

GOBBOS R5



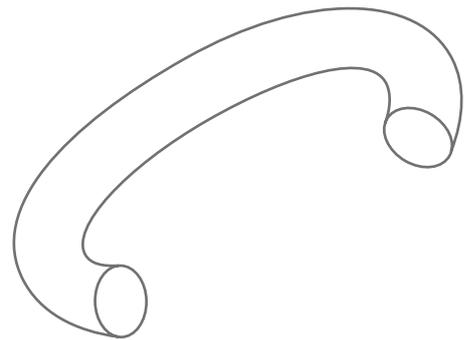


TABLE OF CONTENTS

02	About GMORS
04	Basic O-Ring Elastomers
19	General Properties of Elastomers
25	O-Ring Design Reference
29	O-Ring Standard Size (AS 568)
39	O-Ring Standard Size (BS4518)
41	O-Ring Standard Size (GB/T 3452.1)
46	O-Ring Standard Size (JIS B2401)
56	O-Ring Standard Size (JASO F404)
58	O-Ring Standard Size (Metric)
72	O-Ring Standard Size (SMS 1586)
74	O-Ring Kits

About GMORS

GMORS- SEALS TO YOUR HEART !

GMORS Rubber- A company moving forward with continuous improvements. Servicing in Rubber industry for all kinds of application to fulfill a better world.

Welcome to GMORS Rubber!

Since 1981, GMORS has served as the leading rubber component manufacturer in Taiwan. Known for innovation and continuous improvements, GMORS products have been approved for industries of Automotive, Semi-conductor, Medical, Aerospace, Drinking Water, Food & Drug equipment, Sanitary and various industrial grades.

Marching into the 21th century, GMORS Rubber's commitment is to satisfy all industries with the optimum combination of competitive price, high quality and fast service. Our goal is to be your best global partner on rubber components.



Product Offerings

- O-Rings
- X-Rings
- Back-Up Rings
- U-Packings
- V-Seals
- Special Packing Series
- Wear Rings
- Bonded Seals
- Valve Seals
- Wiper Seals
- Hydraulic Seals
- Pneumatic Seals



Approved

Manufacturing Process System

- AS9100C (Aerospace industry approved)
- ISO/TS 16949:2009
- ISO 9001:2008
- ISO 13485:2003 (medical industry non-implantable approved)
- ISO 14001:2004
- OHSAS 18001:2007
- TAF Approved In-House Lab with Integrated Equipment



Material Certification

- NSF 61 (USA Drinking Water)
- WRAS (UK Drinking Water)
- ACS (France Drinking Water)
- W-270 (Germany Drinking Water)
- KTW (Germany Drinking Water)
- UL 157 (Automotive, Gasoline)
- DIN EN 549 (Pipes, Gas Appliances)
- NORSOK M-710 (RGD Material Certified)
- NACE TM0297(RGD Material Certified)
- ROHS EU Directive 2011/65/EU
- REACH SVHC
- ADI FREE

Main Market

- General Industry
- Automotive
- Semi-conductor
- Medical
- Water & Food
- Hydraulic & Pneumatic
- Aerospace
- Oil & Gas



Basic O-Ring Elastomers

Butyl Rubber(IIR)

Butyl rubber is composed by copolymerizing isobutylene which is with small amount of isoprene. It is like EPDM possessing excellent resistance to chemical and polar fluid, outstanding electrical insulation and good ozone resistance. The special properties of butyl rubber are low gas and moisture permeability and high shock absorption. These properties have made butyl rubber the polymer choice in a variety of applications.

Cure system - Sulfur-Cured

Standard IIRs are sulfur-cured.

Other Common Variations

- IIRs can be formulated with only "white list" ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages, ex. bottle top seal for alcohol or medical.

General Information

ASTM D1418 Designation	IIR, CIIR, BIIR
ISO/DIN 1629 Designation	IIR, CIIR, BIIR
ASTM D2000 / SAE J 200 Codes	AA, BA
Standard Color(s)	Black
Hardness Range	50 to 80 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-55°C -67°F
Standard High Temperature	100°C 212°F

Performs Well In...

- Alcohols
- Ketones
- Dilute acids and alkalis
- Silicone oils & greases
- Water and Steam
- Phosphate ester based hydraulic fluids - Skydrol®
- Ozone, aging & weathering

Doesn't Perform Well In...

- Aliphatic & aromatic hydrocarbons
- Halogenated solvents
- Petroleum based oils & greases

Carboxylated Nitrile (XNBR)

Carboxylated Nitrile is similar to Nitrile rubber, but the polymer backbone has been chemically modified with Carboxylic Acid containing group. This result is XNBR with more excellent abrasion and tear resistance than traditional NBR. For this reason, XNBR based parts are usually applied in dynamic assembly such as seals and rod wipers.

Cure system - Sulfur-Cured

Standard XNBR compounds are sulfur-cured.

General Information

ASTM D1418 Designation	XNBR
ISO/DIN 1629 Designation	XNBR
ASTM D2000 / SAE J 200 Codes	BG, BK, CH
Standard Color(s)	Black
Hardness Range	50 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-20°C -4°F
Standard High Temperature	100°C 212°F
Special Compound High Temperature	125°C 257°F

Performs Well In...

- Aliphatic hydrocarbon
- Vegetable and mineral oils and greases
- Diesel
- Water
- Dilute acids, alkali and salt solutions

Doesn't Perform Well In...

- Aromatic hydrocarbon
- Chlorinated hydrocarbon
- Ketones
- Acetic acid
- Ethylene ester
- Strong acids
- Brake fluid with glycol base

Basic O-Ring Elastomers

Chloroprene Rubber(CR)

Chloroprene was one of the first successful synthetic elastomers in 1931 made by Dupont, and the trade name is Neoprene. It is prepared by emulsion polymerization of chloroprene, or 2-chlorobutadiene. CR is a multi-purposed elastomer which yields a balanced combination of properties. It has good resistance to sun, ozone, weather and performs well in contact with oils and many chemicals. It also displays outstanding physical toughness and good resistance to fire.

Cure system - Metal oxide cured

Standard CRs are metal oxides & organic accelerators.

Other Common Variations

- Chloroprene has been used in thousands of diverse environment, including automotive, wire and cable industries.
- CR is usually used in air condition system, especially old refrigerated media like R12 or R22 and lubricant with mineral oil.

General Information

ASTM D1418 Designation	CR
ISO/DIN 1629 Designation	CR
ASTM D2000 / SAE J 200 Codes	BC, BE
Standard Color(s)	Black
Hardness Range	30 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-40°C -40°F
Standard High Temperature	100°C 212°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	125°C 257°F

Performs Well In...

- Refrigerants
- Ammonia
- Water
- Silicone grease and oils
- High aniline point mineral oil

Doesn't Perform Well In...

- Aromatic hydrocarbons
- Ketones
- Esters
- Ethers
- Strong oxidizing acids
- Chlorinated hydrocarbons

Epichlorohydrin(CO, ECO, GECO)

Hydrin® is the trade name of epichlorohydrin elastomers made by Zeon Chemicals. epichlorohydrin elastomers are available as a homopolymer(CO), copolymer(ECO,GCO),and terpolmer(GECO). All epichlorohydrin rubbers offer low temperature flexibilities; resistance to oils, fuel and common solvents; higher temperature resistance than NBR; good weather ability and good dynamic properties.

Cure system - Sulfur-Cured vs. Peroxide-Cured

ECO are usually Peroxide-cured for standard compounds of Ge Mao. It also can be Sulfur-cured to improve flexible property in dynamic system but will reduce the heat resistance and cause poorer compression set.

Other Common Variations

- The typical applications of epichlorohydrin are fuels or LPG system in automotive.

General Information

ASTM D1418 Designation	CO, ECO GECO
ISO/DIN 1629 Designation	CO, ECO GECO
ASTM D2000 / SAE J 200 Codes	CH
Standard Color(s)	Black
Hardness Range	50 to 80 Shore A
Relative Cost	Medium

Service Temperatures

Standard Low Temperature	-40°C -40°F
Standard High Temperature	125°C 257°F
Special Compound High Temperature	135°C 275°F

Performs Well In...

- Mineral oil and grease
- LPG, fuels
- Silicone oil and grease
- Ozone, weather

Doesn't Perform Well In...

- Ketones and esters
- Aromatic and chlorinated hydrocarbon
- Brake fluids
- Aldehydes

Basic O-Ring Elastomers

Ethylene Propylene Rubber(EPR, EPDM)

EPDM is a Copolymer of ethylene and propylene, and further a terpolymer of ethylene and propylene with a small amount of a third monomer (usually a diolefin) to permit vulcanization with sulfur. Generally Ethylene Propylene Rubber possesses excellent resistance to ozone, sunlight and weathering, and has very good flexibility at low temperature, good chemical resistance (many dilute acids and alkalis, polar solvents), and good electrical insulation property.

Cure system - Sulfur-Cured vs. Peroxide-Cured

- Standard EPDMs are usually sulfur-cured. Sulfur-cured compounds offer better flexible properties but are more prone to hardening and poorer compression set with high temperature. Peroxide-cured EPDMs have better heat resistance and lower compression set. It complies with long time usage especially for hose system of construction industry, but at the same time is more expensive and more difficult for production than the sulfur-cured.

Other Common Variations

- EPDMs are often internally lubricated to improve ease of installation or reduce friction for dynamic applications.
- EPDMs can be formulated with only "white list" ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- EPDMs can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.
- EPDMs are usually used in automotive air conditioning system where R134a refrigerant gas and POE or PAG lubricant and new refrigerant for environment protection R744 is used. In R744 air conditioning system, it requires excellent resistance to explosive decompression in hydrogen dioxide at high pressure and high temperature.
- EPDMs are usually used in phosphate ester type hydraulic fluids.

General Information

ASTM D1418 Designation	EPM, EPDM
ISO/DIN 1629 Designation	EPM, EPDM
ASTM D2000 / SAE J 200 Codes	AA, BA CA, DA
Standard Color(s)	Black
Hardness Range	30 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-55°C -67°F
Standard High Temperature	125°C 257°F
Special Low Temperature	-60°C -76°F
Special High Temperature	150°C 302°F

Performs Well In...

- Alcohols
- Automotive brake fluid
- Ketones
- Dilute acids and alkalis
- Silicone oils & greases
- Steam to 400°F
- Water
- Phosphate ester based hydraulic fluids - Skydrol®
- Ozone, aging & weathering

Doesn't Perform Well In...

- Aliphatic & aromatic hydrocarbons
- Di-ester based lubricants
- Halogenated solvents
- Petroleum based oils & greases

Ethylene/Acrylic elastomer(AEM, VAMAC[®])

Ethylene/ acrylic elastomer is a copolymer of ethylene and methyl acrylate plus a small amount of a curesite monomer containing carboxylic acid groups. AEM is a tough, low-compression-set rubber with excellent resistance to high temperatures, hot mineral oil, fluids and weathering. The low temperature flexibility and mechanic properties are better than ACM, but it is not well resistant to low aniline oil (like ASTM No. 3 oil) and polar solvents. AEM is typically chosen for applications requiring improved performance versus Nitrile rubber, Neoprene or reduced cost versus higher-end elastomers such as HNBR, FKM. It also usually is applied in automatic industry.

Cure system - Amine-Cured

Standard AEM compounds are Amine based vulcanization system.

Other Common Variations

- AEM has good flexibility and good tear resistance, abrasion and compression set, and it usually is used in shaft lip seals especially in automatic transmission fluids.
- Special Vamac[®] compounds can improve oil resistance but will sacrifice some low temperature properties

Vamac[®] is a registered trademark of DuPont Performance Polymers.

General Information

ASTM D1418 Designation	AEM
ISO/DIN 1629 Designation	AEM
ASTM D2000 / SAE J 200 Codes	EE
Standard Color(s)	Black
Hardness Range	40 to 90 Shore A
Relative Cost	Medium-High

Service Temperatures

Standard Low Temperature	-30°C -22°F
Standard High Temperature	150°C 302°F
Special Compound Low Temperature	-40°C -40°F
Special Compound High Temperature	175°C 347°F

Performs Well In...

- Ozone, weather and hot air.
- Automatic transmission fluids (ATF) and Power steering fluids
- Water

Doesn't Perform Well In...

- Ketones
- Fuels
- Brake fluids

Basic O-Ring Elastomers

Fluorocarbon(FPM, FKM, VITON®)

Fluorocarbon is a well-known high performance rubber, and especially it has excellent resistance to high temperature, ozone, weather, oxygen, mineral oil, fuels, hydraulic fluids, aromatics and many organic solvents and chemicals.

Fluorine Content

Viton® system gum like general type (A-TYPE, 66% fluorine), middle fluorine content type (B-, GBL-TYPE, 67~68.5% fluorine), high fluorine content type (F-, GF-TYPE, 70% fluorine), improving low temperature flexibility type (GLT-, GFLT) and excellent resistance to more chemicals and solvents-- Viton® ETP Extreme.

We also can supply excellent acid and alkali resistance parts made by Viton® TBR.

Cure system Bisphenol cured vs. Peroxide-Cured

- Standard FKM compounds are Bisphenol cured. FKM compounds with peroxide-cured possess better acid solution resistance than the bisphenol cured, and can replace litharge-cured applied in acid solution. In Some lubricants adding a few organic amide or amine, choosing peroxide curing system Viton® will be better than bisphenol curing system.

Other Common Variations

- FKM can also be submitted for approval to Underwriters Laboratories (UL) for use in applications as prescribed in UL157.
- FKM has excellent resistance to high temperature, oil, solvent, flame, chemical and weather, and it is usually applied in automotive, chemical processing, aerospace and many industrials.
- Viton® GLT is broadly used in thermal range of -40°C to +250°C and it has outstanding resistance to aggressive HTS-type oils which are commonly used in aerospace industry.
- Viton® ETP is usually applied in chemical industrial.
- In some fuels adding several methanol, Viton® F and B-type are more usable than A-type especially F-type. If it requires lower temperature, GFLT and GBLT will be available.
- Viton® TBR 605C(TFE/propylene polymer) is better base and steam resistant than other general Vitons. It can be use in amine, amide and some bases.

Viton® is a registered trademark of DuPont Performance Polymers.

General Information

ASTM D1418 Designation	FKM
ISO/DIN 1629 Designation	FKM
ASTM D2000 / SAE J 200 Codes	HK
Standard Color(s)	Black
Hardness Range	50 to 95 Shore A
Relative Cost	High

Service Temperatures

Standard Low Temperature	-26°C -15°F
Standard High Temperature	250°C 482°F
Special Compound Low Temperature	-40°C -40°F
Special Compound High Temperature	275°C 527°F

Performs Well In...

- Petroleum products
- Fuel or blend with methanol or ethanol
- Diesel or blend with biodiesel
- Mineral oil and grease
- Silicone oil and grease
- High vacuum
- Ozone, weather and very high temperature air
- Strong acid

Doesn't Perform Well In...

- Ketones
- Low molecular weight organic acids (formic and acetic acids)
- Superheat steam
- Low molecular weight esters and ethers.
- Phosphate ester based hydraulic fluids - Skydrol®

Fluorosilicone Rubber (FVMQ)

Fluorosilicone is like silicone rubber, bonding trifluoropropyl, methyl, and vinyl as side chains. The mechanical and physical properties are similar to VMQ. However, FVMQ offers improved fuel and mineral oil resistance, but poorer hot air resistance than standard VMQ.

Cure system - Peroxide-Cured

Standard FVMQ compounds are peroxide-cured.

Other Common Variations

- FVMQ offers excellent low-temperature flexibility and good resistance to fuel and aromatic mineral oil. It is usually applied in contact with jet and automotive fuels, most solvents, and engine oil especially in aerospace industry.
- FVMQ compounds meet MIL-R-25988 specification.

General Information

ASTM D1418 Designation	FVMQ
ISO/DIN 1629 Designation	FVMQ
ASTM D2000 / SAE J 200 Codes	FK
Standard Color(s)	Blue
Hardness Range	40 to 85 Shore A
Relative Cost	High

Service Temperatures

Standard Low Temperature	-60°C -76°F
Standard High Temperature	177°C 350°F
Special Compound Low Temperature	-65°C -85°F
Special Compound High Temperature	232°C 450°F

Performs Well In...

- Fuels
- Aromatic mineral oils
- Benzene, Toluene
- Ozone and weather

Doesn't Perform Well In...

- Brake Fluids
- Ketones
- Hydrazine

Basic O-Ring Elastomers

Hydrogenated Nitrile Rubber(HNBR)

Hydrogenated Nitrile(HNBR) is a synthetic polymer that is obtained by saturating the double bonds in butadiene segments with hydrogen, and it is also called HSN(Highly Saturated Nitrile). This special hydrogenation process reduces lots of double bonds in main chains of NBR polymer, thus HNBR possesses superior heat, ozone, chemical resistance and mechanical characteristics over standard Nitrile.

Acrylonitrile Content

Same as NBR, there are different levels of Acrylonitrile (ACN) content in different HNBR polymers. The ACN content can be varied from 17% to 49%. Lower ACN content gives better low temperature properties but poorer fuels and polar lubricants. Higher ACN content gives poorer low temperature properties but improves fuels and polar lubricants resistance. Standard HNBRs typically have 36% ACN content.

Cure system - Peroxide-Cured

HNBRs are usually Peroxide-cured for standard compounds of Ge Mao. It also can be Sulfur-cured to improve flexible properties in dynamic system but will reduce the heat resistance and cause poorer compression set.

Other Common Variations

- HNBRs are often internally lubricated to improve ease of installation or reduce friction for dynamic applications.
- HNBRs can be formulated with only "white list" ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- HNBRs are usually used in automotive air conditioning system where R134a refrigerant gas or new refrigerant for environment protection like R401a, R404a, R410a, R507 and R744 is used.
- HNBRs are also used in automotive shaft system because of their excellent abrasion resistance.
- In deeper oil wells, it requires material resistance to heat, crude oil, hydrogen sulfide, steam and explosive decompression etc. Special compounds of HNBR can be available for this application.

General Information

ASTM D1418 Designation	HNBR
ISO/DIN 1629 Designation	HNBR or NBM
ASTM D2000 / SAE J 200 Codes	CH, DF, DH
Standard Color(s)	Black Green
Hardness Range	50 to 90 Shore A
Relative Cost	High

Service Temperatures

Standard Low Temperature	-40°C -40°F
Standard High Temperature	150°C 302°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	165°C 329°F

Performs Well In...

- Petroleum based oils & fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils & greases
- Ethylene glycol
- Dilute acids, bases & salt solutions to moderate temperatures
- Water & steam to 150°C (302°F)

Doesn't Perform Well In...

- Chlorinated hydrocarbons
- Ketones
- Ethers
- Esters
- Strong acids

Natural Rubber(NR)

Natural rubber is produced from the latex of the Hevea brasiliensis, and the chemical name of this polymer is polyisoprene. Polyisoprene also can be synthesized by polymerization from its monomer isoprene. Natural rubber possesses many excellent physical properties including high resilience and strength and good abrasion resistance. The defects are like SBR, having poor resistance to hydrocarbon oil and not suitable in UV, oxygen, ozone because of the double bond in the polymer backbone. But its poor weathering resistance can be modified by special additive.

Cure system - Sulfur-Cured

Standard NR compounds are sulfur-cured.

Other Common Variations

- NR is usually mixed with SBR and BR and applied in tire productions.

General Information

ASTM D1418 Designation	NR
ISO/DIN 1629 Designation	NR
ASTM D2000 / SAE J 200 Codes	AA
Standard Color(s)	Black
Hardness Range	40 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-50°C -58°F
Standard High Temperature	70°C 158°F

Performs Well In...

- Alcohols
- Organic acids

Doesn't Perform Well In...

- Ozone
- Petroleum oils
- Aromatic, aliphatic, or halogenated hydrocarbons

Basic O-Ring Elastomers

Nitrile Rubber (NBR)

Nitrile rubber, also known as NBR or Buna[®] N, is one of the most commonly used sealing elastomers due its resistance to petroleum based fuels and lubricants and its relatively low price. Nitrile elastomers are copolymers of acrylonitrile and butadiene. There are a number of common variations of nitrile compounds.

Acrylonitrile Content

The acrylonitrile (ACN) content of the polymer chains can be varied from 18% to 50%. Lower ACN content gives better low temperature properties but poorer fuels and polar lubricants. Higher ACN content gives poorer low temperature properties but improved fuels and polar lubricants resistance. Standard NBRs typically have 34% ACN content.

Cure system - Sulfur-Cured vs. Peroxide-Cured

Standard Nitriles are usually sulfur-cured. Sulfur-cured compounds offer better low temperature properties but are more prone to hardening with high temperatures. Peroxide-cured nitriles have better heat resistance and lower compression sets but are more expensive and are more difficult to process.

Other Common Variations

- Nitriles are often internally lubricated to improve ease of installation or reduce friction for dynamic applications.
- Nitriles can be formulated with only "white list " ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- Nitriles can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.
- Nitriles can also be submitted for approval to Underwriters Laboratories (UL) for use in applications as prescribed in UL157.
- Nitrile rubber can be combined with polyvinyl chloride (PVC) to create fuel, ozone and weathering resistance NBR-PVC blends.

General Information

ASTM D1418 Designation	NBR
ISO/DIN 1629 Designation	NBR
ASTM D2000 / SAE J 200 Codes	BF, BG, BK, CH
Standard Color(s)	Black
Hardness Range	30 to 95 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-40°C -40°F
Standard High Temperature	100°C 212°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	135°C 257°F

Performs Well In...

- Petroleum based oils & fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils & greases
- Ethylene glycol
- Dilute acids
- Water to below 100°C (212°F)

Doesn't Perform Well In...

- Aromatic hydrocarbons
- Automotive brake fluid
- Chlorinated hydrocarbons
- Ketones
- Ethers
- Esters
- Phosphate ester hydraulic fluids
- Strong acids
- Ozone / weathering / sunlight

Polyacrylate(ACM, PA)

Polyacrylates or simply acrylate rubbers are copolymers having two major components: the backbone (monomeric acid ester of alkyl or alkoxy) and the reactive curesite. ACMs have good resistance to high heat and oil which is better than NBRs. It also well resists oxygen and ozone even at high temperature, but is with poorer water and low temperature flexibility compared to NBRs. Special ACM can improve low temperature flexibility to -40°C (TR10 value) without reducing oil and heat resistance.

Cure system - Amine based & metal soaps Cured

Standard ACM compounds are Amine based and metal soaps combined to vulcanize.

Other Common Variations

- Polyacrylates usually are applied in automatic industry, especially in automatic transmission and steering fluids.

General Information

ASTM D1418 Designation	ACM
ISO/DIN 1629 Designation	ACM
ASTM D2000 / SAE J 200 Codes	DF, DH, EH
Standard Color(s)	Black
Hardness Range	45 to 80 Shore A
Relative Cost	Medium-High

Service Temperatures

Standard Low Temperature	-15°C 5°F
Standard High Temperature	150°C 302°F
Special Compound Low Temperature	-40°C -40°F
Special Compound High Temperature	175°C 347°F

Performs Well In...

- Mineral oils (transmission and steering fluids)
- Ozone, weather and hot air.

Doesn't Perform Well In...

- Alcohol
- Aromatics and chlorinated hydrocarbons
- Hot water and steam
- Acids, alkalis and amines
- Brake fluids

Basic O-Ring Elastomers

Polyurethane(PU, AU, EU)

The millable Polyurethane rubbers are distinguished into two types; one is polyester urethane (AU), the other is polyether urethane (EU). AU type urethanes have outstanding oil, fuel and solvent resistance but can be attacked by hydrolysis, EU type urethanes are not attacked by hydrolysis and still offer a fuel and oil resistance comparable to low ACN (18~22% ACN) Nitriles or HNBRs. Any type polyurethane has excellent wear resistance, high tensile strength and high elasticity in comparison with any other elastomers.

We also can offer any type thermoplastic urethane (TPU).

As you know that polyester urethane (AU) exhibits an unique property of easily getting hydrolyzed, GMORS now no longer provides this product line.

Cure system - Peroxide-Cured

Standard PU compounds are peroxide-cured.

Other Common Variations

- Polyurethane usually is applied in mechanical industry, especially in the place where material must have higher wear resistance and higher strength.
- In some applying environment, moisture condensing will happen on the surface of rubber seal, and this will cause hydrolysis of AU so choosing EU is better. But EU does not resist oil very well, thus higher aniline point oil must be used for lubricant application.
- Applying in hydraulic system, TPU will be better than millable Polyurethane.

General Information

ASTM D1418 Designation	AU, EU
ISO/DIN 1629 Designation	AU, EU
ASTM D2000 / SAE J 200 Codes	BG
Standard Color(s)	Black Transparent
Hardness Range	60 to 95 Shore A
Relative Cost	Medium-High

Service Temperatures

Standard Low Temperature	-40°C -40°F
Standard High Temperature	80°C 176°F
Special Compound Low Temperature	-55°C -67°F
Special Compound High Temperature	100°C 212°F

Performs Well In...

- Aliphatic hydrocarbon
- Mineral oil and grease
- Silicone oil and grease
- Ozone
- Water up to 50°C (EU type)

Doesn't Perform Well In...

- Ketones
- Alcohols
- Esters
- Ethers
- Hot water and steam
- Alkalis, amines
- Acids
- Glycols

Silicone Rubber (MQ, VMQ, PVMQ)

Physically, silicones are based on silicon, an element derived from quartz. To create this class of synthetic elastomers, pendant organic groups such as methyl, phenyl and vinyl are attached to silicon atoms. The different addition of side chains can achieve significant variations in properties. Silicones have excellent heat, ozone and corona resistance, very well dielectric stability, and resistance to many oils, chemicals, and solvents. And for all elastomers, silicones possess the best flexible property at low temperature. But it also has some weakness like low tensile strength, poor tear and wear resistance.

Cure system - Peroxide-Cured vs. Platinum cured

Standard silicone compounds are usually peroxide-cured. Platinum-cured compounds offer better flexible properties and very low volatile matter. Platinum-cured silicones usually are applied in medical system or other required low volatile matter, but they need to be produced in clean room and higher cost of platinum catalyzer so they are more expensive than peroxide-cured ones.

Other Common Variations

- Silicones can be formulated with only "white list " ingredients as specified in 21.CFR 177.2600 for use in applications where the elastomer will be in contact with food or beverages.
- Silicones can be submitted for approval by the National Sanitation Foundation (NSF) for use in drinking water applications.
- Silicones are usually used in automotive system like boots, oil filter valve, gasket in light...etc.
- Silicone parts can be used in medical system which especially require compliance to USP CLASS VI.

Performs Well In...

- Engine and transmission oil (mineral oils)
- Diluted salt solution
- Moderate water
- Dry heat
- Ozone, weather resistance

Doesn't Perform Well In...

- Concentrated acids and alkalis
- Steam over 120°C
- Petroleum oils and fuel
- Ketones

General Information

ASTM D1418 Designation	Q, MQ, VMQ, PVMQ,
------------------------	-------------------

ISO/DIN 1629 Designation	Q, MQ, VMQ, PVMQ,
--------------------------	-------------------

ASTM D2000 / SAE J 200 Codes	FC, FE, GE,
------------------------------	-------------

Standard Color(s)	Rust
-------------------	------

Hardness Range	20 to 90 Shore A
----------------	------------------

Relative Cost	Medium-High
---------------	-------------

Service Temperatures

Standard Low Temperature	-60°C -76°F
--------------------------	----------------

Standard High Temperature	225°C 437°F
---------------------------	----------------

Special Compound Low Temperature	-100°C -148°F
----------------------------------	------------------

Special Compound High Temperature	300°C 572°F
-----------------------------------	----------------

Basic O-Ring Elastomers

Styrene-Butadiene Rubber(SBR)

The most widely used synthetic rubber in the world is SBR, a copolymer of styrene and butadiene. SBR also was called Buna[®] S (from the first trade name of Bayer). Where SBR rubber is used the most is in tire by blending it with natural rubber and butadiene rubber. SBR is weak and unusable without reinforcement by carbon black, but with carbon black it is strong and abrasionresistant. The defects of SBR are poor resistant to oil and not suitable in weathering, UV, oxygen, ozone because the double bond in the polymer backbone.

Cure system - Sulfur-Cured

Standard SBR compounds are sulfur-cured.

Other Common Variations

- SBR is usually mixed with NR and BR and applied in tire productions.
- SBRs are mostly applied seals for non-mineral oil based brake fluid.

Buna[®] is a registered trademark of LANXESS.

General Information

ASTM D1418 Designation	SBR
ISO/DIN 1629 Designation	SBR
ASTM D2000 / SAE J 200 Codes	AA,BA
Standard Color(s)	Black
Hardness Range	40 to 90 Shore A
Relative Cost	Low

Service Temperatures

Standard Low Temperature	-55°C -67°F
Standard High Temperature	100°C 212°F

Performs Well In...

- Water
- Alcohol
- Silicone oil and grease
- Non-mineral oil based brake fluid
- Weak acids

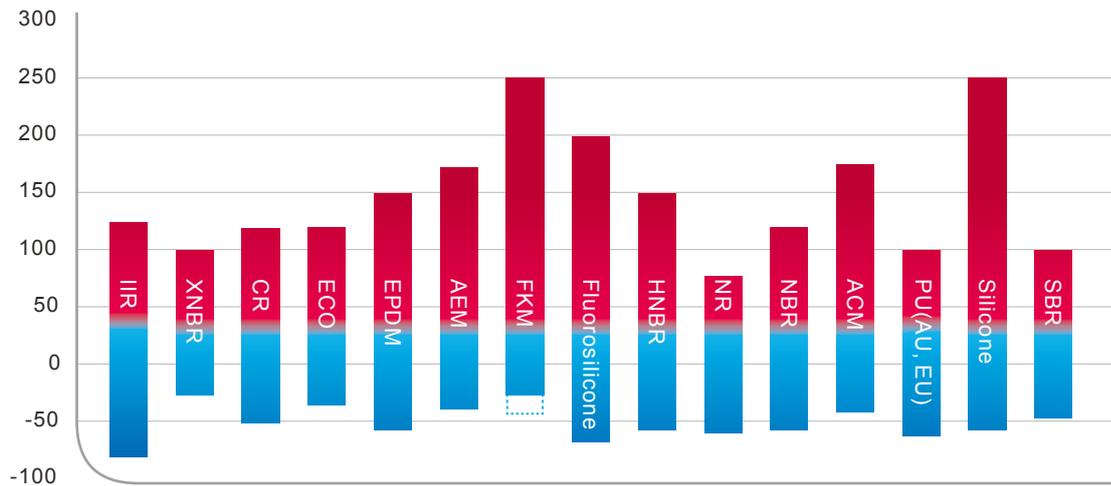
Doesn't Perform Well In...

- Petroleum oils and fuels
- Aromatic, aliphatic, or halogenated hydrocarbons
- Strong acids
- Mineral oils

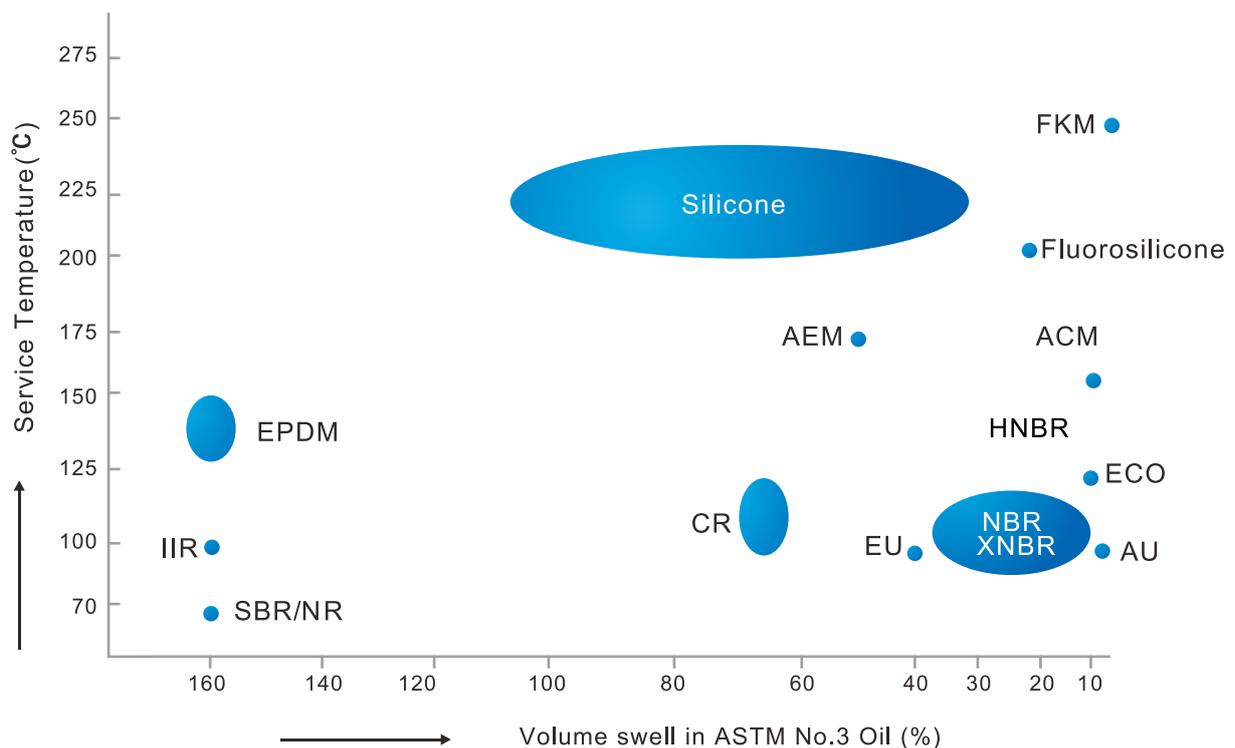
General Properties of Elastomers

Service Temperature Range Chart

This service temperature range is for reference only. In actual service environment, some specific compounds may not reach the maximum temperature as indicated in this chart. However, higher temperature may be attained if exposure is short period or intermittent.



Oil And Heat Resistance Comparison Chart



General Properties of Elastomers

Elastomer Guidelines and Recommendations

General Properties of Elastomers		
Elastomer Base	Durometer (Shore A)	General Recommendations
Butyle(IIR)	70	General ASTM D2000 M2BA710 B13 C12
Carboxylated Nitrile (XNBR)	70 70	General ASTM D2000 M2BG714 A14 B14 EO14 EO34 EF11 EF21 Internal lubrication (PTFE, Molysulfide, Erucamide)
Chloroprene Rubber (CR)	70 57 60	General ASTM M3BC710 A14 B14 EO14 EO34 F17 Electrical insulation 500v, 100m For UL94-V1 application
Epichlorohydrin (CO, ECO, GECO)	70	General M3CH710
Ethylene Propylene Rubber (EPR, EPDM)	70	General ASTM D2000 M3CA710 A25 B35 EA14 G11
	70	General ASTM D2000 M3DA710 A26 B36 C32 EA14 F19 G21
	70	Z1=Peroxide
	70	Internal Lubricant
	70	FDA 21 CRF177.2600 Class II spec.
	70	NSF61 approval.
	70	Peroxide Cured, Electric insulation
	70	General, ANTI-MICROBE
	70	Peroxide Cured, Coolant System
70	Peroxide Cured, Brake System	
75	HFC-134A Plus PAG or POE Lubricant	
Ethylene/ Acrylielastomer (AEM, VAMAC)	70	General ASTM D2000 M3EE710 A47 B46 EO16 EO36 F16 E1:ATF Dexron III and I
Fluorocarbon (FPM, VITON, FKM)	75	General ASTM D2000 M2HK810 A1-10 B38 EF31 EO78 Z1=75+/-
	90	SHORE A.
	75	General ASTM D2000 M2HK910 A1-10 B38 EF31 EO78 EO88
	75	FDA 21 CFR 177.2600
	75	Internal Lubricant (PTFE, MOS2)
	75	AMS 7276, Mil-R-83248 Low Compression Set
	75	Viton GFLT for Chrysler MS-BZ832 Grade F.
	75	Viton F-type for Ford WSA-M2D401-A8
	75	Viton GLT-type for Chrysler MS-BZ832 grade G
	75	Viton GF-type for Chrysler MS-BZ832 grade C
	75	Viton B-type for Chrysler MS-BZ832 grade B
	75	General meet F15 Low Temperature
	95	Anti Explosive Decompression (AED)
75	GLT AMS-R-83485(Low Compression Set and Low Temperature)	

General Properties of Elastomers

Elastomer Guidelines and Recommendations

General Properties of Elastomers		
Elastomer Base	Durometer (Shore A)	General Recommendations
ETP	75	Viton ETP-type excellent oil, heat, chemical, solvent resistance
Fluorosilicone Rubber (FVMQ)	60	M25988/3 Type 1, Class 1, Grade 60
	70	M25988/1 Type 1, Class 1, Grade 70
	75	M25988/2 Type 1, Class 3, Grade 75
	80	M25988/4 Type 1, Class 1, Grade 80
Hydrogenated Nitrile Rubber (HNBR, HSN)	70	General ASTM D2000 M2DH710 A26 B16 EO16 Eo36 F17 Z1=Green color
	70	Ford WSH-M2D463-A
	70	FDA 21 CRF177.2600 Class II spec.
	70	Good fuel resistance and for adhesion metal seal.
Natural Rubber (NR)	70	New Refrigerant for Environment Protection and HFC-134A
	80	
Natural Rubber (NR)	70	General ASTM D2000 M2AA710
	40	General ASTM D2000 M2AA410
Nitrile Rubber (NBR, BUNA-N)	70	General ASTM D2000 M2BG714 A14 B34 EA14 Ef11 EF21 EO14 EO34
	70	FDA 21 CFR177.2600 Class I
	70	40% Acn. Good fuel resistance.
	70	Internal lubricant (PTFE, Moly sulfide, Wax)
	70	NBR/PVC blending, excellent ozone resistance, good fuel resistance.
	70	Higher heat resistance (M2CH714 A25 Eo15 EO35)
	70	18% Acn. Excellent low temperature resistance (-55°C)
	70	NSF61 approval.
	60	Insulation, resist to 2kv
Polyacrylate (ACM, PA)	70	Non-nitosamine
	70	
Polyacrylate (ACM, PA)	70	General ASTM D2000 M2DH710 A26 B16 EO16 EO36 F13
	70	Improve low temperature flexibility
Polyurethane (PU, AU, EU)	70	Ether type-excellent water resistance, Ester type-excellent oil resistance.
	90	Ether type-excellent water resistance, Ester type-excellent oil resistance.
Silicone Rubber (MQ, VMQ, PVMQ)	70	General ASTM D2000 M2GE705 A19 B37 C12 Ea14 EO16 EO36 F19
	70	Meet FDA 21 CFR177.2600 Class II spec./NSF61 approval.
	70	ZZ-RP765E/ GEN,AMS 3340
	70	High heat resistance, service temperature -55°C~ +300°C
	70	Improve oil resistance
	70	USP Class VI
Styrene-Butadiene Rubber (SBR)	60	UL 94-vo approval
	70	General ASTM D2000 M2AA708

