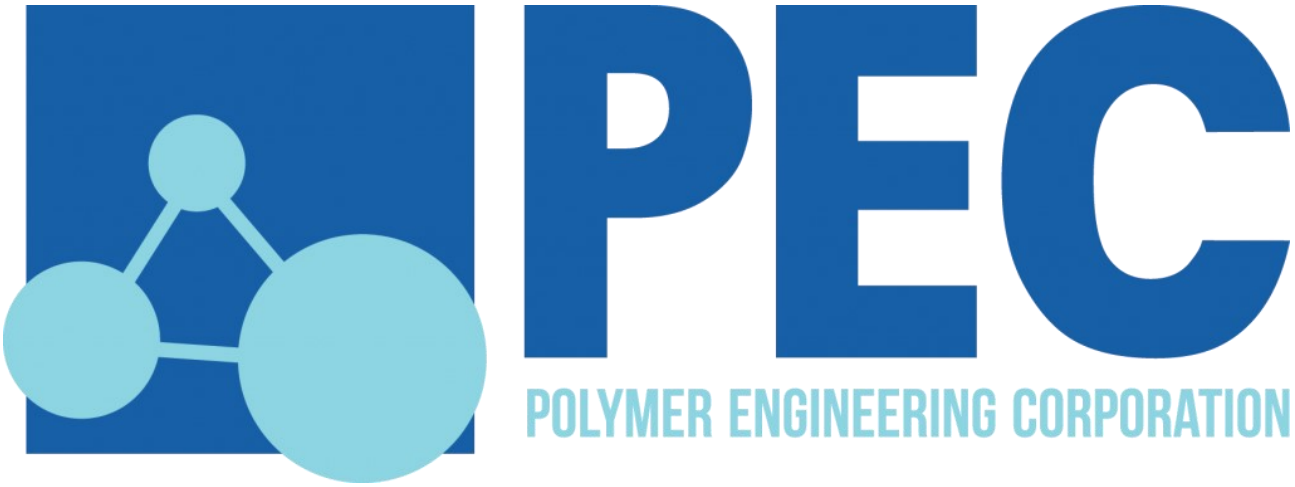

Seals for Hydraulics & Pneumatics

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About Us

Polymer Engineering Corporation founder Russell Peck aka (Rusty) grew up in the seal business. His father a regional manager for the Parker Seal Company went on to founded the Dygert Peck Company in 1981.

Soon after Rusty joined him as a partner. The company began to flourish and became known as an innovative leader of rubber, plastic and hydraulic seals in the Midwest region of the United States. After Jerry's death in 1996, Rusty continued as CEO until 2000 when he funded a (ESOP) Employee Stock Option Plan that gave ownership to the employees that had helped to grow the company.

Retirement didn't last long and looking for a new venture, Rusty started what is known today as Lake Delhi Marina and RV Center and Guttenberg Marine and RV Center, one of the top ten dealers in the world for Harris Flote Bote and multiple award-winning Malibu Boat customer satisfaction award winner. This company was sold in 2012 and continues today.

Once again retirement wouldn't last long and Polymer Engineering Corporation was founded with new partners with expertise in the rubber and plastics business. First opening an office in Indianapolis, Indiana and then Des Moines, Iowa.

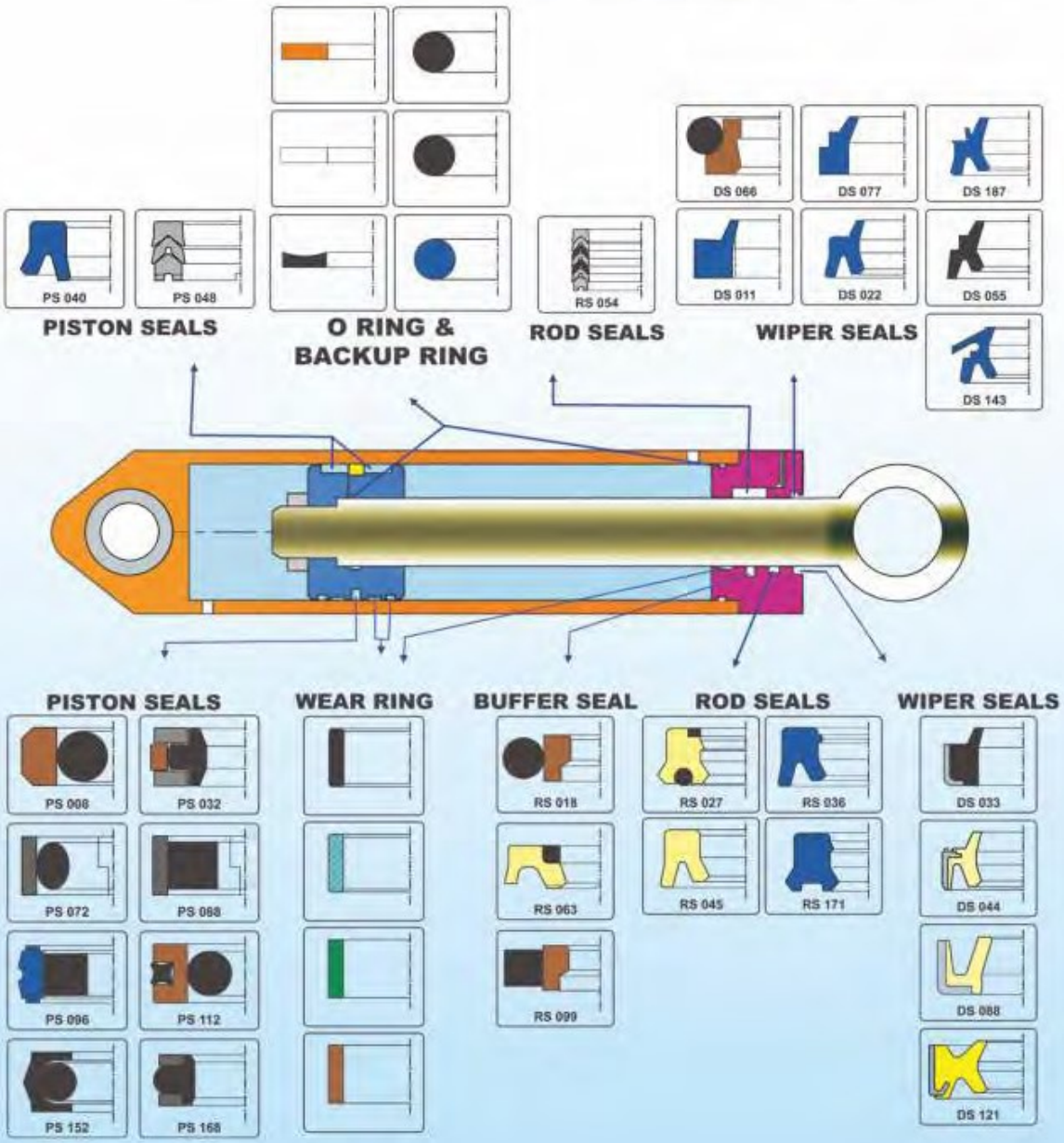
Realigning our strategic alliance with manufacturing partners in the United States and around the world. Our growth has been steady and consistent and we continue to offer value added products and services, engineering expertise and customer satisfaction to the products we sell.

Polymer Engineering focus and commitment is to offer the best products available, at the best price the first time and to remain focused on our employees well-being and their family's futures.

As a great man once said:

"I don't yearn to be remembered in the history books but rather with a smile to those who I loved and those that loved me. To that end I will not have lived my life in vain."
(Jerry Peck)

SEAL APPLICATIONS



CONTENTS

Section I - Seal Materials

Appropriate choice of seal material is very important in sealing systems to operate leak free and to maintain a long service life. Material performance and seal design are the two most crucial factors in terms of having the best sealing solution. Elastomers are one of the most widely used seal materials. They possess properties like elasticity, resilience, and chemical resistance which are ideal for sealing applications. Below is a brief description of the most widely used seal materials.

Polyurethane - (PUR)

Polyurethane has emerged as one of the most versatile seal materials. Apart from its high wear resistance characteristics compared to other materials it possesses elastic qualities of rubber. The flexibility in chemically engineering TPU's to get a wide range of properties including fluid and moisture resistance has led to a wide acceptance of this material. Polyurethane seals offer outstanding performance in high pressure hydraulic systems with abrasive contamination, high shock loads, and related adverse conditions provided temperature is below 120° C.

Polyester and Polyether grade of PUR are generally used in the seal industry. Polyester grades generally have superior mechanical properties whereas Polyether grades have better chemical and hydrolytic stability. Special polyurethane materials having good low temperature behavior are being designed and used for specific applications.

The oil resistance and swell characteristics can be controlled to a desired extent by changing the type and order of the constituent hard and soft segment of PUR. These characteristics along with processing ease have made PUR one of the most widely accepted seal materials.

Fluid/Chemical Resistance

- Resistant to Mineral oil and Greases.
- Not resistant to non-mineral oil, automotive brake fluids etc.

Nitrile Rubber - (NBR)

Nitrile is the most widely used elastomer in the seal industry. Excellent resistance to petroleum products and its ability to be compounded for service over a wide temperature range has made Nitrile a very popular material.

Nitrile is a copolymer of butadiene and acrylonitrile. Specific properties can be achieved by varying the proportions of these individual polymers. Acrylonitrile content in Nitrile can be varied from 18% to 50% by weight. Nominal designations are 'low' (18 to 24%), 'medium' (28% to 33%) and 'high' (38% and higher) Nitrile. An increase in acrylonitrile content increases heat as well as chemical resistance to petroleum base oils and fuels but decreases low temperature flexibility. Nitrite provides very low compression set, good tear resistance, cold flow and abrasion resistance. The major limiting properties of nitrile are its poor ozone and weather resistance and moderate heat resistance. Hydrogenated - NBR are used in applications requiring high wear and chemical resistance.

Fluid/Chemical Resistance

- Resistant to Mineral oil and Greases, water, and many other chemicals, hydrocarbon fuels, etc.
- Not resistant to non-mineral automotive brake fluids.

Fluorocarbon Rubber

Fluorocarbon combines high temperature and chemical resistance to a broader range of fluids than any other elastomer. Low compression set even at high temperatures makes it an appropriate choice of material in most conditions. Its working temperature range varies from 230° C for high to –20° C for low temperature applications. Three main factors contribute to the remarkable heat and fluid resistance of fluoroelastomers. First, there are extremely strong bonds between the carbon atoms comprising the polymer backbone and the attached

Seal Materials

(Pendant) fluorine atoms. Second, fluoroelastomers features a high fluorine-to-hydrogen ratio. Third, the carbon backbone is fully saturated. Fluorocarbons are a good choice of material for both static and dynamic applications.

Fluid/Chemical Resistance

- Resistant to Mineral oil and Greases, hydrocarbon fuels, etc.
- Non resistant to certain ketones and acids.

Polyoxymethylene - (POM)

POM is a high strength engineering plastic suitable for bearings, bushings and back-up ring applications. The main molecular chain of acetal homopolymer is the backbone of the acetal copolymer chain, with ethylene oxide being randomly added throughout the acetal homopolymer. The simple molecular nature of the main chain allows a very stable crystalline structure. This crystallinity leads to high heat resistance, high modulus, excellent wear resistance, and resistance to solvents. The added ethylene linkages of acetal copolymer increase the thermal stability, elongation, and abrasion resistance. IT also displays good low temperature impact resistance, high dimensional stability, favorable frictional properties and low water absorption. It offers excellent gliding characteristics when blended with PTFE and good temperature resistance. Owing to its chemical structure, POM has low moisture absorption as well as good chemical resistance.

Fluid/Chemical Resistance

- Resistant to Mineral oil and Greases, water, etc.
- Non Resistant to certain solvents and acids.

