
#443	7-1/2	8	1/4	7.475 ± .045	.275 ± .006	1.4461	189.87 ± 1.14	6.98 ± 0.15	23.697
#444	7-3/4	8-1/4	1/4	7.725 ± .045	.275 ± .006	1.4928	196.22 ± 1.14	6.98 ± 0.15	24.463
#445	8	8-1/2	1/4	7.975 ± .045	.275 ± .006	1.5394	202.57 ± 1.14	6.98 ± 0.15	25.226
#446	8-1/2	9	1/4	8.475 ± .055	.275 ± .006	1.6327	215.27 ± 1.40	6.98 ± 0.15	26.755
#447	9	9-1/2	1/4	8.975 ± .055	.275 ± .006	1.7260	227.97 ± 1.40	6.98 ± 0.15	28.284
#448	9-1/2	10	1/4	9.475 ± .055	.275 ± .006	1.8193	240.67 ± 1.40	6.98 ± 0.15	29.813
#449	10	10-1/2	1/4	9.975 ± .055	.275 ± .006	1.9126	253.37 ± 1.40	6.98 ± 0.15	31.342
#450	10-1/2	11	1/4	10.475 ± .060	.275 ± .006	2.0059	266.07 ± 1.52	6.98 ± 0.15	32.871
#451	11	11-1/2	1/4	10.975 ± .060	.275 ± .006	2.0992	278.77 ± 1.52	6.98 ± 0.15	34.400
#452	11-1/2	12	1/4	11.475 ± .060	.275 ± .006	2.1925	291.47 ± 1.52	6.98 ± 0.15	35.929
#453	12	12-1/2	1/4	11.975 ± .060	.275 ± .006	2.2858	304.17 ± 1.52	6.98 ± 0.15	37.458
#454	12-1/2	13	1/4	12.475 ± .060	.275 ± .006	2.3791	316.87 ± 1.52	6.98 ± 0.15	38.987
#455	13	13-1/2	1/4	12.975 ± .060	.275 ± .006	2.4724	329.57 ± 1.52	6.98 ± 0.15	40.515
#456	13-1/2	14	1/4	13.475 ± .070	.275 ± .006	2.5657	342.27 ± 1.78	6.98 ± 0.15	42.044
#457	14	14-1/2	1/4	13.975 ± .070	.275 ± .006	2.6590	354.97 ± 1.78	6.98 ± 0.15	43.573
#458	14-1/2	15	1/4	14.475 ± .070	.275 ± .006	2.7523	367.67 ± 1.78	6.98 ± 0.15	45.102
#459	15	15-1/2	1/4	14.975 ± .070	.275 ± .006	2.8456	380.37 ± 1.78	6.98 ± 0.15	46.631
#460	15-1/2	16	1/4	15.475 ± .070	.275 ± .006	2.9389	393.07 ± 1.78	6.98 ± 0.15	48.160
#461	16	16-1/2	1/4	15.955 ± .075	.275 ± .006	3.0285	405.26 ± 1.90	6.98 ± 0.15	49.628
#462	16-1/2	17	1/4	16.455 ± .075	.275 ± .006	3.1218	417.96 ± 1.90	6.98 ± 0.15	51.157
#463	17	17-1/2	1/4	16.955 ± .080	.275 ± .006	3.2151	430.66 ± 2.05	6.98 ± 0.15	52.686
#464	17-1/2	18	1/4	17.455 ± .085	.275 ± .006	3.3084	443.36 ± 2.15	6.98 ± 0.15	54.215
#465	18	18-1/2	1/4	17.955 ± .085	.275 ± .006	3.4017	456.06 ± 2.15	6.98 ± 0.15	55.744
#466	18-1/2	19	1/4	18.455 ± .085	.275 ± .006	3.4950	468.76 ± 2.15	6.98 ± 0.15	57.273
#467	19	19-1/2	1/4	18.955 ± .090	.275 ± .006	3.5883	481.46 ± 2.25	6.98 ± 0.15	58.802
#468	19-1/2	20	1/4	19.455 ± .090	.275 ± .006	3.6816	494.16 ± 2.25	6.98 ± 0.15	60.331
#469	20	20-1/2	1/4	19.955 ± .090	.275 ± .006	3.7749	506.86 ± 2.45	6.98 ± 0.15	61.860
#470	21	21-1/2	1/4	20.955 ± .090	.275 ± .006	3.9615	532.26 ± 2.45	6.98 ± 0.15	64.917
#471	22	22-1/2	1/4	21.955 ± .100	.275 ± .006	4.1481	557.66 ± 2.55	6.98 ± 0.15	67.975
#472	23	23-1/2	1/4	22.940 ± .105	.275 ± .006	4.3319	582.65 ± 2.65	6.98 ± 0.15	70.987
#473	24	24-1/2	1/4	23.940 ± .110	.275 ± .006	4.5184	608.10 ± 2.80	6.98 ± 0.15	74.043
#474	25	25-1/2	1/4	24.940 ± .115	.275 ± .006	4.7050	633.50 ± 2.90	6.98 ± 0.15	77.101
#475	26	26-1/2	1/4	25.940 ± .120	.275 ± .006	4.8916	658.85 ± 3.05	6.98 ± 0.15	80.159

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