General Properties of Elastomers

Fluid Compatibility Table

General Properties of Elastomers							General Properties of Elastomers								
COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 🤔 INSUFFICIENT DATA	NITRILE(NBR)	EPDM	FLUOROCARBON(VITON)	NEOPRENE	POLYACRYLATE	FLUOROSILICONE	SILICONE	COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 🤔 INSUFFICIENT DATA	NITRILE(NBR)	EPDM	FLUOROCARBON(VITON)	NEOPRENE	POLYACRYLATE	FLUOROSILICONE	SILICONE
ACETAMIDE	👍	👍	😊	👍	😊	👍	😊	BUTYL AMINE OF N-BUT AMINE	😊	😊	😊	😊	😊	😊	😊
ACETIC ACID, GLACIAL	😊	😊	😊	😊	😊	😊	😊	BUTYL CARBITOL	😊	👍	😊	😊	😊	😊	😊
HOT, HIGH PRESS	😊	😊	😊	😊	😊	😊	😊	BUTYL CELLOSOLVE	😊	😊	😊	😊	😊	😊	🤔
5%	😊	👍	👍	👍	😊	😊	👍	BUTYRALDEHYD	😊	😊	😊	😊	😊	😊	😊
ACETONE	😊	👍	😊	😊	😊	😊	😊	CARBITOL	😊	😊	😊	😊	😊	😊	😊
ACETOPHENONE	😊	👍	😊	😊	😊	😊	😊	CARBITOL ACETATE	😊	😊	👍	😊	😊	🤔	😊
ACETYLENE	👍	👍	👍	😊	🤔	🤔	😊	CARBON DISULFIDE	😊	😊	👍	😊	😊	👍	🤔
AMMONIA, GAS, COLD	👍	👍	😊	👍	😊	😊	👍	CARBON TETRACHLORIDE	😊	😊	👍	😊	😊	😊	😊
GAS, HOT	😊	😊	😊	😊	😊	😊	👍	CARBONIC ACID	😊	👍	👍	👍	👍	👍	👍
LIQUID (ANHYDROUS)	😊	👍	😊	👍	😊	😊	😊	CASTOR OIL	👍	😊	👍	👍	👍	👍	👍
AMMONIUM HYDROXIDE, 3 Molar	👍	👍	😊	👍	😊	👍	👍	CELLOSOLVE	😊	😊	😊	😊	😊	😊	😊
CONCENTRATED	😊	👍	😊	👍	😊	👍	👍	CHASSIS GREASE	👍	😊	😊	😊	👍	🤔	😊
AMYL ACETATE	😊	👍	😊	😊	😊	😊	😊	CHLORACETIC ACID	😊	😊	😊	😊	😊	😊	🤔
ANDEROL, L-774 (DI-ESTER)	😊	😊	👍	😊	😊	😊	😊	CHLORACETONE	😊	👍	👍	😊	🤔	🤔	😊
ANTIFREEZE	👍	👍	👍	👍	😊	🤔	👍	CHLORODANE	😊	😊	👍	😊	🤔	😊	😊
ANILINE	😊	😊	😊	😊	😊	😊	😊	CHLORINE, DRY	😊	😊	👍	😊	😊	👍	😊
ANSUL ETHER 161 OR 181	😊	😊	😊	😊	😊	😊	😊	CHLORINE DIOXIDE	😊	😊	👍	😊	😊	😊	🤔
AROCLOR, 1248	😊	😊	👍	😊	😊	😊	😊	CHLORINE DIOXIDE, 8% CL	😊	😊	👍	😊	😊	😊	🤔
1254	😊	😊	👍	😊	😊	😊	😊	AS NAC10 IN SOLUTION							
1260	👍	🤔	👍	👍	😊	👍	👍	CHLORINE TRIFLUORIDE	😊	😊	😊	😊	😊	😊	😊
ASKAREL	😊	😊	👍	😊	😊	😊	😊	CHLORINE, WET	😊	😊	👍	😊	😊	😊	🤔
ASTM OIL NO.1	👍	😊	👍	👍	👍	👍	👍	CHLOROBENZOL	😊	😊	👍	😊	😊	🤔	😊
NO.3	👍	😊	👍	😊	👍	👍	😊	CHLOROFORM	😊	😊	👍	😊	😊	😊	😊
ASTM REDERENCE FUEL A	👍	😊	👍	😊	😊	👍	😊	CHLOROSULPHONIC ACID	😊	😊	😊	😊	😊	😊	😊
B	👍	😊	👍	😊	😊	👍	😊	CHROME PLATING SOLUTIONS	😊	😊	👍	😊	😊	😊	😊
C	😊	😊	👍	😊	😊	😊	😊	CHROMIC ACID, 50%	😊	😊	👍	😊	😊	😊	😊
D	😊	😊	👍	😊	😊	🤔	😊	CITRIC ACID	👍	👍	👍	👍	🤔	👍	👍
AUTO. TRANSMISSION FLUID	👍	😊	👍	😊	👍	🤔	😊	COD LIVER OIL	👍	👍	👍	😊	👍	👍	😊
BEER	👍	👍	👍	👍	😊	👍	👍	COFFEE	👍	👍	👍	👍	😊	👍	👍
BENZALDEHYDE	😊	👍	😊	😊	😊	😊	😊	CORN OIL	👍	😊	👍	😊	👍	👍	👍
BENZENE	😊	😊	👍	😊	😊	😊	😊	CREOSOTE, COAL TAR	👍	😊	👍	😊	👍	👍	😊
BENZINE	👍	😊	👍	😊	👍	😊	😊	CREOSOTE OIL	👍	😊	👍	😊	🤔	👍	😊
BENZOIC ACID	😊	😊	👍	😊	😊	😊	😊	CREOSYLIC ACID	😊	😊	👍	😊	😊	😊	😊
BENZOPHENONE	🤔	😊	👍	🤔	😊	👍	🤔	CRUDE OIL	😊	😊	👍	😊	👍	😊	😊
BENZYL ALCOHOL	😊	😊	👍	😊	😊	😊	🤔	CYCLOHEXANE	👍	😊	👍	😊	😊	👍	😊
BLEACH LIQUOR	😊	👍	👍	😊	😊	😊	😊	CYCLOHEXNOL	👍	😊	👍	😊	🤔	👍	😊
BORAX	😊	👍	👍	😊	😊	😊	😊	DECALIN	😊	😊	👍	😊	🤔	👍	😊
BORIC ACID	👍	👍	👍	👍	😊	👍	👍	DENATURED ALCOHOL	👍	👍	👍	👍	😊	👍	👍
BRAKE FLUID (NON-PETROLEUM)	😊	👍	😊	😊	🤔	😊	😊	DIACETONE	😊	👍	😊	😊	😊	😊	😊
BROMINE	😊	😊	👍	😊	😊	😊	😊	DIBUTYLAMINE	😊	😊	😊	😊	😊	😊	😊
BROMOBENZENE	😊	😊	👍	😊	😊	😊	😊	DIBUTYL PHTHALATE	😊	😊	😊	😊	😊	😊	🤔
BUNKER OIL	👍	😊	👍	😊	👍	👍	😊	DICHLORO ANILINE	😊	😊	😊	😊	😊	🤔	😊
BUTANE	👍	😊	👍	👍	👍	👍	😊	DICHLORO BUTANE	😊	😊	👍	😊	😊	😊	😊
BUTTER-ANIMAL FAT	👍	👍	👍	😊	👍	👍	😊	DIESEL OIL	👍	😊	👍	😊	👍	👍	😊
N-BUTYL ACETATE	😊	😊	😊	😊	😊	😊	😊	DIETHYLAMINE	😊	😊	😊	😊	😊	😊	😊
	😊	😊	😊	😊	😊	😊	😊	DIETHYL BENZENE	😊	😊	👍	😊	🤔	🤔	🤔

General Properties of Elastomers

Fluid Compatibility Table

General Properties of Elastomers

COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 👎 INSUFFICIENT DATA	NITRILE(NBR)	EPDM	FLUOROCARBON(VITON)	NEOPRENE	POLYACRYLATE	FLUOROSILICONE	SILICONE	COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 👎 INSUFFICIENT DATA	NITRILE(NBR)	EPDM	FLUOROCARBON(VITON)	NEOPRENE	POLYACRYLATE	FLUOROSILICONE	SILICONE
DIETHYLENE GLYCOL	👍	👍	👍	👍	😐	👍	😊	HYDRAZINE	😊	👍	👍	😊	👎	👎	😊
DIMETHYL ETHER	😐	😐	😐	😊	😊	😊	😐	HYDROCHLORIC ACID, 3 Molar	😊	👍	👍	😊	😊	😊	😐
DIMETHYL FORMAMIDE	😐	👍	😐	👎	👎	👍	👍	CONCENTRATED	😐	😊	👍	😊	😊	😊	😐
DIMETHYL PHTHALATE	😐	👍	👍	😐	😐	👍	👎	HYDROCYANIC ACID	😊	👍	👍	😊	😊	😊	😊
DIMETHYL TEREPHTHALATE	😐	😊	👍	😐	😐	👍	😊	HYDROGEN PEROXIDE	😊	👍	👍	👍	😊	👍	👍
DIETHYL PHTHALATE	😐	😊	😊	😐	😐	😊	😊	90%	😊	😊	👍	😊	😊	😊	😊
DIOXANE	😐	😊	😊	😐	😐	😊	😊	HTDROGEN SULFIDE DRY,COLD	👍	👍	😊	👍	😊	😊	😊
DIPHENYL	😐	😊	👍	😐	😐	😊	😊	DRY,HOT	😐	👍	😊	😊	😊	😊	😊
DOW CORNING-550	👍	👍	👍	👍	👍	👍	😊	WET,COLD	😐	👍	😊	😊	😊	😊	😊
DOW GUARD	👍	👍	👍	👍	😊	👍	😊	WET,HOT	😐	👍	😊	😊	😊	😊	😊
DOWTHERM,A	😐	😐	👍	😐	😐	😊	😊	HYDROQUINONE	😊	😊	😊	😊	😊	😊	👎
E	😐	😐	👍	😐	😐	😊	😊	HYPOLID GEAR LUBE	👍	😊	👍	😊	👍	👎	😊
ELCO 28-EP LUBRICANT	👍	😊	👍	😊	👍	👍	😊	IODINE	😊	😊	👍	😊	👎	👎	😊
EPOXY RESINS	👎	👍	😊	👍	👎	👎	👎	ISOCYANATE	👎	👎	👍	👎	👎	👎	😊
ETHANE	👍	😐	👍	😊	👍	😊	😊	ISO OCTANE	👍	😊	👍	😊	👍	😊	😊
ETHANOL	👍	👍	😊	👍	😊	👍	👍	ISOPHORONE(KETONE)	😊	👍	😊	😊	😊	😊	😊
ETHANOL AMINE	😊	😊	😊	😊	😊	😊	😊	ISOPAR	👍	😊	👍	👍	👍	😊	😊
ETHYL ACETATE-ORGANIC ESTER	😐	😊	😊	😊	😊	😊	😊	ISOPROPANOL	😊	👍	👍	😊	😊	😊	👍
ETHYL BENZENE	😐	👍	👍	😐	😊	😊	😊	ISOPROPYL ACETATE	😊	😊	😊	😊	😊	😊	😊
ETHYL CELLULOSE	😊	😊	😊	😊	😊	😊	😊	JP-4(MIL-J-5624)	👍	😊	👍	😊	😊	😊	😊
ETHYL CHLORIDE	👍	👍	👍	👍	😊	😊	😊	JP-5(MIL-J-5624)	👍	😊	👍	😊	😊	😊	😊
ETHYL ETHER	😊	😊	😊	😊	😊	😊	😊	KEROSINE	👍	😊	👍	😊	👍	👍	😊
ETHYL FORMATE	😐	😊	👍	😊	👎	👍	👎	LACTIC ACID,COLD	👍	👍	👍	👍	😊	👍	👎
ETHYL HHEXANOL	👍	👍	👍	👍	😊	😊	😊	HOT	😐	😊	😊	😊	😊	😊	👎
ETHYL MERCAPTAN	😊	😊	😊	😊	👎	😊	😊	LACQUERS	😊	😊	😊	😊	😊	😊	😊
ETHYLENE CHLORIDE	😐	😐	👍	😊	😊	😊	😊	LARD,ANIMAL FAT	👍	😊	👍	😊	👍	👍	😊
ETHYLENE OXIDE	😐	👍	😊	😊	😊	😊	😊	LINOLEIC ACID	😊	😊	😊	😊	👎	👎	😊
FORMALDEHYDE	😊	😊	😊	😊	😊	😊	😊	LINSEED OIL	👍	😊	👍	😊	👍	👍	😊
FORMIC ACID	😊	👍	😊	👍	👎	👎	😊	LYE SOLUTIONS	😊	😊	😊	😊	😊	😊	😊
FREON 12	👍	😊	👍	👍	👎	😊	😊	MALATHION	😊	😊	👍	👎	👎	😊	😊
FUEL OIL	👍	😊	👍	😊	👍	😊	😊	MALEIC ACID	😊	😊	👍	😊	👎	👎	😊
FURAN(FURFURAN)	😐	👎	👎	😊	😊	😊	😊	MERCURY	👍	👍	👍	👎	👎	👎	😊
FURFURAL	😐	😊	😊	😊	😊	😊	😊	METER-CRESOL	😊	😊	👍	😊	😊	😊	😊
FURFURYL ALCOHOL	😐	😊	👎	😊	😊	😊	😊	METHANE	👍	😊	😊	😊	😊	😊	😊
FYRQUEL A60	😐	😊	😊	😊	😊	😊	😊	METHANOL	👍	👍	😊	😊	😊	😊	😊
GALLIC ACID	😊	😊	👍	😊	😊	😊	😊	METHYL ACETATE	😐	😊	😊	😊	😊	😊	😊
GASOLINE	👍	😊	👍	😊	😊	😊	😊	METHYLACRYLIC ACID	😐	😊	😊	😊	😊	😊	😊
GELATIN	👍	👍	👍	👍	😊	👍	👍	METHYL CELLOSOLVE	😊	😊	😊	😊	😊	😊	😊
GLUCOSE	👍	👍	👍	👍	👎	👍	👍	METHYL CHLORIDE	😊	😊	👍	😊	😊	😊	😊
GLYCERINE-GL YCEROL	👍	👍	👍	👍	😊	👍	👍	METHYL ETHYL KETONE(MEK)	😊	👍	😊	😊	😊	😊	😊
N-HEPTANE	👍	😊	👍	😊	👍	😊	😊	MRTHYL MERCAPTAN	👎	👍	👎	👎	👎	👎	😊
N-HEXALDEHYDE	😐	👍	😊	👍	👎	😊	😊	MILK	👍	👍	👍	😊	👍	👍	😊
N-HEXANE	👍	😊	👍	😊	👍	😊	😊	MINERAL OILS	👍	😊	👍	😊	👍	👍	😊
HEXANOL	👍	😊	👍	👍	😊	👍	👍	MINERAL SPIRITS	👍	😊	👍	😊	👍	👍	😊
HOME HEATING OIL	👍	😊	👍	😊	👎	👍	👍	MONOVINYLACETYLENE	👍	👍	👍	😊	👎	👎	😊

General Properties of Elastomers

Fluid Compatibility Table

General Properties of Elastomers

COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 🙅 INSUFFICIENT DATA	General Properties of Elastomers						COMPATIBILITY RATING 👍 SATISFACTORY 😊 FAIR (USUALLY OK FOR STATIC SEAL) 😐 DOUBTFUL (SOMETIMES OK FOR STATIC SEAL) 😞 UNSATISFACTORY 🙅 INSUFFICIENT DATA
	NITRILE(NBR)	EPDM	FLUOROCARBON(VITON)	NEOPRENE	POLYACRYLATE	FLUOROSILICONE	
MUSTARD	🙅	👍	👍	🙅	🙅	🙅	👍
NAPHTHA	😊	😊	👍	😊	😊	😊	😊
NAPHTHALENE	😊	😊	👍	😊	🙅	👍	😊
NAPHTHENIC ACID	😊	😊	👍	😊	🙅	👍	😊
NAYURAL GAS	👍	😊	👍	👍	😊	😊	👍
NEATSFOOT OIL	👍	😊	👍	😊	👍	👍	😊
NITRIC ACID							
3 MOLAR	😊	😊	👍	😊	😊	😊	😊
CONCENTRATED	😊	😊	👍	😊	😊	😊	😊
RED FUMING(RFNA)	😊	😊	😊	😊	😊	😊	😊
INHIBITED RED FUMING(IRENA)	😊	😊	😊	😊	😊	😊	😊
NITROBENZENE	😊	😊	😊	😊	😊	😊	😊
NITROPROPANE	😊	😊	😊	😊	😊	😊	😊
N-OCTANE	😊	😊	👍	😊	😊	😊	😊
OCTANOL	👍	👍	👍	👍	😊	🙅	👍
OLEIC ACID	😊	😊	😊	😊	😊	🙅	😊
OLEUM(FUMING SULFURIC ACID)	😊	😊	👍	😊	😊	🙅	😊
ORONITE 8200	😊	😊	👍	👍	🙅	👍	😊
OXALIC ACID	😊	👍	👍	😊	🙅	👍	😊
PEANUT OIL	👍	😊	👍	😊	👍	👍	👍
PENTANE, 2 METHYL	👍	😊	👍	😊	👍	😊	😊
2-4,DIMETHYL	👍	😊	👍	😊	👍	😊	😊
3-METHYL	👍	😊	👍	😊	👍	😊	😊
PERCHLOROETHYLENE	😊	😊	👍	😊	😊	😊	😊
PETROLEUM ETHER	😊	😊	👍	😊	😊	🙅	😊
PHENOL	😊	😊	👍	😊	😊	😊	😊
PHENYLHYDRAZINE	😊	😊	👍	😊	😊	🙅	🙅
PHOSPHORIC ACID							
3 MOLAR	😊	👍	👍	😊	🙅	😊	😊
CONCENTRATED	😊	😊	👍	😊	🙅	😊	😊
PINE OIL	👍	😊	👍	😊	🙅	👍	😊
POTASSIUM HYDROXIDE,50%	😊	👍	😊	😊	😊	😊	😊
PROPANE	👍	😊	👍	😊	👍	😊	😊
PROPANOL	👍	👍	👍	👍	😊	🙅	👍
PROPYL ACETATE	😊	😊	😊	😊	😊	😊	😊
PYDRAUL 10E,29ELT	😊	👍	👍	😊	😊	😊	😊
30E,50E,65E,90E	😊	👍	👍	😊	😊	👍	👍
115E	😊	👍	👍	😊	😊	😊	😊
230E,312C,540C	😊	😊	👍	😊	😊	😊	😊
PYRANOL	👍	😊	👍	👍	🙅	🙅	😊
PYRIDINE	😊	😊	😊	😊	😊	🙅	😊
RAPESEED OIL	😊	👍	👍	😊	😊	👍	👍
SAE10W30	👍	😊	👍	😊	🙅	🙅	👍
SEA(SALT) WATER	👍	👍	🙅	😊	😊	👍	👍
SILICONE GREASES	👍	👍	👍	👍	👍	👍	😊
SILVER NITRATE	😊	👍	👍	👍	👍	👍	👍
SKELLY,SOLVENT B,C,E	👍	😊	👍	😊	🙅	👍	😊
SKYDROL	😊	👍	👍	😊	😊	🙅	😊
SKYDROL 500	😊	👍	😊	😊	😊	😊	😊
SODIUM HYDROXIDE,3 MOLAR	😊	👍	😊	😊	😊	😊	👍
SOVASOL NO.1,2 AND 3	👍	😊	👍	😊	😊	👍	😊
NO.73 AND 74	😊	😊	👍	😊	😊	👍	😊
SOYBEAN OIL	👍	😊	👍	😊	👍	👍	👍
STEARIC ACID	👍	😊	🙅	😊	🙅	🙅	😊
STODDARD SOLVENT	👍	😊	👍	😊	👍	👍	😊
SUCROSE SOLUTIONS	👍	👍	👍	😊	😊	👍	👍
SULFURIC ACID							
3 MOLAR	😊	😊	👍	😊	😊	😊	😊
CONCENTRATED	😊	😊	👍	😊	😊	😊	😊
TALL OIL	👍	😊	👍	😊	👍	🙅	🙅
TANNIC ACID	👍	👍	👍	😊	😊	🙅	😊
10%	👍	👍	👍	👍	😊	👍	😊
TAR,BITUMINOUS	😊	😊	👍	😊	😊	👍	😊
TARTARIC ACID	👍	😊	👍	😊	🙅	👍	👍
TETRACHOROETHANE	😊	😊	👍	😊	😊	🙅	😊
TETRALIN	😊	😊	👍	😊	🙅	👍	😊
TIDEWATER OIL-BEEDOL	👍	😊	👍	😊	👍	👍	😊
MULTIGEAR 140,EP LUBE	👍	😊	👍	😊	👍	👍	😊
TOLUENE	😊	😊	👍	😊	😊	😊	😊
TRICHLOROETHYLENE	😊	😊	👍	😊	😊	😊	😊
TRIETHANOL AMINE	😊	😊	😊	😊	😊	😊	🙅
TURBINE OIL	👍	😊	👍	😊	👍	👍	😊
TURPENTINE	👍	😊	👍	😊	😊	😊	😊
UCDN 50HB 280X	👍	👍	👍	🙅	🙅	👍	👍
UNIVIS J-43	👍	😊	👍	🙅	🙅	😊	😊
VARNISH	😊	😊	👍	😊	😊	😊	😊
VINEGAR	😊	👍	👍	😊	😊	😊	👍
WATER	👍	👍	😊	😊	😊	👍	👍
WHEAT GERM OIL	👍	😊	👍	😊	🙅	🙅	👍
WHISKEY AND WINES	👍	👍	👍	🙅	🙅	👍	👍
WOOD OIL	👍	😊	👍	😊	😊	😊	😊

General Properties of Elastomers

General Properties of Elastomers

Design Data: Extrusion Limit of O-ring & Clearance Gap

The O-ring is contained in the gland and forced to flow into the surface imperfections of the glands and any clearance gap available to it. So, O-ring can perform sealing by means of squeeze under low-pressure conditions. However, as the pressure mounts, it becomes distorted. The distortion increases the strain, and the increased strain results in more tight sealing. Under high pressure, O-ring would extrude out of the clearance gap. The extrusion will cause seal failure in a standard gland configuration.

An antiextrusion back-up ring, made of a tough, cut-resistant material such as leather, Teflon or hard rubber, is suggested. In static applications it may be possible to modify the gland design to withstand the higher pressure without the addition of a back-up ring. Anyway, care must be taken to make the extrusion as small as possible. The extent of this extrusion depends upon the hardness of O-ring, pressure and clearance gap. Please refer to FIG 1, FIG 2 and TABLE 1.

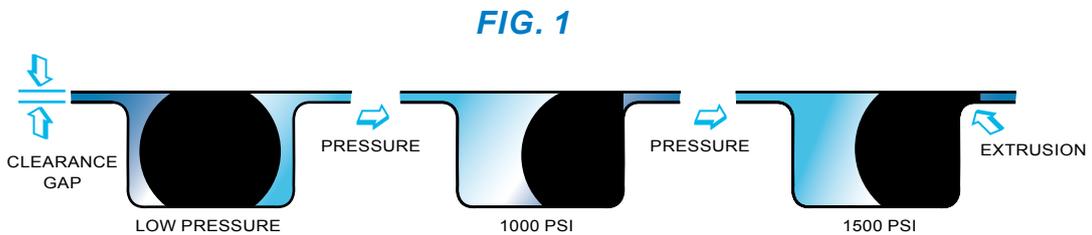
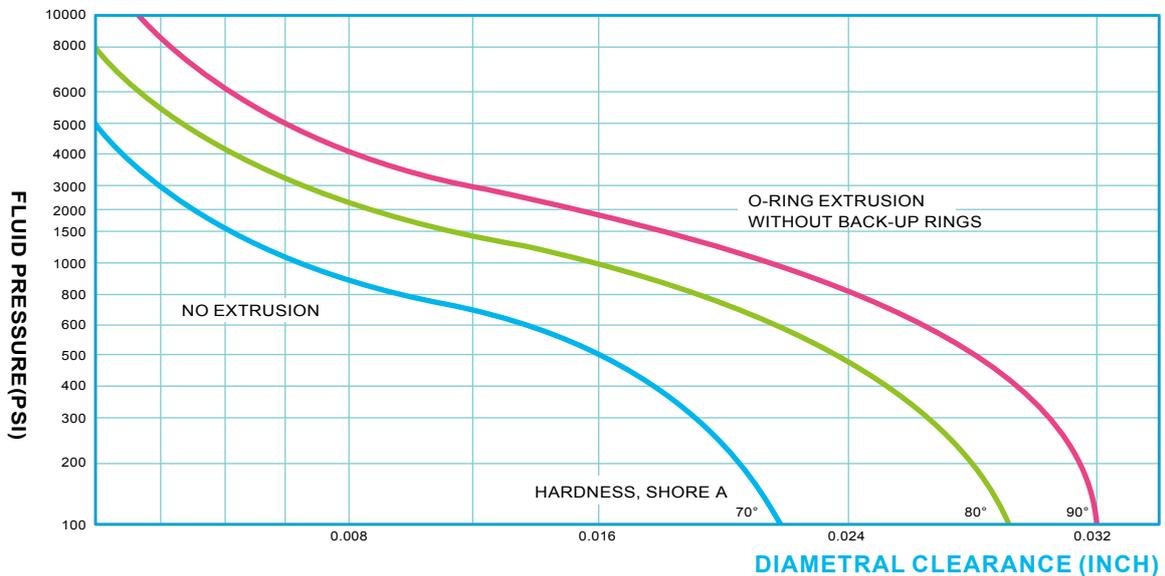


FIG. 2: EXTRUSION LIMIT OF O-RING



General Properties of Elastomers

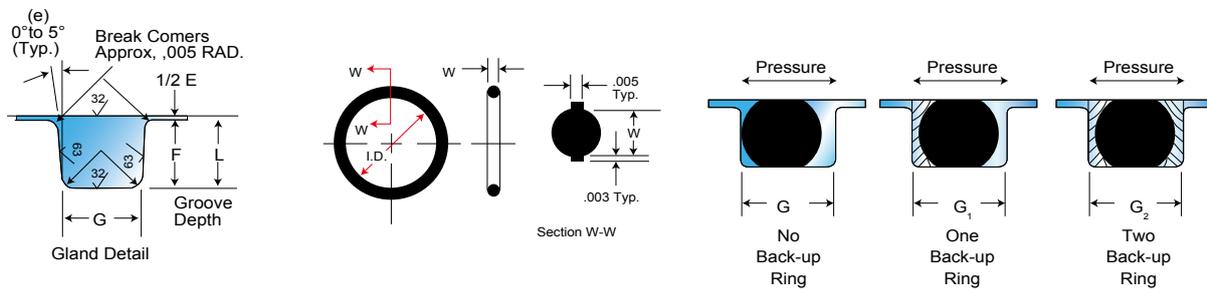
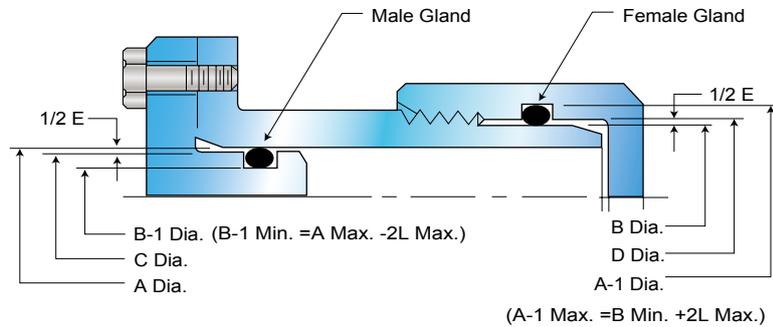
Table 1: Limit of the Diametral Clearance (Unit: Inch) Against Fluid Pressure

PRESSURE (PSI) HARDNESS SHORE A	UP TO 500	500-1000	1000-1500	1500-2000	2000-3000
	70	0.016	0.010	0.006	0.004
90	0.028	0.024	0.020	0.016	0.010

EXTRUSION HAPPENS BEYOND THE LIMIT OF DIAMETRAL CLEARANCE AGAINST FLUID PRESSURE.

O-Ring Design Reference

Static O-ring Sealing- Industrial Static Seal Glands



O-Ring Design Reference

Design- For Industrial O-Ring Static Seal Glands

O-Ring Size AS568A-	W Cross-Section		L Gland Depth	Squeeze		E(a) Diametral Clearance	G-Groove Width			R Groove Radius	Max Eccen- tricity(b)
	Nominal	Actual		Actual	%		No Back-up Ring(G)	One Back-up Ring(G1)	Two Back-up Ring(G2)		
004 through 050	1/16	.070 ±.003	.050 to .052	.015 to .023	22 to 32	.002 to .005	.093 to .098	.138 to .143	.205 to .210	.005 to .015	.002
102 through 178	3/32	.103 ±.003	.081 to .083	.017 to .025	17 to 24	.002 to .005	.140 to .145	.171 to .176	.238 to .243	.005 to .015	.002
201 through 284	1/8	.139 ±.004	.111 to .113	.022 to .032	16 to 23	.003 to .006	.187 to .192	.208 to .213	.275 to .280	.010 to .025	.003
309 through 395	3/16	.210 ±.005	.170 to .173	.032 to .045	15 to 21	.003 to .006	.281 to .286	.311 to .316	.410 to .415	.020 to .035	.004
425 through 475	1/4	.275 ±.006	.226 to .229	.040 to .055	15 to 20	.004 to .007	.375 to .380	.408 to .413	.538 to .543	.020 to .035	.005

- (a) Clearance (extrusion gap) must be held to a minimum consistent with design requirements for temperature range variation.
- (b) Total indicator reading between groove and adjacent bearing surface.
- (c) Reduce maximum diametral clearance 50% when using silicone or fluorosilicone O-rings.
- (d) For ease of assembly, when Back-up Ring are used, gland depth may be increased up to 5%.

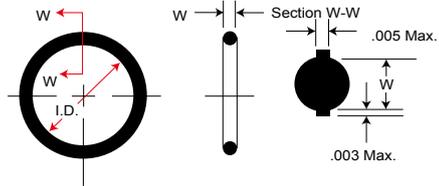
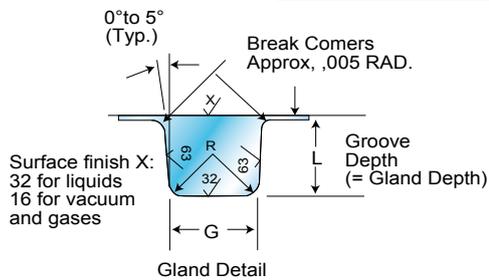
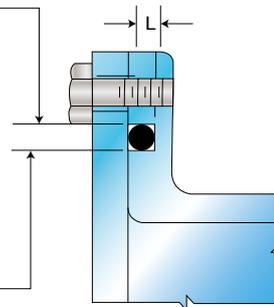
Static O-ring Sealing- Face Seal Glands

For Internal Pressure
(outward pressure direction)
dimension the groove by its
outside diameter (H_o) and width:

(H_o)=Mean O.D. of O-ring
Tolerance=Minus 1% of Mean
O.D., but not more then
-.060

For External Pressure
(inward pressure direction)
dimension the groove by its
inside diameter (H_i) and width:

(H_i)=Mean O.D. of O-ring
Tolerance=Plus 1% of Mean
O.D., but not more then
.060



O-Ring Design Reference

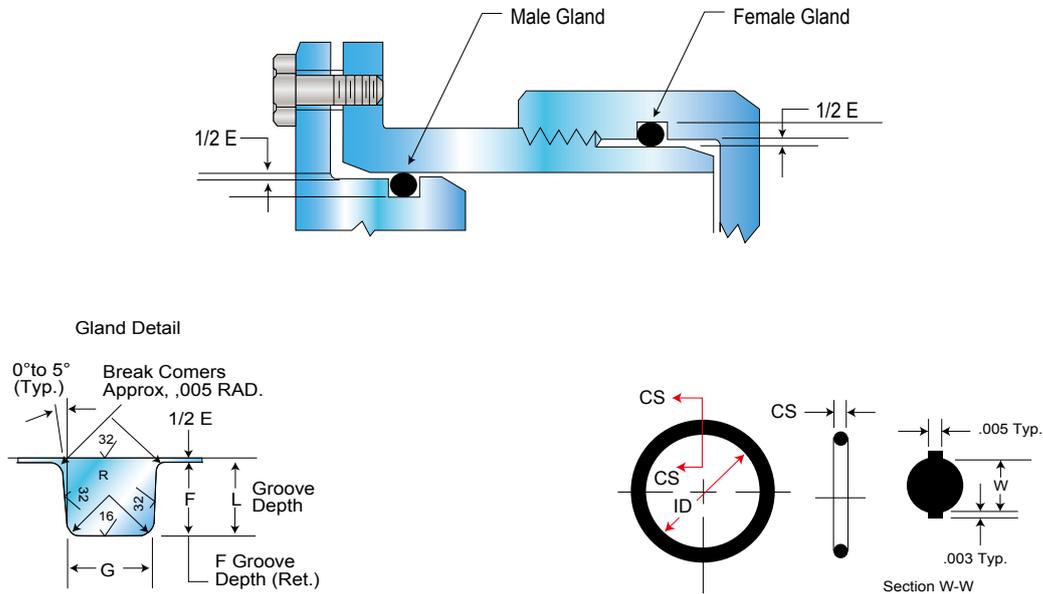
Design- For Industrial O-Ring Static Seal Glands

These dimensions are intended primarily for face type O-ring seals and low temperature applications

O-Ring Size AS568A-	W Cross-Section		L Gland Depth	Squeeze		G-Groove Width		R Groove Radius
	Nominal	Actual		Actual	%	Liquids	Vacuum and Gases	
004 through 050	1/16	.070 ±.003	.050	.013	19	.101	.084	.005
			to .054	to .023	to 32	to .107	to .089	to .015
102 through 178	3/32	.103 ±.003	.074	.020	20	.136	.120	.005
			to .080	to .032	to 30	to .142	to .125	to .015
201 through 284	1/8	.139 ±.004	.101	.028	20	.177	.158	.010
			to .107	to .042	to 30	to .187	to .164	to .025
309 through 395	3/16	.210 ±.005	.152	.043	21	.270	.239	.020
			to .162	to .063	to 30	to .290	to .244	to .035
425 through 475	1/4	.275 ±.006	.201	.058	21	.342	.309	.020
			to .211	to .080	to 29	to .362	to .314	to .035
special	3/8	.275 ±.006	.276	.082	22	.475	.419	.030
			to .286	to .108	to 28	to .485	to .424	to .045
special	1/2	.500 ±.008	.370	.112	22	.638	.560	.030
			to .380	to .138	to 27	to 645	to 565	to .040

O-Ring Design Reference

Static O-ring Sealing- Industrial Static Seal Glands



O-Ring Design Reference

Design- For Static Vacuum Seal Glands

O-Ring Size AS568A-	W Cross-Section		L Gland Depth	E Squeeze		Diametral Clearance	G Groove Width	R Groove Radius	Max* Eccen- tricity(b)
	Nominal	Actual		Actual	%				
004 through 050	1/16	.070 ±.003	.050 to .052	.015 to .023	22 to 32	.002 to .005	.093 to .098	.005 to .015	.002
102 through 178	3/32	.103 ±.003	.081 to .083	.017 to .025	17 to 24	.002 to .005	.140 to .145	.005 to .015	.002
201 through 284	1/8	.139 ±.004	.111 to .113	.022 to .032	16 to 23	.003 to .006	.187 to .192	.010 to .025	.003
309 through 395	3/16	.210 ±.005	.170 to .173	.032 to .045	15 to 21	.003 to .006	.281 to .286	.020 to .035	.004
425 through 475	1/4	.275 ±.006	.226 to .229	.040 to .055	15 to 20	.004 to .007	.375 to .380	.020 to .035	.005

*Total indicator reading between groove and adjacent bearing surface.

O-Ring Standard Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0001	1/32	3/32	1/32	0.029	0.004	0.040	0.003	0.74	0.10	1.02	0.08
A0002	3/64	9/64	3/64	0.042	0.004	0.050	0.003	1.07	0.10	1.27	0.08
A0003	1/16	3/16	1/16	0.056	0.004	0.060	0.003	1.42	0.10	1.52	0.08
A0004	5/64	13/64	1/16	0.070	0.005	0.070	0.003	1.78	0.13	1.78	0.08
A0005	3/32	7/32	1/16	0.101	0.005	0.070	0.003	2.57	0.13	1.78	0.08
A0006	1/8	1/4	1/16	0.114	0.005	0.070	0.003	2.90	0.13	1.78	0.08
A0007	5/32	9/32	1/16	0.145	0.005	0.070	0.003	3.68	0.13	1.78	0.08
A0008	3/16	5/16	1/16	0.176	0.005	0.070	0.003	4.47	0.13	1.78	0.08
A0009	7/32	11/32	1/16	0.208	0.005	0.070	0.003	5.28	0.13	1.78	0.08
A0010	1/4	3/8	1/16	0.239	0.005	0.070	0.003	6.07	0.13	1.78	0.08
A0011	5/16	7/16	1/16	0.301	0.005	0.070	0.003	7.65	0.13	1.78	0.08
A0012	3/8	1/2	1/16	0.364	0.005	0.070	0.003	9.25	0.13	1.78	0.08
A0013	7/16	9/16	1/16	0.426	0.005	0.070	0.003	10.82	0.13	1.78	0.08
A0014	1/2	5/8	1/16	0.489	0.005	0.070	0.003	12.42	0.13	1.78	0.08
A0015	9/16	11/16	1/16	0.551	0.007	0.070	0.003	14.00	0.18	1.78	0.08
A0016	5/8	3/4	1/16	0.614	0.009	0.070	0.003	15.60	0.23	1.78	0.08
A0017	11/16	13/16	1/16	0.676	0.009	0.070	0.003	17.17	0.23	1.78	0.08
A0018	3/4	7/8	1/16	0.739	0.009	0.070	0.003	18.77	0.23	1.78	0.08
A0019	13/16	15/16	1/16	0.801	0.009	0.070	0.003	20.35	0.23	1.78	0.08
A0020	7/8	1	1/16	0.864	0.009	0.070	0.003	21.95	0.23	1.78	0.08
A0021	15/16	1 1/16	1/16	0.926	0.009	0.070	0.003	23.52	0.23	1.78	0.08
A0022	1	1/8	1/16	0.989	0.010	0.070	0.003	25.12	0.25	1.78	0.08
A0023	1 1/16	1 3/16	1/16	1.051	0.010	0.070	0.003	26.70	0.25	1.78	0.08
A0024	1 1/8	1 1/4	1/16	1.114	0.010	0.070	0.003	28.30	0.25	1.78	0.08
A0025	1 3/16	1 5/16	1/16	1.176	0.011	0.070	0.003	29.87	0.28	1.78	0.08
A0026	1 1/4	1 3/8	1/16	1.239	0.011	0.070	0.003	31.47	0.28	1.78	0.08
A0027	1 5/16	1 7/16	1/16	1.301	0.011	0.070	0.003	33.05	0.28	1.78	0.08
A0028	1 3/8	1 1/2	1/16	1.364	0.013	0.070	0.003	34.65	0.33	1.78	0.08
A0029	1 1/2	1 5/8	1/16	1.489	0.013	0.070	0.003	37.82	0.33	1.78	0.08
A0030	1 5/8	1 3/4	1/16	1.614	0.013	0.070	0.003	41.00	0.33	1.78	0.08
A0031	1 3/4	1 7/8	1/16	1.739	0.015	0.070	0.003	44.17	0.38	1.78	0.08
A0032	1 7/8	2	1/16	1.864	0.015	0.070	0.003	47.35	0.38	1.78	0.08
A0033	2	2 1/8	1/16	1.989	0.018	0.070	0.003	50.52	0.46	1.78	0.08
A0034	2 1/8	2 1/4	1/16	2.114	0.018	0.070	0.003	53.70	0.46	1.78	0.08
A0035	2 1/4	2 3/8	1/16	2.239	0.018	0.070	0.003	56.87	0.46	1.78	0.08
A0036	2 3/8	2 1/2	1/16	2.364	0.018	0.070	0.003	60.05	0.46	1.78	0.08
A0037	2 1/2	2 5/8	1/16	2.489	0.018	0.070	0.003	63.22	0.46	1.78	0.08
A0038	2 5/8	2 3/4	1/16	2.614	0.020	0.070	0.003	66.40	0.51	1.78	0.08
A0039	2 3/4	2 7/8	1/16	2.739	0.020	0.070	0.003	69.57	0.51	1.78	0.08
A0040	2 7/8	3	1/16	2.864	0.020	0.070	0.003	72.75	0.51	1.78	0.08
A0041	3	3 1/8	1/16	2.989	0.024	0.070	0.003	75.92	0.61	1.78	0.08
A0042	3 1/4	3 3/8	1/16	3.239	0.024	0.070	0.003	82.27	0.61	1.78	0.08
A0043	3 1/2	3 5/8	1/16	3.489	0.024	0.070	0.003	88.62	0.61	1.78	0.08
A0044	3 3/4	3 7/8	1/16	3.739	0.027	0.070	0.003	94.97	0.69	1.78	0.08
A0045	4	4 1/8	1/16	3.989	0.027	0.070	0.003	101.32	0.69	1.78	0.08