GF-Polyamide

Glass filled polyamide has proved to be an excellent choice for bearing and busing application. Its high compression modulus owing to the glass fiber reinforcement and excellent dimensional stability is very important in its functioning. GF-polyamides have high load bearing capacity which makes it a good choice for back-up rings and guide ring applications. It has good temperature and wear resistance as well.

Fluid/Chemical Resistance

- Resistant to Mineral oil and Greases, water, etc.
- Non resistant to certain solvents and acids

Polytetrafluoroethylene - (PTFE)

PTFE is an elastomer with excellent chemical, tribological and thermal properties. Reinforced grades of PTFE offers good wear and extrusion resistance. Bronze filler provides slightly superior properties than glass filler as far as tribological properties are concerned. PTFE is practically resistant to all hydraulic fluids. It is excellent for dynamic applications and pressures up to 6000 psi or 400 bars.

Fluid/Chemical Resistance

- Excellent all around resistance to acids, alkalis, ketones, ester, amines, water, solvents, etc.

For PEC compound details please see PEC Compounds (Section III)

Section II - Seal Properties

Shore Hardness

Hardness may be defined as the resistance to indentation under specific conditions. When judging the potential effectiveness of molded seal (processed), hardness is one of the most common criteria in the rubber industry. Though the elastomeric lip of most standard seals fall in the 70-95 Shore A range, the application in questions will always govern the necessary hardness. Softer compounds offering less resistance may be perfectly fine for low-pressure seals, but high-pressure seals will likely require a harder, tougher lip material.

Resilience

Resilience (also known as rebound) refers to a compound's ability to regain its original size and shape following temporary deformation. Though compounding may improve an elastomer in this area, it is largely an inherent property. As a general rule, resilience is most critical in dynamic seals. This can be seen, for example, when a shaft seal's elastomeric lip flexes (is distorted) to follow a shaft imperfection, and then returns to its original ("resting") position. In many cases resilience is closely linked to flexibility.

Tear Strength

Tear resistance (or tear strength) is the ability of a material to resist the growth of a cut or nick when tension is applied. Tear resistance is an important consideration, both as the finished article is being removed from the mold *and* as it performs in actual service. Compounds with low tear resistance are at risk for installation damager, especially in designs featuring non-smooth areas (as with burrs, slots, threads) and/or sharp, non radiused (non rounded) corners.

Abrasion Resistance

Measured as a loss percentage based on original weight, abrasion resistance is the resistance of a material to earing away by contact with a moving abrasive surface. On one hand where the cutting or nicking of a sealing lip is an instantaneous event, abrasive rubbing or scraping is much more progressive phenomenon that develops over time. Seals in motion are most susceptible to abrasion. Hard compounds tent to exhibit less abrasive wear than soft compounds, but use of a harder compound can also increase friction in dynamic seals, and increased friction generates seal degrading heat.

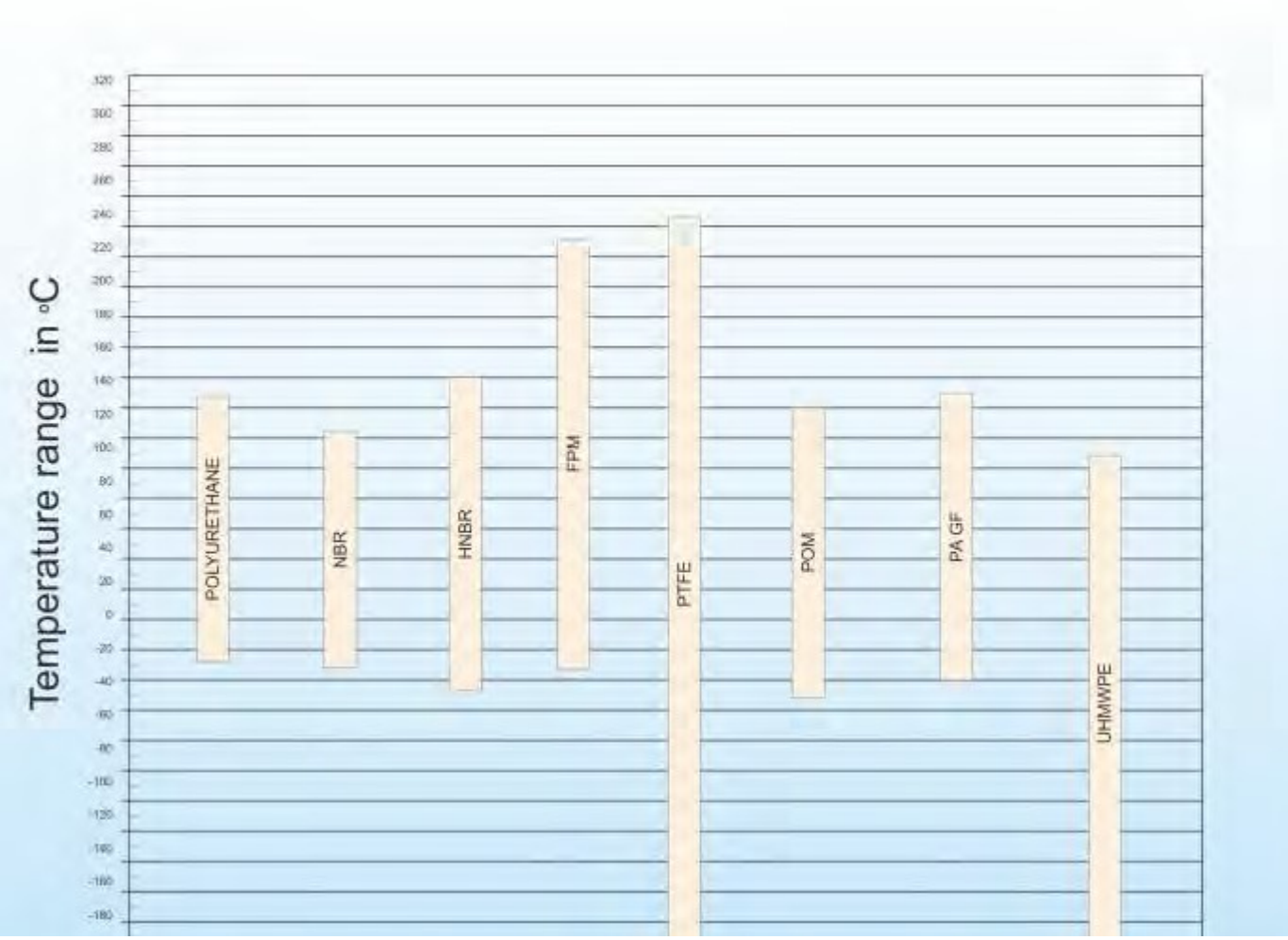
Compression Set

Compression set is the end result of progressive stress relaxation, which is the steady decline in sealing force that results when an elastomer is compressed over a period of time. In terms of the life of a seal, stress relaxation is like dying, whereas permanent compression set is like death. Compression set tests find their widest use in selecting materials for use as *O-rings, U cup seals, and other seals* that rely on an optimal degree of compression.

Seal Properties

Operating Temperature Range

Working temperature range is one of the most important properties with regard to selection of seal material. Chart below show the operating temperature range of various polymers used in the seal industry.



For special applications please consult with PEC before selection of raw material.

Section III - PEC Compounds

Types and Characteristics of Polymer Engineering compounds					
Compound No.	**Material Code**	**Material**	**Colour**	**Features**	**Major Application**
RUBBER					
NB01	NBR90	NBR	Black	High modulus, high strength, low compression set	'O' ring for static sealing.
NB02	NBR70	NBR	Black	Very low compression set	Energizer rings for piston seal and rod seals, O rings.
NB03	NBR74	NBR	Black	Low compression set, self lubricating, wear	Sealing element for PS024
NB04	NBR80	NBR	Black	Very low compression set, Higher modulus.	Energizer rings for piston seal (Eg. PS096, PS032)
NB06	NBR80	LNBR	Black	Very good low temperature resistance, Low compression set	Energizer rings for piston seal PS032-05
NB07	NBR70	LNBR	Black	Very good low temperature resistance, Low compression set	Energizer rings for piston seal and rod seals, O rings
NB10	NBR85	NBR	Black	High wear resistance, hydrolysis resistance	Seals for water hydraulics.
NB11	XNBR80	X-NBR	Black	Very high wear resistance comparable to polyurethane	Seals for heavy/high speed friction
NB12	HNBR70	H-NBR	Black	High temperature and chemical resistance.	Special purpose seal
VT01	FPM80	FPM	Ash Black	Very high heat resistance with excellent mechanical properties.	O rings for high temeperature applications.
VT04	FPM90	FPM	Ash Black	Very high heat resistance with excellent mechanical properties.	Seals for high temperature applications.
FR51	NBRCF	NBR + Fabric	Ash Black	Fabric reinforced, high wear resistance, high modulus	'V' Packing
FR52	FPMCF	FPM + Fabric	Brown	Fabric reinforced, high temperature resistence, high wear resistnce, high modulus.	'V' Packing for high temperature application
POLYURETHANES & POLYESTERS					
PU01	PUHP93	High Performance P.U.	Blue	Hydrolysis resistance, low compression set at elevated temperature	Rod seals, Piston Seals
PU02	PUHP94	P.U.	Cream	Very low compression set at elevated temperature, Excellent mechanical properties	Rod seals, Piston Seals
PU05	PUAB98	P.U.	Blue	Excellent Wear Resistance	Piston Seals, Back-ups
PU06	PUDB65	P.U.	Deep Yelow	High Hardness, High Modulus	Support Rings
PU07	PUDB65	P.U.	Blue	High Hardness, High Modulus	Support Rings
PU09	PUHP94	High Performance P.U.	Black	Very low compression set at elevated temperature, Excellent mechanical properties	Rod seals, Piston Seals
PU11	PUHP94	High Performance P.U.	Dark Blue	Very low compression set at elevated temperature, Excellent mechanical properties	Rod seals, Piston Seals
PU13	PUVHP92	Very High Performance P.U.	Cream	Very high temperature resistance, low compression Set	Special Applications rod and buffer seals
PU14	PUVHP93	Very High Performance P.U.	Cream	Very high temperature resistance, low compression Set	Special Applications rod and buffer seals
PU16	PUHP93	High Performance P.U.	Blue	Hydrolysis resistance, low compression set at elevated temperature	Wiper Sea DS121
PU18	PUHP93	Very High Performance P.U.	Cream	Hydrolysis resistance, low compression set at elevated temperature	Wipers
PU19	PUAB94	P.U.	Blue	Excellent Wear Resistance	Wipers Seal, Dust Seal
PU21	PUAB92	P.U.	Blue	Low Friction, Low Wear Loss	Pneumatic Seals
PU22	PUAB85	P.U.	Yellow/Blue	Low Friction, Low compression set	Pneumatic Seals
PU35	PUAB92	P.U.	Black	Low Friction, Low Wear Loss	Wipers
PU36	PUHP94	High Performance P.U.	Orange	Excellent Wear resistance . High mechanical Strength, Low Wear Loss	Rod seals, Piston Seals
HY02	HY55	Thermoplastic Polyester	Orange	Excellent Wear resistance . High mechanical Strength, Low Wear Loss	Anti Extrusion rings, Back up rings.
HY03	HY55	Thermoplastic Polyester	Sky Blue	Excellent Wear resistance . High mechanical Strength, Low Wear Loss	Rod seals, Piston Seals
HY04	HY55	Thermoplastic Polyester	Grey	Self Lubricated. High Mechanical Strength	Seal Ring RS117
HY06	HY55	Thermoplastic Polyester	Red	Excellent Wear resistance. High mechanical Strength, Low Wear Loss	Wiper Seal DS110