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0046	4 1/4	4 3/8	1/16	4.239	0.030	0.070	0.003	107.67	0.76	1.78	0.08
A0047	4 1/2	4 3/8	1/16	4.489	0.030	0.070	0.003	114.02	0.76	1.78	0.08
A0048	4 3/4	4 7/8	1/16	4.739	0.030	0.070	0.003	120.37	0.76	1.78	0.08
A0049	5	5 1/8	1/16	4.989	0.037	0.070	0.003	126.72	0.94	1.78	0.08
A0050	5 1/4	5 3/8	1/16	5.239	0.037	0.070	0.003	133.07	0.94	1.78	0.08
A0051	5 1/2	5 5/8	1/16	5.489	0.037	0.070	0.003	139.42	0.94	1.78	0.08
A0052	5 3/4	5 7/8	1/16	5.739	0.037	0.070	0.003	145.77	0.94	1.78	0.08
A0053	6	6 1/8	1/16	5.989	0.037	0.070	0.003	152.12	0.94	1.78	0.08
A0054	6 1/4	6 3/8	1/16	6.239	0.040	0.070	0.003	158.47	1.02	1.78	0.08
A0055	6 1/2	6 5/8	1/16	6.489	0.040	0.070	0.003	164.82	1.02	1.78	0.08
A0102	1/16	1/4	3/32	0.049	0.005	0.103	0.003	1.24	0.13	2.62	0.08
A0103	3/32	9/32	3/32	0.081	0.005	0.103	0.003	2.06	0.13	2.62	0.08
A0104	1/8	5/16	3/32	0.112	0.005	0.103	0.003	2.84	0.13	2.62	0.08
A0105	5/32	11/32	3/32	0.143	0.005	0.103	0.003	3.63	0.13	2.62	0.08
A0106	3/16	3/8	3/32	0.174	0.005	0.103	0.003	4.42	0.13	2.62	0.08
A0107	7/32	13/32	3/32	0.206	0.005	0.103	0.003	5.23	0.13	2.62	0.08
A0108	1/4	7/16	3/32	0.237	0.005	0.103	0.003	6.02	0.13	2.62	0.08
A0109	5/16	1/2	3/32	0.299	0.005	0.103	0.003	7.59	0.13	2.62	0.08
A0110	3/8	9/16	3/32	0.362	0.005	0.103	0.003	9.19	0.13	2.62	0.08
A0111	7/16	5/8	3/32	0.424	0.005	0.103	0.003	10.77	0.13	2.62	0.08
A0112	1/2	11/16	3/32	0.487	0.005	0.103	0.003	12.37	0.13	2.62	0.08
A0113	9/16	3/4	3/32	0.549	0.007	0.103	0.003	13.94	0.18	2.62	0.08
A0114	5/8	13/16	3/32	0.612	0.009	0.103	0.003	15.54	0.23	2.62	0.08
A0115	11/16	7/8	3/32	0.674	0.009	0.103	0.003	17.12	0.23	2.62	0.08
A0116	3/4	15/16	3/32	0.737	0.009	0.103	0.003	18.72	0.23	2.62	0.08
A0117	13/16	1	3/32	0.799	0.010	0.103	0.003	20.29	0.25	2.62	0.08
A0118	7/8	1 1/16	3/32	0.862	0.010	0.103	0.003	21.89	0.25	2.62	0.08
A0119	15/16	1 1/8	3/32	0.924	0.010	0.103	0.003	23.47	0.25	2.62	0.08
A0120	1	1 3/16	3/32	0.987	0.010	0.103	0.003	25.07	0.25	2.62	0.08
A0121	1 1/16	1 1/4	3/32	1.049	0.010	0.103	0.003	26.64	0.25	2.62	0.08
A0122	1 1/8	1 5/16	3/32	1.112	0.010	0.103	0.003	28.24	0.25	2.62	0.08
A0123	1 3/16	1 3/8	3/32	1.174	0.012	0.103	0.003	29.82	0.30	2.62	0.08
A0124	1 1/4	1 7/16	3/32	1.237	0.012	0.103	0.003	31.42	0.30	2.62	0.08
A0125	1 5/16	1 1/2	3/32	1.299	0.012	0.103	0.003	32.99	0.30	2.62	0.08
A0126	1 3/8	1 9/16	3/32	1.362	0.012	0.103	0.003	34.59	0.30	2.62	0.08
A0127	1 7/16	1 5/8	3/32	1.424	0.012	0.103	0.003	36.17	0.30	2.62	0.08
A0128	1 1/2	1 11/16	3/32	1.487	0.012	0.103	0.003	37.77	0.30	2.62	0.08
A0129	1 9/16	1 3/4	3/32	1.549	0.015	0.103	0.003	39.34	0.38	2.62	0.08
A0130	1 5/8	1 13/16	3/32	1.612	0.015	0.103	0.003	40.94	0.38	2.62	0.08
A0131	1 11/16	1 7/8	3/32	1.674	0.015	0.103	0.003	42.52	0.38	2.62	0.08
A0132	1 3/4	1 15/16	3/32	1.737	0.015	0.103	0.003	44.12	0.38	2.62	0.08
A0133	1 13/16	2	3/32	1.799	0.015	0.103	0.003	45.69	0.38	2.62	0.08
A0134	1 7/8	2 1/16	3/32	1.862	0.015	0.103	0.003	47.29	0.38	2.62	0.08
A0135	1 15/16	2 1/8	3/32	1.925	0.017	0.103	0.003	48.90	0.43	2.62	0.08
A0136	2	2 3/16	3/32	1.987	0.017	0.103	0.003	50.47	0.43	2.62	0.08

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0137	2 1/16	2 1/4	3/32	2.050	0.017	0.103	0.003	52.07	0.43	2.62	0.08
A0138	2 1/8	2 5/16	3/32	2.112	0.017	0.103	0.003	53.64	0.43	2.62	0.08
A0139	2 3/16	2 3/8	3/32	2.175	0.017	0.103	0.003	55.25	0.43	2.62	0.08
A0140	2 1/4	2 7/16	3/32	2.237	0.017	0.103	0.003	56.82	0.43	2.62	0.08
A0141	2 5/16	2 1/2	3/32	2.300	0.020	0.103	0.003	58.42	0.51	2.62	0.08
A0142	2 3/8	2 9/16	3/32	2.362	0.020	0.103	0.003	59.99	0.51	2.62	0.08
A0143	2 7/16	2 5/8	3/32	2.425	0.020	0.103	0.003	61.60	0.51	2.62	0.08
A0144	2 1/2	2 11/16	3/32	2.487	0.020	0.103	0.003	63.17	0.51	2.62	0.08
A0145	2 9/16	2 3/4	3/32	2.550	0.020	0.103	0.003	64.77	0.51	2.62	0.08
A0146	2 5/8	2 13/16	3/32	2.612	0.020	0.103	0.003	66.34	0.51	2.62	0.08
A0147	2 11/16	2 7/8	3/32	2.675	0.022	0.103	0.003	67.95	0.56	2.62	0.08
A0148	2 3/4	2 15/16	3/32	2.737	0.022	0.103	0.003	69.52	0.56	2.62	0.08
A0149	2 13/16	3	3/32	2.800	0.022	0.103	0.003	71.12	0.56	2.62	0.08
A0150	2 7/8	3 1/16	3/32	2.862	0.022	0.103	0.003	72.69	0.56	2.62	0.08
A0151	3	3 3/16	3/32	2.987	0.024	0.103	0.003	75.87	0.61	2.62	0.08
A0152	3 1/4	3 7/16	3/32	3.237	0.024	0.103	0.003	82.22	0.61	2.62	0.08
A0153	3 1/2	3 11/16	3/32	3.487	0.024	0.103	0.003	88.57	0.61	2.62	0.08
A0154	3 3/4	3 15/16	3/32	3.737	0.028	0.103	0.003	94.92	0.71	2.62	0.08
A0155	4	4 3/16	3/32	3.987	0.028	0.103	0.003	101.27	0.71	2.62	0.08
A0156	4 1/4	4 7/16	3/32	4.237	0.030	0.103	0.003	107.62	0.76	2.62	0.08
A0157	4 1/2	4 11/16	3/32	4.487	0.030	0.103	0.003	113.97	0.76	2.62	0.08
A0158	4 3/4	4 15/16	3/32	4.737	0.030	0.103	0.003	120.32	0.76	2.62	0.08
A0159	5	5 3/16	3/32	4.987	0.035	0.103	0.003	126.67	0.89	2.62	0.08
A0160	5 1/4	5 7/16	3/32	5.237	0.035	0.103	0.003	133.02	0.89	2.62	0.08
A0161	5 1/2	5 11/16	3/32	5.487	0.035	0.103	0.003	139.37	0.89	2.62	0.08
A0162	5 3/4	5 15/16	3/32	5.737	0.035	0.103	0.003	145.72	0.89	2.62	0.08
A0163	6	6 3/16	3/32	5.987	0.035	0.103	0.003	152.07	0.89	2.62	0.08
A0164	6 1/4	6 7/16	3/32	6.237	0.040	0.103	0.003	158.42	1.02	2.62	0.08
A0165	6 1/2	6 11/16	3/32	6.487	0.040	0.103	0.003	164.77	1.02	2.62	0.08
A0166	6 3/4	6 15/16	3/32	6.737	0.040	0.103	0.003	171.12	1.02	2.62	0.08
A0167	7	7 3/16	3/32	6.987	0.040	0.103	0.003	177.47	1.02	2.62	0.08
A0168	7 1/4	7 7/16	3/32	7.237	0.045	0.103	0.003	183.82	1.14	2.62	0.08
A0169	7 1/2	7 11/16	3/32	7.487	0.045	0.103	0.003	190.17	1.14	2.62	0.08
A0170	7 3/4	7 15/16	3/32	7.737	0.045	0.103	0.003	196.52	1.14	2.62	0.08
A0171	8	8 3/16	3/32	7.987	0.045	0.103	0.003	202.87	1.14	2.62	0.08
A0172	8 1/4	8 7/16	3/32	8.237	0.050	0.103	0.003	209.22	1.27	2.62	0.08
A0173	8 1/2	8 11/16	3/32	8.487	0.050	0.103	0.003	215.57	1.27	2.62	0.08
A0174	8 3/4	8 15/16	3/32	8.737	0.050	0.103	0.003	221.92	1.27	2.62	0.08
A0175	9	9 3/16	3/32	8.987	0.050	0.103	0.003	228.27	1.27	2.62	0.08
A0176	9 1/4	9 7/16	3/32	9.237	0.055	0.103	0.003	234.62	1.40	2.62	0.08
A0177	9 1/2	9 11/16	3/32	9.487	0.055	0.103	0.003	240.97	1.40	2.62	0.08
A0178	9 3/4	9 15/16	3/32	9.737	0.055	0.103	0.003	247.32	1.40	2.62	0.08
A0201	3/16	7/16	1/8	0.171	0.005	0.139	0.004	4.34	0.13	3.53	0.10
A0202	1/4	1/2	1/8	0.234	0.005	0.139	0.004	5.94	0.13	3.53	0.10
A0203	5/16	9/16	1/8	0.296	0.005	0.139	0.004	7.52	0.13	3.53	0.10

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0204	3/8	5/8	1/8	0.359	0.005	0.139	0.004	9.12	0.13	3.53	0.10
A0205	7/16	11/16	1/8	0.421	0.005	0.139	0.004	10.69	0.13	3.53	0.10
A0206	1/2	3/4	1/8	0.484	0.005	0.139	0.004	12.29	0.13	3.53	0.10
A0207	9/16	13/16	1/8	0.546	0.007	0.139	0.004	13.87	0.18	3.53	0.10
A0208	5/8	7/8	1/8	0.609	0.009	0.139	0.004	15.47	0.23	3.53	0.10
A0209	11/16	15/16	1/8	0.671	0.009	0.139	0.004	17.04	0.23	3.53	0.10
A0210	3/4	1	1/8	0.734	0.010	0.139	0.004	18.64	0.25	3.53	0.10
A0211	13/16	1 1/16	1/8	0.796	0.010	0.139	0.004	20.22	0.25	3.53	0.10
A0212	7/8	1 1/8	1/8	0.859	0.010	0.139	0.004	21.82	0.25	3.53	0.10
A0213	15/16	1 3/16	1/8	0.921	0.010	0.139	0.004	23.39	0.25	3.53	0.10
A0214	1	1 1/4	1/8	0.984	0.010	0.139	0.004	24.99	0.25	3.53	0.10
A0215	1 1/16	1 5/16	1/8	1.046	0.010	0.139	0.004	26.57	0.25	3.53	0.10
A0216	1 1/8	1 3/8	1/8	1.109	0.012	0.139	0.004	28.17	0.30	3.53	0.10
A0217	1 3/16	1 7/16	1/8	1.171	0.012	0.139	0.004	29.74	0.30	3.53	0.10
A0218	1 1/4	1 1/2	1/8	1.234	0.012	0.139	0.004	31.34	0.30	3.53	0.10
A0219	1 5/16	1 9/16	1/8	1.296	0.012	0.139	0.004	32.92	0.30	3.53	0.10
A0220	1 3/8	1 5/8	1/8	1.359	0.012	0.139	0.004	34.52	0.30	3.53	0.10
A0221	1 7/16	1 11/16	1/8	1.421	0.012	0.139	0.004	36.09	0.30	3.53	0.10
A0222	1 1/2	1 3/4	1/8	1.484	0.015	0.139	0.004	37.69	0.38	3.53	0.10
A0223	1 5/8	1 7/8	1/8	1.609	0.015	0.139	0.004	40.87	0.38	3.53	0.10
A0224	1 3/4	2	1/8	1.734	0.015	0.139	0.004	44.04	0.38	3.53	0.10
A0225	1 7/8	2 1/8	1/8	1.859	0.018	0.139	0.004	47.22	0.46	3.53	0.10
A0226	2	2 1/4	1/8	1.984	0.018	0.139	0.004	50.39	0.46	3.53	0.10
A0227	2 1/16	2 3/8	1/8	2.109	0.018	0.139	0.004	53.57	0.46	3.53	0.10
A0228	2 1/4	2 1/2	1/8	2.234	0.020	0.139	0.004	56.74	0.51	3.53	0.10
A0229	2 3/8	2 5/8	1/8	2.359	0.020	0.139	0.004	59.92	0.51	3.53	0.10
A0230	2 1/2	2 3/4	1/8	2.484	0.020	0.139	0.004	63.09	0.51	3.53	0.10
A0231	2 5/8	2 7/8	1/8	2.609	0.020	0.139	0.004	66.27	0.51	3.53	0.10
A0232	2 3/4	3	1/8	2.734	0.024	0.139	0.004	69.44	0.61	3.53	0.10
A0233	2 7/8	3 1/8	1/8	2.859	0.024	0.139	0.004	72.62	0.61	3.53	0.10
A0234	3	3 1/4	1/8	2.984	0.024	0.139	0.004	75.79	0.61	3.53	0.10
A0235	3 1/8	3 3/8	1/8	3.109	0.024	0.139	0.004	78.97	0.61	3.53	0.10
A0236	3 1/4	3 1/2	1/8	3.234	0.024	0.139	0.004	82.14	0.61	3.53	0.10
A0237	3 3/8	3 5/8	1/8	3.359	0.024	0.139	0.004	85.32	0.61	3.53	0.10
A0238	3 1/2	3 3/4	1/8	3.484	0.024	0.139	0.004	88.49	0.61	3.53	0.10
A0239	3 5/8	3 7/8	1/8	3.609	0.028	0.139	0.004	91.67	0.71	3.53	0.10
A0240	3 3/4	4	1/8	3.734	0.028	0.139	0.004	94.84	0.71	3.53	0.10
A0241	3 7/8	4 1/8	1/8	3.859	0.028	0.139	0.004	98.02	0.71	3.53	0.10
A0242	4	4 1/4	1/8	3.984	0.028	0.139	0.004	101.19	0.71	3.53	0.10
A0243	4 1/8	4 3/8	1/8	4.109	0.028	0.139	0.004	104.37	0.71	3.53	0.10
A0244	4 1/4	4 1/2	1/8	4.234	0.030	0.139	0.004	107.54	0.76	3.53	0.10
A0245	4 3/8	4 5/8	1/8	4.359	0.030	0.139	0.004	110.72	0.76	3.53	0.10
A0246	4 1/2	4 3/4	1/8	4.484	0.030	0.139	0.004	113.89	0.76	3.53	0.10
A0247	4 5/8	4 7/8	1/8	4.609	0.030	0.139	0.004	117.07	0.76	3.53	0.10
A0248	4 3/4	5	1/8	4.734	0.030	0.139	0.004	120.24	0.76	3.53	0.10

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0249	4 7/8	5 1/8	1/8	4.859	0.035	0.139	0.004	123.42	0.89	3.53	0.10
A0250	5	5 1/4	1/8	4.984	0.035	0.139	0.004	126.59	0.89	3.53	0.10
A0251	5 1/8	5 3/8	1/8	5.109	0.035	0.139	0.004	129.77	0.89	3.53	0.10
A0252	5 1/4	5 1/2	1/8	5.234	0.035	0.139	0.004	132.94	0.89	3.53	0.10
A0253	5 3/8	5 5/8	1/8	5.359	0.035	0.139	0.004	136.12	0.89	3.53	0.10
A0254	5 1/2	5 3/4	1/8	5.484	0.035	0.139	0.004	139.29	0.89	3.53	0.10
A0255	5 5/8	5 7/8	1/8	5.609	0.035	0.139	0.004	142.47	0.89	3.53	0.10
A0256	5 3/4	6	1/8	5.734	0.035	0.139	0.004	145.64	0.89	3.53	0.10
A0257	5 7/8	6 1/8	1/8	5.859	0.035	0.139	0.004	148.82	0.89	3.53	0.10
A0258	6	6 1/4	1/8	5.984	0.035	0.139	0.004	151.99	0.89	3.53	0.10
A0259	6 1/4	6 1/2	1/8	6.234	0.040	0.139	0.004	158.34	1.02	3.53	0.10
A0260	6 1/2	6 3/4	1/8	6.484	0.040	0.139	0.004	164.69	1.02	3.53	0.10
A0261	6 3/4	7	1/8	6.734	0.040	0.139	0.004	171.04	1.02	3.53	0.10
A0262	7	7 1/4	1/8	6.984	0.040	0.139	0.004	177.39	1.02	3.53	0.10
A0263	7 1/4	7 1/2	1/8	7.234	0.045	0.139	0.004	183.74	1.14	3.53	0.10
A0264	7 1/2	7 3/4	1/8	7.484	0.045	0.139	0.004	190.09	1.14	3.53	0.10
A0265	7 3/4	8	1/8	7.734	0.045	0.139	0.004	196.44	1.14	3.53	0.10
A0266	8	8 1/4	1/8	7.984	0.045	0.139	0.004	202.79	1.14	3.53	0.10
A0267	8 1/4	8 1/2	1/8	8.234	0.050	0.139	0.004	209.14	1.27	3.53	0.10
A0268	8 1/2	8 3/4	1/8	8.484	0.050	0.139	0.004	215.49	1.27	3.53	0.10
A0269	8 3/4	9	1/8	8.734	0.050	0.139	0.004	221.84	1.27	3.53	0.10
A0270	9	9 1/4	1/8	8.984	0.050	0.139	0.004	228.19	1.27	3.53	0.10
A0271	9 1/4	9 1/2	1/8	9.234	0.055	0.139	0.004	234.54	1.40	3.53	0.10
A0272	9 1/2	9 3/4	1/8	9.484	0.055	0.139	0.004	240.89	1.40	3.53	0.10
A0273	9 3/4	10	1/8	9.734	0.055	0.139	0.004	247.24	1.40	3.53	0.10
A0274	10	10 1/4	1/8	9.984	0.055	0.139	0.004	253.59	1.40	3.53	0.10
A0275	10 1/2	10 3/4	1/8	10.484	0.055	0.139	0.004	266.29	1.40	3.53	0.10
A0276	11	11 1/4	1/8	10.984	0.065	0.139	0.004	278.99	1.65	3.53	0.10
A0277	11 1/2	11 3/4	1/8	11.484	0.065	0.139	0.004	291.69	1.65	3.53	0.10
A0278	12	12 1/4	1/8	11.984	0.065	0.139	0.004	304.39	1.65	3.53	0.10
A0279	13	13 1/4	1/8	12.984	0.065	0.139	0.004	329.79	1.65	3.53	0.10
A0280	14	14 1/4	1/8	13.984	0.065	0.139	0.004	355.19	1.65	3.53	0.10
A0281	15	15 1/4	1/8	14.984	0.065	0.139	0.004	380.59	1.65	3.53	0.10
A0282	16	16 1/4	1/8	15.955	0.075	0.139	0.004	405.26	1.91	3.53	0.10
A0283	17	17 1/4	1/8	16.955	0.080	0.139	0.004	430.66	2.03	3.53	0.10
A0284	18	18 1/4	1/8	17.955	0.085	0.139	0.004	456.06	2.16	3.53	0.10
A0309	7/16	13/16	3/16	0.412	0.005	0.210	0.005	10.46	0.13	5.33	0.13
A0310	1/2	7/8	3/16	0.475	0.005	0.210	0.005	12.07	0.13	5.33	0.13
A0311	9/16	15/16	3/16	0.537	0.007	0.210	0.005	13.64	0.18	5.33	0.13
A0312	5/8	1	3/16	0.600	0.009	0.210	0.005	15.24	0.23	5.33	0.13
A0313	11/16	1 1/16	3/16	0.662	0.009	0.210	0.005	16.81	0.23	5.33	0.13
A0314	3/4	1 1/8	3/16	0.725	0.010	0.210	0.005	18.42	0.25	5.33	0.13
A0315	13/16	1 3/16	3/16	0.787	0.010	0.210	0.005	19.99	0.25	5.33	0.13
A0316	7/8	1 1/4	3/16	0.850	0.010	0.210	0.005	21.59	0.25	5.33	0.13
A0317	15/16	1 5/16	3/16	0.912	0.010	0.210	0.005	23.16	0.25	5.33	0.13

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0318	1	1 3/8	3/16	0.975	0.010	0.210	0.005	24.77	0.25	5.33	0.13
A0319	1 1/16	1 7/16	3/16	1.037	0.010	0.210	0.005	26.34	0.25	5.33	0.13
A0320	1 1/8	1 1/2	3/16	1.100	0.012	0.210	0.005	27.94	0.30	5.33	0.13
A0321	1 3/16	1 9/16	3/16	1.162	0.012	0.210	0.005	29.51	0.30	5.33	0.13
A0322	1 1/4	1 5/8	3/16	1.225	0.012	0.210	0.005	31.12	0.30	5.33	0.13
A0323	1 5/16	1 11/16	3/16	1.287	0.012	0.210	0.005	32.69	0.30	5.33	0.13
A0324	1 3/8	1 3/4	3/16	1.350	0.012	0.210	0.005	34.29	0.30	5.33	0.13
A0325	1 1/2	1 7/8	3/16	1.475	0.015	0.210	0.005	37.47	0.38	5.33	0.13
A0326	1 5/8	2	3/16	1.600	0.015	0.210	0.005	40.64	0.38	5.33	0.13
A0327	1 3/4	2 1/8	3/16	1.725	0.015	0.210	0.005	43.82	0.38	5.33	0.13
A0328	1 7/8	2 1/4	3/16	1.850	0.015	0.210	0.005	46.99	0.38	5.33	0.13
A0329	2	2 3/8	3/16	1.975	0.018	0.210	0.005	50.17	0.46	5.33	0.13
A0330	2 1/8	2 1/2	3/16	2.100	0.018	0.210	0.005	53.34	0.46	5.33	0.13
A0331	2 1/4	2 5/8	3/16	2.225	0.018	0.210	0.005	56.52	0.46	5.33	0.13
A0332	2 3/8	2 3/4	3/16	2.350	0.018	0.210	0.005	59.69	0.46	5.33	0.13
A0333	2 1/2	2 7/8	3/16	2.475	0.020	0.210	0.005	62.87	0.51	5.33	0.13
A0334	2 5/8	3	3/16	2.600	0.020	0.210	0.005	66.04	0.51	5.33	0.13
A0335	2 3/4	3 1/8	3/16	2.725	0.020	0.210	0.005	69.22	0.51	5.33	0.13
A0336	2 7/8	3 1/4	3/16	2.850	0.020	0.210	0.005	72.39	0.51	5.33	0.13
A0337	3	3 3/8	3/16	2.975	0.024	0.210	0.005	75.57	0.61	5.33	0.13
A0338	3 1/8	3 1/2	3/16	3.100	0.024	0.210	0.005	78.74	0.61	5.33	0.13
A0339	3 1/4	3 5/8	3/16	3.225	0.024	0.210	0.005	81.92	0.61	5.33	0.13
A0340	3 3/8	3 3/4	3/16	3.350	0.024	0.210	0.005	85.09	0.61	5.33	0.13
A0341	3 1/2	3 7/8	3/16	3.475	0.024	0.210	0.005	88.27	0.61	5.33	0.13
A0342	3 5/8	4	3/16	3.600	0.028	0.210	0.005	91.44	0.71	5.33	0.13
A0343	3 3/4	4 1/8	3/16	3.725	0.028	0.210	0.005	94.62	0.71	5.33	0.13
A0344	3 7/8	4 1/4	3/16	3.850	0.028	0.210	0.005	97.79	0.71	5.33	0.13
A0345	4	4 3/8	3/16	3.975	0.028	0.210	0.005	100.97	0.71	5.33	0.13
A0346	4 1/8	4 1/2	3/16	4.100	0.028	0.210	0.005	104.14	0.71	5.33	0.13
A0347	4 1/4	4 5/8	3/16	4.225	0.030	0.210	0.005	107.32	0.76	5.33	0.13
A0348	4 3/8	4 3/4	3/16	4.350	0.030	0.210	0.005	110.49	0.76	5.33	0.13
A0349	4 1/2	4 7/8	3/16	4.475	0.030	0.210	0.005	113.67	0.76	5.33	0.13
A0350	4 5/8	5	3/16	4.600	0.030	0.210	0.005	116.84	0.76	5.33	0.13
A0351	4 3/4	5 1/8	3/16	4.725	0.030	0.210	0.005	120.02	0.76	5.33	0.13
A0352	4 7/8	5 1/4	3/16	4.850	0.030	0.210	0.005	123.19	0.76	5.33	0.13
A0353	5	5 3/8	3/16	4.975	0.037	0.210	0.005	126.37	0.94	5.33	0.13
A0354	5 1/8	5 1/2	3/16	5.100	0.037	0.210	0.005	129.54	0.94	5.33	0.13
A0355	5 1/4	5 5/8	3/16	5.225	0.037	0.210	0.005	132.72	0.94	5.33	0.13
A0356	5 3/8	5 3/4	3/16	5.350	0.037	0.210	0.005	135.89	0.94	5.33	0.13
A0357	5 1/2	5 7/8	3/16	5.475	0.037	0.210	0.005	139.07	0.94	5.33	0.13
A0358	5 5/8	6	3/16	5.600	0.037	0.210	0.005	142.24	0.94	5.33	0.13
A0359	5 3/4	6 1/8	3/16	5.725	0.037	0.210	0.005	145.42	0.94	5.33	0.13
A0360	5 7/8	6 1/4	3/16	5.850	0.037	0.210	0.005	148.59	0.94	5.33	0.13
A0361	6	6 3/8	3/16	5.975	0.037	0.210	0.005	151.77	0.94	5.33	0.13
A0362	6 1/4	6 5/8	3/16	6.225	0.040	0.210	0.005	158.12	1.02	5.33	0.13

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0363	6 1/2	6 7/8	3/16	6.475	0.040	0.210	0.005	164.47	1.02	5.33	0.13
A0364	6 3/4	7 1/8	3/16	6.725	0.040	0.210	0.005	170.82	1.02	5.33	0.13
A0365	7	7 3/8	3/16	6.975	0.040	0.210	0.005	177.17	1.02	5.33	0.13
A0366	7 1/4	7 5/8	3/16	7.225	0.045	0.210	0.005	183.52	1.14	5.33	0.13
A0367	7 1/2	7 7/8	3/16	7.475	0.045	0.210	0.005	189.87	1.14	5.33	0.13
A0368	7 3/4	8 1/8	3/16	7.725	0.045	0.210	0.005	196.22	1.14	5.33	0.13
A0369	8	8 3/8	3/16	7.975	0.045	0.210	0.005	202.57	1.14	5.33	0.13
A0370	8 1/4	8 5/8	3/16	8.225	0.050	0.210	0.005	208.92	1.27	5.33	0.13
A0371	8 1/2	8 7/8	3/16	8.475	0.050	0.210	0.005	215.27	1.27	5.33	0.13
A0372	8 3/4	9 1/8	3/16	8.725	0.050	0.210	0.005	221.62	1.27	5.33	0.13
A0373	9	9 3/8	3/16	8.975	0.050	0.210	0.005	227.97	1.27	5.33	0.13
A0374	9 1/4	9 5/8	3/16	9.225	0.055	0.210	0.005	234.32	1.40	5.33	0.13
A0375	9 1/2	9 7/8	3/16	9.475	0.055	0.210	0.005	240.67	1.40	5.33	0.13
A0376	9 3/4	10 1/8	3/16	9.725	0.055	0.210	0.005	247.02	1.40	5.33	0.13
A0377	10	10 3/8	3/16	9.975	0.055	0.210	0.005	253.37	1.40	5.33	0.13
A0378	10 1/2	10 7/8	3/16	10.475	0.060	0.210	0.005	266.07	1.52	5.33	0.13
A0379	11	11 3/8	3/16	10.975	0.060	0.210	0.005	278.77	1.52	5.33	0.13
A0380	11 1/2	11 7/8	3/16	11.475	0.065	0.210	0.005	291.47	1.65	5.33	0.13
A0381	12	12 3/8	3/16	11.975	0.065	0.210	0.005	304.17	1.65	5.33	0.13
A0382	13	13 3/8	3/16	12.975	0.065	0.210	0.005	329.57	1.65	5.33	0.13
A0383	14	14 3/8	3/16	13.975	0.070	0.210	0.005	354.97	1.78	5.33	0.13
A0384	15	15 3/8	3/16	14.975	0.070	0.210	0.005	380.37	1.78	5.33	0.13
A0385	16	16 3/8	3/16	15.955	0.075	0.210	0.005	405.26	1.91	5.33	0.13
A0386	17	17 3/8	3/16	16.955	0.080	0.210	0.005	430.66	2.03	5.33	0.13
A0387	18	18 3/8	3/16	17.955	0.085	0.210	0.005	456.06	2.16	5.33	0.13
A0388	19	19 3/8	3/16	18.955	0.090	0.210	0.005	481.46	2.29	5.33	0.13
A0389	20	20 3/8	3/16	19.955	0.095	0.210	0.005	506.86	2.41	5.33	0.13
A0390	21	21 3/8	3/16	20.955	0.095	0.210	0.005	532.26	2.41	5.33	0.13
A0391	22	22 3/8	3/16	21.955	0.100	0.210	0.005	557.66	2.54	5.33	0.13
A0392	23	23 3/8	3/16	22.940	0.105	0.210	0.005	582.68	2.67	5.33	0.13
A0393	24	24 3/8	3/16	23.940	0.110	0.210	0.005	608.08	2.79	5.33	0.13
A0394	25	25 3/8	3/16	24.940	0.115	0.210	0.005	633.48	2.92	5.33	0.13
A0395	26	26 3/8	3/16	25.940	0.120	0.210	0.005	658.88	3.05	5.33	0.13
A0400	1 3/8	1 7/8	1/4	1.350	0.013	0.275	0.006	34.29	0.33	6.99	0.15
A0401	1 1/2	2	1/4	1.475	0.014	0.275	0.006	37.47	0.36	6.99	0.15
A0402	1 5/8	2 1/8	1/4	1.600	0.015	0.275	0.006	40.64	0.39	6.99	0.15
A0403	1 3/4	2 1/4	1/4	1.725	0.016	0.275	0.006	43.82	0.41	6.99	0.15
A0404	1 7/8	2 3/8	1/4	1.850	0.017	0.275	0.006	46.99	0.44	6.99	0.15
A0405	2	2 1/2	1/4	1.975	0.018	0.275	0.006	50.17	0.46	6.99	0.15
A0406	2 1/8	2 5/8	1/4	2.100	0.019	0.275	0.006	53.34	0.48	6.99	0.15
A0407	2 1/4	2 3/4	1/4	2.225	0.020	0.275	0.006	56.52	0.51	6.99	0.15
A0408	2 3/8	2 7/8	1/4	2.350	0.021	0.275	0.006	59.69	0.54	6.99	0.15
A0409	2 1/2	3	1/4	2.475	0.022	0.275	0.006	62.87	0.56	6.99	0.15
A0410	2 5/8	3 1/8	1/4	2.600	0.023	0.275	0.006	66.04	0.59	6.99	0.15
A0411	2 3/4	3 1/4	1/4	2.725	0.024	0.275	0.006	69.22	0.61	6.99	0.15

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0412	2 7/8	3 3/8	1/4	2.850	0.025	0.275	0.006	72.39	0.64	6.99	0.15
A0413	3	3 1/2	1/4	2.975	0.026	0.275	0.006	75.57	0.66	6.99	0.15
A0414	3 1/8	3 5/8	1/4	3.100	0.026	0.275	0.006	78.74	0.67	6.99	0.15
A0415	3 1/4	3 3/4	1/4	3.225	0.028	0.275	0.006	81.92	0.71	6.99	0.15
A0416	3 3/8	3 7/8	1/4	3.350	0.029	0.275	0.006	85.09	0.73	6.99	0.15
A0417	3 1/2	4	1/4	3.475	0.030	0.275	0.006	88.27	0.75	6.99	0.15
A0418	3 5/8	4 1/8	1/4	3.600	0.031	0.275	0.006	91.44	0.79	6.99	0.15
A0419	3 3/4	4 1/4	1/4	3.725	0.032	0.275	0.006	94.62	0.81	6.99	0.15
A0420	3 7/8	4 3/8	1/4	3.850	0.033	0.275	0.006	97.79	0.83	6.99	0.15
A0421	4	4 1/2	1/4	3.975	0.033	0.275	0.006	100.97	0.84	6.99	0.15
A0422	4 1/8	4 5/8	1/4	4.100	0.034	0.275	0.006	104.14	0.87	6.99	0.15
A0423	4 1/4	4 3/4	1/4	4.225	0.035	0.275	0.006	107.32	0.89	6.99	0.15
A0424	4 3/8	4 7/8	1/4	4.350	0.036	0.275	0.006	110.49	0.91	6.99	0.15
A0425	4 1/2	5	1/4	4.475	0.033	0.275	0.006	113.67	0.84	6.99	0.15
A0426	4 5/8	5 1/8	1/4	4.600	0.033	0.275	0.006	116.84	0.84	6.99	0.15
A0427	4 3/4	5 1/4	1/4	4.725	0.033	0.275	0.006	120.02	0.84	6.99	0.15
A0428	4 7/8	5 3/8	1/4	4.850	0.033	0.275	0.006	123.19	0.84	6.99	0.15
A0429	5	5 1/2	1/4	4.975	0.037	0.275	0.006	126.37	0.94	6.99	0.15
A0430	5 1/8	5 5/8	1/4	5.100	0.037	0.275	0.006	129.54	0.94	6.99	0.15
A0431	5 1/4	5 3/4	1/4	5.225	0.037	0.275	0.006	132.72	0.94	6.99	0.15
A0432	5 3/8	5 7/8	1/4	5.350	0.037	0.275	0.006	135.89	0.94	6.99	0.15
A0433	5 1/2	6	1/4	5.475	0.037	0.275	0.006	139.07	0.94	6.99	0.15
A0434	5 5/8	6 1/8	1/4	5.600	0.037	0.275	0.006	142.24	0.94	6.99	0.15
A0435	5 3/4	6 1/4	1/4	5.725	0.037	0.275	0.006	145.42	0.94	6.99	0.15
A0436	5 7/8	6 3/8	1/4	5.850	0.037	0.275	0.006	148.59	0.94	6.99	0.15
A0437	6	6 1/2	1/4	5.975	0.037	0.275	0.006	151.77	0.94	6.99	0.15
A0438	6 1/4	6 3/4	1/4	6.225	0.040	0.275	0.006	158.12	1.02	6.99	0.15
A0439	6 1/2	7	1/4	6.475	0.040	0.275	0.006	164.47	1.02	6.99	0.15
A0440	6 3/4	7 1/4	1/4	6.725	0.040	0.275	0.006	170.82	1.02	6.99	0.15
A0441	7	7 1/2	1/4	6.975	0.040	0.275	0.006	177.17	1.02	6.99	0.15
A0442	7 1/4	7 3/4	1/4	7.225	0.045	0.275	0.006	183.52	1.14	6.99	0.15
A0443	7 1/2	8	1/4	7.475	0.045	0.275	0.006	189.87	1.14	6.99	0.15
A0444	7 3/4	8 1/4	1/4	7.725	0.045	0.275	0.006	196.22	1.14	6.99	0.15
A0445	8	8 1/2	1/4	7.975	0.045	0.275	0.006	202.57	1.14	6.99	0.15
A0446	8 1/2	9	1/4	8.475	0.055	0.275	0.006	215.27	1.4	6.99	0.15
A0447	9	9 1/2	1/4	8.975	0.055	0.275	0.006	227.97	1.4	6.99	0.15
A0448	9 1/2	10	1/4	9.475	0.055	0.275	0.006	240.67	1.4	6.99	0.15
A0449	10	10 1/2	1/4	9.975	0.055	0.275	0.006	253.37	1.4	6.99	0.15
A0450	10 1/2	11	1/4	10.475	0.060	0.275	0.006	266.07	1.52	6.99	0.15
A0451	11	11 1/2	1/4	10.975	0.060	0.275	0.006	278.77	1.52	6.99	0.15
A0452	11 1/2	12	1/4	11.475	0.060	0.275	0.006	291.47	1.52	6.99	0.15
A0453	12	12 1/2	1/4	11.975	0.060	0.275	0.006	304.17	1.52	6.99	0.15
A0454	12 1/2	13	1/4	12.475	0.060	0.275	0.006	316.87	1.52	6.99	0.15
A0455	13	13 1/2	1/4	12.975	0.060	0.275	0.006	329.57	1.52	6.99	0.15
A0456	13 1/2	14	1/4	13.475	0.070	0.275	0.006	342.27	1.78	6.99	0.15

O-Ring Standard
Size (AS 568)

O-Ring Standard Size (AS 568)

AS 568A SIZE	NOMINAL (REF.) MEASUREMENTS IN INCHES			STANDARD O-RING MEASUREMENTS IN INCHES				METRIC O-RING MEASUREMENTS IN MILLIMETERS			
	ID	OD	CS	ID	±	CS	±	ID	±	CS	±
A0457	14	14 1/2	1/4	13.975	0.070	0.275	0.006	354.97	1.78	6.99	0.15
A0458	14 1/2	15	1/4	14.475	0.070	0.275	0.006	367.67	1.78	6.99	0.15
A0459	15	15 1/2	1/4	14.975	0.070	0.275	0.006	380.37	1.78	6.99	0.15
A0460	15 1/2	16	1/4	15.475	0.070	0.275	0.006	393.07	1.78	6.99	0.15
A0461	16	16 1/2	1/4	15.955	0.075	0.275	0.006	405.26	1.91	6.99	0.15
A0462	16 1/2	17	1/4	16.455	0.075	0.275	0.006	417.96	1.91	6.99	0.15
A0463	17	17 1/2	1/4	16.955	0.080	0.275	0.006	430.66	2.03	6.99	0.15
A0464	17 1/2	18	1/4	17.455	0.085	0.275	0.006	443.36	2.16	6.99	0.15
A0465	18	18 1/2	1/4	17.955	0.085	0.275	0.006	456.06	2.16	6.99	0.15
A0466	18 1/2	19	1/4	18.455	0.085	0.275	0.006	468.76	2.16	6.99	0.15
A0467	19	19 1/2	1/4	18.955	0.090	0.275	0.006	481.46	2.29	6.99	0.15
A0468	19 1/2	20	1/4	19.455	0.090	0.275	0.006	494.16	2.29	6.99	0.15
A0469	20	20 1/2	1/4	19.955	0.095	0.275	0.006	506.86	2.41	6.99	0.15
A0470	21	21 1/2	1/4	20.955	0.095	0.275	0.006	532.26	2.41	6.99	0.15
A0471	22	22 1/2	1/4	21.955	0.100	0.275	0.006	557.66	2.54	6.99	0.15
A0472	23	23 1/2	1/4	22.940	0.105	0.275	0.006	582.68	2.67	6.99	0.15
A0473	24	24 1/2	1/4	23.940	0.110	0.275	0.006	608.08	2.79	6.99	0.15
A0474	25	25 1/2	1/4	24.940	0.115	0.275	0.006	633.48	2.92	6.99	0.15
A0475	26	26 1/2	1/4	25.940	0.120	0.275	0.006	658.88	3.05	6.99	0.15

O-Ring Standard Size (AS 568)

O-Ring For Use With Internal Straight Thread Fluid Connection Bosses And Tube Fittings

AS 568A SIZE	NOMINAL (REF.)	MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS			
		OD	ID	±	CS	±	ID	±	CS
A0901	3/32	0.185	0.005	0.056	0.003	4.70	0.13	1.42	0.08
A0902	1/8	0.239	0.005	0.064	0.003	6.07	0.13	1.63	0.08
A0903	3/16	0.301	0.005	0.064	0.003	7.65	0.13	1.63	0.08
A0904	1/4	0.351	0.005	0.072	0.003	8.92	0.13	1.83	0.08
A0905	5/16	0.414	0.005	0.072	0.003	10.52	0.13	1.83	0.08
A0906	3/8	0.468	0.005	0.078	0.003	11.89	0.13	1.98	0.08
A0907	7/16	0.530	0.007	0.082	0.003	13.46	0.18	2.08	0.08
A0908	1/2	0.644	0.009	0.087	0.003	16.36	0.23	2.21	0.08
A0909	9/16	0.706	0.009	0.097	0.003	17.93	0.23	2.46	0.08
A0910	5/8	0.755	0.009	0.097	0.003	19.18	0.23	2.46	0.08
A0911	11/16	0.863	0.009	0.116	0.004	21.92	0.23	2.95	0.10
A0912	3/4	0.924	0.009	0.116	0.004	23.47	0.23	2.95	0.10
A0913	13/16	0.986	0.010	0.116	0.004	25.04	0.25	2.95	0.10
A0914	7/8	1.047	0.010	0.116	0.004	26.59	0.25	2.95	0.10
A0916	1	1.171	0.010	0.116	0.004	29.74	0.25	2.95	0.10
A0918	1 1/8	1.355	0.012	0.116	0.004	34.42	0.30	2.95	0.10
A0920	1 1/4	1.475	0.014	0.118	0.004	37.47	0.36	3.00	0.10
A0924	1 1/2	1.720	0.014	0.118	0.004	43.69	0.36	3.00	0.10
A0928	1 3/4	2.090	0.018	0.118	0.004	53.09	0.46	3.00	0.10
A0932	2	2.337	0.018	0.118	0.004	59.36	0.46	3.00	0.10

O-Ring Standard Size (BS 4518)

O-Ring Standard Size (BS 4518)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
3.10	0.14	1.60	0.08	0.122	0.006	0.063	0.003	39.60	0.41	2.40	0.09	1.559	0.016	0.094	0.004
4.10	0.14	1.60	0.08	0.161	0.006	0.063	0.003	41.60	0.42	2.40	0.09	1.638	0.017	0.094	0.004
5.10	0.15	1.60	0.08	0.201	0.006	0.063	0.003	44.60	0.44	2.40	0.09	1.756	0.017	0.094	0.004
6.10	0.16	1.60	0.08	0.240	0.006	0.063	0.003	45.60	0.45	2.40	0.09	1.795	0.018	0.094	0.004
7.10	0.17	1.60	0.08	0.280	0.007	0.063	0.003	47.60	0.46	2.40	0.09	1.874	0.018	0.094	0.004
8.10	0.18	1.60	0.08	0.319	0.007	0.063	0.003	49.60	0.48	2.40	0.09	1.953	0.019	0.094	0.004
9.10	0.18	1.60	0.08	0.358	0.007	0.063	0.003	51.60	0.49	2.40	0.09	2.031	0.019	0.094	0.004
10.10	0.19	1.60	0.08	0.398	0.007	0.063	0.003	54.60	0.51	2.40	0.09	2.150	0.020	0.094	0.004
11.10	0.20	1.60	0.08	0.437	0.008	0.063	0.003	55.60	0.52	2.40	0.09	2.189	0.020	0.094	0.004
12.10	0.21	1.60	0.08	0.476	0.008	0.063	0.003	57.60	0.53	2.40	0.09	2.268	0.021	0.094	0.004
13.10	0.21	1.60	0.08	0.516	0.008	0.063	0.003	58.60	0.54	2.40	0.09	2.307	0.021	0.094	0.004
14.10	0.22	1.60	0.08	0.555	0.009	0.063	0.003	59.60	0.55	2.40	0.09	2.346	0.022	0.094	0.004
15.10	0.23	1.60	0.08	0.594	0.009	0.063	0.003	61.60	0.56	2.40	0.09	2.425	0.022	0.094	0.004
16.10	0.24	1.60	0.08	0.634	0.009	0.063	0.003	62.60	0.57	2.40	0.09	2.465	0.022	0.094	0.004
17.10	0.24	1.60	0.08	0.673	0.009	0.063	0.003	64.60	0.58	2.40	0.09	2.543	0.023	0.094	0.004
18.10	0.25	1.60	0.08	0.713	0.010	0.063	0.003	67.60	0.60	2.40	0.09	2.661	0.024	0.094	0.004
19.10	0.26	1.60	0.08	0.752	0.010	0.063	0.003	69.60	0.62	2.40	0.09	2.740	0.024	0.094	0.004
20.10	0.27	1.60	0.08	0.791	0.011	0.063	0.003	19.50	0.26	3.00	0.09	0.768	0.010	0.118	0.004
21.10	0.27	1.60	0.08	0.831	0.011	0.063	0.003	21.50	0.28	3.00	0.09	0.846	0.011	0.118	0.004
22.10	0.28	1.60	0.08	0.870	0.011	0.063	0.003	22.50	0.28	3.00	0.09	0.886	0.011	0.118	0.004
25.10	0.30	1.60	0.08	0.988	0.012	0.063	0.003	24.50	0.30	3.00	0.09	0.965	0.012	0.118	0.004
27.10	0.32	1.60	0.08	1.067	0.013	0.063	0.003	25.50	0.31	3.00	0.09	1.004	0.012	0.118	0.004
29.10	0.33	1.60	0.08	1.146	0.013	0.063	0.003	26.50	0.31	3.00	0.09	1.043	0.012	0.118	0.004
32.10	0.35	1.60	0.08	1.264	0.014	0.063	0.003	27.50	0.32	3.00	0.09	1.083	0.013	0.118	0.004
35.10	0.37	1.60	0.08	1.382	0.015	0.063	0.003	29.50	0.33	3.00	0.09	1.161	0.013	0.118	0.004
37.10	0.39	1.60	0.08	1.461	0.015	0.063	0.003	31.50	0.35	3.00	0.09	1.240	0.014	0.118	0.004
3.60	0.14	2.40	0.09	0.142	0.006	0.094	0.004	32.50	0.36	3.00	0.09	1.280	0.014	0.118	0.004
4.60	0.15	2.40	0.09	0.181	0.006	0.094	0.004	34.50	0.37	3.00	0.09	1.358	0.015	0.118	0.004
5.60	0.16	2.40	0.09	0.220	0.006	0.094	0.004	35.50	0.38	3.00	0.09	1.398	0.015	0.118	0.004
6.60	0.16	2.40	0.09	0.260	0.006	0.094	0.004	36.50	0.38	3.00	0.09	1.437	0.015	0.118	0.004
7.60	0.17	2.40	0.09	0.299	0.007	0.094	0.004	37.50	0.39	3.00	0.09	1.476	0.015	0.118	0.004
8.60	0.18	2.40	0.09	0.339	0.007	0.094	0.004	39.50	0.41	3.00	0.09	1.555	0.016	0.118	0.004
9.60	0.19	2.40	0.09	0.378	0.007	0.094	0.004	41.50	0.42	3.00	0.09	1.634	0.017	0.118	0.004
10.60	0.19	2.40	0.09	0.417	0.007	0.094	0.004	42.50	0.43	3.00	0.09	1.673	0.017	0.118	0.004
11.60	0.20	2.40	0.09	0.457	0.008	0.094	0.004	44.50	0.44	3.00	0.09	1.752	0.017	0.118	0.004
12.60	0.21	2.40	0.09	0.496	0.008	0.094	0.004	49.50	0.48	3.00	0.09	1.949	0.019	0.118	0.004
13.60	0.22	2.40	0.09	0.535	0.009	0.094	0.004	54.50	0.51	3.00	0.09	2.146	0.020	0.118	0.004
14.60	0.22	2.40	0.09	0.575	0.009	0.094	0.004	55.50	0.52	3.00	0.09	2.185	0.020	0.118	0.004
15.60	0.23	2.40	0.09	0.614	0.009	0.094	0.004	57.50	0.53	3.00	0.09	2.264	0.021	0.118	0.004
16.60	0.24	2.40	0.09	0.654	0.009	0.094	0.004	59.50	0.55	3.00	0.09	2.343	0.022	0.118	0.004
17.60	0.25	2.40	0.09	0.693	0.010	0.094	0.004	62.50	0.57	3.00	0.09	2.461	0.022	0.118	0.004
18.60	0.25	2.40	0.09	0.732	0.010	0.094	0.004	64.50	0.58	3.00	0.09	2.539	0.023	0.118	0.004
19.60	0.26	2.40	0.09	0.772	0.010	0.094	0.004	69.50	0.62	3.00	0.09	2.736	0.024	0.118	0.004
20.60	0.27	2.40	0.09	0.811	0.011	0.094	0.004	74.50	0.65	3.00	0.09	2.933	0.026	0.118	0.004
21.60	0.28	2.40	0.09	0.850	0.011	0.094	0.004	79.50	0.68	3.00	0.09	3.130	0.027	0.118	0.004
24.60	0.30	2.40	0.09	0.969	0.012	0.094	0.004	84.50	0.72	3.00	0.09	3.327	0.028	0.118	0.004
27.60	0.32	2.40	0.09	1.087	0.013	0.094	0.004	89.50	0.75	3.00	0.09	3.524	0.030	0.118	0.004
29.60	0.33	2.40	0.09	1.165	0.013	0.094	0.004	94.50	0.79	3.00	0.09	3.720	0.031	0.118	0.004
31.60	0.35	2.40	0.09	1.244	0.014	0.094	0.004	99.50	0.82	3.00	0.09	3.917	0.032	0.118	0.004
34.60	0.37	2.40	0.09	1.362	0.015	0.094	0.004	104.50	0.86	3.00	0.09	4.114	0.034	0.118	0.004
35.60	0.38	2.40	0.09	1.402	0.015	0.094	0.004	109.50	0.89	3.00	0.09	4.311	0.035	0.118	0.004
37.60	0.39	2.40	0.09	1.480	0.015	0.094	0.004	114.50	0.92	3.00	0.09	4.508	0.036	0.118	0.004

O-Ring Standard Size (BS 4518)

O-Ring Standard Size (BS 4518)

O-Ring Standard Size (BS 4518)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
119.50	0.96	3.00	0.09	4.705	0.038	0.118	0.004	159.30	1.22	5.70	0.13	6.272	0.048	0.224	0.005
124.50	0.99	3.00	0.09	4.902	0.039	0.118	0.004	164.30	1.26	5.70	0.13	6.468	0.050	0.224	0.005
129.50	1.02	3.00	0.09	5.098	0.040	0.118	0.004	169.30	1.29	5.70	0.13	6.665	0.051	0.224	0.005
134.50	1.06	3.00	0.09	5.295	0.042	0.118	0.004	174.30	1.32	5.70	0.13	6.862	0.052	0.224	0.005
139.50	1.09	3.00	0.09	5.492	0.043	0.118	0.004	179.30	1.35	5.70	0.13	7.059	0.053	0.224	0.005
144.50	1.12	3.00	0.09	5.689	0.044	0.118	0.004	184.30	1.39	5.70	0.13	7.256	0.055	0.224	0.005
149.50	1.16	3.00	0.09	5.886	0.046	0.118	0.004	189.30	1.42	5.70	0.13	7.453	0.056	0.224	0.005
154.50	1.19	3.00	0.09	6.083	0.047	0.118	0.004	194.30	1.45	5.70	0.13	7.650	0.057	0.224	0.005
159.50	1.22	3.00	0.09	6.280	0.048	0.118	0.004	199.30	1.49	5.70	0.13	7.846	0.059	0.224	0.005
164.50	1.26	3.00	0.09	6.476	0.050	0.118	0.004	209.30	1.55	5.70	0.13	8.240	0.061	0.224	0.005
169.50	1.29	3.00	0.09	6.673	0.051	0.118	0.004	219.30	1.62	5.70	0.13	8.634	0.064	0.224	0.005
174.50	1.32	3.00	0.09	6.870	0.052	0.118	0.004	229.30	1.68	5.70	0.13	9.028	0.066	0.224	0.005
179.50	1.36	3.00	0.09	7.067	0.054	0.118	0.004	239.30	1.75	5.70	0.13	9.421	0.069	0.224	0.005
184.50	1.39	3.00	0.09	7.264	0.055	0.118	0.004	249.30	1.81	5.70	0.13	9.815	0.071	0.224	0.005
189.50	1.42	3.00	0.09	7.461	0.056	0.118	0.004	259.30	1.88	5.70	0.13	10.209	0.074	0.224	0.005
194.50	1.45	3.00	0.09	7.657	0.057	0.118	0.004	269.30	1.94	5.70	0.13	10.602	0.076	0.224	0.005
199.50	1.49	3.00	0.09	7.854	0.059	0.118	0.004	279.30	2.01	5.70	0.13	10.996	0.079	0.224	0.005
209.50	1.55	3.00	0.09	8.248	0.061	0.118	0.004	289.30	2.07	5.70	0.13	11.390	0.081	0.224	0.005
219.50	1.62	3.00	0.09	8.642	0.064	0.118	0.004	299.30	2.14	5.70	0.13	11.783	0.084	0.224	0.005
229.50	1.68	3.00	0.09	9.035	0.066	0.118	0.004	309.30	2.20	5.70	0.13	12.177	0.087	0.224	0.005
239.50	1.75	3.00	0.09	9.429	0.069	0.118	0.004	319.30	2.26	5.70	0.13	12.571	0.089	0.224	0.005
244.50	1.78	3.00	0.09	9.626	0.070	0.118	0.004	339.30	2.39	5.70	0.13	13.358	0.094	0.224	0.005
249.50	1.81	3.00	0.09	9.823	0.071	0.118	0.004	359.30	2.52	5.70	0.13	14.146	0.099	0.224	0.005
44.30	0.44	5.70	0.13	1.744	0.017	0.224	0.005	379.30	2.65	5.70	0.13	14.933	0.104	0.224	0.005
45.30	0.45	5.70	0.13	1.783	0.018	0.224	0.005	389.30	2.71	5.70	0.13	15.327	0.107	0.224	0.005
49.30	0.48	5.70	0.13	1.941	0.019	0.224	0.005	399.30	2.77	5.70	0.13	15.720	0.109	0.224	0.005
49.50	0.48	5.70	0.13	1.949	0.019	0.224	0.005	419.30	2.90	5.70	0.13	16.508	0.114	0.224	0.005
52.30	0.50	5.70	0.13	2.059	0.020	0.224	0.005	439.30	3.03	5.70	0.13	17.295	0.119	0.224	0.005
54.30	0.51	5.70	0.13	2.138	0.020	0.224	0.005	459.30	3.15	5.70	0.13	18.083	0.124	0.224	0.005
55.30	0.52	5.70	0.13	2.177	0.020	0.224	0.005	479.30	3.28	5.70	0.13	18.870	0.129	0.224	0.005
59.30	0.55	5.70	0.13	2.335	0.022	0.224	0.005	489.30	3.34	5.70	0.13	19.264	0.131	0.224	0.005
61.30	0.56	5.70	0.13	2.413	0.022	0.224	0.005	499.30	3.40	5.70	0.13	19.657	0.134	0.224	0.005
62.30	0.57	5.70	0.13	2.453	0.022	0.224	0.005	144.10	1.12	8.40	0.15	5.673	0.044	0.331	0.006
64.30	0.58	5.70	0.13	2.531	0.023	0.224	0.005	149.10	1.15	8.40	0.15	5.870	0.045	0.331	0.006
69.30	0.61	5.70	0.13	2.728	0.024	0.224	0.005	154.10	1.19	8.40	0.15	6.067	0.047	0.331	0.006
74.30	0.65	5.70	0.13	2.925	0.026	0.224	0.005	159.10	1.22	8.40	0.15	6.264	0.048	0.331	0.006
79.30	0.68	5.70	0.13	3.122	0.027	0.224	0.005	164.10	1.25	8.40	0.15	6.461	0.049	0.331	0.006
84.30	0.72	5.70	0.13	3.319	0.028	0.224	0.005	169.10	1.29	8.40	0.15	6.657	0.051	0.331	0.006
89.30	0.75	5.70	0.13	3.516	0.030	0.224	0.005	174.10	1.32	8.40	0.15	6.854	0.052	0.331	0.006
94.30	0.79	5.70	0.13	3.713	0.031	0.224	0.005	179.10	1.35	8.40	0.15	7.051	0.053	0.331	0.006
99.30	0.82	5.70	0.13	3.909	0.032	0.224	0.005	184.10	1.39	8.40	0.15	7.248	0.055	0.331	0.006
104.30	0.85	5.70	0.13	4.106	0.033	0.224	0.005	189.10	1.42	8.40	0.15	7.445	0.056	0.331	0.006
109.30	0.89	5.70	0.13	4.303	0.035	0.224	0.005	194.10	1.45	8.40	0.15	7.642	0.057	0.331	0.006
114.30	0.92	5.70	0.13	4.500	0.036	0.224	0.005	199.10	1.49	8.40	0.15	7.839	0.059	0.331	0.006
119.30	0.96	5.70	0.13	4.697	0.038	0.224	0.005	204.10	1.52	8.40	0.15	8.035	0.060	0.331	0.006
124.30	0.99	5.70	0.13	4.894	0.039	0.224	0.005	209.10	1.55	8.40	0.15	8.232	0.061	0.331	0.006
129.30	1.02	5.70	0.13	5.091	0.040	0.224	0.005	219.10	1.62	8.40	0.15	8.626	0.064	0.331	0.006
134.30	1.06	5.70	0.13	5.287	0.042	0.224	0.005	229.10	1.68	8.40	0.15	9.020	0.066	0.331	0.006
139.30	1.09	5.70	0.13	5.484	0.043	0.224	0.005	234.10	1.71	8.40	0.15	9.217	0.067	0.331	0.006
144.30	1.12	5.70	0.13	5.681	0.044	0.224	0.005	239.10	1.75	8.40	0.15	9.413	0.069	0.331	0.006
149.30	1.16	5.70	0.13	5.878	0.046	0.224	0.005	249.10	1.81	8.40	0.15	9.807	0.071	0.331	0.006
154.30	1.19	5.70	0.13	6.075	0.047	0.224	0.005								

O-Ring Standard Size (BS 4518)

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
1.80	0.13	1.8	0.08	0.071	0.005	0.071	0.003	24.30	0.30	1.8	0.08	0.957	0.012	0.071	0.003
2.00	0.13	1.8	0.08	0.079	0.005	0.071	0.003	25.00	0.30	1.8	0.08	0.984	0.012	0.071	0.003
2.24	0.13	1.8	0.08	0.088	0.005	0.071	0.003	25.80	0.31	1.8	0.08	1.016	0.012	0.071	0.003
2.50	0.13	1.8	0.08	0.098	0.005	0.071	0.003	26.50	0.31	1.8	0.08	1.043	0.012	0.071	0.003
2.80	0.13	1.8	0.08	0.110	0.005	0.071	0.003	27.30	0.32	1.8	0.08	1.075	0.013	0.071	0.003
3.15	0.14	1.8	0.08	0.124	0.006	0.071	0.003	28.00	0.32	1.8	0.08	1.102	0.013	0.071	0.003
3.55	0.14	1.8	0.08	0.140	0.006	0.071	0.003	29.00	0.33	1.8	0.08	1.142	0.013	0.071	0.003
3.75	0.14	1.8	0.08	0.148	0.006	0.071	0.003	30.00	0.34	1.8	0.08	1.181	0.013	0.071	0.003
4.00	0.14	1.8	0.08	0.157	0.006	0.071	0.003	31.50	0.35	1.8	0.08	1.240	0.014	0.071	0.003
4.50	0.15	1.8	0.08	0.177	0.006	0.071	0.003	32.50	0.36	1.8	0.08	1.280	0.014	0.071	0.003
4.75	0.15	1.8	0.08	0.187	0.006	0.071	0.003	33.50	0.36	1.8	0.08	1.319	0.014	0.071	0.003
4.87	0.15	1.8	0.08	0.192	0.006	0.071	0.003	34.50	0.37	1.8	0.08	1.358	0.015	0.071	0.003
5.00	0.15	1.8	0.08	0.197	0.006	0.071	0.003	35.50	0.38	1.8	0.08	1.398	0.015	0.071	0.003
5.15	0.15	1.8	0.08	0.203	0.006	0.071	0.003	36.50	0.38	1.8	0.08	1.437	0.015	0.071	0.003
5.30	0.15	1.8	0.08	0.209	0.006	0.071	0.003	37.50	0.39	1.8	0.08	1.476	0.015	0.071	0.003
5.60	0.16	1.8	0.08	0.220	0.006	0.071	0.003	38.70	0.40	1.8	0.08	1.524	0.016	0.071	0.003
6.00	0.16	1.8	0.08	0.236	0.006	0.071	0.003	40.00	0.41	1.8	0.08	1.575	0.016	0.071	0.003
6.30	0.16	1.8	0.08	0.248	0.006	0.071	0.003	41.20	0.42	1.8	0.08	1.622	0.017	0.071	0.003
6.70	0.16	1.8	0.08	0.264	0.006	0.071	0.003	42.50	0.43	1.8	0.08	1.673	0.017	0.071	0.003
6.90	0.17	1.8	0.08	0.272	0.007	0.071	0.003	43.70	0.44	1.8	0.08	1.720	0.017	0.071	0.003
7.10	0.17	1.8	0.08	0.280	0.007	0.071	0.003	45.00	0.44	1.8	0.08	1.772	0.017	0.071	0.003
7.50	0.17	1.8	0.08	0.295	0.007	0.071	0.003	46.20	0.45	1.8	0.08	1.819	0.018	0.071	0.003
8.00	0.17	1.8	0.08	0.315	0.007	0.071	0.003	47.50	0.46	1.8	0.08	1.870	0.018	0.071	0.003
8.50	0.18	1.8	0.08	0.335	0.007	0.071	0.003	48.70	0.47	1.8	0.08	1.917	0.019	0.071	0.003
8.75	0.18	1.8	0.08	0.344	0.007	0.071	0.003	50.00	0.48	1.8	0.08	1.969	0.019	0.071	0.003
9.00	0.18	1.8	0.08	0.354	0.007	0.071	0.003	4.50	0.15	2.65	0.09	0.177	0.006	0.104	0.004
9.50	0.19	1.8	0.08	0.374	0.007	0.071	0.003	5.30	0.15	2.65	0.09	0.209	0.006	0.104	0.004
9.75	0.19	1.8	0.08	0.384	0.007	0.071	0.003	6.00	0.16	2.65	0.09	0.236	0.006	0.104	0.004
10.00	0.19	1.8	0.08	0.394	0.007	0.071	0.003	6.90	0.17	2.65	0.09	0.272	0.007	0.104	0.004
10.60	0.19	1.8	0.08	0.417	0.007	0.071	0.003	8.00	0.17	2.65	0.09	0.315	0.007	0.104	0.004
11.20	0.20	1.8	0.08	0.441	0.008	0.071	0.003	9.00	0.18	2.65	0.09	0.354	0.007	0.104	0.004
11.60	0.20	1.8	0.08	0.457	0.008	0.071	0.003	9.50	0.19	2.65	0.09	0.374	0.007	0.104	0.004
11.80	0.20	1.8	0.08	0.465	0.008	0.071	0.003	10.00	0.19	2.65	0.09	0.394	0.007	0.104	0.004
12.10	0.21	1.8	0.08	0.476	0.008	0.071	0.003	10.60	0.19	2.65	0.09	0.417	0.007	0.104	0.004
12.50	0.21	1.8	0.08	0.492	0.008	0.071	0.003	11.20	0.20	2.65	0.09	0.441	0.008	0.104	0.004
12.80	0.21	1.8	0.08	0.504	0.008	0.071	0.003	11.60	0.20	2.65	0.09	0.457	0.008	0.104	0.004
13.20	0.21	1.8	0.08	0.520	0.008	0.071	0.003	11.80	0.20	2.65	0.09	0.465	0.008	0.104	0.004
14.00	0.22	1.8	0.08	0.551	0.009	0.071	0.003	12.10	0.21	2.65	0.09	0.476	0.008	0.104	0.004
14.50	0.22	1.8	0.08	0.571	0.009	0.071	0.003	12.50	0.21	2.65	0.09	0.492	0.008	0.104	0.004
15.00	0.23	1.8	0.08	0.591	0.009	0.071	0.003	12.80	0.21	2.65	0.09	0.504	0.008	0.104	0.004
15.50	0.23	1.8	0.08	0.610	0.009	0.071	0.003	13.20	0.21	2.65	0.09	0.520	0.008	0.104	0.004
16.00	0.24	1.8	0.08	0.630	0.009	0.071	0.003	14.00	0.22	2.65	0.09	0.551	0.009	0.104	0.004
17.00	0.24	1.8	0.08	0.669	0.009	0.071	0.003	14.50	0.22	2.65	0.09	0.571	0.009	0.104	0.004
18.00	0.25	1.8	0.08	0.709	0.010	0.071	0.003	15.00	0.23	2.65	0.09	0.591	0.009	0.104	0.004
19.00	0.26	1.8	0.08	0.748	0.010	0.071	0.003	15.50	0.23	2.65	0.09	0.610	0.009	0.104	0.004
20.00	0.26	1.8	0.08	0.787	0.010	0.071	0.003	16.00	0.24	2.65	0.09	0.630	0.009	0.104	0.004
20.60	0.27	1.8	0.08	0.811	0.011	0.071	0.003	17.00	0.24	2.65	0.09	0.669	0.009	0.104	0.004
21.20	0.27	1.8	0.08	0.835	0.011	0.071	0.003	18.00	0.25	2.65	0.09	0.709	0.010	0.104	0.004
22.40	0.28	1.8	0.08	0.882	0.011	0.071	0.003	19.00	0.26	2.65	0.09	0.748	0.010	0.104	0.004
23.00	0.29	1.8	0.08	0.906	0.011	0.071	0.003	20.00	0.26	2.65	0.09	0.787	0.010	0.104	0.004
23.60	0.29	1.8	0.08	0.929	0.011	0.071	0.003	20.60	0.27	2.65	0.09	0.811	0.011	0.104	0.004

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
21.20	0.27	2.65	0.09	0.835	0.011	0.104	0.004	97.50	0.81	2.65	0.09	3.839	0.032	0.104	0.004
22.40	0.28	2.65	0.09	0.882	0.011	0.104	0.004	100.00	0.82	2.65	0.09	3.937	0.032	0.104	0.004
23.00	0.29	2.65	0.09	0.906	0.011	0.104	0.004	103.00	0.85	2.65	0.09	4.055	0.033	0.104	0.004
23.60	0.29	2.65	0.09	0.929	0.011	0.104	0.004	106.00	0.87	2.65	0.09	4.173	0.034	0.104	0.004
24.30	0.30	2.65	0.09	0.957	0.012	0.104	0.004	109.00	0.89	2.65	0.09	4.291	0.035	0.104	0.004
25.00	0.30	2.65	0.09	0.984	0.012	0.104	0.004	112.00	0.91	2.65	0.09	4.409	0.036	0.104	0.004
25.80	0.31	2.65	0.09	1.016	0.012	0.104	0.004	115.00	0.93	2.65	0.09	4.528	0.037	0.104	0.004
26.50	0.31	2.65	0.09	1.043	0.012	0.104	0.004	118.00	0.95	2.65	0.09	4.646	0.037	0.104	0.004
27.30	0.32	2.65	0.09	1.075	0.013	0.104	0.004	122.00	0.97	2.65	0.09	4.803	0.038	0.104	0.004
28.00	0.32	2.65	0.09	1.102	0.013	0.104	0.004	125.00	0.99	2.65	0.09	4.921	0.039	0.104	0.004
29.00	0.33	2.65	0.09	1.142	0.013	0.104	0.004	128.00	1.01	2.65	0.09	5.039	0.040	0.104	0.004
30.00	0.34	2.65	0.09	1.181	0.013	0.104	0.004	132.00	1.04	2.65	0.09	5.197	0.041	0.104	0.004
31.50	0.35	2.65	0.09	1.240	0.014	0.104	0.004	136.00	1.07	2.65	0.09	5.354	0.042	0.104	0.004
32.50	0.36	2.65	0.09	1.280	0.014	0.104	0.004	140.00	1.09	2.65	0.09	5.512	0.043	0.104	0.004
33.50	0.36	2.65	0.09	1.319	0.014	0.104	0.004	142.50	1.11	2.65	0.09	5.610	0.044	0.104	0.004
34.50	0.37	2.65	0.09	1.358	0.015	0.104	0.004	145.00	1.13	2.65	0.09	5.709	0.044	0.104	0.004
35.50	0.38	2.65	0.09	1.398	0.015	0.104	0.004	147.50	1.14	2.65	0.09	5.807	0.045	0.104	0.004
36.50	0.38	2.65	0.09	1.437	0.015	0.104	0.004	150.00	1.16	2.65	0.09	5.906	0.046	0.104	0.004
37.50	0.39	2.65	0.09	1.476	0.015	0.104	0.004	152.50	1.18	2.65	0.09	6.004	0.046	0.104	0.004
38.70	0.40	2.65	0.09	1.524	0.016	0.104	0.004	18.00	0.25	3.55	0.1	0.709	0.010	0.140	0.004
40.00	0.41	2.65	0.09	1.575	0.016	0.104	0.004	19.00	0.26	3.55	0.1	0.748	0.010	0.140	0.004
41.20	0.42	2.65	0.09	1.622	0.017	0.104	0.004	20.00	0.26	3.55	0.1	0.787	0.010	0.140	0.004
42.50	0.43	2.65	0.09	1.673	0.017	0.104	0.004	20.60	0.27	3.55	0.1	0.811	0.011	0.140	0.004
43.70	0.44	2.65	0.09	1.720	0.017	0.104	0.004	21.20	0.27	3.55	0.1	0.835	0.011	0.140	0.004
45.00	0.44	2.65	0.09	1.772	0.017	0.104	0.004	22.40	0.28	3.55	0.1	0.882	0.011	0.140	0.004
46.20	0.45	2.65	0.09	1.819	0.018	0.104	0.004	23.00	0.29	3.55	0.1	0.906	0.011	0.140	0.004
47.50	0.46	2.65	0.09	1.870	0.018	0.104	0.004	23.60	0.29	3.55	0.1	0.929	0.011	0.140	0.004
48.70	0.47	2.65	0.09	1.917	0.019	0.104	0.004	24.30	0.30	3.55	0.1	0.957	0.012	0.140	0.004
50.00	0.48	2.65	0.09	1.969	0.019	0.104	0.004	25.00	0.30	3.55	0.1	0.984	0.012	0.140	0.004
51.50	0.49	2.65	0.09	2.028	0.019	0.104	0.004	25.80	0.31	3.55	0.1	1.016	0.012	0.140	0.004
53.00	0.50	2.65	0.09	2.087	0.020	0.104	0.004	26.50	0.31	3.55	0.1	1.043	0.012	0.140	0.004
54.50	0.51	2.65	0.09	2.146	0.020	0.104	0.004	27.30	0.32	3.55	0.1	1.075	0.013	0.140	0.004
56.00	0.52	2.65	0.09	2.205	0.020	0.104	0.004	28.00	0.32	3.55	0.1	1.102	0.013	0.140	0.004
58.00	0.54	2.65	0.09	2.283	0.021	0.104	0.004	29.00	0.33	3.55	0.1	1.142	0.013	0.140	0.004
60.00	0.55	2.65	0.09	2.362	0.022	0.104	0.004	30.00	0.34	3.55	0.1	1.181	0.013	0.140	0.004
61.50	0.56	2.65	0.09	2.421	0.022	0.104	0.004	31.50	0.35	3.55	0.1	1.240	0.014	0.140	0.004
63.00	0.57	2.65	0.09	2.480	0.022	0.104	0.004	32.50	0.36	3.55	0.1	1.280	0.014	0.140	0.004
65.00	0.58	2.65	0.09	2.559	0.023	0.104	0.004	33.50	0.36	3.55	0.1	1.319	0.014	0.140	0.004
67.00	0.60	2.65	0.09	2.638	0.024	0.104	0.004	34.50	0.37	3.55	0.1	1.358	0.015	0.140	0.004
69.00	0.61	2.65	0.09	2.717	0.024	0.104	0.004	35.50	0.38	3.55	0.1	1.398	0.015	0.140	0.004
71.00	0.63	2.65	0.09	2.795	0.025	0.104	0.004	36.50	0.38	3.55	0.1	1.437	0.015	0.140	0.004
73.00	0.64	2.65	0.09	2.874	0.025	0.104	0.004	37.50	0.39	3.55	0.1	1.476	0.015	0.140	0.004
75.00	0.65	2.65	0.09	2.953	0.026	0.104	0.004	38.70	0.40	3.55	0.1	1.524	0.016	0.140	0.004
77.50	0.67	2.65	0.09	3.051	0.026	0.104	0.004	40.00	0.41	3.55	0.1	1.575	0.016	0.140	0.004
80.00	0.69	2.65	0.09	3.150	0.027	0.104	0.004	41.20	0.42	3.55	0.1	1.622	0.017	0.140	0.004
82.50	0.71	2.65	0.09	3.248	0.028	0.104	0.004	42.50	0.43	3.55	0.1	1.673	0.017	0.140	0.004
85.00	0.72	2.65	0.09	3.346	0.028	0.104	0.004	43.70	0.44	3.55	0.1	1.720	0.017	0.140	0.004
87.50	0.74	2.65	0.09	3.445	0.029	0.104	0.004	45.00	0.44	3.55	0.1	1.772	0.017	0.140	0.004
90.00	0.76	2.65	0.09	3.543	0.030	0.104	0.004	46.20	0.45	3.55	0.1	1.819	0.018	0.140	0.004
92.50	0.77	2.65	0.09	3.642	0.030	0.104	0.004	47.50	0.46	3.55	0.1	1.870	0.018	0.140	0.004
95.00	0.79	2.65	0.09	3.740	0.031	0.104	0.004	48.70	0.47	3.55	0.1	1.917	0.019	0.140	0.004

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
50.00	0.48	3.55	0.1	1.969	0.019	0.140	0.004	177.50	1.34	3.55	0.1	6.988	0.053	0.140	0.004
51.50	0.49	3.55	0.1	2.028	0.019	0.140	0.004	180.00	1.36	3.55	0.1	7.087	0.054	0.140	0.004
53.00	0.50	3.55	0.1	2.087	0.020	0.140	0.004	182.50	1.38	3.55	0.1	7.185	0.054	0.140	0.004
54.50	0.51	3.55	0.1	2.146	0.020	0.140	0.004	185.00	1.39	3.55	0.1	7.283	0.055	0.140	0.004
56.00	0.52	3.55	0.1	2.205	0.020	0.140	0.004	187.50	1.41	3.55	0.1	7.382	0.056	0.140	0.004
58.00	0.54	3.55	0.1	2.283	0.021	0.140	0.004	190.00	1.43	3.55	0.1	7.480	0.056	0.140	0.004
60.00	0.55	3.55	0.1	2.362	0.022	0.140	0.004	195.00	1.46	3.55	0.1	7.677	0.057	0.140	0.004
61.50	0.56	3.55	0.1	2.421	0.022	0.140	0.004	200.00	1.49	3.55	0.1	7.874	0.059	0.140	0.004
63.00	0.57	3.55	0.1	2.480	0.022	0.140	0.004	40.00	0.41	5.3	0.13	1.575	0.016	0.209	0.005
65.00	0.58	3.55	0.1	2.559	0.023	0.140	0.004	41.20	0.42	5.3	0.13	1.622	0.017	0.209	0.005
67.00	0.60	3.55	0.1	2.638	0.024	0.140	0.004	42.50	0.43	5.3	0.13	1.673	0.017	0.209	0.005
69.00	0.61	3.55	0.1	2.717	0.024	0.140	0.004	43.70	0.44	5.3	0.13	1.720	0.017	0.209	0.005
71.00	0.63	3.55	0.1	2.795	0.025	0.140	0.004	45.00	0.44	5.3	0.13	1.772	0.017	0.209	0.005
73.00	0.64	3.55	0.1	2.874	0.025	0.140	0.004	46.20	0.45	5.3	0.13	1.819	0.018	0.209	0.005
75.00	0.65	3.55	0.1	2.953	0.026	0.140	0.004	47.50	0.46	5.3	0.13	1.870	0.018	0.209	0.005
77.50	0.67	3.55	0.1	3.051	0.026	0.140	0.004	48.70	0.47	5.3	0.13	1.917	0.019	0.209	0.005
80.00	0.69	3.55	0.1	3.150	0.027	0.140	0.004	50.00	0.48	5.3	0.13	1.969	0.019	0.209	0.005
82.50	0.71	3.55	0.1	3.248	0.028	0.140	0.004	51.50	0.49	5.3	0.13	2.028	0.019	0.209	0.005
85.00	0.72	3.55	0.1	3.346	0.028	0.140	0.004	53.00	0.50	5.3	0.13	2.087	0.020	0.209	0.005
87.50	0.74	3.55	0.1	3.445	0.029	0.140	0.004	54.50	0.51	5.3	0.13	2.146	0.020	0.209	0.005
90.00	0.76	3.55	0.1	3.543	0.030	0.140	0.004	56.00	0.52	5.3	0.13	2.205	0.020	0.209	0.005
92.50	0.77	3.55	0.1	3.642	0.030	0.140	0.004	58.00	0.54	5.3	0.13	2.283	0.021	0.209	0.005
95.00	0.79	3.55	0.1	3.740	0.031	0.140	0.004	60.00	0.55	5.3	0.13	2.362	0.022	0.209	0.005
97.50	0.81	3.55	0.1	3.839	0.032	0.140	0.004	61.50	0.56	5.3	0.13	2.421	0.022	0.209	0.005
100.00	0.82	3.55	0.1	3.937	0.032	0.140	0.004	63.00	0.57	5.3	0.13	2.480	0.022	0.209	0.005
103.00	0.85	3.55	0.1	4.055	0.033	0.140	0.004	65.00	0.58	5.3	0.13	2.559	0.023	0.209	0.005
106.00	0.87	3.55	0.1	4.173	0.034	0.140	0.004	67.00	0.60	5.3	0.13	2.638	0.024	0.209	0.005
109.00	0.89	3.55	0.1	4.291	0.035	0.140	0.004	69.00	0.61	5.3	0.13	2.717	0.024	0.209	0.005
112.00	0.91	3.55	0.1	4.409	0.036	0.140	0.004	71.00	0.63	5.3	0.13	2.795	0.025	0.209	0.005
115.00	0.93	3.55	0.1	4.528	0.037	0.140	0.004	73.00	0.64	5.3	0.13	2.874	0.025	0.209	0.005
118.00	0.95	3.55	0.1	4.646	0.037	0.140	0.004	75.00	0.65	5.3	0.13	2.953	0.026	0.209	0.005
122.00	0.97	3.55	0.1	4.803	0.038	0.140	0.004	77.50	0.67	5.3	0.13	3.051	0.026	0.209	0.005
125.00	0.99	3.55	0.1	4.921	0.039	0.140	0.004	80.00	0.69	5.3	0.13	3.150	0.027	0.209	0.005
128.00	1.01	3.55	0.1	5.039	0.040	0.140	0.004	82.50	0.71	5.3	0.13	3.248	0.028	0.209	0.005
132.00	1.04	3.55	0.1	5.197	0.041	0.140	0.004	85.00	0.72	5.3	0.13	3.346	0.028	0.209	0.005
136.00	1.07	3.55	0.1	5.354	0.042	0.140	0.004	87.50	0.74	5.3	0.13	3.445	0.029	0.209	0.005
140.00	1.09	3.55	0.1	5.512	0.043	0.140	0.004	90.00	0.76	5.3	0.13	3.543	0.030	0.209	0.005
142.50	1.11	3.55	0.1	5.610	0.044	0.140	0.004	92.50	0.77	5.3	0.13	3.642	0.030	0.209	0.005
145.00	1.13	3.55	0.1	5.709	0.044	0.140	0.004	95.00	0.79	5.3	0.13	3.740	0.031	0.209	0.005
147.50	1.14	3.55	0.1	5.807	0.045	0.140	0.004	97.50	0.81	5.3	0.13	3.839	0.032	0.209	0.005
150.00	1.16	3.55	0.1	5.906	0.046	0.140	0.004	100.00	0.82	5.3	0.13	3.937	0.032	0.209	0.005
152.50	1.18	3.55	0.1	6.004	0.046	0.140	0.004	103.00	0.85	5.3	0.13	4.055	0.033	0.209	0.005
155.00	1.19	3.55	0.1	6.102	0.047	0.140	0.004	106.00	0.87	5.3	0.13	4.173	0.034	0.209	0.005
157.50	1.21	3.55	0.1	6.201	0.048	0.140	0.004	109.00	0.89	5.3	0.13	4.291	0.035	0.209	0.005
160.00	1.23	3.55	0.1	6.299	0.048	0.140	0.004	112.00	0.91	5.3	0.13	4.409	0.036	0.209	0.005
162.50	1.24	3.55	0.1	6.398	0.049	0.140	0.004	115.00	0.93	5.3	0.13	4.528	0.037	0.209	0.005
165.00	1.26	3.55	0.1	6.496	0.050	0.140	0.004	118.00	0.95	5.3	0.13	4.646	0.037	0.209	0.005
167.50	1.28	3.55	0.1	6.594	0.050	0.140	0.004	122.00	0.97	5.3	0.13	4.803	0.038	0.209	0.005
170.00	1.29	3.55	0.1	6.693	0.051	0.140	0.004	125.00	0.99	5.3	0.13	4.921	0.039	0.209	0.005
172.50	1.31	3.55	0.1	6.791	0.052	0.140	0.004	128.00	1.01	5.3	0.13	5.039	0.040	0.209	0.005
175.00	1.33	3.55	0.1	6.890	0.052	0.140	0.004	132.00	1.04	5.3	0.13	5.197	0.041	0.209	0.005