Compound No.	Material Code	Material	Colour	Features	Major Application
PTFE &FILLED COMPOUNDS					
PT01	TF PURE	Pure PTFE	White	General purpose	Back-up rings
PT02	TB40M	40% Bronze Filled PTFE With MoS2	Brown Black	Low coefficient of friction, Cold extrusion resistant	Piston seal PS008, Rod seal Rs018
PT03	TG20 B20M	20%Bronze/ 20% glass Filled PTFE with MoS2	Brown Grey	Heat dissipating, low friction, extrusion resistant	Piston seal PS032
PT05	TG20	20% glass filled PTFE	Blue	Extrusion resistant, High Pressure, Good abrasion resistance	Special application, PS032-02
PT06	TG20M	20% glass Filled PTFE with MoS2	Grey	Lower friction, Extrusion resistant, High Pressure, Good abrasion resistance	Special application, PS120
PT07	TB40	40% Bronze Filled PTFE	Green	Cold extrusion resistant	Guide tape, soft wear rings
PT08	TG20	20% glass Filled PTFE	Yellow	Extrusion resistant, High Pressure, Good abrasion resistance	Special application, PS160
PT11	TB60M	55% Bronze + 5%Molly Filled PTFE	Brown Black	Extrusion resistant, higher hardness with self lubrication	Special purpose seal
PT21	TB60M	60% Bronze Filled PTFE	Brown	Extrusion resistant, higher hardness with self lubrication	Special purpose seal
PT24	TMG25	Modified PTFE with Glass fibre	Blue/Yellow	Excellent wear resistant at high speed friction.	Dry pneumatic applications, High Speed rotary seals
POLYAMIDE, COMPOSITES & FILLED COMPOUNDS					
PA01	PG6040	40% Glass Fibre Filled Polyamide	Black	General purpose	Light & Heavy duty wear rings
PA02	PG6030	30% Glass Fibre Filled Polyamide	Black	General purpose	Light duty wear rings
PA04	PA6000	Heat Stabilized Polyamide 6 with Moly	Grey	General purpose	Back-ups, Anti extrusion ring
PA05	PA6600	Heat Stabilized Polyamide 6'6	Natural	High Temp. Resistance	Back-ups for Rod Seals
PA07	PA6600	Heat Stabilized Polyamide 6'6	Yellow	High Temp. Resistance	Anti extrusion ring in PS056
PA09	PG6040M	40% Glass Fibre Filled Polyamide with Moly	Black	Low Friction, Good Mechanical Properties	Seal Ring PS184
PA10	PG6040T	40% Glass Fibre Filled Polyamide with Moly/PTFE	Black	Low Friction, Good Mechanical Properties	Light & Heavy duty wear rings
PA15	PA6600	Heat Stabilized Polyamide 6'6	Black	High Temp. Resistance	Back-ups in PS032
PA22	PG6010	10% Glass Fibre Filled Polyamide 6	Orange	Self-lubricating, low coefficient of friction.	AE Rings in Rs027
PM01	POM	Poly-Oxy Methylene	Natural	Good Compressive strength, Good Abrasion Strength, Low Friction	Medium duty wear rings.
FR01	FRPR	Polyester PTFE Resin + Fabric + Micro PTFE	Blue	Very high Compressive strength, Good Abrasion Strength, No water swell	Medium to Heavy and very Heavy duty wear rings.
FR02	FRPR	Polyester PTFE Resin + Fabric + Micro PTFE	Brown	Very high Compressive strength, Good Abrasion Strength, No water swell	Medium to Heavy and very Heavy duty wear rings.
FR03	FRPR	Polyester PTFE Resin + Fabric + Moly/Graphite	Grey	Very high Compressive strength, Good Abrasion Strength, No water swell	Heavy duty wear rings, Pump Bushes, Marine Application

NOTE:

NBR: Nitrile Butadiene Rubber

X-NBR: Carboxylated Nitrile Butadiene Rubber

H-NBR: Hydrogenated Nitrile Butadiene Rubber

FPM: Fluro-carbon Rubber

P.U.: Polyurethane

*For other compound details, contact Polymer Engineering

Section IV - PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
PISTON SEALS						
	PS008-01	400	4	-20 to +100	PTFE Seal energized with O ring - Double Acting	17
	PS008-02	400	4	-20 to +200		
	PS016-01	400	4	-20 to +100	PTFE seal energized with O ring - Single Acting	★
	PS016-02	400	4	-20 to +200		
	PS024	315	0.5	-20 to +100	5 Pc Piston Seal - Double Acting	26
	PS032	500	1.5	-20 to +100	4 Pc Capped T Seal - Robust seal design for high pressure application - Double Acting	29
	PS040-01	400	0.5	-30 to +	U type Asymmetric Seal - For Low and medium duty Application - Single Acting	35
	PS040-02	160	0.5	-20 to + 200		
	PS048-01	400	0.5	-20 to +100	Chevron Packing for Piston application - Robust design for heavy duty single Acting Application	42
	PS048-02	400	0.5	-15 to +140		
	PS056	315	0.5	-20 to +100	5 pc Piston Seal - Double Acting Application	45
	PS064	400	4	-20 to +100	PTFE seal energized with square / rectangular Rubber energizer	47
	PS072	500	1.5	-20 to +100	Step cut Polyamide Ring as main seal with Nitrile Oval ring as energizer	51
	PS088	500	1.5	-20 to +100	Step cut Glass filled Polyamide Ring as main seal with Nitrile square / rectangular ring as energizer	57
	PS096	315	0.5	-20 to +100		61
	PS112	400	1	-20 to +100	PTFE seal with X Ring at its centre energized with square / rectangular ring	66

Contact Polymer Engineering for size list

PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
	PS120	400	4	-20 to +100	Glass filled PTFE with MoS2 as main seal energized with square / rectangular ring as energizer	
	PS136	400	0.5	-20 to +100	U type Assymetric Seal with AE ring	
	PS152	315		-20 to +100	Polyurethrane / Poleyster ring as main Seal with Nitrile O Ring as energizer	
	PS160	315	4	-20 to +100	Square PTFE seal energized with O Ring as Energizer	
	PS168	315		-20 to +100	3 pc Piston Seal - NBR T Seal with polyamide back up	
	PS184	400		-20 to +100	Step cut Pure Polyamide Ring as main seal with nitrile square / rectangular ring as energizer	
SYMMETRIC SEALS						
	SS001	400	0.5	-20 to +100	Symmetric Seal loaded with O Ring	
	SS002	400		-20 to +100	U Type Symmetric Seal	
	SS003	400	0.5	-20 to +100	U Type Symmetric Seal energized with NBR Loader	
	SS004	400	0.5	-20 to +100	Non-bevelled Symmetric Seal Loaded with O Ring. Also used as wiper.	
ROD SEALS						
		400	4	-20 to +100		
		400	4	-20 to +200		
		400	4	-20 to +100		
		400	4	-20 to +200		
	RS027	500	0.5	-20 to +100	Rod Seal with secondary lip and Anti-Extrusion ring loaded with NBR O Ring	

Contact Polymer Engineering for size list

PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
	RS036	400	0.5	-30 to +100	U Type Asymmetric Seal with secondary lip	113
	RS045-01	400	0.5	-20 to +110	U Type Asymmetric Rod Seal	124
	RS045-02	160	0.5	-20 to +200		
	RS054-01	400	0.5	-20 to +100	Chevron Packing for Rod Application Robust Design for Heavy Duty Application	132
	RS054-02	400	0.5	-15 to +140		
	RS063	400	0.5	-20 to +100	U type Asymmetric buffer seal with Anti Extrusion ring	136
	RS090	400	4	-20 to +100	PTFE seal energized with ring square ring - Double Acting	★
	RS099	400	4	-20 to +100	PTFE Seal with NBR square ring Energize	140
	RS108	400	0.5	-20 to +100	Rod Seal with Anti - Extrusion ring loaded with NBR O Ring	★
	RS117	315	0.5	-20 to +100		144
	RS171	400	0.5	-20 to +100	U Type Symmetric Seal with Secondary lip	147
WIPER SEALS						
	DS011-01	-	0.5	-20 to +100	Single lip Wiper for low and medium duty application	151
	DS011-02	-	0.5	-20 to +200		
	DS011-03	-	0.5	-20 to +100		
	DS022	-	0.5	-20 to +100	Double lip Wiper for medium to heavy duty application	158
	DS033-01	-	0.5	-20 to +100	Single lip Metallic Wiper for medium and heavy duty application	162
	DS033-02	-	0.5	-20 to +200		
	DS033-03	-	0.5	-20 to +200		

Contact Polymer Engineering for size list

PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
	DS044	-	0.5	-20 to +100	Double lip Metallic Wiper for Medium and heavy duty application	
		-	0.5	-20 to +100	Double lip Step Wiper for Pneumatic and light to medium duty application	
		-	0.5	-20 to +200		
		-	0.5	-20 to +100		
		-	4	-20 to +100	Filled PTFE wiper energized with O ring for medium to heavy duty hydraulic application	
		-	4	-20 to +200		
	DS077	-		-20 to +100	Single lip Step Wiper for low to medium duty application	
	DS088	-		-20 to +100	Single lip U type Metallic Wiper for pin dust and medium duty application	
	DS110	-	0.5	-20 to +100	Single lip Wiper with crush lip and ribs for heavy duty application	
	DS121	-	0.5	-20 to +100	Double lip Metallic Wiper for medium and Heavy duty application	
	DS143	-	0.5	-20 to +100	Double lip wiper with dust protecting cap for medium to heavy duty application	
	DS154	-		-20 to +100	Filled with PTFE wiper energized with two O Rings for medium to heavy duty application	
	DS165	-	0.5	-20 to +100	Single lip wiper with metal inside for medium and heavy duty Application	
	DS187	-	0.5	-20 to +100	Double lip wiper with dust protecting lip	
	DS198	-	0.5	-20 to +100	Single lip Wiper with pressure release slots for low to medium duty application	

Contact Polymer Engineering for size list

PEC
POLYMER ENGINEERING CORPORATION

Seals for Hydraulics & Pneumatics

PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
ROTARY SEALS						
		400	4	-20 to +100	Rotary Seal for Piston Application	
		400	4	-20 to +200		
		400	4	-20 to +100	Rotary Seal for Rod Application	
		400	4	-20 to +200		
	ROS004	400	0.5	-20 to +100	Rotary Seal for application like Swivel Joints	
PNEUMATIC SEALS						
	PNPS007	16		-20 to +100	Polyurethane based Piston Seal	
	PNRS010	16		-20 to +100	Polyurethane based rod cum wiper seal	
	PNCS012	16		-20 to +100	Polyurethane based Cushion Seal	
WEAR RINGS						
		-				
	WRPAGF - L TYPE	-			Glass Filled Polyamide T Wear ring - used in telescopic Rod Application	
	WRPAGF -T TYPE	-			Glass filled Polyamide T type wear ring - used in special application	
		-				
		-				

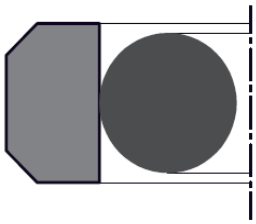
Contact Polymer Engineering for size list

PEC Profiles

Royal Profiles	Standard Profiles	Working Parameters			Description	PG No.
		Max Pressure (Bar)	Speed (m/s)	Temp Range (°C)		
OTHER PROFILE						
	OR-N	-	0.5	-20 to +100	Standard NBR O ring - used in static and dynamic applications	
	OR-F	-	0.5	-20 to +200	Standard FPM O ring - used in static and dynamic applications	
	OR-PU	-		-20 to +100	Standard TPU O ring - used in static, dynamic and certain high pressure applications	
	BRN	-	0.5	-20 to +100	Standard NBR back-up used in static applications	
	BRT	-		-20 to +100	Standard PTFE back-up used in static and dynamic applications	

Contact Polymer Engineering for size list

Apart from the seal profiles mentioned herein, PEC does have access to many other seal profiles. Please contact PEC for details.