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
136.00	1.07	5.3	0.13	5.354	0.042	0.209	0.005	315.00	2.24	5.3	0.13	12.402	0.088	0.209	0.005
140.00	1.09	5.3	0.13	5.512	0.043	0.209	0.005	320.00	2.27	5.3	0.13	12.598	0.089	0.209	0.005
142.50	1.11	5.3	0.13	5.610	0.044	0.209	0.005	325.00	2.30	5.3	0.13	12.795	0.091	0.209	0.005
145.00	1.13	5.3	0.13	5.709	0.044	0.209	0.005	330.00	2.33	5.3	0.13	12.992	0.092	0.209	0.005
147.50	1.14	5.3	0.13	5.807	0.045	0.209	0.005	335.00	2.36	5.3	0.13	13.189	0.093	0.209	0.005
150.00	1.16	5.3	0.13	5.906	0.046	0.209	0.005	340.00	2.40	5.3	0.13	13.386	0.094	0.209	0.005
152.50	1.18	5.3	0.13	6.004	0.046	0.209	0.005	345.00	2.43	5.3	0.13	13.583	0.096	0.209	0.005
155.00	1.19	5.3	0.13	6.102	0.047	0.209	0.005	350.00	2.46	5.3	0.13	13.780	0.097	0.209	0.005
157.50	1.21	5.3	0.13	6.201	0.048	0.209	0.005	355.00	2.49	5.3	0.13	13.976	0.098	0.209	0.005
160.00	1.23	5.3	0.13	6.299	0.048	0.209	0.005	360.00	2.52	5.3	0.13	14.173	0.099	0.209	0.005
162.50	1.24	5.3	0.13	6.398	0.049	0.209	0.005	365.00	2.56	5.3	0.13	14.370	0.101	0.209	0.005
165.00	1.26	5.3	0.13	6.496	0.050	0.209	0.005	370.00	2.59	5.3	0.13	14.567	0.102	0.209	0.005
167.50	1.28	5.3	0.13	6.594	0.050	0.209	0.005	375.00	2.62	5.3	0.13	14.764	0.103	0.209	0.005
170.00	1.29	5.3	0.13	6.693	0.051	0.209	0.005	379.00	2.64	5.3	0.13	14.921	0.104	0.209	0.005
172.50	1.31	5.3	0.13	6.791	0.052	0.209	0.005	383.00	2.67	5.3	0.13	15.079	0.105	0.209	0.005
175.00	1.33	5.3	0.13	6.890	0.052	0.209	0.005	387.00	2.70	5.3	0.13	15.236	0.106	0.209	0.005
177.50	1.34	5.3	0.13	6.988	0.053	0.209	0.005	391.00	2.72	5.3	0.13	15.394	0.107	0.209	0.005
180.00	1.36	5.3	0.13	7.087	0.054	0.209	0.005	395.00	2.75	5.3	0.13	15.551	0.108	0.209	0.005
182.50	1.38	5.3	0.13	7.185	0.054	0.209	0.005	400.00	2.78	5.3	0.13	15.748	0.109	0.209	0.005
185.00	1.39	5.3	0.13	7.283	0.055	0.209	0.005	109.00	0.89	7	0.15	4.291	0.035	0.276	0.006
187.50	1.41	5.3	0.13	7.382	0.056	0.209	0.005	112.00	0.91	7	0.15	4.409	0.036	0.276	0.006
190.00	1.43	5.3	0.13	7.480	0.056	0.209	0.005	115.00	0.93	7	0.15	4.528	0.037	0.276	0.006
195.00	1.46	5.3	0.13	7.677	0.057	0.209	0.005	118.00	0.95	7	0.15	4.646	0.037	0.276	0.006
200.00	1.49	5.3	0.13	7.874	0.059	0.209	0.005	122.00	0.97	7	0.15	4.803	0.038	0.276	0.006
203.00	1.51	5.3	0.13	7.992	0.059	0.209	0.005	125.00	0.99	7	0.15	4.921	0.039	0.276	0.006
206.00	1.53	5.3	0.13	8.110	0.060	0.209	0.005	128.00	1.01	7	0.15	5.039	0.040	0.276	0.006
212.00	1.57	5.3	0.13	8.346	0.062	0.209	0.005	132.00	1.04	7	0.15	5.197	0.041	0.276	0.006
218.00	1.61	5.3	0.13	8.583	0.063	0.209	0.005	136.00	1.07	7	0.15	5.354	0.042	0.276	0.006
224.00	1.65	5.3	0.13	8.819	0.065	0.209	0.005	140.00	1.09	7	0.15	5.512	0.043	0.276	0.006
227.00	1.67	5.3	0.13	8.937	0.066	0.209	0.005	142.50	1.11	7	0.15	5.610	0.044	0.276	0.006
230.00	1.69	5.3	0.13	9.055	0.067	0.209	0.005	145.00	1.13	7	0.15	5.709	0.044	0.276	0.006
236.00	1.73	5.3	0.13	9.291	0.068	0.209	0.005	147.50	1.14	7	0.15	5.807	0.045	0.276	0.006
239.00	1.75	5.3	0.13	9.409	0.069	0.209	0.005	150.00	1.16	7	0.15	5.906	0.046	0.276	0.006
243.00	1.77	5.3	0.13	9.567	0.070	0.209	0.005	152.50	1.18	7	0.15	6.004	0.046	0.276	0.006
250.00	1.82	5.3	0.13	9.843	0.072	0.209	0.005	155.00	1.19	7	0.15	6.102	0.047	0.276	0.006
254.00	1.84	5.3	0.13	10.000	0.072	0.209	0.005	157.50	1.21	7	0.15	6.201	0.048	0.276	0.006
258.00	1.87	5.3	0.13	10.157	0.074	0.209	0.005	160.00	1.23	7	0.15	6.299	0.048	0.276	0.006
261.00	1.89	5.3	0.13	10.276	0.074	0.209	0.005	162.50	1.24	7	0.15	6.398	0.049	0.276	0.006
265.00	1.91	5.3	0.13	10.433	0.075	0.209	0.005	165.00	1.26	7	0.15	6.496	0.050	0.276	0.006
268.00	1.93	5.3	0.13	10.551	0.076	0.209	0.005	167.50	1.28	7	0.15	6.594	0.050	0.276	0.006
272.00	1.96	5.3	0.13	10.709	0.077	0.209	0.005	170.00	1.29	7	0.15	6.693	0.051	0.276	0.006
276.00	1.99	5.3	0.13	10.866	0.078	0.209	0.005	172.50	1.31	7	0.15	6.791	0.052	0.276	0.006
280.00	2.01	5.3	0.13	11.024	0.079	0.209	0.005	175.00	1.33	7	0.15	6.890	0.052	0.276	0.006
283.00	2.03	5.3	0.13	11.142	0.080	0.209	0.005	177.50	1.34	7	0.15	6.988	0.053	0.276	0.006
286.00	2.05	5.3	0.13	11.260	0.081	0.209	0.005	180.00	1.36	7	0.15	7.087	0.054	0.276	0.006
290.00	2.08	5.3	0.13	11.417	0.082	0.209	0.005	182.50	1.38	7	0.15	7.185	0.054	0.276	0.006
295.00	2.11	5.3	0.13	11.614	0.083	0.209	0.005	185.00	1.39	7	0.15	7.283	0.055	0.276	0.006
300.00	2.14	5.3	0.13	11.811	0.084	0.209	0.005	187.50	1.41	7	0.15	7.382	0.056	0.276	0.006
303.00	2.16	5.3	0.13	11.929	0.085	0.209	0.005	190.00	1.43	7	0.15	7.480	0.056	0.276	0.006
307.00	2.19	5.3	0.13	12.087	0.086	0.209	0.005	195.00	1.46	7	0.15	7.677	0.057	0.276	0.006
311.00	2.21	5.3	0.13	12.244	0.087	0.209	0.005	200.00	1.49	7	0.15	7.874	0.059	0.276	0.006

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (GB/T 3452.1)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
203.00	1.51	7	0.15	7.992	0.059	0.276	0.006	433.00	2.99	7	0.15	17.047	0.118	0.276	0.006
206.00	1.53	7	0.15	8.110	0.060	0.276	0.006	437.00	3.01	7	0.15	17.205	0.119	0.276	0.006
212.00	1.57	7	0.15	8.346	0.062	0.276	0.006	443.00	3.05	7	0.15	17.441	0.120	0.276	0.006
218.00	1.61	7	0.15	8.583	0.063	0.276	0.006	450.00	3.09	7	0.15	17.717	0.122	0.276	0.006
224.00	1.65	7	0.15	8.819	0.065	0.276	0.006	456.00	3.13	7	0.15	17.953	0.123	0.276	0.006
227.00	1.67	7	0.15	8.937	0.066	0.276	0.006	462.00	3.17	7	0.15	18.189	0.125	0.276	0.006
230.00	1.69	7	0.15	9.055	0.067	0.276	0.006	466.00	3.19	7	0.15	18.346	0.126	0.276	0.006
236.00	1.73	7	0.15	9.291	0.068	0.276	0.006	470.00	3.22	7	0.15	18.504	0.127	0.276	0.006
239.00	1.75	7	0.15	9.409	0.069	0.276	0.006	475.00	3.25	7	0.15	18.701	0.128	0.276	0.006
243.00	1.77	7	0.15	9.567	0.070	0.276	0.006	479.00	3.28	7	0.15	18.858	0.129	0.276	0.006
250.00	1.82	7	0.15	9.843	0.072	0.276	0.006	483.00	3.30	7	0.15	19.016	0.130	0.276	0.006
254.00	1.84	7	0.15	10.000	0.072	0.276	0.006	487.00	3.33	7	0.15	19.173	0.131	0.276	0.006
258.00	1.87	7	0.15	10.157	0.074	0.276	0.006	493.00	3.36	7	0.15	19.409	0.132	0.276	0.006
261.00	1.89	7	0.15	10.276	0.074	0.276	0.006	500.00	3.41	7	0.15	19.685	0.134	0.276	0.006
265.00	1.91	7	0.15	10.433	0.075	0.276	0.006	508.00	3.46	7	0.15	20.000	0.136	0.276	0.006
268.00	1.93	7	0.15	10.551	0.076	0.276	0.006	515.00	3.50	7	0.15	20.276	0.138	0.276	0.006
272.00	1.96	7	0.15	10.709	0.077	0.276	0.006	523.00	3.55	7	0.15	20.591	0.140	0.276	0.006
276.00	1.99	7	0.15	10.866	0.078	0.276	0.006	530.00	3.60	7	0.15	20.866	0.142	0.276	0.006
280.00	2.01	7	0.15	11.024	0.079	0.276	0.006	538.00	3.65	7	0.15	21.181	0.144	0.276	0.006
283.00	2.03	7	0.15	11.142	0.080	0.276	0.006	545.00	3.69	7	0.15	21.457	0.145	0.276	0.006
286.00	2.05	7	0.15	11.260	0.081	0.276	0.006	553.00	3.74	7	0.15	21.772	0.147	0.276	0.006
290.00	2.08	7	0.15	11.417	0.082	0.276	0.006	560.00	3.78	7	0.15	22.047	0.149	0.276	0.006
295.00	2.11	7	0.15	11.614	0.083	0.276	0.006	570.00	3.85	7	0.15	22.441	0.152	0.276	0.006
300.00	2.14	7	0.15	11.811	0.084	0.276	0.006	580.00	3.91	7	0.15	22.835	0.154	0.276	0.006
303.00	2.16	7	0.15	11.929	0.085	0.276	0.006	590.00	3.97	7	0.15	23.228	0.156	0.276	0.006
307.00	2.19	7	0.15	12.087	0.086	0.276	0.006	600.00	4.03	7	0.15	23.622	0.159	0.276	0.006
311.00	2.21	7	0.15	12.244	0.087	0.276	0.006	608.00	4.08	7	0.15	23.937	0.161	0.276	0.006
315.00	2.24	7	0.15	12.402	0.088	0.276	0.006	615.00	4.12	7	0.15	24.213	0.162	0.276	0.006
320.00	2.27	7	0.15	12.598	0.089	0.276	0.006	623.00	4.17	7	0.15	24.528	0.164	0.276	0.006
325.00	2.30	7	0.15	12.795	0.091	0.276	0.006	630.00	4.22	7	0.15	24.803	0.166	0.276	0.006
330.00	2.33	7	0.15	12.992	0.092	0.276	0.006	640.00	4.28	7	0.15	25.197	0.169	0.276	0.006
335.00	2.36	7	0.15	13.189	0.093	0.276	0.006	650.00	4.34	7	0.15	25.591	0.171	0.276	0.006
340.00	2.40	7	0.15	13.386	0.094	0.276	0.006	660.00	4.40	7	0.15	25.984	0.173	0.276	0.006
345.00	2.43	7	0.15	13.583	0.096	0.276	0.006	670.00	4.47	7	0.15	26.378	0.176	0.276	0.006
350.00	2.46	7	0.15	13.780	0.097	0.276	0.006								
355.00	2.49	7	0.15	13.976	0.098	0.276	0.006								
360.00	2.52	7	0.15	14.173	0.099	0.276	0.006								
365.00	2.56	7	0.15	14.370	0.101	0.276	0.006								
370.00	2.59	7	0.15	14.567	0.102	0.276	0.006								
375.00	2.62	7	0.15	14.764	0.103	0.276	0.006								
379.00	2.64	7	0.15	14.921	0.104	0.276	0.006								
383.00	2.67	7	0.15	15.079	0.105	0.276	0.006								
387.00	2.70	7	0.15	15.236	0.106	0.276	0.006								
391.00	2.72	7	0.15	15.394	0.107	0.276	0.006								
395.00	2.75	7	0.15	15.551	0.108	0.276	0.006								
400.00	2.78	7	0.15	15.748	0.109	0.276	0.006								
406.00	2.82	7	0.15	15.984	0.111	0.276	0.006								
412.00	2.85	7	0.15	16.220	0.112	0.276	0.006								
418.00	2.89	7	0.15	16.457	0.114	0.276	0.006								
425.00	2.94	7	0.15	16.732	0.116	0.276	0.006								
429.00	2.96	7	0.15	16.890	0.117	0.276	0.006								

O-Ring Standard Size (GB/T 3452.1)

O-Ring Standard Size (JIS B 2401)

TABLE OF DIMENSIONS OF O-RINGS FOR STATIC SEALING OF CYLINDRICAL SURFACE AND FLAT SURFACE

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
G20	19.4	0.22	3.10	0.10	0.764	0.009	0.122	0.004
G25	24.40	0.25	3.10	0.10	0.961	0.010	0.122	0.004
G30	29.40	0.29	3.10	0.10	1.157	0.011	0.122	0.004
G35	34.40	0.33	3.10	0.10	1.354	0.013	0.122	0.004
G40	39.40	0.37	3.10	0.10	1.551	0.015	0.122	0.004
G45	44.40	0.41	3.10	0.10	1.748	0.016	0.122	0.004
G50	49.40	0.45	3.10	0.10	1.945	0.018	0.122	0.004
G55	54.40	0.49	3.10	0.10	2.142	0.019	0.122	0.004
G58	57.40	0.51	3.10	0.10	2.260	0.020	0.122	0.004
G60	59.40	0.53	3.10	0.10	2.339	0.021	0.122	0.004
G65	64.40	0.57	3.10	0.10	2.535	0.022	0.122	0.004
G70	69.40	0.61	3.10	0.10	2.732	0.024	0.122	0.004
G75	74.40	0.65	3.10	0.10	2.929	0.026	0.122	0.004
G80	79.40	0.69	3.10	0.10	3.126	0.027	0.122	0.004
G85	84.40	0.73	3.10	0.10	3.323	0.029	0.122	0.004
G90	89.40	0.77	3.10	0.10	3.520	0.030	0.122	0.004
G95	94.40	0.81	3.10	0.10	3.717	0.032	0.122	0.004
G100	99.40	0.85	3.10	0.10	3.913	0.033	0.122	0.004
G105	104.40	0.87	3.10	0.10	4.110	0.034	0.122	0.004
G110	109.40	0.91	3.10	0.10	4.307	0.036	0.122	0.004
G115	114.40	0.94	3.10	0.10	4.504	0.037	0.122	0.004
G120	119.40	0.98	3.10	0.10	4.701	0.039	0.122	0.004
G125	124.40	1.01	3.10	0.10	4.898	0.040	0.122	0.004
G130	129.40	1.05	3.10	0.10	5.094	0.041	0.122	0.004
G135	134.40	1.08	3.10	0.10	5.291	0.043	0.122	0.004
G140	139.40	1.12	3.10	0.10	5.488	0.044	0.122	0.004
G145	144.40	1.16	3.10	0.10	5.685	0.046	0.122	0.004
G150	149.30	1.19	5.70	0.13	5.878	0.047	0.224	0.005
G155	154.30	1.23	5.70	0.13	6.075	0.048	0.224	0.005
G160	159.30	1.26	5.70	0.13	6.272	0.050	0.224	0.005
G165	164.30	1.30	5.70	0.13	6.468	0.051	0.224	0.005
G170	169.30	1.33	5.70	0.13	6.665	0.052	0.224	0.005
G175	174.30	1.37	5.70	0.13	6.862	0.054	0.224	0.005
G180	179.30	1.40	5.70	0.13	7.059	0.055	0.224	0.005
G185	184.30	1.44	5.70	0.13	7.256	0.057	0.224	0.005
G190	189.30	1.47	5.70	0.13	7.453	0.058	0.224	0.005
G195	194.30	1.51	5.70	0.13	7.650	0.059	0.224	0.005
G200	199.30	1.55	5.70	0.13	7.846	0.061	0.224	0.005
G205	204.30	1.58	5.70	0.13	8.043	0.062	0.224	0.005
G210	209.30	1.61	5.70	0.13	8.240	0.063	0.224	0.005
G215	214.30	1.65	5.70	0.13	8.437	0.065	0.224	0.005
G220	219.30	1.68	5.70	0.13	8.634	0.066	0.224	0.005
G225	224.30	1.71	5.70	0.13	8.831	0.067	0.224	0.005
G230	229.30	1.73	5.70	0.13	9.028	0.068	0.224	0.005
G235	234.30	1.78	5.70	0.13	9.224	0.070	0.224	0.005
G240	239.30	1.81	5.70	0.13	9.421	0.071	0.224	0.005
G245	244.30	1.85	5.70	0.13	9.618	0.073	0.224	0.005
G250	249.30	1.88	5.70	0.13	9.815	0.074	0.224	0.005
G255	254.30	1.91	5.70	0.13	10.012	0.075	0.224	0.005
G260	259.30	1.94	5.70	0.13	10.209	0.076	0.224	0.005
G265	264.30	1.98	5.70	0.13	10.405	0.078	0.224	0.005
G270	269.30	2.01	5.70	0.13	10.602	0.079	0.224	0.005
G275	274.30	2.04	5.70	0.13	10.799	0.080	0.224	0.005

O-Ring Standard
Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)

JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
G280	279.30	2.07	5.70	0.13	10.996	0.081	0.224	0.005
G285	284.30	2.11	5.70	0.13	11.193	0.083	0.224	0.005
G290	289.30	2.14	5.70	0.13	11.390	0.084	0.224	0.005
G295	294.30	2.17	5.70	0.13	11.587	0.085	0.224	0.005
G300	299.30	2.20	5.70	0.13	11.783	0.087	0.224	0.005
G305	304.30	2.24	5.70	0.13	11.980	0.088	0.224	0.005
G310	309.30	2.27	5.70	0.13	12.177	0.089	0.224	0.005
G315	314.30	2.30	5.70	0.13	12.374	0.091	0.224	0.005
G320	319.30	2.33	5.70	0.13	12.571	0.092	0.224	0.005
G325	324.30	2.36	5.70	0.13	12.768	0.093	0.224	0.005
G330	329.30	2.39	5.70	0.13	12.965	0.094	0.224	0.005
G335	334.30	2.42	5.70	0.13	13.161	0.095	0.224	0.005
G340	339.30	2.45	5.70	0.13	13.358	0.096	0.224	0.005
G345	344.30	2.48	5.70	0.13	13.555	0.098	0.224	0.005
G350	349.30	2.51	5.70	0.13	13.752	0.099	0.224	0.005
G355	354.30	2.54	5.70	0.13	13.949	0.100	0.224	0.005
G360	359.30	2.57	5.70	0.13	14.146	0.101	0.224	0.005
G365	364.30	2.60	5.70	0.13	14.342	0.102	0.224	0.005
G370	369.30	2.63	5.70	0.13	14.539	0.104	0.224	0.005
G375	374.30	2.67	5.70	0.13	14.736	0.105	0.224	0.005
G380	379.30	2.70	5.70	0.13	14.933	0.106	0.224	0.005
G385	384.30	2.73	5.70	0.13	15.130	0.107	0.224	0.005
G390	389.30	2.77	5.70	0.13	15.327	0.109	0.224	0.005
G395	394.30	2.79	5.70	0.13	15.524	0.110	0.224	0.005
G400	399.30	2.82	5.70	0.13	15.720	0.111	0.224	0.005
G405	404.30	3.00	5.70	0.13	15.917	0.118	0.224	0.005
G410	409.30	3.00	5.70	0.13	16.114	0.118	0.224	0.005
G415	414.30	3.00	5.70	0.13	16.311	0.118	0.224	0.005
G420	419.30	3.00	5.70	0.13	16.508	0.118	0.224	0.005
G425	424.30	3.00	5.70	0.13	16.705	0.118	0.224	0.005
G430	429.30	3.00	5.70	0.13	16.902	0.118	0.224	0.005
G435	434.30	3.00	5.70	0.13	17.098	0.118	0.224	0.005
G440	439.30	3.00	5.70	0.13	17.295	0.118	0.224	0.005
G445	444.30	3.00	5.70	0.13	17.492	0.118	0.224	0.005
G450	449.30	3.00	5.70	0.13	17.689	0.118	0.224	0.005
G455	454.30	3.30	5.70	0.13	17.886	0.130	0.224	0.005
G460	459.30	3.30	5.70	0.13	18.083	0.130	0.224	0.005
G465	464.30	3.30	5.70	0.13	18.279	0.130	0.224	0.005
G470	469.30	3.30	5.70	0.13	18.476	0.130	0.224	0.005
G475	474.30	3.30	5.70	0.13	18.673	0.130	0.224	0.005
G480	479.30	3.30	5.70	0.13	18.870	0.130	0.224	0.005
G485	484.30	3.30	5.70	0.13	19.067	0.130	0.224	0.005
G490	489.30	3.30	5.70	0.13	19.264	0.130	0.224	0.005
G495	494.30	3.30	5.70	0.13	19.461	0.130	0.224	0.005
G500	499.30	3.30	5.70	0.13	19.657	0.130	0.224	0.005
G510	509.30	3.47	5.70	0.13	20.051	0.136	0.224	0.005
G520	519.30	3.53	5.70	0.13	20.445	0.139	0.224	0.005
G525	524.30	3.56	5.70	0.13	20.642	0.140	0.224	0.005
G530	529.30	3.59	5.70	0.13	20.839	0.141	0.224	0.005
G540	539.30	3.65	5.70	0.13	21.232	0.144	0.224	0.005
G550	549.30	3.72	5.70	0.13	21.626	0.146	0.224	0.005
G555	554.30	3.75	5.70	0.13	21.823	0.148	0.224	0.005

O-Ring Standard Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
G560	559.30	3.78	5.70	0.13	22.020	0.149	0.224	0.005
G570	569.30	3.84	5.70	0.13	22.413	0.151	0.224	0.005
G580	579.30	3.90	5.70	0.13	22.807	0.154	0.224	0.005
G585	584.30	3.93	5.70	0.13	23.004	0.155	0.224	0.005
G590	589.30	3.97	5.70	0.13	23.201	0.156	0.224	0.005
G600	599.30	4.03	5.70	0.13	23.594	0.159	0.224	0.005
G605	604.30	4.06	5.70	0.13	23.791	0.160	0.224	0.005
G615	614.3	4.12	5.70	0.13	24.185	0.162	0.224	0.005
G620	619.3	4.15	5.70	0.13	24.382	0.163	0.224	0.005
G630	629.3	4.21	5.70	0.13	24.776	0.166	0.224	0.005
G860	859.30	5.63	5.70	0.13	33.831	0.222	0.224	0.005
G910	909.30	5.93	5.70	0.13	35.799	0.234	0.224	0.005

TABLE OF DIMENSIONS OF O-RINGS FOR DYNAMIC SEALING AND STATIC SEALING OF CYLINDRICAL SURFACE AND FLAT SURFACE

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
P3	2.80	0.14	1.90	0.07	0.110	0.006	0.075	0.003
P4	3.80	0.14	1.90	0.07	0.150	0.006	0.075	0.003
P5	4.80	0.15	1.90	0.07	0.189	0.006	0.075	0.003
P6	5.80	0.15	1.90	0.07	0.228	0.006	0.075	0.003
P7	6.80	0.16	1.90	0.07	0.268	0.006	0.075	0.003
P8	7.80	0.16	1.90	0.07	0.307	0.006	0.075	0.003
P9	8.80	0.17	1.90	0.07	0.346	0.007	0.075	0.003
P10	9.80	0.17	1.90	0.07	0.386	0.007	0.075	0.003
P10A	9.80	0.17	2.40	0.07	0.386	0.007	0.094	0.003
P11	10.80	0.18	2.40	0.07	0.425	0.007	0.094	0.003
P11.2	11.00	0.18	2.40	0.07	0.433	0.007	0.094	0.003
P12	11.80	0.19	2.40	0.07	0.465	0.007	0.094	0.003
P12.5	12.30	0.19	2.40	0.07	0.484	0.007	0.094	0.003
P13	12.80	0.19	2.40	0.07	0.504	0.007	0.094	0.003
P14	13.80	0.19	2.40	0.07	0.543	0.007	0.094	0.003
P15	14.80	0.20	2.40	0.07	0.583	0.008	0.094	0.003
P16	15.80	0.20	2.40	0.07	0.622	0.008	0.094	0.003
P17	16.80	0.21	2.40	0.07	0.661	0.008	0.094	0.003
P18	17.80	0.21	2.40	0.07	0.701	0.008	0.094	0.003
P19	18.80	0.21	2.40	0.07	0.740	0.008	0.094	0.003
P20	19.80	0.22	2.40	0.07	0.780	0.009	0.094	0.003
P21	20.80	0.23	2.40	0.07	0.819	0.009	0.094	0.003
P22	21.80	0.24	2.40	0.07	0.858	0.009	0.094	0.003
P22A	21.70	0.24	3.50	0.10	0.854	0.009	0.138	0.004
P22.4	22.10	0.24	3.50	0.10	0.870	0.009	0.138	0.004
P24	23.70	0.24	3.50	0.10	0.933	0.009	0.138	0.004
P25	24.70	0.25	3.50	0.10	0.972	0.010	0.138	0.004
P25.5	25.20	0.25	3.50	0.10	0.992	0.010	0.138	0.004
P26	25.70	0.26	3.50	0.10	1.012	0.010	0.138	0.004
P28	27.70	0.28	3.50	0.10	1.091	0.011	0.138	0.004
P29	28.70	0.29	3.50	0.10	1.130	0.011	0.138	0.004
P29.5	29.20	0.29	3.50	0.10	1.150	0.011	0.138	0.004
P30	29.70	0.29	3.50	0.10	1.169	0.011	0.138	0.004
P31	30.70	0.30	3.50	0.10	1.209	0.012	0.138	0.004
P31.5	31.20	0.31	3.50	0.10	1.228	0.012	0.138	0.004
P32	31.70	0.31	3.50	0.10	1.248	0.012	0.138	0.004
P33	32.70	0.31	3.50	0.10	1.287	0.012	0.138	0.004
P34	33.70	0.33	3.50	0.10	1.327	0.013	0.138	0.004
P35	34.70	0.34	3.50	0.10	1.366	0.013	0.138	0.004
P35.5	35.20	0.34	3.50	0.10	1.386	0.013	0.138	0.004
P36	35.70	0.34	3.50	0.10	1.406	0.013	0.138	0.004
P38	37.70	0.37	3.50	0.10	1.484	0.015	0.138	0.004
P39	38.70	0.37	3.50	0.10	1.524	0.015	0.138	0.004
P40	39.70	0.37	3.50	0.10	1.563	0.015	0.138	0.004
P41	40.70	0.38	3.50	0.10	1.602	0.015	0.138	0.004
P42	41.70	0.39	3.50	0.10	1.642	0.015	0.138	0.004
P44	43.70	0.41	3.50	0.10	1.720	0.016	0.138	0.004
P45	44.70	0.41	3.50	0.10	1.760	0.016	0.138	0.004
P46	45.70	0.42	3.50	0.10	1.799	0.017	0.138	0.004
P48	47.70	0.44	3.50	0.10	1.878	0.017	0.138	0.004
P49	48.70	0.45	3.50	0.10	1.917	0.018	0.138	0.004
P50	49.70	0.45	3.50	0.10	1.957	0.018	0.138	0.004
P48A	47.60	0.44	5.70	0.13	1.874	0.017	0.224	0.005
P50A	49.60	0.45	5.70	0.13	1.953	0.018	0.224	0.005

O-Ring Standard
Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
P52	51.60	0.47	5.70	0.13	2.031	0.019	0.224	0.005
P53	52.60	0.48	5.70	0.13	2.071	0.019	0.224	0.005
P55	54.60	0.49	5.70	0.13	2.150	0.019	0.224	0.005
P56	55.60	0.50	5.70	0.13	2.189	0.020	0.224	0.005
P58	57.60	0.52	5.70	0.13	2.268	0.020	0.224	0.005
P60	59.60	0.53	5.70	0.13	2.346	0.021	0.224	0.005
P62	61.60	0.55	5.70	0.13	2.425	0.022	0.224	0.005
P63	62.60	0.56	5.70	0.13	2.465	0.022	0.224	0.005
P65	64.60	0.57	5.70	0.13	2.543	0.022	0.224	0.005
P67	66.60	0.59	5.70	0.13	2.622	0.023	0.224	0.005
P68	67.60	0.59	5.70	0.13	2.661	0.023	0.224	0.005
P70	69.60	0.61	5.70	0.13	2.740	0.024	0.224	0.005
P71	70.60	0.62	5.70	0.13	2.780	0.024	0.224	0.005
P75	74.60	0.65	5.70	0.13	2.937	0.026	0.224	0.005
P80	79.60	0.69	5.70	0.13	3.134	0.027	0.224	0.005
P85	84.60	0.73	5.70	0.13	3.331	0.029	0.224	0.005
P90	89.60	0.77	5.70	0.13	3.528	0.030	0.224	0.005
P95	94.60	0.81	5.70	0.13	3.724	0.032	0.224	0.005
P100	99.60	0.84	5.70	0.13	3.921	0.033	0.224	0.005
P102	101.60	0.85	5.70	0.13	4.000	0.033	0.224	0.005
P105	104.60	0.87	5.70	0.13	4.118	0.034	0.224	0.005
P110	109.60	0.91	5.70	0.13	4.315	0.036	0.224	0.005
P112	111.60	0.92	5.70	0.13	4.394	0.036	0.224	0.005
P115	114.60	0.94	5.70	0.13	4.512	0.037	0.224	0.005
P120	119.60	0.98	5.70	0.13	4.709	0.039	0.224	0.005
P125	124.60	1.01	5.70	0.13	4.906	0.040	0.224	0.005
P130	129.60	1.05	5.70	0.13	5.102	0.041	0.224	0.005
P132	131.60	1.06	5.70	0.13	5.181	0.042	0.224	0.005
P135	134.60	1.09	5.70	0.13	5.299	0.043	0.224	0.005
P140	139.60	1.12	5.70	0.13	5.496	0.044	0.224	0.005
P145	144.60	1.16	5.70	0.13	5.693	0.046	0.224	0.005
P150	149.60	1.19	5.70	0.13	5.890	0.047	0.224	0.005
P150A	149.50	1.19	8.40	0.15	5.886	0.047	0.331	0.006
P155	154.50	1.23	8.40	0.15	6.083	0.048	0.331	0.006
P160	159.50	1.26	8.40	0.15	6.280	0.050	0.331	0.006
P165	164.50	1.30	8.40	0.15	6.476	0.051	0.331	0.006
P170	169.50	1.33	8.40	0.15	6.673	0.052	0.331	0.006
P175	174.50	1.37	8.40	0.15	6.870	0.054	0.331	0.006
P180	179.50	1.40	8.40	0.15	7.067	0.055	0.331	0.006
P185	184.50	1.44	8.40	0.15	7.264	0.057	0.331	0.006
P190	189.50	1.48	8.40	0.15	7.461	0.058	0.331	0.006
P195	194.50	1.51	8.40	0.15	7.657	0.059	0.331	0.006
P200	199.50	1.55	8.40	0.15	7.854	0.061	0.331	0.006
P205	204.50	1.58	8.40	0.15	8.051	0.062	0.331	0.006
P209	208.50	1.61	8.40	0.15	8.209	0.063	0.331	0.006
P210	209.50	1.62	8.40	0.15	8.248	0.064	0.331	0.006
P215	214.50	1.65	8.40	0.15	8.445	0.065	0.331	0.006
P220	219.50	1.68	8.40	0.15	8.642	0.066	0.331	0.006
P225	224.50	1.71	8.40	0.15	8.839	0.067	0.331	0.006
P230	229.50	1.75	8.40	0.15	9.035	0.069	0.331	0.006
P235	234.50	1.78	8.40	0.15	9.232	0.070	0.331	0.006
P240	239.50	1.81	8.40	0.15	9.429	0.071	0.331	0.006
P245	244.50	1.84	8.40	0.15	9.626	0.072	0.331	0.006
P250	249.50	1.88	8.40	0.15	9.823	0.074	0.331	0.006

O-Ring Standard
Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)

JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
P255	254.50	1.91	8.40	0.15	10.020	0.075	0.331	0.006
P260	259.50	1.94	8.40	0.15	10.217	0.076	0.331	0.006
P265	264.50	1.97	8.40	0.15	10.413	0.078	0.331	0.006
P270	269.50	2.01	8.40	0.15	10.610	0.079	0.331	0.006
P275	274.50	2.04	8.40	0.15	10.807	0.080	0.331	0.006
P280	279.50	2.07	8.40	0.15	11.004	0.081	0.331	0.006
P285	284.50	2.10	8.40	0.15	11.201	0.083	0.331	0.006
P290	289.50	2.14	8.40	0.15	11.398	0.084	0.331	0.006
P295	294.50	2.17	8.40	0.15	11.594	0.085	0.331	0.006
P300	299.50	2.20	8.40	0.15	11.791	0.087	0.331	0.006
P305	304.50	2.24	8.40	0.15	11.988	0.088	0.331	0.006
P310	309.50	2.27	8.40	0.15	12.185	0.089	0.331	0.006
P315	314.50	2.30	8.40	0.15	12.382	0.091	0.331	0.006
P320	319.50	2.33	8.40	0.15	12.579	0.092	0.331	0.006
P325	324.50	2.36	8.40	0.15	12.776	0.093	0.331	0.006
P330	329.50	2.39	8.40	0.15	12.972	0.094	0.331	0.006
P335	334.50	2.42	8.40	0.15	13.169	0.095	0.331	0.006
P340	339.50	2.45	8.40	0.15	13.366	0.096	0.331	0.006
P345	344.50	2.48	8.40	0.15	13.563	0.098	0.331	0.006
P350	349.50	2.51	8.40	0.15	13.760	0.099	0.331	0.006
P355	354.50	2.54	8.40	0.15	13.957	0.100	0.331	0.006
P360	359.50	2.57	8.40	0.15	14.154	0.101	0.331	0.006
P365	364.50	2.60	8.40	0.15	14.350	0.102	0.331	0.006
P370	369.50	2.63	8.40	0.15	14.547	0.104	0.331	0.006
P375	374.50	2.67	8.40	0.15	14.744	0.105	0.331	0.006
P380	379.50	2.70	8.40	0.15	14.941	0.106	0.331	0.006
P385	384.50	2.73	8.40	0.15	15.138	0.107	0.331	0.006
P390	389.50	2.77	8.40	0.15	15.335	0.109	0.331	0.006
P395	394.50	2.79	8.40	0.15	15.531	0.110	0.331	0.006
P400	399.50	2.82	8.40	0.15	15.728	0.111	0.331	0.006
P405	404.50	3.00	8.40	0.15	15.925	0.118	0.331	0.006
P410	409.50	3.00	8.40	0.15	16.122	0.118	0.331	0.006
P415	414.50	3.00	8.40	0.15	16.319	0.118	0.331	0.006
P420	419.50	3.00	8.40	0.15	16.516	0.118	0.331	0.006
P425	424.50	3.00	8.40	0.15	16.713	0.118	0.331	0.006
P430	429.50	3.00	8.40	0.15	16.909	0.118	0.331	0.006
P435	434.50	3.00	8.40	0.15	17.106	0.118	0.331	0.006
P440	439.50	3.00	8.40	0.15	17.303	0.118	0.331	0.006
P445	444.50	3.00	8.40	0.15	17.500	0.118	0.331	0.006
P450	449.50	3.00	8.40	0.15	17.697	0.118	0.331	0.006
P455	454.50	3.30	8.40	0.15	17.894	0.130	0.331	0.006
P460	459.50	3.30	8.40	0.15	18.091	0.130	0.331	0.006
P465	464.50	3.30	8.40	0.15	18.287	0.130	0.331	0.006
P470	469.50	3.30	8.40	0.15	18.484	0.130	0.331	0.006
P475	474.50	3.30	8.40	0.15	18.681	0.130	0.331	0.006
P480	479.50	3.30	8.40	0.15	18.878	0.130	0.331	0.006
P485	484.50	3.30	8.40	0.15	19.075	0.130	0.331	0.006
P490	489.50	3.30	8.40	0.15	19.272	0.130	0.331	0.006
P495	494.50	3.30	8.40	0.15	19.468	0.130	0.331	0.006
P500	499.50	3.30	8.40	0.15	19.665	0.130	0.331	0.006
P590	589.50	3.97	8.40	0.15	23.209	0.156	0.331	0.006
P600	599.50	4.03	8.40	0.15	23.602	0.159	0.331	0.006
P610	609.50	4.09	8.40	0.15	23.996	0.161	0.331	0.006
P620	619.50	4.15	8.40	0.15	24.390	0.163	0.331	0.006
P625	624.50	4.18	8.40	0.15	24.587	0.165	0.331	0.006

O-Ring Standard Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
P635	634.50	4.25	8.40	0.15	24.980	0.167	0.331	0.006
P650	649.50	4.34	8.40	0.15	25.571	0.171	0.331	0.006
P680	679.50	4.52	8.40	0.15	26.752	0.178	0.331	0.006
P690	689.50	4.59	8.40	0.15	27.146	0.181	0.331	0.006
P700	699.50	4.65	8.40	0.15	27.539	0.183	0.331	0.006
P710	709.50	4.71	8.40	0.15	27.933	0.185	0.331	0.006
P720	719.50	4.77	8.40	0.15	28.327	0.188	0.331	0.006
P730	729.50	4.83	8.40	0.15	28.720	0.190	0.331	0.006
P740	739.50	4.89	8.40	0.15	29.114	0.193	0.331	0.006
P750	749.50	4.95	8.40	0.15	29.508	0.195	0.331	0.006
P760	759.50	5.02	8.40	0.15	29.902	0.197	0.331	0.006
P770	769.50	5.08	8.40	0.15	30.295	0.200	0.331	0.006
P780	779.50	5.14	8.40	0.15	30.689	0.202	0.331	0.006
P790	789.50	5.20	8.40	0.15	31.083	0.205	0.331	0.006
P800	799.50	5.26	8.40	0.15	31.476	0.207	0.331	0.006
P810	809.50	5.32	8.40	0.15	31.870	0.210	0.331	0.006
P820	819.50	5.38	8.40	0.15	32.264	0.212	0.331	0.006
P830	829.50	5.44	8.40	0.15	32.657	0.214	0.331	0.006
P840	839.50	5.51	8.40	0.15	33.051	0.217	0.331	0.006
P850	849.50	5.57	8.40	0.15	33.445	0.219	0.331	0.006
P860	859.50	5.63	8.40	0.15	33.839	0.222	0.331	0.006
P870	869.50	5.69	8.40	0.15	34.232	0.224	0.331	0.006
P880	879.50	5.75	8.40	0.15	34.626	0.226	0.331	0.006
P890	889.50	5.81	8.40	0.15	35.020	0.229	0.331	0.006
P900	899.50	5.87	8.40	0.15	35.413	0.231	0.331	0.006
P910	909.50	5.93	8.40	0.15	35.807	0.234	0.331	0.006
P915	914.50	5.96	8.40	0.15	36.004	0.235	0.331	0.006
P920	919.50	5.99	8.40	0.15	36.201	0.236	0.331	0.006
P930	929.50	6.05	8.40	0.15	36.594	0.238	0.331	0.006
P940	939.50	6.11	8.40	0.15	36.988	0.241	0.331	0.006
P950	949.50	6.18	8.40	0.15	37.382	0.243	0.331	0.006
P960	959.50	6.24	8.40	0.15	37.776	0.246	0.331	0.006
P970	969.50	6.30	8.40	0.15	38.169	0.248	0.331	0.006
P980	979.50	6.36	8.40	0.15	38.563	0.250	0.331	0.006
P990	989.50	6.42	8.40	0.15	38.957	0.253	0.331	0.006
P1000	999.50	6.48	8.40	0.15	39.350	0.255	0.331	0.006

O-Ring Standard
Size (JIS B 2401)

TABLE OF DIMENSIONS OF O-RINGS FOR STATIC SEALING

★ NBR tolerance per GMORS compound no. N7034AA.

★ For other NBR compounds, tolerance needs to be negotiated or new tool will be charged.

O-Ring Standard Size (JIS B 2401)

JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
S3	2.50	0.13	1.50	0.08	0.098	0.005	0.059	0.003
S4	3.50	0.14	1.50	0.08	0.138	0.006	0.059	0.003
S5	4.50	0.14	1.50	0.08	0.177	0.006	0.059	0.003
S6	5.50	0.15	1.50	0.08	0.217	0.006	0.059	0.003
S7	6.50	0.15	1.50	0.08	0.256	0.006	0.059	0.003
S8	7.50	0.16	1.50	0.08	0.295	0.006	0.059	0.003
S9	8.50	0.16	1.50	0.08	0.335	0.006	0.059	0.003
S10	9.50	0.17	1.50	0.08	0.374	0.007	0.059	0.003
S11.2	10.70	0.18	1.50	0.08	0.421	0.007	0.059	0.003
S12	11.50	0.18	1.50	0.08	0.453	0.007	0.059	0.003
S12.5	12.00	0.19	1.50	0.08	0.472	0.007	0.059	0.003
S14	13.50	0.19	1.50	0.08	0.531	0.007	0.059	0.003
S15	14.50	0.19	1.50	0.08	0.571	0.007	0.059	0.003
S16	15.50	0.20	1.50	0.08	0.610	0.008	0.059	0.003
S18	17.50	0.21	1.50	0.08	0.689	0.008	0.059	0.003
S20	19.50	0.22	1.50	0.08	0.768	0.009	0.059	0.003
S22	21.50	0.23	1.50	0.08	0.846	0.009	0.059	0.003
S22.4	21.90	0.23	2.00	0.08	0.862	0.009	0.079	0.003
S24	23.50	0.24	2.00	0.08	0.925	0.009	0.079	0.003
S25	24.50	0.24	2.00	0.08	0.965	0.009	0.079	0.003
S26	25.50	0.25	2.00	0.08	1.004	0.010	0.079	0.003
S28	27.50	0.26	2.00	0.08	1.083	0.010	0.079	0.003
S29	28.50	0.28	2.00	0.08	1.122	0.011	0.079	0.003
S30	29.50	0.28	2.00	0.08	1.161	0.011	0.079	0.003
S31.5	31.00	0.29	2.00	0.08	1.220	0.011	0.079	0.003
S32	31.50	0.31	2.00	0.08	1.240	0.012	0.079	0.003
S34	33.50	0.32	2.00	0.08	1.319	0.013	0.079	0.003
S35	34.50	0.33	2.00	0.08	1.358	0.013	0.079	0.003
S35.5	35.00	0.33	2.00	0.08	1.378	0.013	0.079	0.003
S36	35.50	0.34	2.00	0.08	1.398	0.013	0.079	0.003
S38	37.50	0.36	2.00	0.08	1.476	0.014	0.079	0.003
S39	38.50	0.36	2.00	0.08	1.516	0.014	0.079	0.003
S40	39.50	0.38	2.00	0.08	1.555	0.015	0.079	0.003
S42	41.50	0.39	2.00	0.08	1.634	0.015	0.079	0.003
S44	43.50	0.40	2.00	0.08	1.713	0.016	0.079	0.003
S45	44.50	0.41	2.00	0.08	1.752	0.016	0.079	0.003
S46	45.50	0.42	2.00	0.08	1.791	0.017	0.079	0.003
S48	47.50	0.44	2.00	0.08	1.870	0.017	0.079	0.003
S50	49.50	0.45	2.00	0.08	1.949	0.018	0.079	0.003
S53	52.50	0.47	2.00	0.08	2.067	0.019	0.079	0.003
S55	54.50	0.50	2.00	0.08	2.146	0.020	0.079	0.003
S56	55.50	0.50	2.00	0.08	2.185	0.020	0.079	0.003
S60	59.50	0.52	2.00	0.08	2.343	0.020	0.079	0.003
S63	62.50	0.55	2.00	0.08	2.461	0.022	0.079	0.003
S65	64.50	0.56	2.00	0.08	2.539	0.022	0.079	0.003
S67	66.50	0.58	2.00	0.08	2.618	0.023	0.079	0.003
S70	69.50	0.61	2.00	0.08	2.736	0.024	0.079	0.003

O-Ring Standard
Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)								
JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
S71	70.50	0.61	2.00	0.08	2.776	0.024	0.079	0.003
S75	74.50	0.64	2.00	0.08	2.933	0.025	0.079	0.003
S80	79.50	0.67	2.00	0.08	3.130	0.026	0.079	0.003
S85	84.50	0.71	2.00	0.08	3.327	0.028	0.079	0.003
S90	89.50	0.75	2.00	0.08	3.524	0.030	0.079	0.003
S95	94.50	0.79	2.00	0.08	3.720	0.031	0.079	0.003
S100	99.50	0.83	2.00	0.08	3.917	0.033	0.079	0.003
S105	104.50	0.87	2.00	0.08	4.114	0.034	0.079	0.003
S110	109.50	0.91	2.00	0.08	4.311	0.036	0.079	0.003
S112	111.50	0.91	2.00	0.08	4.390	0.036	0.079	0.003
S115	114.50	0.93	2.00	0.08	4.508	0.037	0.079	0.003
S120	119.50	0.97	2.00	0.08	4.705	0.038	0.079	0.003
S125	124.50	1.00	2.00	0.08	4.902	0.039	0.079	0.003
S130	129.50	1.05	2.00	0.08	5.098	0.041	0.079	0.003
S132	131.50	1.05	2.00	0.08	5.177	0.041	0.079	0.003
S135	134.50	1.08	2.00	0.08	5.295	0.043	0.079	0.003
S140	139.50	1.10	2.00	0.08	5.492	0.043	0.079	0.003
S145	144.50	1.13	2.00	0.08	5.689	0.044	0.079	0.003
S150	149.50	1.17	2.00	0.08	5.886	0.046	0.079	0.003

O-Ring Standard
Size (JIS B 2401)

O-Ring Standard Size (JIS B 2401)

JIS B 2401 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
V10	9.50	0.17	4.00	0.10	0.374	0.007	0.157	0.004
V15	14.50	0.20	4.00	0.10	0.571	0.008	0.157	0.004
V24	23.50	0.24	4.00	0.10	0.925	0.009	0.157	0.004
V34	33.50	0.33	4.00	0.10	1.319	0.013	0.157	0.004
V40	39.50	0.37	4.00	0.10	1.555	0.015	0.157	0.004
V55	54.50	0.49	4.00	0.10	2.146	0.019	0.157	0.004
V58	57.50	0.52	4.00	0.10	2.264	0.020	0.157	0.004
V70	69.00	0.61	4.00	0.10	2.717	0.024	0.157	0.004
V85	84.00	0.72	4.00	0.10	3.307	0.028	0.157	0.004
V100	99.00	0.83	4.00	0.10	3.898	0.033	0.157	0.004
V120	119.00	0.97	4.00	0.10	4.685	0.038	0.157	0.004
V140	138.50	1.08	4.00	0.10	5.453	0.043	0.157	0.004
V150	148.50	1.18	4.00	0.10	5.846	0.046	0.157	0.004
V175	173.00	1.36	4.00	0.10	6.811	0.054	0.157	0.004
V225	222.50	1.70	6.00	0.15	8.760	0.067	0.236	0.006
V275	272.00	2.02	6.00	0.15	10.709	0.080	0.236	0.006
V315	312.00	2.22	6.00	0.15	12.283	0.087	0.236	0.006
V325	321.50	2.34	6.00	0.15	12.657	0.092	0.236	0.006
V380	376.00	2.68	6.00	0.15	14.803	0.106	0.236	0.006
V430	425.50	2.99	6.00	0.15	16.752	0.118	0.236	0.006
V475	470.50	3.22	6.00	0.15	18.524	0.127	0.236	0.006
V480	475.00	3.30	10.00	0.30	18.701	0.130	0.394	0.012
V490	485.00	3.31	10.00	0.30	19.094	0.130	0.394	0.012
V510	504.50	3.44	10.00	0.30	19.862	0.135	0.394	0.012
V530	524.50	3.60	10.00	0.30	20.650	0.142	0.394	0.012
V585	579.00	3.92	10.00	0.30	22.795	0.154	0.394	0.012
V640	633.50	4.24	10.00	0.30	24.941	0.167	0.394	0.012
V690	683.00	4.54	10.00	0.30	26.890	0.179	0.394	0.012
V740	732.50	4.83	10.00	0.30	28.839	0.190	0.394	0.012
V790	782.00	5.12	10.00	0.30	30.787	0.202	0.394	0.012
V950	940.50	6.06	10.00	0.30	37.027	0.239	0.394	0.012
V1055	1044.0	6.67	10.00	0.30	41.102	0.263	0.394	0.012

O-Ring Standard Size (JASO F404)

O-Ring Standard Size (JASO F404)								
JASO F404 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
1003	2.80	0.14	1.90	0.07	0.110	0.006	0.075	0.003
1004	3.80	0.14	1.90	0.07	0.150	0.006	0.075	0.003
1005	4.80	0.15	1.90	0.07	0.189	0.006	0.075	0.003
1006	5.80	0.15	1.90	0.07	0.228	0.006	0.075	0.003
1007	6.80	0.16	1.90	0.07	0.268	0.006	0.075	0.003
1008	7.80	0.16	1.90	0.07	0.307	0.006	0.075	0.003
1009	8.80	0.17	1.90	0.07	0.346	0.007	0.075	0.003
1010	9.80	0.17	1.90	0.07	0.386	0.007	0.075	0.003
1011	11.00	0.20	1.90	0.07	0.433	0.008	0.075	0.003
1012	12.30	0.21	1.90	0.07	0.484	0.008	0.075	0.003
1013	13.00	0.21	1.90	0.07	0.512	0.008	0.075	0.003
1014	13.80	0.22	1.90	0.07	0.543	0.009	0.075	0.003
1015	14.80	0.23	1.90	0.07	0.583	0.009	0.075	0.003
1016	15.80	0.23	1.90	0.07	0.622	0.009	0.075	0.003
1017	16.80	0.24	1.90	0.07	0.661	0.010	0.075	0.003
1018	17.80	0.25	1.90	0.07	0.701	0.010	0.075	0.003
1019	18.80	0.26	1.90	0.07	0.740	0.010	0.075	0.003
1020	19.80	0.26	1.90	0.07	0.780	0.010	0.075	0.003
1021	21.00	0.27	1.90	0.07	0.827	0.011	0.075	0.003
1022	22.10	0.28	1.90	0.07	0.870	0.011	0.075	0.003
1023	23.30	0.29	1.90	0.07	0.917	0.011	0.075	0.003
1025	24.70	0.30	1.90	0.07	0.972	0.012	0.075	0.003
1026	26.20	0.31	1.90	0.07	1.031	0.012	0.075	0.003
1028	27.70	0.32	1.90	0.07	1.091	0.013	0.075	0.003
1030	29.70	0.34	1.90	0.07	1.169	0.013	0.075	0.003
1031	31.20	0.35	1.90	0.07	1.228	0.014	0.075	0.003
1033	33.20	0.36	1.90	0.07	1.307	0.014	0.075	0.003
1035	35.20	0.38	1.90	0.07	1.386	0.015	0.075	0.003
2010	9.80	0.17	2.40	0.07	0.386	0.007	0.094	0.003
2011	11.00	0.18	2.40	0.07	0.433	0.007	0.094	0.003
2012	12.30	0.19	2.40	0.07	0.484	0.007	0.094	0.003
2013	13.00	0.21	2.40	0.07	0.512	0.008	0.094	0.003
2014	13.80	0.19	2.40	0.07	0.543	0.007	0.094	0.003
2015	14.80	0.20	2.40	0.07	0.583	0.008	0.094	0.003
2016	15.80	0.20	2.40	0.07	0.622	0.008	0.094	0.003
2017	16.80	0.21	2.40	0.07	0.661	0.008	0.094	0.003
2018	17.80	0.21	2.40	0.07	0.701	0.008	0.094	0.003
2019	18.80	0.21	2.40	0.07	0.740	0.008	0.094	0.003
2020	19.80	0.22	2.40	0.07	0.780	0.009	0.094	0.003
2021	20.80	0.23	2.40	0.07	0.819	0.009	0.094	0.003
2022	22.10	0.28	2.40	0.07	0.870	0.011	0.094	0.003
2023	23.30	0.29	2.40	0.07	0.917	0.011	0.094	0.003
2025	24.70	0.30	2.40	0.07	0.972	0.012	0.094	0.003
2026	26.20	0.31	2.40	0.07	1.031	0.012	0.094	0.003
2028	27.70	0.32	2.40	0.07	1.091	0.013	0.094	0.003
2030	29.70	0.34	2.40	0.07	1.169	0.013	0.094	0.003
2031	31.20	0.35	2.40	0.07	1.228	0.014	0.094	0.003
2033	33.20	0.36	2.40	0.07	1.307	0.014	0.094	0.003
2035	35.20	0.38	2.40	0.07	1.386	0.015	0.094	0.003
2037	37.20	0.39	2.40	0.07	1.465	0.015	0.094	0.003
2040	39.20	0.40	2.40	0.07	1.543	0.016	0.094	0.003
2042	42.20	0.42	2.40	0.07	1.661	0.017	0.094	0.003
2045	44.70	0.44	2.40	0.07	1.760	0.017	0.094	0.003

O-Ring Standard
Size (JASO F404)

O-Ring Standard Size (JASO F404)

JASO F404 SIZE	MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
	ID	±	CS	±	ID	±	CS	±
2047	47.20	0.46	2.40	0.07	1.858	0.018	0.094	0.003
2050	49.70	0.48	2.40	0.07	1.957	0.019	0.094	0.003
2053	52.60	0.50	2.40	0.07	2.071	0.020	0.094	0.003
2056	55.60	0.52	2.40	0.07	2.189	0.020	0.094	0.003
2060	59.60	0.55	2.40	0.07	2.346	0.022	0.094	0.003
2063	62.60	0.57	2.40	0.07	2.465	0.022	0.094	0.003
2067	66.60	0.60	2.40	0.07	2.622	0.023	0.094	0.003
2071	70.60	0.62	2.40	0.07	2.780	0.025	0.094	0.003
3022	22.10	0.24	3.50	0.10	0.870	0.009	0.138	0.004
3024	23.70	0.24	3.50	0.10	0.933	0.009	0.138	0.004
3025	24.70	0.25	3.50	0.10	0.972	0.010	0.138	0.004
3026	25.70	0.26	3.50	0.10	1.012	0.010	0.138	0.004
3028	27.70	0.28	3.50	0.10	1.091	0.011	0.138	0.004
3030	29.70	0.29	3.50	0.10	1.169	0.011	0.138	0.004
3031	31.20	0.30	3.50	0.10	1.228	0.012	0.138	0.004
3034	33.70	0.33	3.50	0.10	1.327	0.013	0.138	0.004
3035	35.20	0.34	3.50	0.10	1.386	0.013	0.138	0.004
3038	37.70	0.37	3.50	0.10	1.484	0.015	0.138	0.004
3039	38.70	0.37	3.50	0.10	1.484	0.015	0.138	0.004
3040	39.70	0.37	3.50	0.10	1.563	0.015	0.138	0.004
3042	41.70	0.39	3.50	0.10	1.642	0.015	0.138	0.004
3044	43.70	0.41	3.50	0.10	1.720	0.016	0.138	0.004
3045	44.70	0.41	3.50	0.10	1.760	0.016	0.138	0.004
3048	47.70	0.44	3.50	0.10	1.878	0.017	0.138	0.004
3050	49.70	0.45	3.50	0.10	1.957	0.018	0.138	0.004
3053	52.60	0.50	3.50	0.10	2.071	0.020	0.138	0.004
3056	55.60	0.52	3.50	0.10	2.189	0.020	0.138	0.004
3060	59.60	0.55	3.50	0.10	2.346	0.022	0.138	0.004
3063	62.60	0.57	3.50	0.10	2.465	0.022	0.138	0.004
3067	66.60	0.60	3.50	0.10	2.622	0.023	0.138	0.004
3071	70.60	0.62	3.50	0.10	2.780	0.025	0.138	0.004
3075	74.60	0.65	3.50	0.10	2.937	0.026	0.138	0.004
3080	79.60	0.69	3.50	0.10	3.134	0.027	0.138	0.004
3085	84.60	0.72	3.50	0.10	3.331	0.028	0.138	0.004
3090	89.60	0.75	3.50	0.10	3.528	0.030	0.138	0.004
3095	94.60	0.79	3.50	0.10	3.724	0.031	0.138	0.004
3100	99.60	0.82	3.50	0.10	3.921	0.032	0.138	0.004
3106	105.60	0.86	3.50	0.10	4.157	0.034	0.138	0.004
3112	111.60	0.90	3.50	0.10	4.394	0.036	0.138	0.004
3118	117.60	0.94	3.50	0.10	4.630	0.037	0.138	0.004
3125	124.60	0.99	3.50	0.10	4.906	0.039	0.138	0.004
3132	131.60	1.04	3.50	0.10	5.181	0.041	0.138	0.004
3140	139.60	1.09	3.50	0.10	5.496	0.043	0.138	0.004
3150	149.60	1.16	3.50	0.10	5.890	0.046	0.138	0.004

O-Ring Standard
Size (JASO F404)

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
1.00	0.12	1.00	0.07	28.00	0.26	1.00	0.07	20.00	0.22	1.50	0.08
1.50	0.12	1.00	0.07	29.00	0.27	1.00	0.07	21.00	0.23	1.50	0.08
2.00	0.13	1.00	0.07	30.00	0.27	1.00	0.07	21.50	0.23	1.50	0.08
2.50	0.13	1.00	0.07	31.00	0.28	1.00	0.07	22.00	0.24	1.50	0.08
3.00	0.14	1.00	0.07	32.00	0.29	1.00	0.07	23.00	0.24	1.50	0.08
3.50	0.14	1.00	0.07	33.00	0.29	1.00	0.07	24.00	0.24	1.50	0.08
4.00	0.14	1.00	0.07	34.00	0.30	1.00	0.07	25.00	0.25	1.50	0.08
4.50	0.14	1.00	0.07	35.00	0.30	1.00	0.07	26.00	0.26	1.50	0.08
5.00	0.15	1.00	0.07	36.00	0.31	1.00	0.07	27.00	0.26	1.50	0.08
5.50	0.15	1.00	0.07	37.00	0.31	1.00	0.07	28.00	0.28	1.50	0.08
6.00	0.15	1.00	0.07	38.00	0.32	1.00	0.07	28.50	0.28	1.50	0.08
6.50	0.16	1.00	0.07	39.00	0.33	1.00	0.07	29.00	0.29	1.50	0.08
7.00	0.16	1.00	0.07	40.00	0.33	1.00	0.07	30.00	0.29	1.50	0.08
7.50	0.16	1.00	0.07					31.50	0.31	1.50	0.08
8.00	0.16	1.00	0.07	1.50	0.12	1.50	0.08	32.00	0.32	1.50	0.08
8.50	0.16	1.00	0.07	1.85	0.13	1.50	0.08	33.00	0.32	1.50	0.08
9.00	0.17	1.00	0.07	2.00	0.13	1.50	0.08	34.00	0.33	1.50	0.08
9.50	0.17	1.00	0.07	2.50	0.13	1.50	0.08	35.00	0.34	1.50	0.08
10.00	0.17	1.00	0.07	3.00	0.14	1.50	0.08	36.00	0.35	1.50	0.08
10.50	0.18	1.00	0.07	3.50	0.14	1.50	0.08	37.00	0.36	1.50	0.08
11.00	0.18	1.00	0.07	4.00	0.14	1.50	0.08	38.00	0.36	1.50	0.08
11.50	0.19	1.00	0.07	4.50	0.14	1.50	0.08	39.00	0.37	1.50	0.08
12.00	0.19	1.00	0.07	5.00	0.15	1.50	0.08	40.00	0.38	1.50	0.08
12.50	0.19	1.00	0.07	5.50	0.15	1.50	0.08	41.00	0.39	1.50	0.08
13.00	0.19	1.00	0.07	6.00	0.15	1.50	0.08	42.00	0.40	1.50	0.08
13.50	0.19	1.00	0.07	6.50	0.15	1.50	0.08	43.00	0.40	1.50	0.08
14.00	0.19	1.00	0.07	7.00	0.16	1.50	0.08	44.00	0.41	1.50	0.08
14.50	0.20	1.00	0.07	7.50	0.16	1.50	0.08	45.00	0.42	1.50	0.08
15.00	0.20	1.00	0.07	8.00	0.16	1.50	0.08	46.00	0.43	1.50	0.08
15.50	0.20	1.00	0.07	8.50	0.16	1.50	0.08	47.00	0.44	1.50	0.08
16.00	0.20	1.00	0.07	9.00	0.17	1.50	0.08	48.00	0.44	1.50	0.08
16.50	0.21	1.00	0.07	9.50	0.17	1.50	0.08	49.00	0.45	1.50	0.08
17.00	0.21	1.00	0.07	10.00	0.17	1.50	0.08	50.00	0.46	1.50	0.08
17.50	0.21	1.00	0.07	10.50	0.18	1.50	0.08	51.00	0.47	1.50	0.08
18.00	0.21	1.00	0.07	10.70	0.18	1.50	0.08	52.00	0.47	1.50	0.08
18.50	0.22	1.00	0.07	11.00	0.18	1.50	0.08	53.00	0.48	1.50	0.08
19.00	0.22	1.00	0.07	11.50	0.18	1.50	0.08	54.00	0.50	1.50	0.08
19.50	0.22	1.00	0.07	12.00	0.19	1.50	0.08	55.00	0.50	1.50	0.08
20.00	0.22	1.00	0.07	12.50	0.19	1.50	0.08	56.00	0.51	1.50	0.08
20.50	0.22	1.00	0.07	13.00	0.19	1.50	0.08	57.00	0.52	1.50	0.08
21.00	0.23	1.00	0.07	13.50	0.19	1.50	0.08	58.00	0.52	1.50	0.08
21.50	0.23	1.00	0.07	14.00	0.19	1.50	0.08	59.00	0.54	1.50	0.08
22.00	0.24	1.00	0.07	14.50	0.19	1.50	0.08	60.00	0.54	1.50	0.08
22.50	0.24	1.00	0.07	15.00	0.20	1.50	0.08	61.00	0.55	1.50	0.08
23.00	0.24	1.00	0.07	15.50	0.20	1.50	0.08	62.00	0.55	1.50	0.08
23.50	0.24	1.00	0.07	16.00	0.20	1.50	0.08	63.00	0.56	1.50	0.08
24.00	0.24	1.00	0.07	17.00	0.21	1.50	0.08	64.00	0.58	1.50	0.08
24.50	0.25	1.00	0.07	17.50	0.21	1.50	0.08	65.00	0.58	1.50	0.08
25.00	0.25	1.00	0.07	18.00	0.21	1.50	0.08	66.00	0.59	1.50	0.08
26.00	0.25	1.00	0.07	19.00	0.22	1.50	0.08	67.00	0.59	1.50	0.08
27.00	0.26	1.00	0.07	19.50	0.22	1.50	0.08	68.00	0.61	1.50	0.08

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
69.00	0.61	1.50	0.08	14.00	0.19	2.00	0.08	56.00	0.51	2.00	0.08
70.00	0.62	1.50	0.08	15.00	0.20	2.00	0.08	57.00	0.52	2.00	0.08
71.00	0.63	1.50	0.08	16.00	0.20	2.00	0.08	58.00	0.52	2.00	0.08
72.00	0.63	1.50	0.08	17.00	0.21	2.00	0.08	59.00	0.54	2.00	0.08
73.00	0.64	1.50	0.08	18.00	0.21	2.00	0.08	60.00	0.54	2.00	0.08
74.00	0.65	1.50	0.08	19.00	0.22	2.00	0.08	61.00	0.55	2.00	0.08
75.00	0.65	1.50	0.08	19.50	0.22	2.00	0.08	62.00	0.55	2.00	0.08
76.00	0.66	1.50	0.08	20.00	0.22	2.00	0.08	63.00	0.56	2.00	0.08
77.00	0.67	1.50	0.08	21.00	0.23	2.00	0.08	64.00	0.58	2.00	0.08
78.00	0.67	1.50	0.08	22.00	0.24	2.00	0.08	64.50	0.58	2.00	0.08
79.00	0.68	1.50	0.08	23.00	0.24	2.00	0.08	65.00	0.58	2.00	0.08
80.00	0.69	1.50	0.08	23.50	0.24	2.00	0.08	66.00	0.59	2.00	0.08
81.00	0.69	1.50	0.08	24.00	0.24	2.00	0.08	67.00	0.59	2.00	0.08
82.00	0.70	1.50	0.08	24.50	0.25	2.00	0.08	68.00	0.61	2.00	0.08
83.00	0.71	1.50	0.08	25.00	0.25	2.00	0.08	69.00	0.61	2.00	0.08
84.00	0.72	1.50	0.08	26.00	0.26	2.00	0.08	69.50	0.61	2.00	0.08
85.00	0.72	1.50	0.08	27.00	0.26	2.00	0.08	70.00	0.62	2.00	0.08
86.00	0.73	1.50	0.08	28.00	0.28	2.00	0.08	71.00	0.63	2.00	0.08
87.00	0.74	1.50	0.08	29.00	0.29	2.00	0.08	72.00	0.63	2.00	0.08
88.00	0.74	1.50	0.08	29.50	0.29	2.00	0.08	73.00	0.64	2.00	0.08
89.00	0.75	1.50	0.08	30.00	0.29	2.00	0.08	74.00	0.65	2.00	0.08
90.00	0.76	1.50	0.08	31.00	0.31	2.00	0.08	75.00	0.65	2.00	0.08
91.00	0.76	1.50	0.08	32.00	0.32	2.00	0.08	76.00	0.66	2.00	0.08
92.00	0.77	1.50	0.08	33.00	0.32	2.00	0.08	77.00	0.67	2.00	0.08
93.00	0.78	1.50	0.08	33.50	0.32	2.00	0.08	78.00	0.67	2.00	0.08
94.00	0.78	1.50	0.08	34.00	0.33	2.00	0.08	79.00	0.68	2.00	0.08
95.00	0.79	1.50	0.08	35.00	0.34	2.00	0.08	80.00	0.69	2.00	0.08
96.00	0.80	1.50	0.08	36.00	0.35	2.00	0.08	81.00	0.69	2.00	0.08
97.00	0.80	1.50	0.08	36.50	0.35	2.00	0.08	82.00	0.70	2.00	0.08
98.00	0.81	1.50	0.08	37.00	0.36	2.00	0.08	83.00	0.71	2.00	0.08
99.00	0.82	1.50	0.08	37.50	0.36	2.00	0.08	84.00	0.72	2.00	0.08
100.00	0.82	1.50	0.08	38.00	0.36	2.00	0.08	85.00	0.72	2.00	0.08
				38.50	0.37	2.00	0.08	86.00	0.73	2.00	0.08
				39.00	0.37	2.00	0.08	87.00	0.74	2.00	0.08
2.00	0.13	2.00	0.08	40.00	0.38	2.00	0.08	88.00	0.74	2.00	0.08
3.00	0.14	2.00	0.08	41.00	0.39	2.00	0.08	89.00	0.75	2.00	0.08
3.50	0.14	2.00	0.08	42.00	0.40	2.00	0.08	90.00	0.76	2.00	0.08
4.00	0.14	2.00	0.08	43.00	0.40	2.00	0.08	91.00	0.76	2.00	0.08
4.50	0.14	2.00	0.08	44.00	0.41	2.00	0.08	92.00	0.77	2.00	0.08
5.00	0.15	2.00	0.08	45.00	0.42	2.00	0.08	93.00	0.78	2.00	0.08
6.00	0.15	2.00	0.08	46.00	0.43	2.00	0.08	94.00	0.78	2.00	0.08
6.50	0.16	2.00	0.08	47.00	0.44	2.00	0.08	95.00	0.79	2.00	0.08
7.00	0.16	2.00	0.08	48.00	0.44	2.00	0.08	96.00	0.80	2.00	0.08
8.00	0.16	2.00	0.08	49.00	0.45	2.00	0.08	97.00	0.80	2.00	0.08
9.00	0.17	2.00	0.08	50.00	0.46	2.00	0.08	98.00	0.81	2.00	0.08
9.50	0.17	2.00	0.08	51.00	0.47	2.00	0.08	99.00	0.82	2.00	0.08
10.00	0.17	2.00	0.08	52.00	0.47	2.00	0.08	100.00	0.82	2.00	0.08
11.00	0.18	2.00	0.08	53.00	0.48	2.00	0.08	102.00	0.84	2.00	0.08
11.50	0.19	2.00	0.08	54.00	0.50	2.00	0.08	105.00	0.86	2.00	0.08
12.00	0.19	2.00	0.08	55.00	0.50	2.00	0.08	109.00	0.89	2.00	0.08
12.50	0.19	2.00	0.08	55.50	0.51	2.00	0.08	130.00	1.08	2.00	0.08
13.00	0.19	2.00	0.08								

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
3.00	0.14	2.50	0.09	54.00	0.50	2.50	0.09	105.00	0.86	2.50	0.09
4.00	0.14	2.50	0.09	55.00	0.50	2.50	0.09	106.00	0.87	2.50	0.09
5.00	0.15	2.50	0.09	56.00	0.51	2.50	0.09	107.00	0.87	2.50	0.09
6.00	0.15	2.50	0.09	57.00	0.52	2.50	0.09	108.00	0.88	2.50	0.09
7.00	0.16	2.50	0.09	58.00	0.52	2.50	0.09	109.00	0.89	2.50	0.09
8.00	0.16	2.50	0.09	59.00	0.54	2.50	0.09	110.00	0.89	2.50	0.09
9.00	0.17	2.50	0.09	60.00	0.54	2.50	0.09	111.00	0.90	2.50	0.09
10.00	0.17	2.50	0.09	61.00	0.55	2.50	0.09	112.00	0.91	2.50	0.09
11.00	0.18	2.50	0.09	62.00	0.55	2.50	0.09	113.00	0.91	2.50	0.09
12.00	0.19	2.50	0.09	63.00	0.56	2.50	0.09	114.00	0.92	2.50	0.09
13.00	0.19	2.50	0.09	64.00	0.58	2.50	0.09	115.00	0.93	2.50	0.09
14.00	0.19	2.50	0.09	65.00	0.58	2.50	0.09	116.00	0.93	2.50	0.09
15.00	0.20	2.50	0.09	66.00	0.59	2.50	0.09	117.00	0.94	2.50	0.09
16.00	0.20	2.50	0.09	67.00	0.59	2.50	0.09	118.00	0.95	2.50	0.09
17.00	0.21	2.50	0.09	68.00	0.61	2.50	0.09	119.00	0.95	2.50	0.09
18.00	0.21	2.50	0.09	69.00	0.61	2.50	0.09	120.00	0.96	2.50	0.09
19.00	0.22	2.50	0.09	70.00	0.62	2.50	0.09	121.00	0.97	2.50	0.09
20.00	0.22	2.50	0.09	71.00	0.63	2.50	0.09	122.00	0.97	2.50	0.09
21.00	0.23	2.50	0.09	72.00	0.63	2.50	0.09	123.00	0.98	2.50	0.09
22.00	0.24	2.50	0.09	73.00	0.64	2.50	0.09	124.00	0.99	2.50	0.09
23.00	0.24	2.50	0.09	74.00	0.64	2.50	0.09	125.00	0.99	2.50	0.09
24.00	0.24	2.50	0.09	75.00	0.65	2.50	0.09	126.00	1.00	2.50	0.09
25.00	0.25	2.50	0.09	76.00	0.66	2.50	0.09	127.00	1.01	2.50	0.09
26.00	0.26	2.50	0.09	77.00	0.67	2.50	0.09	128.00	1.01	2.50	0.09
27.00	0.26	2.50	0.09	78.00	0.67	2.50	0.09	129.00	1.02	2.50	0.09
28.00	0.28	2.50	0.09	79.00	0.68	2.50	0.09	130.00	1.03	2.50	0.09
29.00	0.29	2.50	0.09	80.00	0.69	2.50	0.09	131.00	1.03	2.50	0.09
30.00	0.29	2.50	0.09	81.00	0.69	2.50	0.09	132.00	1.04	2.50	0.09
31.00	0.31	2.50	0.09	82.00	0.70	2.50	0.09	133.00	1.05	2.50	0.09
32.00	0.32	2.50	0.09	83.00	0.71	2.50	0.09	134.00	1.00	2.50	0.09
33.00	0.32	2.50	0.09	84.00	0.72	2.50	0.09	135.00	1.06	2.50	0.09
34.00	0.33	2.50	0.09	85.00	0.72	2.50	0.09	136.00	1.07	2.50	0.09
35.00	0.34	2.50	0.09	86.00	0.73	2.50	0.09	137.00	1.07	2.50	0.09
36.00	0.35	2.50	0.09	87.00	0.74	2.50	0.09	138.00	1.08	2.50	0.09
37.00	0.36	2.50	0.09	88.00	0.74	2.50	0.09	139.00	1.09	2.50	0.09
38.00	0.36	2.50	0.09	89.00	0.75	2.50	0.09	140.00	1.09	2.50	0.09
39.00	0.37	2.50	0.09	90.00	0.76	2.50	0.09	141.00	1.10	2.50	0.09
40.00	0.38	2.50	0.09	91.00	0.76	2.50	0.09	142.00	1.11	2.50	0.09
41.00	0.39	2.50	0.09	92.00	0.77	2.50	0.09	143.00	1.11	2.50	0.09
42.00	0.40	2.50	0.09	93.00	0.78	2.50	0.09	144.00	1.12	2.50	0.09
43.00	0.40	2.50	0.09	94.00	0.78	2.50	0.09	145.00	1.13	2.50	0.09
44.00	0.41	2.50	0.09	95.00	0.79	2.50	0.09	146.00	1.13	2.50	0.09
45.00	0.42	2.50	0.09	96.00	0.80	2.50	0.09	147.00	1.14	2.50	0.09
46.00	0.43	2.50	0.09	97.00	0.80	2.50	0.09	148.00	1.15	2.50	0.09
47.00	0.44	2.50	0.09	98.00	0.81	2.50	0.09	149.00	1.15	2.50	0.09
48.00	0.44	2.50	0.09	99.00	0.82	2.50	0.09	150.00	1.16	2.50	0.09
49.00	0.45	2.50	0.09	100.00	0.82	2.50	0.09	162.00	1.24	2.50	0.09
50.00	0.46	2.50	0.09	101.00	0.83	2.50	0.09				
51.00	0.47	2.50	0.09	102.00	0.84	2.50	0.09				
52.00	0.47	2.50	0.09	103.00	0.85	2.50	0.09				
53.00	0.48	2.50	0.09	104.00	0.85	2.50	0.09				

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
3.00	0.14	3.00	0.09	45.00	0.42	3.00	0.09	95.00	0.79	3.00	0.09
4.00	0.14	3.00	0.09	46.00	0.43	3.00	0.09	96.00	0.80	3.00	0.09
5.00	0.15	3.00	0.09	47.00	0.44	3.00	0.09	97.00	0.80	3.00	0.09
6.00	0.15	3.00	0.09	48.00	0.44	3.00	0.09	98.00	0.81	3.00	0.09
7.00	0.16	3.00	0.09	49.00	0.45	3.00	0.09	98.50	0.81	3.00	0.09
8.00	0.16	3.00	0.09	50.00	0.46	3.00	0.09	99.00	0.82	3.00	0.09
9.00	0.17	3.00	0.09	51.00	0.47	3.00	0.09	100.00	0.82	3.00	0.09
9.50	0.17	3.00	0.09	52.00	0.47	3.00	0.09	101.00	0.83	3.00	0.09
10.00	0.17	3.00	0.09	53.00	0.48	3.00	0.09	102.00	0.84	3.00	0.09
11.00	0.18	3.00	0.09	54.00	0.50	3.00	0.09	103.00	0.85	3.00	0.09
12.00	0.19	3.00	0.09	55.00	0.50	3.00	0.09	104.00	0.85	3.00	0.09
13.00	0.19	3.00	0.09	56.00	0.51	3.00	0.09	105.00	0.86	3.00	0.09
13.50	0.19	3.00	0.09	57.00	0.52	3.00	0.09	106.00	0.87	3.00	0.09
14.00	0.19	3.00	0.09	58.00	0.52	3.00	0.09	107.00	0.87	3.00	0.09
15.00	0.20	3.00	0.09	59.00	0.54	3.00	0.09	108.00	0.88	3.00	0.09
15.50	0.20	3.00	0.09	60.00	0.54	3.00	0.09	109.00	0.89	3.00	0.09
16.00	0.20	3.00	0.09	61.00	0.55	3.00	0.09	110.00	0.89	3.00	0.09
17.00	0.21	3.00	0.09	62.00	0.55	3.00	0.09	111.00	0.90	3.00	0.09
17.50	0.21	3.00	0.09	63.00	0.56	3.00	0.09	112.00	0.91	3.00	0.09
18.00	0.21	3.00	0.09	64.00	0.58	3.00	0.09	113.00	0.91	3.00	0.09
19.00	0.22	3.00	0.09	65.00	0.58	3.00	0.09	114.00	0.92	3.00	0.09
20.00	0.22	3.00	0.09	66.00	0.59	3.00	0.09	115.00	0.93	3.00	0.09
21.00	0.23	3.00	0.09	67.00	0.59	3.00	0.09	116.00	0.93	3.00	0.09
22.00	0.24	3.00	0.09	68.00	0.61	3.00	0.09	117.00	0.94	3.00	0.09
23.00	0.24	3.00	0.09	69.00	0.61	3.00	0.09	118.00	0.95	3.00	0.09
24.00	0.24	3.00	0.09	70.00	0.62	3.00	0.09	119.00	0.95	3.00	0.09
25.00	0.25	3.00	0.09	71.00	0.63	3.00	0.09	120.00	0.96	3.00	0.09
26.00	0.26	3.00	0.09	72.00	0.63	3.00	0.09	121.00	0.97	3.00	0.09
27.00	0.26	3.00	0.09	73.00	0.64	3.00	0.09	122.00	0.97	3.00	0.09
28.00	0.28	3.00	0.09	74.00	0.65	3.00	0.09	123.00	0.98	3.00	0.09
28.50	0.28	3.00	0.09	75.00	0.65	3.00	0.09	124.00	0.99	3.00	0.09
29.00	0.29	3.00	0.09	76.00	0.66	3.00	0.09	125.00	0.99	3.00	0.09
29.50	0.29	3.00	0.09	77.00	0.67	3.00	0.09	126.00	1.00	3.00	0.09
30.00	0.29	3.00	0.09	78.00	0.67	3.00	0.09	127.00	1.01	3.00	0.09
31.00	0.31	3.00	0.09	79.00	0.68	3.00	0.09	128.00	1.01	3.00	0.09
32.00	0.32	3.00	0.09	80.00	0.69	3.00	0.09	129.00	1.02	3.00	0.09
33.00	0.32	3.00	0.09	81.00	0.69	3.00	0.09	130.00	1.03	3.00	0.09
34.00	0.33	3.00	0.09	82.00	0.70	3.00	0.09	131.00	1.03	3.00	0.09
35.00	0.34	3.00	0.09	83.00	0.71	3.00	0.09	132.00	1.04	3.00	0.09
36.00	0.35	3.00	0.09	84.00	0.72	3.00	0.09	133.00	1.05	3.00	0.09
36.50	0.35	3.00	0.09	85.00	0.72	3.00	0.09	134.00	1.05	3.00	0.09
37.00	0.36	3.00	0.09	86.00	0.73	3.00	0.09	135.00	1.06	3.00	0.09
37.50	0.36	3.00	0.09	87.00	0.74	3.00	0.09	136.00	1.07	3.00	0.09
38.00	0.36	3.00	0.09	88.00	0.74	3.00	0.09	137.00	1.07	3.00	0.09
39.00	0.37	3.00	0.09	89.00	0.75	3.00	0.09	138.00	1.08	3.00	0.09
40.00	0.38	3.00	0.09	90.00	0.76	3.00	0.09	139.00	1.09	3.00	0.09
41.00	0.39	3.00	0.09	91.00	0.76	3.00	0.09	140.00	1.09	3.00	0.09
42.00	0.40	3.00	0.09	92.00	0.77	3.00	0.09	141.00	1.10	3.00	0.09
42.50	0.40	3.00	0.09	93.00	0.78	3.00	0.09	142.00	1.11	3.00	0.09
43.00	0.40	3.00	0.09	94.00	0.78	3.00	0.09	143.00	1.11	3.00	0.09
44.00	0.41	3.00	0.09	94.50	0.79	3.00	0.09	144.00	1.12	3.00	0.09