PISTON SEAL	PS008	

Features:

Piston seal profile PS008 consists of two piece seal set for sealing pistons with one seal ring and one energizer O-ring.

Composition:

PS008 have two different type of combination for different temperature range as per following table :-

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS008-01	PT02	NB02	-20 to 100°C	400 Bar	4 m/s
PS008-02	PT02	VT01	-20 to 200°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds (Section III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
2.20	0.18	0.15	-	-
3.20	0.20	0.18	-	-
4.20	0.25	0.20	0.15	-
6.30	0.30	0.25	0.22	0.20
8.10	0.35	0.30	0.28	0.25

Profile dimension	Maximum permissible gap (S) for Imperial Sizes (inch)			
H	160 bar	260 bar	320 bar	400 bar
0.126	0.008	0.007	-	-
0.166	0.010	0.008	0.006	-
0.247	0.012	0.010	0.009	0.008
0.320	0.014	0.012	0.011	0.010

Installation :

Ps008 piston seals can be fitted on single-piece pistons. First insert the rubber 'O' Ring into the housing carefully to avoid twisting of O Ring Cord. The PTFE ring is then carefully pushed over the piston into place above the O Ring. An assembly tool eases installation of small, PTFE rings. The PTFE seal normally returns to its original size after installation. It is advisable to calibrate the PTFE ring by mounting it on a steel tube (duly machined and polished), having Inner diameter equal to cylinder bore diameter. Immediately after calibration, the piston should be installed in the cylinder.

Ordering format :

Please mention ROYAL order code in your order.

Example: Metric Size 10 X 5.1 X 2.2

For Temp range: -20°C to +100°C (O ring material is NB02) Order code is **PS008-M-01-010.00 X 005.10 X 02.20**

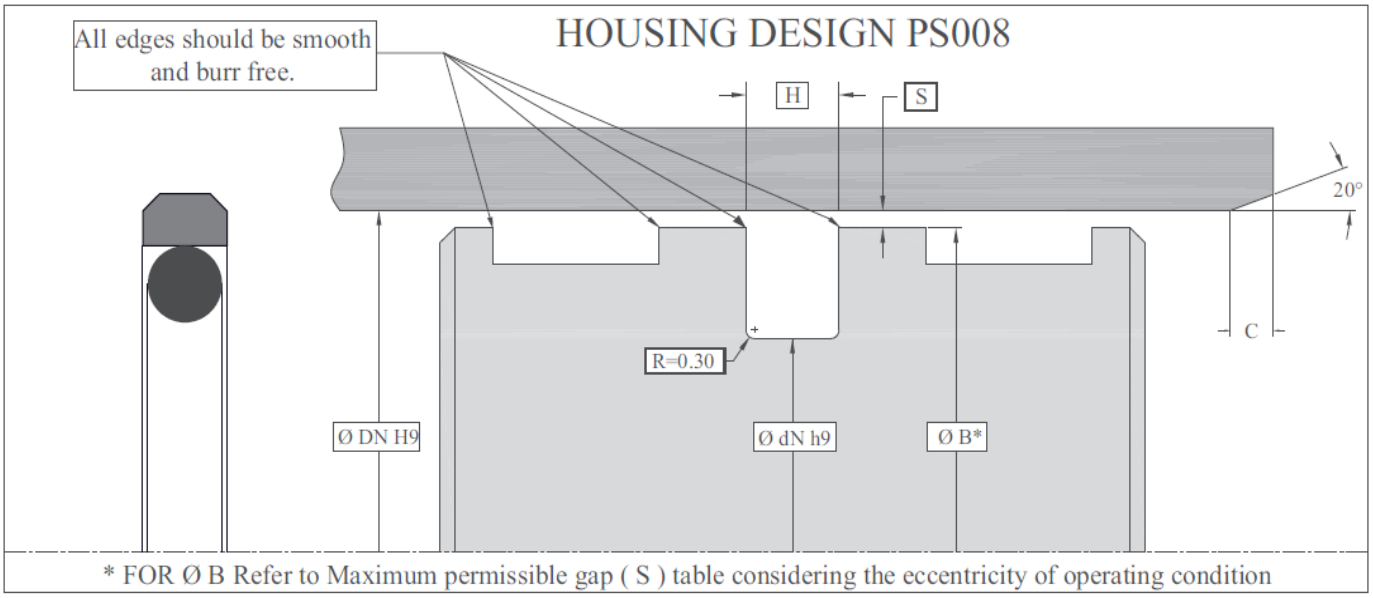
For Temp range: -20°C to +200°C (O ring material is VT01) Order code is **PS008-M-02-010.00 X 005.10 X 02.20**

Example: Imperial Size 1.000" X 0.705" X 0.126"

For Temp range: -20°C to +100°C (O ring material is NB02) Order code is **PS008-I-01-01.000 X 00.705 X 0.126**

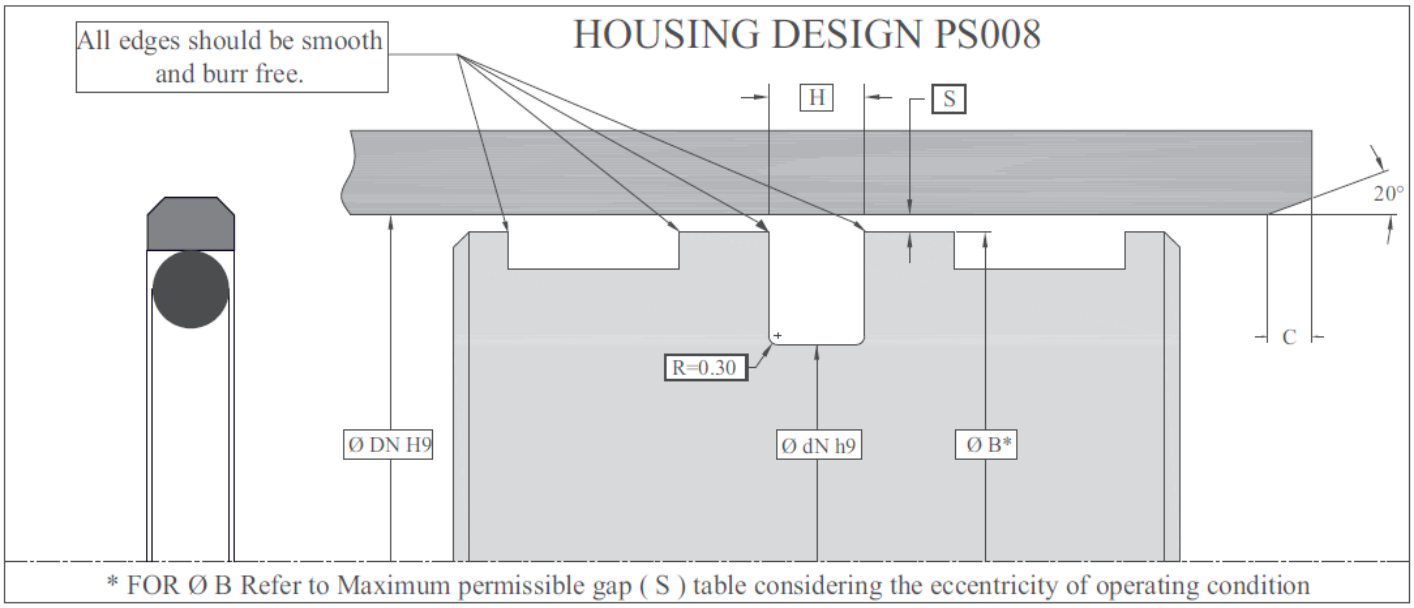
For Temp range: -20°C to +200°C (O ring material is VT01) Order code is **PS008-I-02-01.000 X 00.705 X 0.126**

For any other Metric or Imperial size not mentioned in catalog or any other material combination of seal ring and Energizer O-ring, please contact Polymer Engineering.



Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
8.00	3.10	2.20	3.00	002.90 X 1.78	PS008-M-01-008.00 X 003.10 X 02.20
10.00	5.10	2.20	3.00	004.47 X 1.78	PS008-M-01-010.00 X 005.10 X 02.20
12.00	7.10	2.20	3.00	006.74 X 1.78	PS008-M-01-012.00 X 007.10 X 02.20
12.00	4.50	3.20	4.50	003.63 X 2.62	PS008-M-01-012.00 X 004.50 X 03.20
14.00	9.10	2.20	3.00	008.74 X 1.78	PS008-M-01-014.00 X 009.10 X 02.20
15.00	10.10	2.20	3.00	009.82 X 1.78	PS008-M-01-015.00 X 010.10 X 02.20
15.00	7.50	3.20	4.50	007.59 X 2.62	PS008-M-01-015.00 X 007.50 X 03.20
16.00	11.10	2.20	3.00	010.82 X 1.78	PS008-M-01-016.00 X 011.10 X 02.20
16.00	8.50	3.20	4.50	007.59 X 2.62	PS008-M-01-016.00 X 008.50 X 03.20
18.00	10.50	3.20	4.50	009.19 X 2.62	PS008-M-01-018.00 X 010.50 X 03.20
19.00	11.50	3.20	4.50	011.35 X 2.62	PS008-M-01-019.00 X 011.50 X 03.20
20.00	15.10	2.20	3.00	014.00 X 1.78	PS008-M-01-020.00 X 015.10 X 02.20
20.00	12.50	3.20	4.50	011.35 X 2.62	PS008-M-01-020.00 X 012.50 X 03.20
22.00	14.50	3.20	4.50	013.94 X 2.62	PS008-M-01-022.00 X 014.50 X 03.20
24.00	16.50	3.20	4.50	015.54 X 2.62	PS008-M-01-024.00 X 016.50 X 03.20
25.00	17.50	3.20	4.50	017.12 X 2.62	PS008-M-01-025.00 X 017.50 X 03.20
25.00	14.00	4.20	6.00	013.87 X 3.53	PS008-M-01-025.00 X 014.00 X 04.20
27.00	19.50	3.20	4.50	018.72 X 2.62	PS008-M-01-027.00 X 019.50 X 03.20
28.00	20.50	3.20	4.50	020.29 X 2.62	PS008-M-01-028.00 X 020.50 X 03.20
28.00	17.00	4.20	6.00	017.04 X 3.53	PS008-M-01-028.00 X 017.00 X 04.20
30.00	22.50	3.20	4.50	021.89 X 2.62	PS008-M-01-030.00 X 022.50 X 03.20
30.00	19.00	4.20	6.00	018.64 X 3.53	PS008-M-01-030.00 X 019.00 X 04.20
32.00	24.50	3.20	4.50	023.47 X 2.62	PS008-M-01-032.00 X 024.50 X 03.20
32.00	21.00	4.20	6.00	020.22 X 3.53	PS008-M-01-032.00 X 021.00 X 04.20
35.00	27.50	3.20	4.50	026.64 X 2.62	PS008-M-01-035.00 X 027.50 X 03.20
35.00	24.00	4.20	6.00	023.40 X 3.53	PS008-M-01-035.00 X 024.00 X 04.20
36.00	28.50	3.20	4.50	028.24 X 2.62	PS008-M-01-036.00 X 028.50 X 03.20
36.00	25.00	4.20	6.00	024.99 X 3.53	PS008-M-01-036.00 X 025.00 X 04.20
38.00	30.50	3.20	4.50	029.82 X 2.62	PS008-M-01-038.00 X 030.50 X 03.20
38.00	27.00	4.20	6.00	026.57 X 3.53	PS008-M-01-038.00 X 027.00 X 04.20
40.00	32.50	3.20	4.50	031.42 X 2.62	PS008-M-01-040.00 X 032.50 X 03.20

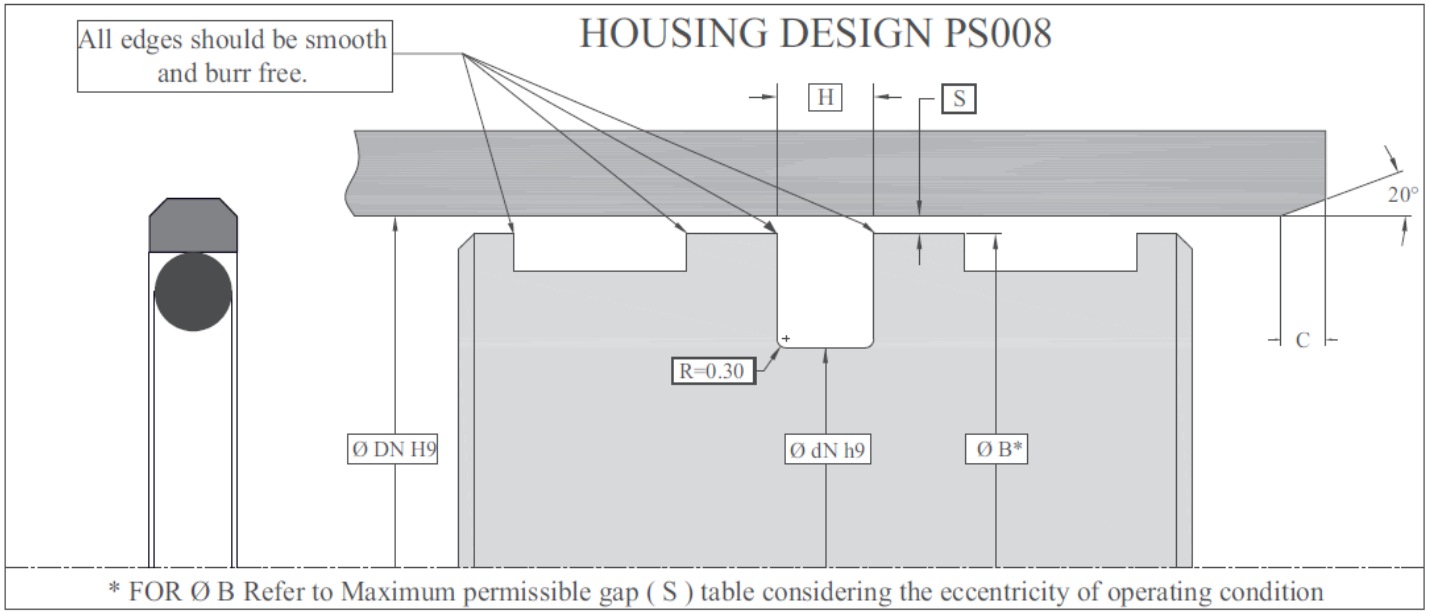


Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
40.00	29.00	4.20	6.00	028.17 X 3.53	PS008-M-01-040.00 X 029.00 X 04.20
40.00	24.50	6.30	8.00	023.16 X 5.33	PS008-M-01-040.00 X 024.50 X 06.30
42.00	31.00	4.20	6.00	029.74 X 3.53	PS008-M-01-042.00 X 031.00 X 04.20
45.00	37.50	3.20	4.50	037.77 X 2.62	PS008-M-01-045.00 X 037.50 X 03.20
45.00	34.00	4.20	6.00	032.92 X 3.53	PS008-M-01-045.00 X 034.00 X 04.20
45.00	29.50	6.30	8.00	029.51 X 5.33	PS008-M-01-045.00 X 029.50 X 06.30
48.00	37.00	4.20	6.00	036.09 X 3.53	PS008-M-01-048.00 X 037.00 X 04.20
50.00	42.50	3.20	4.50	042.52 X 2.62	PS008-M-01-050.00 X 042.50 X 03.20
50.00	39.00	4.20	6.00	037.69 X 3.53	PS008-M-01-050.00 X 039.00 X 04.20
50.00	34.50	6.30	8.00	034.29 X 5.33	PS008-M-01-050.00 X 034.50 X 06.30
52.00	41.00	4.20	6.00	040.87 X 3.53	PS008-M-01-052.00 X 041.00 X 04.20
55.00	44.00	4.20	6.00	044.04 X 3.53	PS008-M-01-055.00 X 044.00 X 04.20
55.00	39.50	6.30	8.00	037.47 X 5.33	PS008-M-01-055.00 X 039.50 X 06.30
56.00	45.00	4.20	6.00	044.04 X 3.53	PS008-M-01-056.00 X 045.00 X 04.20
60.00	49.00	4.20	6.00	047.22 X 3.53	PS008-M-01-060.00 X 049.00 X 04.20
60.00	44.50	6.30	8.00	043.82 X 5.33	PS008-M-01-060.00 X 044.50 X 06.30
63.00	52.00	4.20	6.00	050.39 X 3.53	PS008-M-01-063.00 X 052.00 X 04.20
63.00	47.50	6.30	8.00	046.99 X 5.33	PS008-M-01-063.00 X 047.50 X 06.30
65.00	54.00	4.20	6.00	053.57 X 3.53	PS008-M-01-065.00 X 054.00 X 04.20
65.00	49.50	6.30	8.00	050.17 X 5.33	PS008-M-01-065.00 X 049.50 X 06.30
70.00	59.00	4.20	6.00	058.33 X 3.53	PS008-M-01-070.00 X 059.00 X 04.20
70.00	54.50	6.30	8.00	053.34 X 5.33	PS008-M-01-070.00 X 054.50 X 06.30
75.00	64.00	4.20	6.00	063.09 X 3.53	PS008-M-01-075.00 X 064.00 X 04.20
75.00	59.50	6.30	8.00	058.10 X 5.33	PS008-M-01-075.00 X 059.50 X 06.30
75.00	54.00	8.10	10.50	053.00 X 7.00	PS008-M-01-075.00 X 054.00 X 08.10
80.00	69.00	4.20	6.00	066.27 X 3.53	PS008-M-01-080.00 X 069.00 X 04.20
80.00	64.50	6.30	8.00	062.87 X 5.33	PS008-M-01-080.00 X 064.50 X 06.30
80.00	59.00	8.10	10.50	058.00 X 7.00	PS008-M-01-080.00 X 059.00 X 08.10
85.00	74.00	4.20	6.00	072.62 X 3.53	PS008-M-01-085.00 X 074.00 X 04.20
85.00	69.50	6.30	8.00	069.22 X 5.33	PS008-M-01-085.00 X 069.50 X 06.30
85.00	64.00	8.10	10.50	063.00 X 7.00	PS008-M-01-085.00 X 064.00 X 08.10

Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
90.00	79.00	4.20	6.00	078.97 X 3.53	PS008-M-01-090.00 X 079.00 X 04.20
90.00	74.50	6.30	8.00	072.39 X 5.33	PS008-M-01-090.00 X 074.50 X 06.30
90.00	69.00	8.10	10.50	068.00 X 6.99	PS008-M-01-090.00 X 069.00 X 08.10
95.00	84.00	4.20	6.00	083.00 X 3.50	PS008-M-01-095.00 X 084.00 X 04.20
95.00	79.50	6.30	8.00	078.74 X 5.33	PS008-M-01-095.00 X 079.50 X 06.30
95.00	74.00	8.10	10.50	073.00 X 7.00	PS008-M-01-095.00 X 074.00 X 08.10
100.00	89.00	4.20	6.00	088.49 X 3.53	PS008-M-01-100.00 X 089.00 X 04.20
100.00	84.50	6.30	8.00	081.92 X 5.33	PS008-M-01-100.00 X 084.50 X 06.30
100.00	79.00	8.10	10.50	078.00 X 6.99	PS008-M-01-100.00 X 079.00 X 08.10
105.00	94.00	4.20	6.00	094.00 X 3.50	PS008-M-01-105.00 X 094.00 X 04.20
105.00	89.50	6.30	8.00	088.27 X 5.33	PS008-M-01-105.00 X 089.50 X 06.30
105.00	84.00	8.10	10.50	083.00 X 7.00	PS008-M-01-105.00 X 084.00 X 08.10
110.00	99.00	4.20	6.00	098.02 X 3.53	PS008-M-01-110.00 X 099.00 X 04.20
110.00	94.50	6.30	8.00	094.62 X 5.33	PS008-M-01-110.00 X 094.50 X 06.30
110.00	89.00	8.10	10.50	088.00 X 7.00	PS008-M-01-110.00 X 089.00 X 08.10
115.00	104.00	4.20	6.00	104.32 X 3.53	PS008-M-01-115.00 X 104.00 X 04.20
115.00	99.50	6.30	8.00	097.79 X 5.33	PS008-M-01-115.00 X 099.50 X 06.30
115.00	94.00	8.10	10.50	093.00 X 7.00	PS008-M-01-115.00 X 094.00 X 08.10
120.00	109.00	4.20	6.00	107.54 X 3.53	PS008-M-01-120.00 X 109.00 X 04.20
120.00	104.50	6.30	8.00	104.14 X 5.33	PS008-M-01-120.00 X 104.50 X 06.30
120.00	99.00	8.10	10.50	098.00 X 7.00	PS008-M-01-120.00 X 099.00 X 08.10
125.00	114.00	4.20	6.00	113.89 X 3.53	PS008-M-01-125.00 X 114.00 X 04.20
125.00	109.50	6.30	8.00	107.32 X 5.33	PS008-M-01-125.00 X 109.50 X 06.30
125.00	104.00	8.10	10.50	103.00 X 7.00	PS008-M-01-125.00 X 104.00 X 08.10
130.00	114.50	6.30	8.00	113.67 X 5.33	PS008-M-01-130.00 X 114.50 X 06.30
130.00	109.00	8.10	10.50	107.31 X 6.99	PS008-M-01-130.00 X 109.00 X 08.10
135.00	119.50	6.30	8.00	116.84 X 5.33	PS008-M-01-135.00 X 119.50 X 06.30
135.00	114.00	8.10	10.50	113.67 X 6.99	PS008-M-01-135.00 X 114.00 X 08.10
140.00	124.50	6.30	8.00	123.19 X 5.33	PS008-M-01-140.00 X 124.50 X 06.30
140.00	119.00	8.10	10.50	116.84 X 6.99	PS008-M-01-140.00 X 119.00 X 08.10
145.00	129.50	6.30	8.00	126.37 X 5.33	PS008-M-01-145.00 X 129.50 X 06.30
145.00	124.00	8.10	10.50	123.19 X 6.99	PS008-M-01-145.00 X 124.00 X 08.10
150.00	134.50	6.30	8.00	132.72 X 5.33	PS008-M-01-150.00 X 134.50 X 06.30
150.00	129.00	8.10	10.50	126.37 X 6.99	PS008-M-01-150.00 X 129.00 X 08.10
155.00	139.50	6.30	8.00	139.07 X 5.33	PS008-M-01-155.00 X 139.50 X 06.30
155.00	134.00	8.10	10.50	132.72 X 6.99	PS008-M-01-155.00 X 134.00 X 08.10
160.00	144.50	6.30	8.00	142.24 X 5.33	PS008-M-01-160.00 X 144.50 X 06.30
160.00	139.00	8.10	10.50	139.07 X 6.99	PS008-M-01-160.00 X 139.00 X 08.10
165.00	149.50	6.30	8.00	148.59 X 5.33	PS008-M-01-165.00 X 149.50 X 06.30
165.00	144.00	8.10	10.50	142.24 X 6.99	PS008-M-01-165.00 X 144.00 X 08.10
170.00	154.50	6.30	8.00	154.48 X 5.33	PS008-M-01-170.00 X 154.50 X 06.30
170.00	149.00	8.10	10.50	148.59 X 6.99	PS008-M-01-170.00 X 149.00 X 08.10
175.00	159.50	6.30	8.00	158.12 X 5.33	PS008-M-01-175.00 X 159.50 X 06.30
175.00	154.00	8.10	10.50	151.77 X 6.99	PS008-M-01-175.00 X 154.00 X 08.10
180.00	164.50	6.30	8.00	164.40 X 5.33	PS008-M-01-180.00 X 164.50 X 06.30
180.00	159.00	8.10	10.50	158.12 X 6.99	PS008-M-01-180.00 X 159.00 X 08.10