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
145.00	1.13	3.00	0.09	196.00	1.46	3.00	0.09	247.00	1.80	3.00	0.09
146.00	1.13	3.00	0.09	197.00	1.47	3.00	0.09	248.00	1.80	3.00	0.09
147.00	1.14	3.00	0.09	198.00	1.48	3.00	0.09	249.00	1.81	3.00	0.09
148.00	1.15	3.00	0.09	199.00	1.48	3.00	0.09	250.00	1.82	3.00	0.09
149.00	1.15	3.00	0.09	200.00	1.49	3.00	0.09	260.00	1.88	3.00	0.09
150.00	1.16	3.00	0.09	201.00	1.50	3.00	0.09	270.00	1.95	3.00	0.09
151.00	1.17	3.00	0.09	202.00	1.50	3.00	0.09	280.00	2.01	3.00	0.09
152.00	1.17	3.00	0.09	203.00	1.51	3.00	0.09	285.00	2.04	3.00	0.09
153.00	1.18	3.00	0.09	204.00	1.52	3.00	0.09	290.00	2.08	3.00	0.09
154.00	1.19	3.00	0.09	205.00	1.52	3.00	0.09	310.00	2.20	3.00	0.09
155.00	1.19	3.00	0.09	206.00	1.53	3.00	0.09				
156.00	1.20	3.00	0.09	207.00	1.54	3.00	0.09	8.00	0.17	3.50	0.10
157.00	1.21	3.00	0.09	208.00	1.54	3.00	0.09	9.00	0.18	3.50	0.10
158.00	1.21	3.00	0.09	209.00	1.55	3.00	0.09	10.00	0.19	3.50	0.10
159.00	1.22	3.00	0.09	210.00	1.56	3.00	0.09	11.00	0.20	3.50	0.10
160.00	1.23	3.00	0.09	211.00	1.56	3.00	0.09	12.00	0.21	3.50	0.10
161.00	1.23	3.00	0.09	212.00	1.57	3.00	0.09	13.00	0.21	3.50	0.10
162.00	1.24	3.00	0.09	213.00	1.58	3.00	0.09	14.00	0.22	3.50	0.10
163.00	1.25	3.00	0.09	214.00	1.58	3.00	0.09	15.00	0.23	3.50	0.10
164.00	1.25	3.00	0.09	215.00	1.59	3.00	0.09	16.00	0.24	3.50	0.10
165.00	1.26	3.00	0.09	216.00	1.60	3.00	0.09	17.00	0.24	3.50	0.10
166.00	1.27	3.00	0.09	217.00	1.60	3.00	0.09	18.00	0.25	3.50	0.10
167.00	1.27	3.00	0.09	218.00	1.61	3.00	0.09	19.00	0.26	3.50	0.10
168.00	1.28	3.00	0.09	219.00	1.62	3.00	0.09	20.00	0.26	3.50	0.10
169.00	1.29	3.00	0.09	220.00	1.62	3.00	0.09	21.00	0.27	3.50	0.10
170.00	1.29	3.00	0.09	221.00	1.63	3.00	0.09	22.00	0.28	3.50	0.10
171.00	1.30	3.00	0.09	222.00	1.64	3.00	0.09	23.00	0.29	3.50	0.10
172.00	1.31	3.00	0.09	223.00	1.64	3.00	0.09	24.00	0.29	3.50	0.10
173.00	1.31	3.00	0.09	224.00	1.65	3.00	0.09	25.00	0.30	3.50	0.10
174.00	1.32	3.00	0.09	225.00	1.65	3.00	0.09	26.00	0.31	3.50	0.10
175.00	1.33	3.00	0.09	226.00	1.66	3.00	0.09	27.00	0.32	3.50	0.10
176.00	1.33	3.00	0.09	227.00	1.67	3.00	0.09	28.00	0.32	3.50	0.10
177.00	1.34	3.00	0.09	228.00	1.67	3.00	0.09	29.00	0.33	3.50	0.10
178.00	1.35	3.00	0.09	229.00	1.68	3.00	0.09	30.00	0.34	3.50	0.10
179.00	1.35	3.00	0.09	230.00	1.69	3.00	0.09	31.00	0.34	3.50	0.10
180.00	1.36	3.00	0.09	231.00	1.69	3.00	0.09	32.00	0.35	3.50	0.10
181.00	1.37	3.00	0.09	232.00	1.70	3.00	0.09	33.00	0.36	3.50	0.10
182.00	1.37	3.00	0.09	233.00	1.71	3.00	0.09	34.00	0.37	3.50	0.10
183.00	1.38	3.00	0.09	234.00	1.71	3.00	0.09	35.00	0.37	3.50	0.10
184.00	1.39	3.00	0.09	235.00	1.72	3.00	0.09	36.00	0.38	3.50	0.10
185.00	1.39	3.00	0.09	236.00	1.73	3.00	0.09	37.00	0.39	3.50	0.10
186.00	1.40	3.00	0.09	237.00	1.73	3.00	0.09	38.00	0.40	3.50	0.10
187.00	1.41	3.00	0.09	238.00	1.74	3.00	0.09	39.00	0.40	3.50	0.10
188.00	1.41	3.00	0.09	239.00	1.75	3.00	0.09	40.00	0.41	3.50	0.10
189.00	1.42	3.00	0.09	240.00	1.75	3.00	0.09	41.00	0.42	3.50	0.10
190.00	1.43	3.00	0.09	241.00	1.76	3.00	0.09	42.00	0.42	3.50	0.10
191.00	1.43	3.00	0.09	242.00	1.77	3.00	0.09	43.00	0.43	3.50	0.10
192.00	1.44	3.00	0.09	243.00	1.77	3.00	0.09	44.00	0.44	3.50	0.10
193.00	1.45	3.00	0.09	244.00	1.78	3.00	0.09	45.00	0.44	3.50	0.10
194.00	1.45	3.00	0.09	245.00	1.78	3.00	0.09	46.00	0.45	3.50	0.10
195.00	1.46	3.00	0.09	246.00	1.79	3.00	0.09	47.00	0.46	3.50	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
48.00	0.47	3.50	0.10	99.00	0.82	3.50	0.10	150.00	1.16	3.50	0.10
49.00	0.47	3.50	0.10	100.00	0.82	3.50	0.10	151.00	1.17	3.50	0.10
50.00	0.48	3.50	0.10	101.00	0.83	3.50	0.10	152.00	1.17	3.50	0.10
51.00	0.49	3.50	0.10	102.00	0.84	3.50	0.10	153.00	1.18	3.50	0.10
52.00	0.49	3.50	0.10	103.00	0.85	3.50	0.10	154.00	1.19	3.50	0.10
53.00	0.50	3.50	0.10	104.00	0.85	3.50	0.10	155.00	1.19	3.50	0.10
54.00	0.51	3.50	0.10	105.00	0.86	3.50	0.10	156.00	1.20	3.50	0.10
55.00	0.52	3.50	0.10	106.00	0.87	3.50	0.10	157.00	1.21	3.50	0.10
56.00	0.52	3.50	0.10	107.00	0.87	3.50	0.10	158.00	1.21	3.50	0.10
57.00	0.53	3.50	0.10	108.00	0.88	3.50	0.10	159.00	1.22	3.50	0.10
58.00	0.54	3.50	0.10	109.00	0.89	3.50	0.10	160.00	1.23	3.50	0.10
59.00	0.54	3.50	0.10	110.00	0.89	3.50	0.10	161.00	1.23	3.50	0.10
60.00	0.55	3.50	0.10	111.00	0.90	3.50	0.10	162.00	1.24	3.50	0.10
61.00	0.56	3.50	0.10	112.00	0.91	3.50	0.10	163.00	1.25	3.50	0.10
62.00	0.56	3.50	0.10	113.00	0.91	3.50	0.10	164.00	1.25	3.50	0.10
63.00	0.57	3.50	0.10	114.00	0.92	3.50	0.10	165.00	1.26	3.50	0.10
64.00	0.58	3.50	0.10	115.00	0.93	3.50	0.10	166.00	1.27	3.50	0.10
65.00	0.58	3.50	0.10	116.00	0.93	3.50	0.10	167.00	1.27	3.50	0.10
66.00	0.59	3.50	0.10	117.00	0.94	3.50	0.10	168.00	1.28	3.50	0.10
67.00	0.60	3.50	0.10	118.00	0.95	3.50	0.10	169.00	1.29	3.50	0.10
68.00	0.61	3.50	0.10	119.00	0.95	3.50	0.10	170.00	1.29	3.50	0.10
69.00	0.61	3.50	0.10	120.00	0.96	3.50	0.10	171.00	1.30	3.50	0.10
70.00	0.62	3.50	0.10	121.00	0.97	3.50	0.10	172.00	1.31	3.50	0.10
71.00	0.63	3.50	0.10	122.00	0.97	3.50	0.10	173.00	1.31	3.50	0.10
72.00	0.63	3.50	0.10	123.00	0.98	3.50	0.10	174.00	1.32	3.50	0.10
73.00	0.64	3.50	0.10	124.00	0.99	3.50	0.10	175.00	1.33	3.50	0.10
74.00	0.65	3.50	0.10	125.00	0.99	3.50	0.10	176.00	1.33	3.50	0.10
75.00	0.65	3.50	0.10	126.00	1.00	3.50	0.10	177.00	1.34	3.50	0.10
76.00	0.66	3.50	0.10	127.00	1.01	3.50	0.10	178.00	1.35	3.50	0.10
77.00	0.67	3.50	0.10	128.00	1.01	3.50	0.10	179.00	1.35	3.50	0.10
78.00	0.67	3.50	0.10	129.00	1.02	3.50	0.10	180.00	1.36	3.50	0.10
79.00	0.68	3.50	0.10	130.00	1.03	3.50	0.10	181.00	1.37	3.50	0.10
80.00	0.69	3.50	0.10	131.00	1.03	3.50	0.10	182.00	1.37	3.50	0.10
81.00	0.70	3.50	0.10	132.00	1.04	3.50	0.10	183.00	1.38	3.50	0.10
82.00	0.70	3.50	0.10	133.00	1.05	3.50	0.10	184.00	1.39	3.50	0.10
83.00	0.71	3.50	0.10	134.00	1.05	3.50	0.10	185.00	1.39	3.50	0.10
84.00	0.72	3.50	0.10	135.00	1.06	3.50	0.10	186.00	1.40	3.50	0.10
85.00	0.72	3.50	0.10	136.00	1.07	3.50	0.10	187.00	1.41	3.50	0.10
86.00	0.73	3.50	0.10	137.00	1.07	3.50	0.10	188.00	1.41	3.50	0.10
87.00	0.74	3.50	0.10	138.00	1.08	3.50	0.10	189.00	1.42	3.50	0.10
88.00	0.74	3.50	0.10	139.00	1.09	3.50	0.10	190.00	1.43	3.50	0.10
89.00	0.75	3.50	0.10	140.00	1.09	3.50	0.10	191.00	1.43	3.50	0.10
90.00	0.76	3.50	0.10	141.00	1.10	3.50	0.10	192.00	1.44	3.50	0.10
91.00	0.76	3.50	0.10	142.00	1.11	3.50	0.10	193.00	1.45	3.50	0.10
92.00	0.77	3.50	0.10	143.00	1.11	3.50	0.10	194.00	1.45	3.50	0.10
93.00	0.78	3.50	0.10	144.00	1.12	3.50	0.10	195.00	1.46	3.50	0.10
94.00	0.78	3.50	0.10	145.00	1.13	3.50	0.10	196.00	1.46	3.50	0.10
95.00	0.79	3.50	0.10	146.00	1.13	3.50	0.10	197.00	1.47	3.50	0.10
96.00	0.80	3.50	0.10	147.00	1.14	3.50	0.10	198.00	1.48	3.50	0.10
97.00	0.80	3.50	0.10	148.00	1.15	3.50	0.10	199.00	1.48	3.50	0.10
98.00	0.81	3.50	0.10	149.00	1.15	3.50	0.10	200.00	1.49	3.50	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
201.00	1.50	3.50	0.10	4.00	0.14	4.00	0.10	55.00	0.50	4.00	0.10
202.00	1.50	3.50	0.10	5.00	0.15	4.00	0.10	56.00	0.51	4.00	0.10
203.00	1.51	3.50	0.10	6.00	0.15	4.00	0.10	57.00	0.52	4.00	0.10
204.00	1.52	3.50	0.10	7.00	0.16	4.00	0.10	58.00	0.52	4.00	0.10
205.00	1.52	3.50	0.10	8.00	0.16	4.00	0.10	59.00	0.54	4.00	0.10
206.00	1.53	3.50	0.10	9.00	0.17	4.00	0.10	60.00	0.54	4.00	0.10
207.00	1.54	3.50	0.10	10.00	0.17	4.00	0.10	61.00	0.55	4.00	0.10
208.00	1.54	3.50	0.10	11.00	0.18	4.00	0.10	62.00	0.55	4.00	0.10
209.00	1.55	3.50	0.10	12.00	0.19	4.00	0.10	63.00	0.56	4.00	0.10
210.00	1.56	3.50	0.10	13.00	0.19	4.00	0.10	64.00	0.58	4.00	0.10
215.00	1.59	3.50	0.10	14.00	0.19	4.00	0.10	65.00	0.58	4.00	0.10
220.00	1.62	3.50	0.10	15.00	0.20	4.00	0.10	66.00	0.59	4.00	0.10
225.00	1.65	3.50	0.10	16.00	0.20	4.00	0.10	67.00	0.59	4.00	0.10
230.00	1.69	3.50	0.10	17.00	0.21	4.00	0.10	68.00	0.61	4.00	0.10
235.00	1.72	3.50	0.10	18.00	0.21	4.00	0.10	69.00	0.61	4.00	0.10
240.00	1.75	3.50	0.10	19.00	0.22	4.00	0.10	70.00	0.62	4.00	0.10
245.00	1.78	3.50	0.10	20.00	0.22	4.00	0.10	71.00	0.63	4.00	0.10
250.00	1.82	3.50	0.10	21.00	0.23	4.00	0.10	72.00	0.63	4.00	0.10
255.00	1.85	3.50	0.10	22.00	0.24	4.00	0.10	73.00	0.64	4.00	0.10
260.00	1.88	3.50	0.10	23.00	0.24	4.00	0.10	74.00	0.65	4.00	0.10
265.00	1.91	3.50	0.10	24.00	0.24	4.00	0.10	75.00	0.65	4.00	0.10
270.00	1.95	3.50	0.10	25.00	0.25	4.00	0.10	76.00	0.66	4.00	0.10
275.00	1.98	3.50	0.10	26.00	0.26	4.00	0.10	77.00	0.67	4.00	0.10
280.00	2.01	3.50	0.10	27.00	0.26	4.00	0.10	78.00	0.67	4.00	0.10
285.00	2.04	3.50	0.10	28.00	0.28	4.00	0.10	79.00	0.68	4.00	0.10
290.00	2.08	3.50	0.10	29.00	0.29	4.00	0.10	80.00	0.69	4.00	0.10
295.00	2.11	3.50	0.10	30.00	0.29	4.00	0.10	81.00	0.69	4.00	0.10
300.00	2.14	3.50	0.10	31.00	0.31	4.00	0.10	82.00	0.70	4.00	0.10
305.00	2.17	3.50	0.10	32.00	0.32	4.00	0.10	83.00	0.71	4.00	0.10
310.00	2.20	3.50	0.10	33.00	0.32	4.00	0.10	84.00	0.72	4.00	0.10
315.00	2.24	3.50	0.10	34.00	0.33	4.00	0.10	85.00	0.72	4.00	0.10
320.00	2.27	3.50	0.10	35.00	0.34	4.00	0.10	86.00	0.73	4.00	0.10
325.00	2.30	3.50	0.10	36.00	0.35	4.00	0.10	87.00	0.74	4.00	0.10
330.00	2.33	3.50	0.10	37.00	0.36	4.00	0.10	88.00	0.74	4.00	0.10
335.00	2.36	3.50	0.10	38.00	0.36	4.00	0.10	89.00	0.75	4.00	0.10
340.00	2.40	3.50	0.10	39.00	0.37	4.00	0.10	90.00	0.76	4.00	0.10
345.00	2.43	3.50	0.10	40.00	0.38	4.00	0.10	91.00	0.76	4.00	0.10
350.00	2.46	3.50	0.10	41.00	0.39	4.00	0.10	92.00	0.77	4.00	0.10
351.00	2.47	3.50	0.10	42.00	0.40	4.00	0.10	93.00	0.78	4.00	0.10
355.00	2.49	3.50	0.10	43.00	0.40	4.00	0.10	94.00	0.78	4.00	0.10
360.00	2.52	3.50	0.10	44.00	0.41	4.00	0.10	95.00	0.79	4.00	0.10
365.00	2.56	3.50	0.10	45.00	0.42	4.00	0.10	96.00	0.80	4.00	0.10
370.00	2.59	3.50	0.10	46.00	0.43	4.00	0.10	97.00	0.80	4.00	0.10
380.00	2.65	3.50	0.10	47.00	0.44	4.00	0.10	98.00	0.81	4.00	0.10
390.00	2.71	3.50	0.10	48.00	0.44	4.00	0.10	99.00	0.82	4.00	0.10
400.00	2.78	3.50	0.10	49.00	0.45	4.00	0.10	100.00	0.82	4.00	0.10
410.00	2.84	3.50	0.10	50.00	0.46	4.00	0.10	101.00	0.83	4.00	0.10
420.00	2.90	3.50	0.10	51.00	0.47	4.00	0.10	102.00	0.84	4.00	0.10
430.00	2.97	3.50	0.10	52.00	0.47	4.00	0.10	103.00	0.85	4.00	0.10
440.00	3.03	3.50	0.10	53.00	0.48	4.00	0.10	104.00	0.85	4.00	0.10
				54.00	0.50	4.00	0.10	105.00	0.86	4.00	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
106.00	0.87	4.00	0.10	156.00	1.20	4.00	0.10	207.00	1.54	4.00	0.10
107.00	0.87	4.00	0.10	157.00	1.21	4.00	0.10	208.00	1.54	4.00	0.10
108.00	0.88	4.00	0.10	158.00	1.21	4.00	0.10	209.00	1.55	4.00	0.10
109.00	0.89	4.00	0.10	159.00	1.22	4.00	0.10	210.00	1.56	4.00	0.10
110.00	0.89	4.00	0.10	160.00	1.23	4.00	0.10	211.00	1.56	4.00	0.10
111.00	0.90	4.00	0.10	161.00	1.23	4.00	0.10	212.00	1.57	4.00	0.10
112.00	0.91	4.00	0.10	162.00	1.24	4.00	0.10	213.00	1.58	4.00	0.10
113.00	0.91	4.00	0.10	163.00	1.25	4.00	0.10	214.00	1.58	4.00	0.10
114.00	0.92	4.00	0.10	164.00	1.25	4.00	0.10	215.00	1.59	4.00	0.10
115.00	0.93	4.00	0.10	165.00	1.26	4.00	0.10	216.00	1.60	4.00	0.10
116.00	0.93	4.00	0.10	166.00	1.27	4.00	0.10	217.00	1.60	4.00	0.10
117.00	0.94	4.00	0.10	167.00	1.27	4.00	0.10	218.00	1.61	4.00	0.10
118.00	0.95	4.00	0.10	168.00	1.28	4.00	0.10	219.00	1.62	4.00	0.10
119.00	0.95	4.00	0.10	169.00	1.29	4.00	0.10	220.00	1.62	4.00	0.10
120.00	0.96	4.00	0.10	170.00	1.29	4.00	0.10	221.00	1.63	4.00	0.10
121.00	0.97	4.00	0.10	171.00	1.30	4.00	0.10	222.00	1.64	4.00	0.10
122.00	0.97	4.00	0.10	172.00	1.31	4.00	0.10	223.00	1.64	4.00	0.10
123.00	0.98	4.00	0.10	173.00	1.31	4.00	0.10	224.00	1.65	4.00	0.10
124.00	0.99	4.00	0.10	174.00	1.32	4.00	0.10	225.00	1.65	4.00	0.10
125.00	0.99	4.00	0.10	175.00	1.33	4.00	0.10	226.00	1.66	4.00	0.10
126.00	1.00	4.00	0.10	176.00	1.33	4.00	0.10	227.00	1.67	4.00	0.10
127.00	1.01	4.00	0.10	177.00	1.34	4.00	0.10	228.00	1.67	4.00	0.10
128.00	1.01	4.00	0.10	178.00	1.35	4.00	0.10	229.00	1.68	4.00	0.10
129.00	1.02	4.00	0.10	179.00	1.35	4.00	0.10	230.00	1.69	4.00	0.10
130.00	1.03	4.00	0.10	180.00	1.36	4.00	0.10	231.00	1.69	4.00	0.10
131.00	1.03	4.00	0.10	181.00	1.37	4.00	0.10	232.00	1.70	4.00	0.10
132.00	1.04	4.00	0.10	182.00	1.37	4.00	0.10	233.00	1.71	4.00	0.10
133.00	1.05	4.00	0.10	183.00	1.38	4.00	0.10	234.00	1.71	4.00	0.10
134.00	1.05	4.00	0.10	184.00	1.39	4.00	0.10	235.00	1.72	4.00	0.10
135.00	1.06	4.00	0.10	185.00	1.39	4.00	0.10	236.00	1.73	4.00	0.10
136.00	1.07	4.00	0.10	186.00	1.40	4.00	0.10	237.00	1.73	4.00	0.10
137.00	1.07	4.00	0.10	187.00	1.41	4.00	0.10	238.00	1.74	4.00	0.10
138.00	1.08	4.00	0.10	188.00	1.41	4.00	0.10	239.00	1.75	4.00	0.10
139.00	1.09	4.00	0.10	189.00	1.42	4.00	0.10	240.00	1.75	4.00	0.10
140.00	1.09	4.00	0.10	190.00	1.43	4.00	0.10	241.00	1.76	4.00	0.10
140.50	1.10	4.00	0.10	191.00	1.43	4.00	0.10	242.00	1.77	4.00	0.10
141.00	1.10	4.00	0.10	192.00	1.44	4.00	0.10	243.00	1.77	4.00	0.10
142.00	1.11	4.00	0.10	193.00	1.45	4.00	0.10	244.00	1.78	4.00	0.10
143.00	1.11	4.00	0.10	194.00	1.45	4.00	0.10	245.00	1.78	4.00	0.10
144.00	1.12	4.00	0.10	195.00	1.46	4.00	0.10	246.00	1.79	4.00	0.10
145.00	1.13	4.00	0.10	196.00	1.46	4.00	0.10	247.00	1.80	4.00	0.10
146.00	1.13	4.00	0.10	197.00	1.47	4.00	0.10	248.00	1.80	4.00	0.10
147.00	1.14	4.00	0.10	198.00	1.48	4.00	0.10	249.00	1.81	4.00	0.10
148.00	1.15	4.00	0.10	199.00	1.48	4.00	0.10	250.00	1.82	4.00	0.10
149.00	1.15	4.00	0.10	200.00	1.49	4.00	0.10	251.00	1.82	4.00	0.10
150.00	1.16	4.00	0.10	201.00	1.50	4.00	0.10	252.00	1.83	4.00	0.10
151.00	1.17	4.00	0.10	202.00	1.50	4.00	0.10	253.00	1.84	4.00	0.10
152.00	1.17	4.00	0.10	203.00	1.51	4.00	0.10	254.00	1.84	4.00	0.10
153.00	1.18	4.00	0.10	204.00	1.52	4.00	0.10	255.00	1.85	4.00	0.10
154.00	1.19	4.00	0.10	205.00	1.52	4.00	0.10	256.00	1.86	4.00	0.10
155.00	1.19	4.00	0.10	206.00	1.53	4.00	0.10	257.00	1.86	4.00	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
258.00	1.87	4.00	0.10	309.00	2.20	4.00	0.10	360.00	2.52	4.00	0.10
259.00	1.88	4.00	0.10	310.00	2.20	4.00	0.10	361.00	2.53	4.00	0.10
260.00	1.88	4.00	0.10	311.00	2.21	4.00	0.10	362.00	2.54	4.00	0.10
261.00	1.89	4.00	0.10	312.00	2.22	4.00	0.10	363.00	2.54	4.00	0.10
262.00	1.89	4.00	0.10	313.00	2.22	4.00	0.10	364.00	2.55	4.00	0.10
263.00	1.90	4.00	0.10	314.00	2.23	4.00	0.10	365.00	2.56	4.00	0.10
264.00	1.91	4.00	0.10	315.00	2.24	4.00	0.10	366.00	2.56	4.00	0.10
265.00	1.91	4.00	0.10	316.00	2.24	4.00	0.10	367.00	2.57	4.00	0.10
266.00	1.92	4.00	0.10	317.00	2.25	4.00	0.10	368.00	2.57	4.00	0.10
267.00	1.93	4.00	0.10	318.00	2.26	4.00	0.10	369.00	2.58	4.00	0.10
268.00	1.93	4.00	0.10	319.00	2.26	4.00	0.10	370.00	2.59	4.00	0.10
269.00	1.94	4.00	0.10	320.00	2.27	4.00	0.10	371.00	2.59	4.00	0.10
270.00	1.95	4.00	0.10	321.00	2.27	4.00	0.10	372.00	2.60	4.00	0.10
271.00	1.95	4.00	0.10	322.00	2.28	4.00	0.10	373.00	2.61	4.00	0.10
272.00	1.96	4.00	0.10	323.00	2.29	4.00	0.10	374.00	2.61	4.00	0.10
273.00	1.97	4.00	0.10	324.00	2.29	4.00	0.10	375.00	2.62	4.00	0.10
274.00	1.97	4.00	0.10	325.00	2.30	4.00	0.10	376.00	2.63	4.00	0.10
275.00	1.98	4.00	0.10	326.00	2.31	4.00	0.10	377.00	2.63	4.00	0.10
276.00	1.99	4.00	0.10	327.00	2.31	4.00	0.10	378.00	2.64	4.00	0.10
277.00	1.99	4.00	0.10	328.00	2.32	4.00	0.10	379.00	2.64	4.00	0.10
278.00	2.00	4.00	0.10	329.00	2.33	4.00	0.10	380.00	2.65	4.00	0.10
279.00	2.00	4.00	0.10	330.00	2.33	4.00	0.10	381.00	2.66	4.00	0.10
280.00	2.01	4.00	0.10	331.00	2.34	4.00	0.10	382.00	2.66	4.00	0.10
281.00	2.02	4.00	0.10	332.00	2.35	4.00	0.10	383.00	2.67	4.00	0.10
282.00	2.02	4.00	0.10	333.00	2.35	4.00	0.10	384.00	2.68	4.00	0.10
283.00	2.03	4.00	0.10	334.00	2.36	4.00	0.10	385.00	2.68	4.00	0.10
284.00	2.04	4.00	0.10	335.00	2.36	4.00	0.10	386.00	2.69	4.00	0.10
285.00	2.04	4.00	0.10	336.00	2.37	4.00	0.10	387.00	2.70	4.00	0.10
286.00	2.05	4.00	0.10	337.00	2.38	4.00	0.10	388.00	2.70	4.00	0.10
287.00	2.06	4.00	0.10	338.00	2.38	4.00	0.10	389.00	2.71	4.00	0.10
288.00	2.06	4.00	0.10	339.00	2.39	4.00	0.10	390.00	2.71	4.00	0.10
289.00	2.07	4.00	0.10	340.00	2.40	4.00	0.10	391.00	2.72	4.00	0.10
290.00	2.08	4.00	0.10	341.00	2.40	4.00	0.10	392.00	2.73	4.00	0.10
291.00	2.08	4.00	0.10	342.00	2.41	4.00	0.10	393.00	2.73	4.00	0.10
292.00	2.09	4.00	0.10	343.00	2.42	4.00	0.10	394.00	2.74	4.00	0.10
293.00	2.10	4.00	0.10	344.00	2.42	4.00	0.10	395.00	2.75	4.00	0.10
294.00	2.10	4.00	0.10	345.00	2.43	4.00	0.10	396.00	2.75	4.00	0.10
295.00	2.11	4.00	0.10	346.00	2.43	4.00	0.10	397.00	2.76	4.00	0.10
296.00	2.11	4.00	0.10	347.00	2.44	4.00	0.10	398.00	2.77	4.00	0.10
297.00	2.12	4.00	0.10	348.00	2.45	4.00	0.10	399.00	2.77	4.00	0.10
298.00	2.13	4.00	0.10	349.00	2.45	4.00	0.10	400.00	2.78	4.00	0.10
299.00	2.13	4.00	0.10	350.00	2.46	4.00	0.10	401.00	2.78	4.00	0.10
300.00	2.14	4.00	0.10	351.00	2.47	4.00	0.10	402.00	2.79	4.00	0.10
301.00	2.15	4.00	0.10	352.00	2.47	4.00	0.10	403.00	2.80	4.00	0.10
302.00	2.15	4.00	0.10	353.00	2.48	4.00	0.10	404.00	2.80	4.00	0.10
303.00	2.16	4.00	0.10	354.00	2.49	4.00	0.10	405.00	2.81	4.00	0.10
304.00	2.17	4.00	0.10	355.00	2.49	4.00	0.10	406.00	2.82	4.00	0.10
305.00	2.17	4.00	0.10	356.00	2.50	4.00	0.10	407.00	2.82	4.00	0.10
306.00	2.18	4.00	0.10	357.00	2.50	4.00	0.10	408.00	2.83	4.00	0.10
307.00	2.19	4.00	0.10	358.00	2.51	4.00	0.10	409.00	2.84	4.00	0.10
308.00	2.19	4.00	0.10	359.00	2.52	4.00	0.10	410.00	2.84	4.00	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
411.00	2.85	4.00	0.10	462.00	3.17	4.00	0.10	11.00	0.20	4.50	0.10
412.00	2.85	4.00	0.10	463.00	3.18	4.00	0.10	12.00	0.21	4.50	0.10
413.00	2.86	4.00	0.10	464.00	3.18	4.00	0.10	13.00	0.21	4.50	0.10
414.00	2.87	4.00	0.10	465.00	3.19	4.00	0.10	15.00	0.23	4.50	0.10
415.00	2.87	4.00	0.10	466.00	3.19	4.00	0.10	15.50	0.23	4.50	0.10
416.00	2.88	4.00	0.10	467.00	3.20	4.00	0.10	16.00	0.24	4.50	0.10
417.00	2.89	4.00	0.10	468.00	3.21	4.00	0.10	17.00	0.24	4.50	0.10
418.00	2.89	4.00	0.10	469.00	3.21	4.00	0.10	18.00	0.25	4.50	0.10
419.00	2.90	4.00	0.10	470.00	3.22	4.00	0.10	19.00	0.26	4.50	0.10
420.00	2.90	4.00	0.10	471.00	3.23	4.00	0.10	20.00	0.26	4.50	0.10
421.00	2.91	4.00	0.10	472.00	3.23	4.00	0.10	21.00	0.27	4.50	0.10
422.00	2.92	4.00	0.10	473.00	3.24	4.00	0.10	21.50	0.28	4.50	0.10
423.00	2.92	4.00	0.10	474.00	3.24	4.00	0.10	22.00	0.28	4.50	0.10
424.00	2.93	4.00	0.10	475.00	3.25	4.00	0.10	22.50	0.28	4.50	0.10
425.00	2.94	4.00	0.10	476.00	3.26	4.00	0.10	23.00	0.29	4.50	0.10
426.00	2.94	4.00	0.10	477.00	3.26	4.00	0.10	24.00	0.29	4.50	0.10
427.00	2.95	4.00	0.10	478.00	3.27	4.00	0.10	24.50	0.30	4.50	0.10
428.00	2.96	4.00	0.10	479.00	3.28	4.00	0.10	25.00	0.30	4.50	0.10
429.00	2.96	4.00	0.10	480.00	3.28	4.00	0.10	26.00	0.31	4.50	0.10
430.00	2.97	4.00	0.10	481.00	3.29	4.00	0.10	27.00	0.32	4.50	0.10
431.00	2.97	4.00	0.10	482.00	3.30	4.00	0.10	27.50	0.32	4.50	0.10
432.00	2.98	4.00	0.10	483.00	3.30	4.00	0.10	28.00	0.32	4.50	0.10
433.00	2.99	4.00	0.10	484.00	3.31	4.00	0.10	28.50	0.33	4.50	0.10
434.00	2.99	4.00	0.10	485.00	3.31	4.00	0.10	29.00	0.33	4.50	0.10
435.00	3.00	4.00	0.10	486.00	3.32	4.00	0.10	29.50	0.33	4.50	0.10
436.00	3.01	4.00	0.10	487.00	3.33	4.00	0.10	30.00	0.34	4.50	0.10
437.00	3.01	4.00	0.10	488.00	3.33	4.00	0.10	31.00	0.34	4.50	0.10
438.00	3.02	4.00	0.10	489.00	3.34	4.00	0.10	31.50	0.35	4.50	0.10
439.00	3.02	4.00	0.10	490.00	3.35	4.00	0.10	32.00	0.35	4.50	0.10
440.00	3.03	4.00	0.10	491.00	3.35	4.00	0.10	33.00	0.36	4.50	0.10
441.00	3.04	4.00	0.10	492.00	3.36	4.00	0.10	34.00	0.37	4.50	0.10
442.00	3.04	4.00	0.10	493.00	3.36	4.00	0.10	34.50	0.37	4.50	0.10
443.00	3.05	4.00	0.10	494.00	3.37	4.00	0.10	35.00	0.37	4.50	0.10
444.00	3.06	4.00	0.10	495.00	3.38	4.00	0.10	35.50	0.38	4.50	0.10
445.00	3.06	4.00	0.10	496.00	3.38	4.00	0.10	36.00	0.38	4.50	0.10
446.00	3.07	4.00	0.10	497.00	3.39	4.00	0.10	37.00	0.39	4.50	0.10
447.00	3.08	4.00	0.10	498.00	3.40	4.00	0.10	37.50	0.39	4.50	0.10
448.00	3.08	4.00	0.10	499.00	3.40	4.00	0.10	38.00	0.40	4.50	0.10
449.00	3.09	4.00	0.10	500.00	3.41	4.00	0.10	39.00	0.40	4.50	0.10
450.00	3.09	4.00	0.10	525.00	3.56	4.00	0.10	40.00	0.41	4.50	0.10
451.00	3.10	4.00	0.10	530.00	3.60	4.00	0.10	40.50	0.41	4.50	0.10
452.00	3.11	4.00	0.10	540.00	3.66	4.00	0.10	41.00	0.42	4.50	0.10
453.00	3.11	4.00	0.10	550.00	3.72	4.00	0.10	42.00	0.42	4.50	0.10
454.00	3.12	4.00	0.10	560.00	3.78	4.00	0.10	43.00	0.43	4.50	0.10
455.00	3.13	4.00	0.10					44.00	0.44	4.50	0.10
456.00	3.13	4.00	0.10	6.00	0.16	4.50	0.10	45.00	0.44	4.50	0.10
457.00	3.14	4.00	0.10	8.00	0.17	4.50	0.10	46.00	0.45	4.50	0.10
458.00	3.14	4.00	0.10	9.00	0.18	4.50	0.10	47.00	0.46	4.50	0.10
459.00	3.15	4.00	0.10	9.50	0.19	4.50	0.10	48.00	0.47	4.50	0.10
460.00	3.16	4.00	0.10	10.00	0.19	4.50	0.10	49.00	0.47	4.50	0.10
461.00	3.16	4.00	0.10	10.50	0.19	4.50	0.10	50.00	0.48	4.50	0.10

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
51.00	0.49	4.50	0.10	150.00	1.16	4.50	0.10	32.00	0.32	5.00	0.13
53.00	0.50	4.50	0.10	153.00	1.18	4.50	0.10	33.00	0.32	5.00	0.13
56.00	0.52	4.50	0.10	155.00	1.19	4.50	0.10	34.00	0.33	5.00	0.13
57.00	0.53	4.50	0.10	157.00	1.21	4.50	0.10	35.00	0.34	5.00	0.13
60.00	0.55	4.50	0.10	160.00	1.23	4.50	0.10	36.00	0.35	5.00	0.13
61.00	0.56	4.50	0.10	165.00	1.26	4.50	0.10	37.00	0.36	5.00	0.13
63.00	0.57	4.50	0.10	172.00	1.31	4.50	0.10	38.00	0.36	5.00	0.13
64.00	0.58	4.50	0.10	178.00	1.35	4.50	0.10	39.00	0.37	5.00	0.13
65.00	0.58	4.50	0.10	180.00	1.36	4.50	0.10	40.00	0.38	5.00	0.13
66.00	0.59	4.50	0.10	185.00	1.39	4.50	0.10	41.00	0.39	5.00	0.13
68.00	0.61	4.50	0.10	186.00	1.40	4.50	0.10	42.00	0.40	5.00	0.13
69.00	0.61	4.50	0.10	189.50	1.42	4.50	0.10	43.00	0.40	5.00	0.13
70.00	0.62	4.50	0.10	192.00	1.44	4.50	0.10	44.00	0.41	5.00	0.13
71.00	0.63	4.50	0.10	208.00	1.54	4.50	0.10	45.00	0.42	5.00	0.13
73.00	0.64	4.50	0.10	215.00	1.59	4.50	0.10	46.00	0.43	5.00	0.13
74.00	0.65	4.50	0.10	218.50	1.61	4.50	0.10	47.00	0.44	5.00	0.13
75.00	0.65	4.50	0.10	225.00	1.65	4.50	0.10	48.00	0.44	5.00	0.13
76.00	0.66	4.50	0.10	227.00	1.67	4.50	0.10	49.00	0.45	5.00	0.13
80.00	0.69	4.50	0.10	250.00	1.82	4.50	0.10	50.00	0.46	5.00	0.13
81.00	0.70	4.50	0.10	267.00	1.93	4.50	0.10	51.00	0.47	5.00	0.13
83.00	0.71	4.50	0.10	280.00	2.01	4.50	0.10	52.00	0.47	5.00	0.13
85.00	0.72	4.50	0.10	315.00	2.24	4.50	0.10	53.00	0.48	5.00	0.13
86.00	0.73	4.50	0.10					54.00	0.50	5.00	0.13
89.00	0.75	4.50	0.10	4.00	0.14	5.00	0.13	55.00	0.50	5.00	0.13
90.00	0.76	4.50	0.10	5.00	0.15	5.00	0.13	56.00	0.51	5.00	0.13
92.00	0.77	4.50	0.10	6.00	0.15	5.00	0.13	57.00	0.52	5.00	0.13
93.50	0.78	4.50	0.10	7.00	0.16	5.00	0.13	58.00	0.52	5.00	0.13
95.00	0.79	4.50	0.10	8.00	0.16	5.00	0.13	59.00	0.54	5.00	0.13
97.50	0.81	4.50	0.10	9.00	0.17	5.00	0.13	60.00	0.54	5.00	0.13
98.00	0.81	4.50	0.10	10.00	0.17	5.00	0.13	61.00	0.55	5.00	0.13
99.50	0.82	4.50	0.10	11.00	0.18	5.00	0.13	62.00	0.55	5.00	0.13
100.00	0.82	4.50	0.10	12.00	0.19	5.00	0.13	63.00	0.56	5.00	0.13
100.50	0.83	4.50	0.10	13.00	0.19	5.00	0.13	64.00	0.58	5.00	0.13
101.00	0.83	4.50	0.10	14.00	0.19	5.00	0.13	65.00	0.58	5.00	0.13
103.50	0.85	4.50	0.10	15.00	0.20	5.00	0.13	66.00	0.59	5.00	0.13
105.00	0.86	4.50	0.10	16.00	0.20	5.00	0.13	67.00	0.59	5.00	0.13
106.00	0.87	4.50	0.10	17.00	0.21	5.00	0.13	68.00	0.61	5.00	0.13
110.00	0.89	4.50	0.10	18.00	0.21	5.00	0.13	69.00	0.61	5.00	0.13
115.00	0.93	4.50	0.10	19.00	0.22	5.00	0.13	70.00	0.62	5.00	0.13
118.00	0.95	4.50	0.10	20.00	0.22	5.00	0.13	71.00	0.63	5.00	0.13
120.00	0.96	4.50	0.10	21.00	0.23	5.00	0.13	72.00	0.63	5.00	0.13
122.00	0.97	4.50	0.10	22.00	0.24	5.00	0.13	73.00	0.64	5.00	0.13
124.00	0.99	4.50	0.10	23.00	0.24	5.00	0.13	74.00	0.65	5.00	0.13
126.00	1.00	4.50	0.10	24.00	0.24	5.00	0.13	75.00	0.65	5.00	0.13
128.00	1.01	4.50	0.10	25.00	0.25	5.00	0.13	76.00	0.66	5.00	0.13
130.00	1.03	4.50	0.10	26.00	0.26	5.00	0.13	77.00	0.67	5.00	0.13
131.50	1.04	4.50	0.10	27.00	0.26	5.00	0.13	78.00	0.67	5.00	0.13
134.50	1.06	4.50	0.10	28.00	0.28	5.00	0.13	79.00	0.68	5.00	0.13
137.00	1.07	4.50	0.10	29.00	0.29	5.00	0.13	80.00	0.69	5.00	0.13
140.00	1.09	4.50	0.10	30.00	0.29	5.00	0.13	81.00	0.69	5.00	0.13
140.50	1.10	4.50	0.10	31.00	0.31	5.00	0.13	82.00	0.70	5.00	0.13