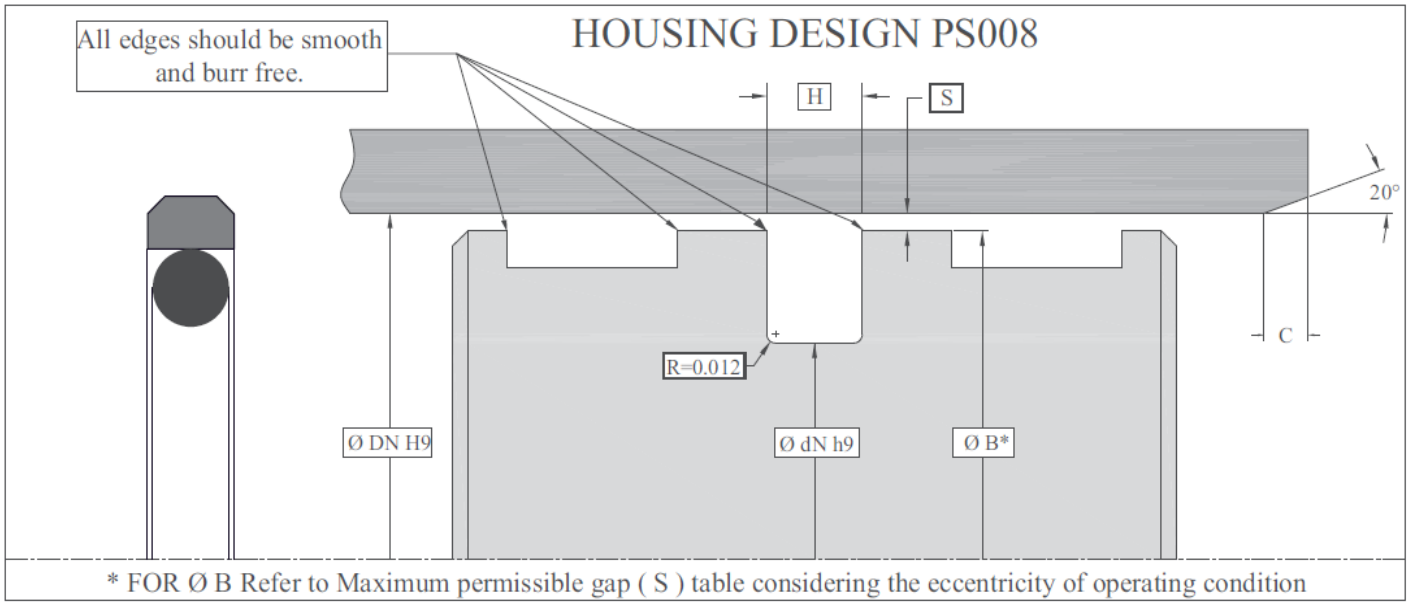


Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
185.00	169.50	6.30	8.00	167.64 X 5.33	PS008-M-01-185.00 X 169.50 X 06.30
185.00	164.00	8.10	10.50	162.00 X 7.00	PS008-M-01-185.00 X 164.00 X 08.10
190.00	174.50	6.30	8.00	170.82 X 5.33	PS008-M-01-190.00 X 174.50 X 06.30
190.00	169.00	8.10	10.50	164.47 X 6.99	PS008-M-01-190.00 X 169.00 X 08.10
195.00	179.50	6.30	8.00	179.30 X 5.33	PS008-M-01-195.00 X 179.50 X 06.30
195.00	174.00	8.10	10.50	170.82 X 6.99	PS008-M-01-195.00 X 174.00 X 08.10
200.00	184.50	6.30	8.00	183.52 X 5.33	PS008-M-01-200.00 X 184.50 X 06.30
200.00	179.00	8.10	10.50	177.17 X 6.99	PS008-M-01-200.00 X 179.00 X 08.10
205.00	189.50	6.30	8.00	189.87 X 5.33	PS008-M-01-205.00 X 189.50 X 06.30
205.00	184.00	8.10	10.50	183.52 X 6.99	PS008-M-01-205.00 X 184.00 X 08.10
210.00	189.00	8.10	10.50	183.52 X 6.99	PS008-M-01-210.00 X 189.00 X 08.10
215.00	194.00	8.10	10.50	189.87 X 6.99	PS008-M-01-215.00 X 194.00 X 08.10
220.00	204.50	6.30	8.00	202.57 X 5.33	PS008-M-01-220.00 X 204.50 X 06.30
220.00	199.00	8.10	10.50	196.22 X 6.99	PS008-M-01-220.00 X 199.00 X 08.10
225.00	204.00	8.10	10.50	202.57 X 6.99	PS008-M-01-225.00 X 204.00 X 08.10
230.00	209.00	8.10	10.50	208.92 X 6.99	PS008-M-01-230.00 X 209.00 X 08.10
235.00	214.00	8.10	10.50	215.27 X 6.99	PS008-M-01-235.00 X 214.00 X 08.10
240.00	224.50	6.30	8.00	221.62 X 5.33	PS008-M-01-240.00 X 224.50 X 06.30
240.00	219.00	8.10	10.50	215.27 X 6.99	PS008-M-01-240.00 X 219.00 X 08.10
245.00	224.00	8.10	10.50	221.86 X 6.99	PS008-M-01-245.00 X 224.00 X 08.10
250.00	229.00	8.10	10.50	227.97 X 6.99	PS008-M-01-250.00 X 229.00 X 08.10
260.00	244.50	6.30	8.00	240.67 X 5.33	PS008-M-01-260.00 X 244.50 X 06.30
260.00	239.00	8.10	10.50	236.00 X 7.00	PS008-M-01-260.00 X 239.00 X 08.10
265.00	244.00	8.10	10.50	240.67 X 6.99	PS008-M-01-265.00 X 244.00 X 08.10
270.00	254.50	6.30	8.00	253.37 X 5.33	PS008-M-01-270.00 X 254.50 X 06.30
270.00	249.00	8.10	10.50	240.67 X 6.99	PS008-M-01-270.00 X 249.00 X 08.10
275.00	254.00	8.10	10.50	253.37 X 6.99	PS008-M-01-275.00 X 254.00 X 08.10
280.00	259.00	8.10	10.50	253.37 X 6.99	PS008-M-01-280.00 X 259.00 X 08.10
285.00	264.00	8.10	10.50	259.72 X 6.99	PS008-M-01-285.00 X 264.00 X 08.10
290.00	269.00	8.10	10.50	266.07 X 6.99	PS008-M-01-290.00 X 269.00 X 08.10
300.00	279.00	8.10	10.50	278.77 X 6.99	PS008-M-01-300.00 X 279.00 X 08.10

Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
305.00	284.00	8.10	10.50	278.77 X 6.99	PS008-M-01-305.00 X 284.00 X 08.10
310.00	289.00	8.10	10.50	285.00 X 7.00	PS008-M-01-310.00 X 289.00 X 08.10
320.00	299.00	8.10	10.50	291.47 X 6.99	PS008-M-01-320.00 X 299.00 X 08.10
325.00	304.00	8.10	10.50	304.17 X 6.99	PS008-M-01-325.00 X 304.00 X 08.10
330.00	305.50	8.10	10.50	304.17 X 6.99	PS008-M-01-330.00 X 305.50 X 08.10
335.00	310.50	8.10	10.50	304.17 X 6.99	PS008-M-01-335.00 X 310.50 X 08.10
340.00	315.50	8.10	10.50	316.87 X 6.99	PS008-M-01-340.00 X 315.50 X 08.10
350.00	325.50	8.10	10.50	316.87 X 6.99	PS008-M-01-350.00 X 325.50 X 08.10
360.00	335.50	8.10	10.50	329.57 X 6.99	PS008-M-01-360.00 X 335.50 X 08.10
365.00	340.50	8.10	10.50	329.57 X 6.99	PS008-M-01-365.00 X 340.50 X 08.10
370.00	345.50	8.10	10.50	342.27 X 6.99	PS008-M-01-370.00 X 345.50 X 08.10
375.00	350.50	8.10	10.50	342.27 X 6.99	PS008-M-01-375.00 X 350.50 X 08.10
380.00	355.50	8.10	10.50	354.97 X 6.99	PS008-M-01-380.00 X 355.50 X 08.10
390.00	365.50	8.10	10.50	354.97 X 6.99	PS008-M-01-390.00 X 365.50 X 08.10
400.00	375.50	8.10	10.50	367.67 X 6.99	PS008-M-01-400.00 X 375.50 X 08.10
410.00	385.50	8.10	10.50	380.37 X 6.99	PS008-M-01-410.00 X 385.50 X 08.10
420.00	395.50	8.10	10.50	393.07 X 6.99	PS008-M-01-420.00 X 395.50 X 08.10
425.00	400.50	8.10	10.50	393.07 X 6.99	PS008-M-01-425.00 X 400.50 X 08.10
430.00	405.50	8.10	10.50	405.00 X 7.00	PS008-M-01-430.00 X 405.50 X 08.10
440.00	415.50	8.10	10.50	405.00 X 7.00	PS008-M-01-440.00 X 415.50 X 08.10
450.00	425.50	8.10	10.50	417.96 X 6.99	PS008-M-01-450.00 X 425.50 X 08.10
460.00	435.50	8.10	10.50	430.66 X 6.99	PS008-M-01-460.00 X 435.50 X 08.10
470.00	445.50	8.10	10.50	443.36 X 6.99	PS008-M-01-470.00 X 445.50 X 08.10
480.00	455.50	8.10	10.50	456.07 X 6.99	PS008-M-01-480.00 X 455.50 X 08.10
500.00	475.50	8.10	10.50	468.76 X 6.99	PS008-M-01-500.00 X 475.50 X 08.10
520.00	495.50	8.10	10.50	494.16 X 6.99	PS008-M-01-520.00 X 495.50 X 08.10
530.00	505.50	8.10	10.50	494.16 X 6.99	PS008-M-01-530.00 X 505.50 X 08.10
540.00	515.50	8.10	10.50	506.86 X 6.99	PS008-M-01-540.00 X 515.50 X 08.10
545.00	520.50	8.10	10.50	506.86 X 6.99	PS008-M-01-545.00 X 520.50 X 08.10
550.00	525.50	8.10	10.50	514.00 X 7.00	PS008-M-01-550.00 X 525.50 X 08.10
560.00	535.50	8.10	10.50	532.26 X 6.99	PS008-M-01-560.00 X 535.50 X 08.10
570.00	545.50	8.10	10.50	540.00 X 7.00	PS008-M-01-570.00 X 545.50 X 08.10
600.00	575.50	8.10	10.50	563.00 X 7.00	PS008-M-01-600.00 X 575.50 X 08.10
620.00	595.50	8.10	10.50	582.68 X 6.99	PS008-M-01-620.00 X 595.50 X 08.10
630.00	605.50	8.10	10.50	600.90 X 6.99	PS008-M-01-630.00 X 605.50 X 08.10
650.00	625.50	8.10	10.50	620.00 X 7.00	PS008-M-01-650.00 X 625.50 X 08.10
660.00	635.50	8.10	10.50	630.40 X 6.99	PS008-M-01-660.00 X 635.50 X 08.10
680.00	655.50	8.10	10.50	650.00 X 7.00	PS008-M-01-680.00 X 655.50 X 08.10
700.00	675.50	8.10	10.50	670.00 X 7.00	PS008-M-01-700.00 X 675.50 X 08.10
720.00	692.00	9.50	13.00	690.00 X 8.40	PS008-M-01-720.00 X 692.00 X 09.50

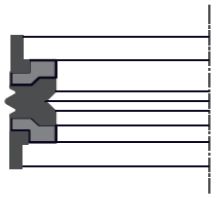


Polymer Engineering Standard Size List

IMPERIAL SIZE					
ØDN (H9)	ØdN (h9)	H (+0.008")	C	O-RING SIZE	ORDER CODE
1.000	0.705	0.126	0.177	17.12 X 2.62	PS008-I-01-01.000 X 00.705 X 0.126
1.250	0.955	0.126	0.177	23.47 X 2.62	PS008-I-01-01.250 X 00.955 X 0.126
1.500	1.205	0.126	0.177	29.82 X 2.62	PS008-I-01-01.500 X 01.205 X 0.126
1.500	1.076	0.166	0.236	26.57 X 3.53	PS008-I-01-01.500 X 01.076 X 0.166
1.750	1.326	0.166	0.236	32.92 X 3.53	PS008-I-01-01.750 X 01.326 X 0.166
2.000	1.576	0.166	0.236	39.70 X 3.50	PS008-I-01-02.000 X 01.576 X 0.166
2.250	1.826	0.166	0.236	45.70 X 3.50	PS008-I-01-02.250 X 01.826 X 0.166
2.500	2.076	0.166	0.236	51.50 X 3.55	PS008-I-01-02.500 X 02.076 X 0.166
2.750	2.326	0.166	0.236	56.74 X 3.53	PS008-I-01-02.750 X 02.326 X 0.166
2.750	2.134	0.247	0.315	53.34 X 5.33	PS008-I-01-02.750 X 02.134 X 0.247
3.000	2.576	0.166	0.236	63.09 X 3.53	PS008-I-01-03.000 X 02.576 X 0.166
3.000	2.384	0.247	0.315	59.69 X 5.33	PS008-I-01-03.000 X 02.384 X 0.247
3.250	2.826	0.166	0.236	69.44 X 3.53	PS008-I-01-03.250 X 02.826 X 0.166
3.250	2.634	0.247	0.315	66.04 X 5.33	PS008-I-01-03.250 X 02.634 X 0.247
3.375	2.759	0.247	0.315	69.22 X 5.33	PS008-I-01-03.375 X 02.759 X 0.247
3.500	3.076	0.166	0.236	75.79 X 3.53	PS008-I-01-03.500 X 03.076 X 0.166
3.500	2.884	0.247	0.315	72.39 X 5.33	PS008-I-01-03.500 X 02.884 X 0.247
3.750	3.326	0.166	0.236	82.14 X 3.53	PS008-I-01-03.750 X 03.326 X 0.166
3.750	3.134	0.247	0.315	78.74 X 5.33	PS008-I-01-03.750 X 03.134 X 0.247
4.000	3.576	0.166	0.236	88.49 X 3.53	PS008-I-01-04.000 X 03.576 X 0.166
4.000	3.384	0.247	0.315	85.09 X 5.33	PS008-I-01-04.000 X 03.384 X 0.247
4.250	3.826	0.166	0.236	94.84 X 3.53	PS008-I-01-04.250 X 03.826 X 0.166
4.250	3.634	0.247	0.315	91.44 X 5.33	PS008-I-01-04.250 X 03.634 X 0.247
4.500	4.076	0.166	0.236	101.19 X 3.53	PS008-I-01-04.500 X 04.076 X 0.166
4.500	3.884	0.247	0.315	97.79 X 5.33	PS008-I-01-04.500 X 03.884 X 0.247
4.625	4.009	0.247	0.315	100.97 X 5.33	PS008-I-01-04.625 X 04.009 X 0.247
4.750	4.326	0.166	0.236	107.54 X 3.53	PS008-I-01-04.750 X 04.326 X 0.166
4.750	4.134	0.247	0.315	104.14 X 5.33	PS008-I-01-04.750 X 04.134 X 0.247
5.000	4.576	0.166	0.236	113.89 X 3.53	PS008-I-01-05.000 X 04.576 X 0.166

Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.008")	C	O-RING SIZE	ORDER CODE
5.000	4.384	0.247	0.315	110.49 X 5.33	PS008-I-01-05.000 X 04.384 X 0.247
5.250	4.634	0.247	0.315	116.84 X 5.33	PS008-I-01-05.250 X 04.634 X 0.247
5.500	4.884	0.247	0.315	123.19 X 5.33	PS008-I-01-05.500 X 04.884 X 0.247
5.500	4.670	0.320	0.413	116.84 X 6.99	PS008-I-01-05.500 X 04.670 X 0.320
5.750	5.134	0.247	0.315	129.54 X 5.33	PS008-I-01-05.750 X 05.134 X 0.247
5.750	4.920	0.320	0.413	123.19 X 6.99	PS008-I-01-05.750 X 04.920 X 0.320
6.000	5.384	0.247	0.315	135.89 X 5.33	PS008-I-01-06.000 X 05.384 X 0.247
6.000	5.170	0.320	0.413	129.54 X 6.99	PS008-I-01-06.000 X 05.170 X 0.320
6.250	5.420	0.320	0.413	135.89 X 6.99	PS008-I-01-06.250 X 05.420 X 0.320
6.500	5.884	0.247	0.315	148.59 X 5.33	PS008-I-01-06.500 X 05.884 X 0.247
6.500	5.670	0.320	0.413	142.24 X 6.99	PS008-I-01-06.500 X 05.670 X 0.320
7.000	6.384	0.247	0.315	158.12 X 5.33	PS008-I-01-07.000 X 06.384 X 0.247
7.000	6.170	0.320	0.413	151.77 X 6.99	PS008-I-01-07.000 X 06.170 X 0.320
7.500	6.884	0.247	0.315	170.82 X 5.33	PS008-I-01-07.500 X 06.884 X 0.247
7.500	6.670	0.320	0.413	164.47 X 6.99	PS008-I-01-07.500 X 06.670 X 0.320
8.000	7.384	0.247	0.315	183.52 X 5.33	PS008-I-01-08.000 X 07.384 X 0.247
8.000	7.170	0.320	0.413	177.17 X 6.99	PS008-I-01-08.000 X 07.170 X 0.320
8.500	7.670	0.320	0.413	189.87 X 6.99	PS008-I-01-08.500 X 07.670 X 0.320
9.000	8.170	0.320	0.413	202.57 X 6.99	PS008-I-01-09.000 X 08.170 X 0.320
9.500	8.670	0.320	0.413	215.27 X 6.99	PS008-I-01-09.500 X 08.670 X 0.320
10.000	9.170	0.320	0.413	227.97 X 6.99	PS008-I-01-10.000 X 09.170 X 0.320
12.000	11.170	0.320	0.413	278.77 X 6.99	PS008-I-01-12.000 X 11.170 X 0.320
14.000	13.170	0.320	0.413	329.57 X 6.99	PS008-I-01-14.000 X 13.170 X 0.320
16.000	15.170	0.320	0.413	380.37 X 6.99	PS008-I-01-16.000 X 15.170 X 0.320

PISTON SEAL	PS024	

Features:

Piston seal profile PS024 consists of five piece seal set for sealing pistons with one elastomer seal ring, two back-up support rings and two L-shape guide rings.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	BACKUP-RING COMPOUND	L-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS024-01	NB03	PU07	PA01	-20 to 100°C	315 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds (Section III)

Properties:

- Less space required for seal and guide elements.
- Prevents distortion inside the groove.
- Single Piece Piston with one groove.
- No extrusion into the radial sealing gap
- Suitable for rapid energisation.
- Sealing component protected against twisting.
- Zero leakage.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Piston Accumulator.
- Agricultural equipment
- Standard cylinders

Fitting:

PS024 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Surface finish:

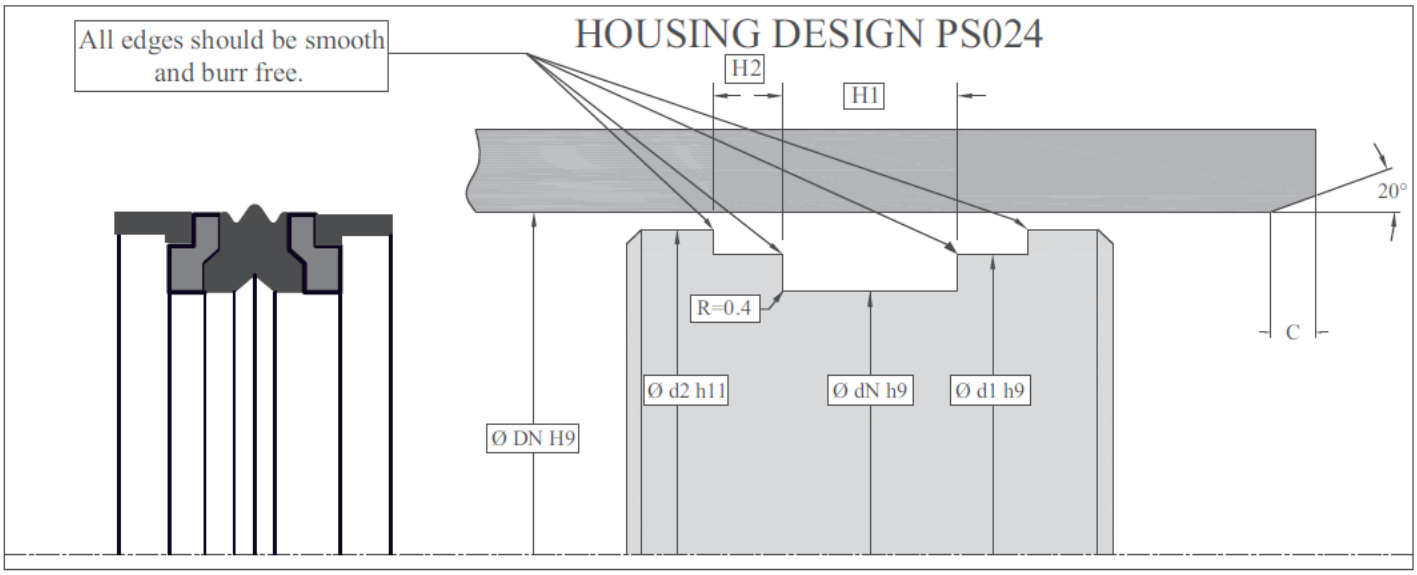
Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Ordering format:

Please mention PEC Order Code in your order.

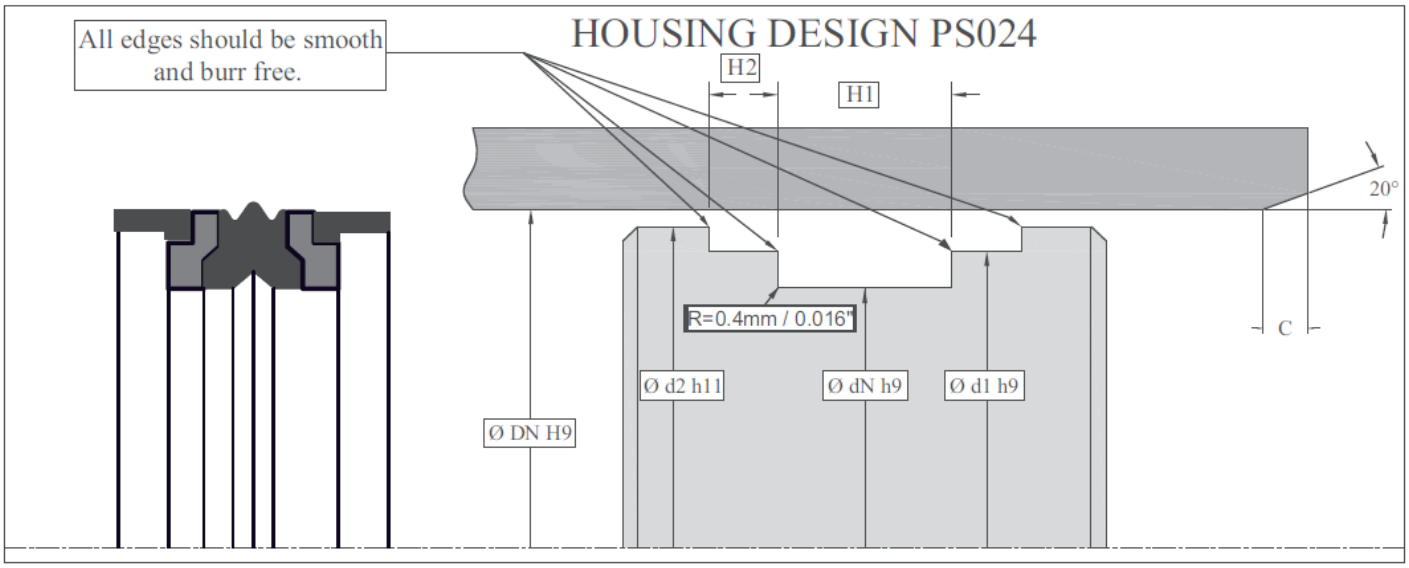
Example: Size 25 x 15 x 12 Order Code is PS024-M-01-025.00 x 015.00 x 12.00/20.00

Please contact PEC if your required size is not mentioned in PEC standard size list or if you need a different combination.