O-Ring Standard
Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
83.00	0.71	5.00	0.13	136.00	1.07	5.00	0.13	189.00	1.42	5.00	0.13
84.00	0.72	5.00	0.13	137.00	1.07	5.00	0.13	190.00	1.43	5.00	0.13
85.00	0.72	5.00	0.13	138.00	1.08	5.00	0.13	191.00	1.43	5.00	0.13
86.00	0.73	5.00	0.13	139.00	1.09	5.00	0.13	192.00	1.44	5.00	0.13
87.00	0.74	5.00	0.13	140.00	1.09	5.00	0.13	193.00	1.45	5.00	0.13
88.00	0.74	5.00	0.13	141.00	1.10	5.00	0.13	194.00	1.45	5.00	0.13
89.00	0.75	5.00	0.13	142.00	1.11	5.00	0.13	195.00	1.46	5.00	0.13
90.00	0.76	5.00	0.13	143.00	1.11	5.00	0.13	196.00	1.46	5.00	0.13
91.00	0.76	5.00	0.13	144.00	1.12	5.00	0.13	197.00	1.47	5.00	0.13
92.00	0.77	5.00	0.13	145.00	1.13	5.00	0.13	198.00	1.48	5.00	0.13
93.00	0.78	5.00	0.13	146.00	1.13	5.00	0.13	199.00	1.48	5.00	0.13
94.00	0.78	5.00	0.13	147.00	1.14	5.00	0.13	200.00	1.49	5.00	0.13
95.00	0.79	5.00	0.13	148.00	1.15	5.00	0.13	201.00	1.50	5.00	0.13
96.00	0.80	5.00	0.13	149.00	1.15	5.00	0.13	202.00	1.50	5.00	0.13
97.00	0.80	5.00	0.13	150.00	1.16	5.00	0.13	203.00	1.51	5.00	0.13
98.00	0.81	5.00	0.13	151.00	1.17	5.00	0.13	204.00	1.52	5.00	0.13
99.00	0.82	5.00	0.13	152.00	1.17	5.00	0.13	205.00	1.52	5.00	0.13
100.00	0.82	5.00	0.13	153.00	1.18	5.00	0.13	206.00	1.53	5.00	0.13
101.00	0.83	5.00	0.13	154.00	1.19	5.00	0.13	207.00	1.54	5.00	0.13
102.00	0.84	5.00	0.13	155.00	1.19	5.00	0.13	208.00	1.54	5.00	0.13
103.00	0.85	5.00	0.13	156.00	1.20	5.00	0.13	209.00	1.55	5.00	0.13
104.00	0.85	5.00	0.13	157.00	1.21	5.00	0.13	210.00	1.56	5.00	0.13
105.00	0.86	5.00	0.13	158.00	1.21	5.00	0.13	211.00	1.56	5.00	0.13
106.00	0.87	5.00	0.13	159.00	1.22	5.00	0.13	212.00	1.57	5.00	0.13
107.00	0.87	5.00	0.13	160.00	1.23	5.00	0.13	213.00	1.58	5.00	0.13
108.00	0.88	5.00	0.13	161.00	1.23	5.00	0.13	214.00	1.58	5.00	0.13
109.00	0.89	5.00	0.13	162.00	1.24	5.00	0.13	215.00	1.59	5.00	0.13
110.00	0.89	5.00	0.13	163.00	1.25	5.00	0.13	216.00	1.60	5.00	0.13
111.00	0.90	5.00	0.13	164.00	1.25	5.00	0.13	217.00	1.60	5.00	0.13
112.00	0.91	5.00	0.13	165.00	1.26	5.00	0.13	218.00	1.61	5.00	0.13
113.00	0.91	5.00	0.13	166.00	1.27	5.00	0.13	219.00	1.62	5.00	0.13
114.00	0.92	5.00	0.13	167.00	1.27	5.00	0.13	220.00	1.62	5.00	0.13
115.00	0.93	5.00	0.13	168.00	1.28	5.00	0.13	221.00	1.63	5.00	0.13
116.00	0.93	5.00	0.13	169.00	1.29	5.00	0.13	222.00	1.64	5.00	0.13
117.00	0.94	5.00	0.13	170.00	1.29	5.00	0.13	223.00	1.64	5.00	0.13
118.00	0.95	5.00	0.13	171.00	1.30	5.00	0.13	224.00	1.65	5.00	0.13
119.00	0.95	5.00	0.13	172.00	1.31	5.00	0.13	225.00	1.65	5.00	0.13
120.00	0.96	5.00	0.13	173.00	1.31	5.00	0.13	226.00	1.66	5.00	0.13
121.00	0.97	5.00	0.13	174.00	1.32	5.00	0.13	227.00	1.67	5.00	0.13
122.00	0.97	5.00	0.13	175.00	1.33	5.00	0.13	228.00	1.67	5.00	0.13
123.00	0.98	5.00	0.13	176.00	1.33	5.00	0.13	229.00	1.68	5.00	0.13
124.00	0.99	5.00	0.13	177.00	1.34	5.00	0.13	230.00	1.69	5.00	0.13
125.00	0.99	5.00	0.13	178.00	1.35	5.00	0.13	231.00	1.69	5.00	0.13
126.00	1.00	5.00	0.13	179.00	1.35	5.00	0.13	232.00	1.70	5.00	0.13
127.00	1.01	5.00	0.13	180.00	1.36	5.00	0.13	233.00	1.71	5.00	0.13
128.00	1.01	5.00	0.13	181.00	1.37	5.00	0.13	234.00	1.71	5.00	0.13
129.00	1.02	5.00	0.13	182.00	1.37	5.00	0.13	235.00	1.72	5.00	0.13
130.00	1.03	5.00	0.13	183.00	1.38	5.00	0.13	236.00	1.73	5.00	0.13
131.00	1.03	5.00	0.13	184.00	1.39	5.00	0.13	237.00	1.73	5.00	0.13
132.00	1.04	5.00	0.13	185.00	1.39	5.00	0.13	238.00	1.74	5.00	0.13
133.00	1.05	5.00	0.13	186.00	1.40	5.00	0.13	239.00	1.75	5.00	0.13
134.00	1.05	5.00	0.13	187.00	1.41	5.00	0.13	240.00	1.75	5.00	0.13
135.00	1.06	5.00	0.13	188.00	1.41	5.00	0.13	241.00	1.76	5.00	0.13

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
242.00	1.77	5.00	0.13	295.00	2.11	5.00	0.13	291.00	2.08	5.00	0.13
243.00	1.77	5.00	0.13	296.00	2.11	5.00	0.13	292.00	2.09	5.00	0.13
244.00	1.78	5.00	0.13	297.00	2.12	5.00	0.13	293.00	2.10	5.00	0.13
245.00	1.78	5.00	0.13	298.00	2.13	5.00	0.13	294.00	2.10	5.00	0.13
246.00	1.79	5.00	0.13	299.00	2.13	5.00	0.13	295.00	2.11	5.00	0.13
247.00	1.80	5.00	0.13	300.00	2.14	5.00	0.13	296.00	2.11	5.00	0.13
248.00	1.80	5.00	0.13	301.00	2.15	5.00	0.13	297.00	2.12	5.00	0.13
249.00	1.81	5.00	0.13	302.00	2.15	5.00	0.13	298.00	2.13	5.00	0.13
250.00	1.82	5.00	0.13	303.00	2.16	5.00	0.13	299.00	2.13	5.00	0.13
251.00	1.82	5.00	0.13	304.00	2.17	5.00	0.13	300.00	2.14	5.00	0.13
252.00	1.83	5.00	0.13	305.00	2.17	5.00	0.13	301.00	2.15	5.00	0.13
253.00	1.84	5.00	0.13	306.00	2.18	5.00	0.13	302.00	2.15	5.00	0.13
254.00	1.84	5.00	0.13	307.00	2.19	5.00	0.13	303.00	2.16	5.00	0.13
255.00	1.85	5.00	0.13	308.00	2.19	5.00	0.13	304.00	2.17	5.00	0.13
256.00	1.86	5.00	0.13	309.00	2.20	5.00	0.13	305.00	2.17	5.00	0.13
257.00	1.86	5.00	0.13	310.00	2.20	5.00	0.13	306.00	2.18	5.00	0.13
258.00	1.87	5.00	0.13	311.00	2.21	5.00	0.13	307.00	2.19	5.00	0.13
259.00	1.88	5.00	0.13	312.00	2.22	5.00	0.13	308.00	2.19	5.00	0.13
260.00	1.88	5.00	0.13	313.00	2.22	5.00	0.13	309.00	2.20	5.00	0.13
261.00	1.89	5.00	0.13	314.00	2.23	5.00	0.13	310.00	2.20	5.00	0.13
262.00	1.89	5.00	0.13	315.00	2.24	5.00	0.13	311.00	2.21	5.00	0.13
263.00	1.90	5.00	0.13	316.00	2.24	5.00	0.13	312.00	2.22	5.00	0.13
264.00	1.91	5.00	0.13	317.00	2.25	5.00	0.13	313.00	2.22	5.00	0.13
265.00	1.91	5.00	0.13	318.00	2.26	5.00	0.13	314.00	2.23	5.00	0.13
266.00	1.92	5.00	0.13	319.00	2.26	5.00	0.13	315.00	2.24	5.00	0.13
267.00	1.93	5.00	0.13	320.00	2.27	5.00	0.13	316.00	2.24	5.00	0.13
268.00	1.93	5.00	0.13	321.00	2.27	5.00	0.13	317.00	2.25	5.00	0.13
269.00	1.94	5.00	0.13	322.00	2.28	5.00	0.13	318.00	2.26	5.00	0.13
270.00	1.95	5.00	0.13	323.00	2.29	5.00	0.13	319.00	2.26	5.00	0.13
271.00	1.95	5.00	0.13	324.00	2.29	5.00	0.13	320.00	2.27	5.00	0.13
272.00	1.96	5.00	0.13	325.00	2.30	5.00	0.13	321.00	2.27	5.00	0.13
273.00	1.97	5.00	0.13	326.00	2.31	5.00	0.13	322.00	2.28	5.00	0.13
274.00	1.97	5.00	0.13	327.00	2.31	5.00	0.13	323.00	2.29	5.00	0.13
275.00	1.98	5.00	0.13	328.00	2.32	5.00	0.13	324.00	2.29	5.00	0.13
276.00	1.99	5.00	0.13	329.00	2.33	5.00	0.13	325.00	2.30	5.00	0.13
277.00	1.99	5.00	0.13	330.00	2.33	5.00	0.13	326.00	2.31	5.00	0.13
278.00	2.00	5.00	0.13	331.00	2.34	5.00	0.13	327.00	2.31	5.00	0.13
279.00	2.00	5.00	0.13	332.00	2.35	5.00	0.13	328.00	2.32	5.00	0.13
280.00	2.01	5.00	0.13	333.00	2.35	5.00	0.13	329.00	2.33	5.00	0.13
281.00	2.02	5.00	0.13	334.00	2.36	5.00	0.13	330.00	2.33	5.00	0.13
282.00	2.02	5.00	0.13	335.00	2.36	5.00	0.13	331.00	2.34	5.00	0.13
283.00	2.03	5.00	0.13	336.00	2.37	5.00	0.13	332.00	2.35	5.00	0.13
284.00	2.04	5.00	0.13	337.00	2.38	5.00	0.13	333.00	2.35	5.00	0.13
285.00	2.04	5.00	0.13	338.00	2.38	5.00	0.13	334.00	2.36	5.00	0.13
286.00	2.05	5.00	0.13	339.00	2.39	5.00	0.13	335.00	2.36	5.00	0.13
287.00	2.06	5.00	0.13	340.00	2.40	5.00	0.13	336.00	2.37	5.00	0.13
288.00	2.06	5.00	0.13	341.00	2.40	5.00	0.13	337.00	2.38	5.00	0.13
289.00	2.07	5.00	0.13	342.00	2.41	5.00	0.13	338.00	2.38	5.00	0.13
290.00	2.08	5.00	0.13	343.00	2.42	5.00	0.13	339.00	2.39	5.00	0.13
291.00	2.08	5.00	0.13	344.00	2.42	5.00	0.13	340.00	2.40	5.00	0.13
292.00	2.09	5.00	0.13	345.00	2.43	5.00	0.13	341.00	2.40	5.00	0.13
293.00	2.10	5.00	0.13	289.00	2.07	5.00	0.13	342.00	2.41	5.00	0.13
294.00	2.10	5.00	0.13	290.00	2.08	5.00	0.13	343.00	2.42	5.00	0.13

O-Ring Standard Size (Metric)

O-Ring Standard Size (Metric)

MEASUREMENTS IN MILLIMETERS

ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
344.00	2.42	5.00	0.13	410.00	2.84	5.00	0.13	110.00	0.89	6.00	0.15
345.00	2.43	5.00	0.13	415.00	2.87	5.00	0.13	115.00	0.93	6.00	0.15
346.00	2.43	5.00	0.13	420.00	2.90	5.00	0.13	120.00	0.96	6.00	0.15
347.00	2.44	5.00	0.13	425.00	2.94	5.00	0.13	125.00	0.99	6.00	0.15
348.00	2.45	5.00	0.13	430.00	2.97	5.00	0.13	130.00	1.03	6.00	0.15
349.00	2.45	5.00	0.13	435.00	3.00	5.00	0.13	135.00	1.06	6.00	0.15
350.00	2.46	5.00	0.13	440.00	3.03	5.00	0.13	140.00	1.09	6.00	0.15
351.00	2.47	5.00	0.13	445.00	3.06	5.00	0.13	145.00	1.13	6.00	0.15
352.00	2.47	5.00	0.13	450.00	3.09	5.00	0.13	150.00	1.16	6.00	0.15
353.00	2.48	5.00	0.13	455.00	3.13	5.00	0.13	155.00	1.19	6.00	0.15
354.00	2.49	5.00	0.13	460.00	3.16	5.00	0.13	160.00	1.23	6.00	0.15
355.00	2.49	5.00	0.13	465.00	3.19	5.00	0.13	165.00	1.26	6.00	0.15
356.00	2.50	5.00	0.13	470.00	3.22	5.00	0.13	170.00	1.29	6.00	0.15
357.00	2.50	5.00	0.13	475.00	3.25	5.00	0.13	175.00	1.33	6.00	0.15
358.00	2.51	5.00	0.13	480.00	3.28	5.00	0.13	180.00	1.36	6.00	0.15
359.00	2.52	5.00	0.13	485.00	3.31	5.00	0.13	185.00	1.39	6.00	0.15
360.00	2.52	5.00	0.13	490.00	3.35	5.00	0.13	190.00	1.43	6.00	0.15
361.00	2.53	5.00	0.13	495.00	3.38	5.00	0.13	195.00	1.46	6.00	0.15
362.00	2.54	5.00	0.13	500.00	3.41	5.00	0.13	200.00	1.49	6.00	0.15
363.00	2.54	5.00	0.13	505.00	3.44	5.00	0.13	205.00	1.52	6.00	0.15
364.00	2.55	5.00	0.13	510.00	3.47	5.00	0.13	210.00	1.56	6.00	0.15
365.00	2.56	5.00	0.13	515.00	3.50	5.00	0.13	215.00	1.59	6.00	0.15
366.00	2.56	5.00	0.13	520.00	3.53	5.00	0.13	220.00	1.62	6.00	0.15
367.00	2.57	5.00	0.13	525.00	3.56	5.00	0.13	225.00	1.65	6.00	0.15
368.00	2.57	5.00	0.13	530.00	3.60	5.00	0.13	230.00	1.69	6.00	0.15
369.00	2.58	5.00	0.13	535.00	3.63	5.00	0.13	235.00	1.72	6.00	0.15
370.00	2.59	5.00	0.13	540.00	3.66	5.00	0.13	240.00	1.75	6.00	0.15
371.00	2.59	5.00	0.13	545.00	3.69	5.00	0.13	245.00	1.78	6.00	0.15
372.00	2.60	5.00	0.13	550.00	3.72	5.00	0.13	250.00	1.82	6.00	0.15
373.00	2.61	5.00	0.13	555.00	3.75	5.00	0.13	260.00	1.88	6.00	0.15
374.00	2.61	5.00	0.13	560.00	3.78	5.00	0.13	270.00	1.95	6.00	0.15
375.00	2.62	5.00	0.13	565.00	3.81	5.00	0.13	275.00	1.98	6.00	0.15
376.00	2.63	5.00	0.13	570.00	3.85	5.00	0.13	280.00	2.01	6.00	0.15
377.00	2.63	5.00	0.13	575.00	3.88	5.00	0.13	295.00	2.11	6.00	0.15
378.00	2.64	5.00	0.13	580.00	3.91	5.00	0.13	300.00	2.14	6.00	0.15
379.00	2.64	5.00	0.13	585.00	3.93	5.00	0.13	310.00	2.20	6.00	0.15
380.00	2.65	5.00	0.13	590.00	3.97	5.00	0.13	320.00	2.27	6.00	0.15
381.00	2.66	5.00	0.13	595.00	4.00	5.00	0.13	325.00	2.30	6.00	0.15
382.00	2.66	5.00	0.13	600.00	4.03	5.00	0.13	330.00	2.33	6.00	0.15
383.00	2.67	5.00	0.13					340.00	2.40	6.00	0.15
384.00	2.68	5.00	0.13	20.00	0.26	6.00	0.15	350.00	2.46	6.00	0.15
385.00	2.68	5.00	0.13	25.00	0.30	6.00	0.15	360.00	2.52	6.00	0.15
386.00	2.69	5.00	0.13	30.00	0.34	6.00	0.15	375.00	2.62	6.00	0.15
387.00	2.70	5.00	0.13	35.00	0.37	6.00	0.15	380.00	2.65	6.00	0.15
388.00	2.70	5.00	0.13	40.00	0.41	6.00	0.15	400.00	2.78	6.00	0.15
389.00	2.71	5.00	0.13	45.00	0.44	6.00	0.15	410.00	2.84	6.00	0.15
390.00	2.71	5.00	0.13	50.00	0.48	6.00	0.15	425.00	2.94	6.00	0.15
391.00	2.72	5.00	0.13	55.00	0.52	6.00	0.15	450.00	3.09	6.00	0.15
392.00	2.73	5.00	0.13	60.00	0.55	6.00	0.15	460.00	3.16	6.00	0.15
393.00	2.73	5.00	0.13	65.00	0.58	6.00	0.15	470.00	3.22	6.00	0.15
394.00	2.74	5.00	0.13	70.00	0.62	6.00	0.15	475.00	3.25	6.00	0.15
395.00	2.75	5.00	0.13	75.00	0.65	6.00	0.15	490.00	3.35	6.00	0.15
396.00	2.75	5.00	0.13	80.00	0.69	6.00	0.15	500.00	3.41	6.00	0.15
397.00	2.76	5.00	0.13	85.00	0.72	6.00	0.15	525.00	3.56	6.00	0.15
398.00	2.77	5.00	0.13	90.00	0.76	6.00	0.15	550.00	3.72	6.00	0.15
399.00	2.77	5.00	0.13	95.00	0.79	6.00	0.15	555.00	3.75	6.00	0.15
400.00	2.78	5.00	0.13	100.00	0.82	6.00	0.15	575.00	3.88	6.00	0.15
405.00	2.81	5.00	0.13	105.00	0.86	6.00	0.15	600.00	4.03	6.00	0.15

O-Ring Standard Size (Metric)

O-Ring Standard Size (Swedish SMS 1586)

O-Ring Standard Size (Swedish SMS 1586)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
3.1	0.14	1.6	0.08	0.122	0.006	0.063	0.003	17.2	0.24	3	0.09	0.677	0.009	0.118	0.004
4.1	0.14	1.6	0.08	0.161	0.006	0.063	0.003	18.2	0.25	3	0.09	0.717	0.010	0.118	0.004
5.1	0.15	1.6	0.08	0.201	0.006	0.063	0.003	19.2	0.26	3	0.09	0.756	0.010	0.118	0.004
6.1	0.16	1.6	0.08	0.240	0.006	0.063	0.003	20.2	0.27	3	0.09	0.795	0.011	0.118	0.004
7.1	0.17	1.6	0.08	0.280	0.007	0.063	0.003	21.2	0.27	3	0.09	0.835	0.011	0.118	0.004
8.1	0.18	1.6	0.08	0.319	0.007	0.063	0.003	22.2	0.28	3	0.09	0.874	0.011	0.118	0.004
9.1	0.18	1.6	0.08	0.358	0.007	0.063	0.003	24.2	0.3	3	0.09	0.953	0.012	0.118	0.004
10.1	0.19	1.6	0.08	0.398	0.007	0.063	0.003	25.2	0.3	3	0.09	0.992	0.012	0.118	0.004
11.1	0.2	1.6	0.08	0.437	0.008	0.063	0.003	26.2	0.31	3	0.09	1.031	0.012	0.118	0.004
12.1	0.21	1.6	0.08	0.476	0.008	0.063	0.003	28.2	0.32	3	0.09	1.110	0.013	0.118	0.004
13.1	0.21	1.6	0.08	0.516	0.008	0.063	0.003	29.2	0.33	3	0.09	1.150	0.013	0.118	0.004
14.1	0.22	1.6	0.08	0.555	0.009	0.063	0.003	30.2	0.34	3	0.09	1.189	0.013	0.118	0.004
15.1	0.23	1.6	0.08	0.594	0.009	0.063	0.003	31.2	0.35	3	0.09	1.228	0.014	0.118	0.004
16.1	0.24	1.6	0.08	0.634	0.009	0.063	0.003	32.2	0.35	3	0.09	1.268	0.014	0.118	0.004
17.1	0.24	1.6	0.08	0.673	0.009	0.063	0.003	34.2	0.37	3	0.09	1.346	0.015	0.118	0.004
18.1	0.25	1.6	0.08	0.713	0.010	0.063	0.003	35.2	0.38	3	0.09	1.386	0.015	0.118	0.004
19.1	0.26	1.6	0.08	0.752	0.010	0.063	0.003	36.2	0.38	3	0.09	1.425	0.015	0.118	0.004
20.1	0.27	1.6	0.08	0.791	0.011	0.063	0.003	37.2	0.39	3	0.09	1.465	0.015	0.118	0.004
21.1	0.27	1.6	0.08	0.831	0.011	0.063	0.003	39.2	0.4	3	0.09	1.543	0.016	0.118	0.004
22.1	0.28	1.6	0.08	0.870	0.011	0.063	0.003	40.2	0.41	3	0.09	1.583	0.016	0.118	0.004
25.1	0.3	1.6	0.08	0.988	0.012	0.063	0.003	42.2	0.42	3	0.09	1.661	0.017	0.118	0.004
27.1	0.32	1.6	0.08	1.067	0.013	0.063	0.003	44.2	0.44	3	0.09	1.740	0.017	0.118	0.004
29.1	0.33	1.6	0.08	1.146	0.013	0.063	0.003	45.2	0.45	3	0.09	1.780	0.018	0.118	0.004
32.1	0.35	1.6	0.08	1.264	0.014	0.063	0.003	46.2	0.45	3	0.09	1.819	0.018	0.118	0.004
35.1	0.37	1.6	0.08	1.382	0.015	0.063	0.003	49.5	0.48	3	0.09	1.949	0.019	0.118	0.004
37.1	0.39	1.6	0.08	1.461	0.015	0.063	0.003	50.2	0.48	3	0.09	1.976	0.019	0.118	0.004
3.3	0.14	2.4	0.09	0.130	0.006	0.094	0.004	54.5	0.51	3	0.09	2.146	0.020	0.118	0.004
4.3	0.15	2.4	0.09	0.169	0.006	0.094	0.004	55.2	0.52	3	0.09	2.173	0.020	0.118	0.004
5.3	0.15	2.4	0.09	0.209	0.006	0.094	0.004	56.2	0.52	3	0.09	2.213	0.020	0.118	0.004
6.3	0.16	2.4	0.09	0.248	0.006	0.094	0.004	57.2	0.53	3	0.09	2.252	0.021	0.118	0.004
7.3	0.17	2.4	0.09	0.287	0.007	0.094	0.004	59.5	0.55	3	0.09	2.343	0.022	0.118	0.004
8.3	0.18	2.4	0.09	0.327	0.007	0.094	0.004	60.5	0.55	3	0.09	2.382	0.022	0.118	0.004
9.3	0.18	2.4	0.09	0.366	0.007	0.094	0.004	62.2	0.57	3	0.09	2.449	0.022	0.118	0.004
10.3	0.19	2.4	0.09	0.406	0.007	0.094	0.004	64.5	0.58	3	0.09	2.539	0.023	0.118	0.004
11.3	0.2	2.4	0.09	0.445	0.008	0.094	0.004	69.5	0.62	3	0.09	2.736	0.024	0.118	0.004
12.3	0.21	2.4	0.09	0.484	0.008	0.094	0.004	74.5	0.65	3	0.09	2.933	0.026	0.118	0.004
13.3	0.22	2.4	0.09	0.524	0.009	0.094	0.004	79.5	0.68	3	0.09	3.130	0.027	0.118	0.004
14.3	0.22	2.4	0.09	0.563	0.009	0.094	0.004	84.5	0.72	3	0.09	3.327	0.028	0.118	0.004
15.3	0.23	2.4	0.09	0.602	0.009	0.094	0.004	89.5	0.75	3	0.09	3.524	0.030	0.118	0.004
16.3	0.24	2.4	0.09	0.642	0.009	0.094	0.004	94.5	0.79	3	0.09	3.720	0.031	0.118	0.004
17.3	0.25	2.4	0.09	0.681	0.010	0.094	0.004	99.5	0.82	3	0.09	3.917	0.032	0.118	0.004
18.3	0.25	2.4	0.09	0.720	0.010	0.094	0.004	104.5	0.86	3	0.09	4.114	0.034	0.118	0.004
19.3	0.26	2.4	0.09	0.760	0.010	0.094	0.004	109.5	0.89	3	0.09	4.311	0.035	0.118	0.004
20.3	0.27	2.4	0.09	0.799	0.011	0.094	0.004	114.5	0.92	3	0.09	4.508	0.036	0.118	0.004
21.3	0.27	2.4	0.09	0.839	0.011	0.094	0.004	119.5	0.96	3	0.09	4.705	0.038	0.118	0.004
22.3	0.28	2.4	0.09	0.878	0.011	0.094	0.004	124.5	0.99	3	0.09	4.902	0.039	0.118	0.004
23.3	0.29	2.4	0.09	0.917	0.011	0.094	0.004	129.5	1.02	3	0.09	5.098	0.040	0.118	0.004
25.3	0.3	2.4	0.09	0.996	0.012	0.094	0.004	134.5	1.06	3	0.09	5.295	0.042	0.118	0.004
27.3	0.32	2.4	0.09	1.075	0.013	0.094	0.004	139.5	1.09	3	0.09	5.492	0.043	0.118	0.004
30.3	0.34	2.4	0.09	1.193	0.013	0.094	0.004	144.5	1.12	3	0.09	5.689	0.044	0.118	0.004
33.3	0.36	2.4	0.09	1.311	0.014	0.094	0.004								

O-Ring Standard Size (Swedish SMS 1586)

O-Ring Standard Size (Swedish SMS 1586)

MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES				MEASUREMENTS IN MILLIMETERS				MEASUREMENTS IN INCHES			
ID	±	CS	±	ID	±	CS	±	ID	±	CS	±	ID	±	CS	±
35.2	0.38	5.7	0.13	1.386	0.015	0.224	0.005	194.2	1.45	5.7	0.13	7.646	0.057	0.224	0.005
36.2	0.38	5.7	0.13	1.425	0.015	0.224	0.005	199.2	1.49	5.7	0.13	7.843	0.059	0.224	0.005
37.2	0.39	5.7	0.13	1.465	0.015	0.224	0.005	204.2	1.52	5.7	0.13	8.039	0.060	0.224	0.005
39.2	0.4	5.7	0.13	1.543	0.016	0.224	0.005	209.2	1.55	5.7	0.13	8.236	0.061	0.224	0.005
41.2	0.42	5.7	0.13	1.622	0.017	0.224	0.005	219.2	1.62	5.7	0.13	8.630	0.064	0.224	0.005
44.2	0.44	5.7	0.13	1.740	0.017	0.224	0.005	229.2	1.68	5.7	0.13	9.024	0.066	0.224	0.005
45.2	0.45	5.7	0.13	1.780	0.018	0.224	0.005	239.2	1.75	5.7	0.13	9.417	0.069	0.224	0.005
47.2	0.46	5.7	0.13	1.858	0.018	0.224	0.005	249.2	1.81	5.7	0.13	9.811	0.071	0.224	0.005
49.2	0.47	5.7	0.13	1.937	0.019	0.224	0.005	259.2	1.88	5.7	0.13	10.205	0.074	0.224	0.005
51.2	0.49	5.7	0.13	2.016	0.019	0.224	0.005	269.2	1.94	5.7	0.13	10.598	0.076	0.224	0.005
52.2	0.5	5.7	0.13	2.055	0.020	0.224	0.005	279.2	2.01	5.7	0.13	10.992	0.079	0.224	0.005
54.2	0.51	5.7	0.13	2.134	0.020	0.224	0.005	289.2	2.07	5.7	0.13	11.386	0.081	0.224	0.005
57.2	0.53	5.7	0.13	2.252	0.021	0.224	0.005	299.2	2.13	5.7	0.13	11.780	0.084	0.224	0.005
59.2	0.54	5.7	0.13	2.331	0.021	0.224	0.005	319.2	2.26	5.7	0.13	12.567	0.089	0.224	0.005
61.2	0.56	5.7	0.13	2.409	0.022	0.224	0.005	339.2	2.39	5.7	0.13	13.354	0.094	0.224	0.005
62.2	0.57	5.7	0.13	2.449	0.022	0.224	0.005	359.2	2.52	5.7	0.13	14.142	0.099	0.224	0.005
64.2	0.58	5.7	0.13	2.528	0.023	0.224	0.005	379.2	2.65	5.7	0.13	14.929	0.104	0.224	0.005
67.2	0.6	5.7	0.13	2.646	0.024	0.224	0.005	399.2	2.77	5.7	0.13	15.717	0.109	0.224	0.005
69.2	0.61	5.7	0.13	2.724	0.024	0.224	0.005	419.2	2.9	5.7	0.13	16.504	0.114	0.224	0.005
71.2	0.63	5.7	0.13	2.803	0.025	0.224	0.005	439.2	3.03	5.7	0.13	17.291	0.119	0.224	0.005
72.2	0.63	5.7	0.13	2.843	0.025	0.224	0.005	459.2	3.15	5.7	0.13	18.079	0.124	0.224	0.005
74.2	0.65	5.7	0.13	2.921	0.026	0.224	0.005	479.2	3.28	5.7	0.13	18.866	0.129	0.224	0.005
77.2	0.67	5.7	0.13	3.039	0.026	0.224	0.005	499.2	3.4	5.7	0.13	19.654	0.134	0.224	0.005
79.2	0.68	5.7	0.13	3.118	0.027	0.224	0.005	144.1	1.12	8.4	0.15	5.673	0.044	0.331	0.006
81.2	0.7	5.7	0.13	3.197	0.028	0.224	0.005	149.1	1.15	8.4	0.15	5.870	0.045	0.331	0.006
82.2	0.7	5.7	0.13	3.236	0.028	0.224	0.005	154.1	1.19	8.4	0.15	6.067	0.047	0.331	0.006
84.2	0.72	5.7	0.13	3.315	0.028	0.224	0.005	159.1	1.22	8.4	0.15	6.264	0.048	0.331	0.006
87.2	0.74	5.7	0.13	3.433	0.029	0.224	0.005	164.1	1.25	8.4	0.15	6.461	0.049	0.331	0.006
89.2	0.75	5.7	0.13	3.512	0.030	0.224	0.005	169.1	1.29	8.4	0.15	6.657	0.051	0.331	0.006
92.2	0.77	5.7	0.13	3.630	0.030	0.224	0.005	174.1	1.32	8.4	0.15	6.854	0.052	0.331	0.006
94.2	0.79	5.7	0.13	3.709	0.031	0.224	0.005	179.1	1.35	8.4	0.15	7.051	0.053	0.331	0.006
97.2	0.81	5.7	0.13	3.827	0.032	0.224	0.005	184.1	1.39	8.4	0.15	7.248	0.055	0.331	0.006
99.2	0.82	5.7	0.13	3.906	0.032	0.224	0.005	189.1	1.42	8.4	0.15	7.445	0.056	0.331	0.006
104.2	0.85	5.7	0.13	4.102	0.033	0.224	0.005	194.1	1.45	8.4	0.15	7.642	0.057	0.331	0.006
109.2	0.89	5.7	0.13	4.299	0.035	0.224	0.005	199.1	1.49	8.4	0.15	7.839	0.059	0.331	0.006
114.2	0.92	5.7	0.13	4.496	0.036	0.224	0.005	209.1	1.55	8.4	0.15	8.232	0.061	0.331	0.006
119.2	0.95	5.7	0.13	4.693	0.037	0.224	0.005	219.1	1.62	8.4	0.15	8.626	0.064	0.331	0.006
124.2	0.99	5.7	0.13	4.890	0.039	0.224	0.005	229.1	1.68	8.4	0.15	9.020	0.066	0.331	0.006
129.2	1.02	5.7	0.13	5.087	0.040	0.224	0.005	239.1	1.75	8.4	0.15	9.413	0.069	0.331	0.006
134.2	1.06	5.7	0.13	5.283	0.042	0.224	0.005	249.1	1.81	8.4	0.15	9.807	0.071	0.331	0.006
139.2	1.09	5.7	0.13	5.480	0.043	0.224	0.005								
144.2	1.12	5.7	0.13	5.677	0.044	0.224	0.005								
149.2	1.16	5.7	0.13	5.874	0.046	0.224	0.005								
154.2	1.19	5.7	0.13	6.071	0.047	0.224	0.005								
159.2	1.22	5.7	0.13	6.268	0.048	0.224	0.005								
164.2	1.26	5.7	0.13	6.465	0.050	0.224	0.005								
169.2	1.29	5.7	0.13	6.661	0.051	0.224	0.005								
174.2	1.32	5.7	0.13	6.858	0.052	0.224	0.005								
179.2	1.35	5.7	0.13	7.055	0.053	0.224	0.005								
184.2	1.39	5.7	0.13	7.252	0.055	0.224	0.005								
189.2	1.42	5.7	0.13	7.449	0.056	0.224	0.005								

O-Ring Standard Size (Swedish SMS 1586)

O-Ring Kits

Available in NBR 70/90 and FKM 75



Benefits

Reduce down-time with immediate available of the required O-Rings Size

Reduce cost as no minimum order quantity is required for a single line item

Save cost as the O-Rings can be replaced without replacing the whole box

Box color ● ● ○

O-Ring Kits

O-Ring Kit Series 1(AS568)

NBR 70/ 90 black or FKM 75/ 90 black
382 O-Rings in 30 different imperial sizes

O-Ring Kit Series 2(JIS)

NBR 70/ 90 black or FKM 75/ 90 black
391 O-Rings in 30 different JIS sizes

Position NO.	Size	Dimensions(mm)	Quantity	Position NO.	Size	Dimensions(mm)	Quantity
006	2-006	2.90x1.78	20	006	P3	2.80x1.90	18
007	2-007	3.68x1.78	20	007	P4	3.80x1.90	18
008	2-008	4.47x1.78	20	008	P5	4.80x1.90	18
009	2-009	5.28x1.78	20	009	P6	5.80x1.90	18
010	2-010	6.07x1.78	20	010	P7	6.80x1.90	18
011	2-011	7.65x1.78	20	011	P8	7.80x1.90	18
012	2-012	9.25x1.78	20	012	P9	8.80x1.90	18
110	2-110	9.19x2.62	13	110	P10A	9.80x2.40	14
111	2-111	10.77x2.62	13	111	P11	10.80x2.40	14
112	2-112	12.37x2.62	13	112	P12	11.80x2.40	14
113	2-113	13.94x2.62	13	113	P14	13.80x2.40	14
114	2-114	15.54x2.62	13	114	P16	15.80x2.40	14
115	2-115	17.12x2.62	13	115	P18	17.80x2.40	14
116	2-116	18.72x2.62	13	116	P20	19.80x2.40	14
210	2-210	18.64x3.53	10	210		20.00x3.00	11
211	2-211	20.22x3.53	10	211		22.00x3.00	11
212	2-212	21.82x3.53	10	212	P22.4	22.10x3.50	10
213	2-213	23.39x3.53	10	213	G25	24.40x3.10	11
214	2-214	24.99x3.53	10	214	P25	24.70x3.50	10
215	2-215	26.57x3.53	10	215	P26	25.70x3.50	10
216	2-216	28.17x3.53	10	216	G30	29.40x3.10	11
217	2-217	29.74x3.53	10	217	P30	29.70x3.50	10
218	2-218	31.34x3.53	10	218	P32	31.70x3.50	10
219	2-219	32.92x3.53	10	219	P34	33.70x3.50	10
220	2-220	34.52x3.53	10	220	G35	34.40x3.10	11
221	2-221	36.09x3.53	10	221	P36	35.70x3.50	10
222	2-222	37.69x3.53	10	222	G40	39.40x3.10	11
325	2-325	37.47x5.33	7	325	P40	39.70x3.50	10
326	2-326	40.64x5.33	7	326	G45	44.40x3.10	11
327	2-327	43.82x5.33	7	327	P48	47.70x3.50	10

O-Ring Kits

O-Ring Kit Series 3(Metric)

NBR 70/ 90 black or FKM 75/ 90 black
386 O-Rings in 30 different imperial sizes

Position NO.	Dimensions(mm)	Quantity	Position NO.	Dimensions(mm)	Quantity
006	3.00X2.00	16	211	20.00X3.00	12
007	4.00X2.00	16	212	22.00X3.00	12
008	5.00X2.00	16	213	24.00X3.00	12
009	6.00X2.00	16	214	25.00X3.00	12
010	7.00X2.00	16	215	27.00X3.00	12
011	8.00X2.00	16	216	28.00X3.00	12
012	10.00X2.00	16	217	30.00X3.00	12
110	10.00X2.50	13	218	32.00X3.00	12
111	11.00X2.50	13	219	33.00X3.00	12
112	12.00X2.50	13	220	35.00X3.00	12
113	14.00X2.50	13	221	36.00X3.00	12
114	16.00X2.50	13	222	38.00X3.00	12
115	17.00X2.50	13	325	38.00X4.00	9
116	19.00X2.50	13	326	41.00X4.00	9
210	19.00X3.00	12	327	44.00X4.00	9

GMORS®

GE MAO RUBBER INDUSTRIAL CO., LTD.

No.15, Kung Yeh East 4th Rd., Lukang, Chang Hua 505,
Taiwan, R.O.C.

TEL:886-4-7810288(REP.)

FAX:886-4-7810289

E-MAIL:rubber@ms.gmors.com.tw

Http://www.gmors.com



Catalog Download