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	d1	d2	H1 (+0.20)	H2 (+0.10)	C	ORDER CODE
25.00	15.00	21.00	23.00	12.00	4.00	4.00	PS024-M-01-025.00 X 015.00 X 12.0/20.0
32.00	22.00	28.50	30.50	16.40	6.40	4.00	PS024-M-01-032.00 X 022.00 X 16.4/29.2
40.00	24.00	35.40	38.70	18.40	6.40	4.00	PS024-M-01-040.00 X 024.00 X 18.4/31.2
40.00	26.00	36.00	39.00	16.40	2.60	4.00	PS024-M-01-040.00 X 026.00 X 16.4/21.6
40.00	30.00	37.00	39.00	12.50	4.00	4.00	PS024-M-01-040.00 X 030.00 X 12.5/20.5
40.00	30.00	35.40	38.50	16.40	6.40	4.00	PS024-M-01-040.00 X 030.00 X 16.4/29.2
50.00	34.00	46.00	49.00	20.50	3.10	4.00	PS024-M-01-050.00 X 034.00 X 20.5/26.7
50.00	34.00	45.40	49.00	18.40	6.40	4.00	PS024-M-01-050.00 X 034.00 X 18.4/31.2
55.00	39.00	50.40	54.00	18.40	6.40	4.00	PS024-M-01-055.00 X 039.00 X 18.4/31.2
60.00	44.00	55.40	58.70	18.40	6.40	4.00	PS024-M-01-060.00 X 044.00 X 18.4/31.2
60.00	44.00	56.00	59.00	20.50	3.10	4.00	PS024-M-01-060.00 X 044.00 X 20.5/26.7
60.00	44.00	56.00	59.00	20.50	3.10	4.00	PS024-M-01-060.00 X 044.00 X 20.5/26.7
63.00	47.00	58.40	61.70	18.40	6.40	4.00	PS024-M-01-063.00 X 047.00 X 18.4/31.2
65.00	49.00	61.00	64.00	20.50	3.10	4.00	PS024-M-01-065.00 X 049.00 X 20.5/26.7
70.00	50.00	64.20	68.30	22.40	6.40	4.00	PS024-M-01-070.00 X 050.00 X 22.4/35.2
70.00	58.00	66.00	69.40	20.50	4.20	4.00	PS024-M-01-070.00 X 058.00 X 20.5/28.9
75.00	55.00	69.20	73.30	22.40	6.40	4.00	PS024-M-01-075.00 X 055.00 X 22.4/35.2
80.00	60.00	74.20	78.30	22.40	6.40	5.00	PS024-M-01-080.00 X 060.00 X 22.4/35.2
80.00	62.00	76.00	79.00	22.50	3.60	5.00	PS024-M-01-080.00 X 062.00 X 22.5/29.7
85.00	65.00	79.20	83.30	22.40	6.40	5.00	PS024-M-01-085.00 X 065.00 X 22.4/35.2
90.00	70.00	84.20	88.30	22.40	6.40	5.00	PS024-M-01-090.00 X 070.00 X 22.4/35.2
90.00	72.00	86.00	89.00	22.50	3.60	5.00	PS024-M-01-090.00 X 072.00 X 22.5/29.7
95.00	75.00	89.20	93.30	22.40	6.40	5.00	PS024-M-01-095.00 X 075.00 X 22.4/35.2
100.00	75.00	93.20	98.00	22.40	6.40	5.00	PS024-M-01-100.00 X 075.00 X 22.4/35.2
100.00	82.00	96.00	99.00	22.50	3.60	5.00	PS024-M-01-100.00 X 082.00 X 22.5/29.7
100.00	86.00	96.00	99.40	22.50	5.20	5.00	PS024-M-01-100.00 X 086.00 X 22.5/32.9
105.00	80.00	98.10	103.00	22.40	6.40	5.00	PS024-M-01-105.00 X 080.00 X 22.4/35.2
110.00	85.00	103.10	108.00	22.40	6.40	5.00	PS024-M-01-110.00 X 085.00 X 22.4/35.2
115.00	90.00	108.10	113.00	22.40	6.40	6.00	PS024-M-01-115.00 X 090.00 X 22.4/35.2
120.00	95.00	113.10	118.00	22.40	6.40	6.00	PS024-M-01-120.00 X 095.00 X 22.4/35.2
125.00	100.00	118.10	123.00	25.40	6.40	6.00	PS024-M-01-125.00 X 100.00 X 25.4/38.2
125.00	103.00	121.00	124.00	26.50	5.10	6.00	PS024-M-01-125.00 X 103.00 X 26.5/36.7
130.00	105.00	123.10	128.00	25.40	6.40	6.00	PS024-M-01-130.00 X 105.00 X 25.4/38.2



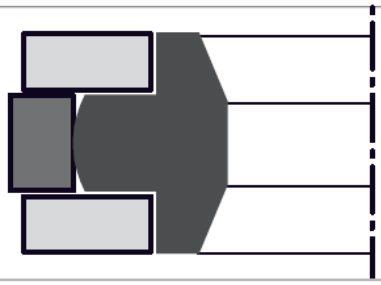
Polymer Engineering Standard Size List

DN (H9)	dN (h9)	d1	d2	H1 (+0.20)	H2 (+0.10)	C	ORDER CODE
130.00	105.00	122.70	127.50	25.40	9.50	6.00	PS024-M-01-130.00 X 105.00 X 25.4/44.4
135.00	110.00	128.10	133.00	25.40	6.40	6.00	PS024-M-01-135.00 X 110.00 X 25.4/38.2
135.00	110.00	127.60	132.50	25.40	9.50	6.00	PS024-M-01-135.00 X 110.00 X 25.4/44.4
140.00	115.00	133.00	138.00	25.40	6.40	6.00	PS024-M-01-140.00 X 115.00 X 25.4/38.2
140.00	115.00	132.60	137.50	25.40	9.50	6.00	PS024-M-01-140.00 X 115.00 X 25.4/44.4
140.00	118.00	136.00	139.00	26.50	5.10	6.00	PS024-M-01-140.00 X 118.00 X 26.5/36.7
145.00	120.00	138.30	143.00	25.40	6.40	6.00	PS024-M-01-145.00 X 120.00 X 25.4/38.2
145.00	120.00	137.90	142.50	25.40	9.50	6.00	PS024-M-01-145.00 X 120.00 X 25.4/44.4
150.00	125.00	143.00	148.00	25.40	6.40	6.00	PS024-M-01-150.00 X 125.00 X 25.4/38.2
150.00	125.00	142.60	147.50	25.40	9.50	6.00	PS024-M-01-150.00 X 125.00 X 25.4/44.4
160.00	130.00	153.00	157.50	25.40	6.40	6.00	PS024-M-01-160.00 X 130.00 X 25.4/38.2
160.00	135.00	152.60	157.50	25.40	9.50	6.00	PS024-M-01-160.00 X 135.00 X 25.4/44.4
175.00	150.00	166.70	172.10	25.40	12.70	6.00	PS024-M-01-175.00 X 150.00 X 25.4/50.8
180.00	155.00	171.70	177.10	25.40	12.70	6.00	PS024-M-01-180.00 X 155.00 X 25.4/50.8
200.00	175.00	191.60	197.00	25.40	12.70	6.00	PS024-M-01-200.00 X 175.00 X 25.4/50.8
220.00	190.00	212.70	217.90	35.40	6.40	6.00	PS024-M-01-220.00 X 190.00 X 35.4/48.2
225.00	200.00	216.60	222.00	25.40	12.70	6.00	PS024-M-01-225.00 X 200.00 X 25.4/50.8
250.00	225.00	241.60	247.00	25.40	12.70	6.00	PS024-M-01-250.00 X 225.00 X 25.4/50.8

IMPERIAL SIZES

DN (H9)	dN (h9)	d1	d2	H1 (+0.008")	H2 (+0.004")	C	ORDER CODE
2.000	1.375	1.820	1.950	0.750	0.250	0.157	PS024-I-01-02.000X01.375X0.750/1.250
2.500	1.875	2.321	2.450	0.750	0.250	0.157	PS024-I-01-02.500X01.875X0.750/1.250
3.000	2.250	2.774	2.940	0.937	0.250	0.197	PS024-I-01-03.000X02.250X0.937/1.437
3.500	2.750	3.274	3.440	0.937	0.250	0.197	PS024-I-01-03.500X02.750X0.937/1.437
4.000	3.250	3.773	3.940	0.937	0.250	0.197	PS024-I-01-04.000X03.250X0.937/1.437

PISTON SEAL — PS032



Features:

Piston seal profile PS032 consists of four piece seal set with one main sealing component, one T shaped energizer ring and two anti-extrusion ring which support the seal on both sides and prevent extrusion of main seal ring.

Composition:

SEAL COMBINATION	MAIN SEAL COMPOUND	RUBBER T-RING COMPOUND	BACKUP-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS032-01	PT03	NB04	PA15	-20 to 100°C	500 Bar	1.50 m/s
PS032-02	PT05	NB04	PA06	-20 to 100°C	500 Bar	1.50 m/s
PS032-03	PT02	NB04	PA15	-20 to 100°C	500 Bar	1.50 m/s
PS032-04	PT11	NB04	PA15	-20 to 100°C	500 Bar	1.50 m/s
PS032-05	PT02	NB06	PA15	-40 to 100°C	500 Bar	1.50 m/s

For compound detail please refer Royal seal compounds. (Section - III)

Properties:

- Double acting
- Allow large radial gaps due to backup rings
- Very good extrusion reliability
- High resistance to abrasion
- Low friction, free of stick-slip
- High contact pressure through rubber profile ring
- No extrusion into the radial sealing gap

Application:

- Mobile Hydraulics
- Machine tools
- Agricultural equipment
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Gap dimension:

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S)for Metric Sizes (mm)				
H	160 bar	260 bar	320 bar	400 bar	500 bar
8.00	0.30	0.25	0.20	0.18	0.15
9.00	0.40	0.35	0.25	0.20	0.16
11.00	0.60	0.50	0.33	0.25	0.20
12.50	0.60	0.50	0.33	0.25	0.20
16.00	0.90	0.70	0.45	0.35	0.25
17.50	0.90	0.70	0.45	0.35	0.25

Profile dimension	Maximum permissible gap (S)for Imperial Sizes (inch)				
H	160 bar	260 bar	320 bar	400 bar	500 bar
0.424	0.024	0.020	0.013	0.010	0.008
0.500	0.024	0.020	0.013	0.010	0.008
0.579	0.035	0.028	0.018	0.014	0.010
0.640	0.035	0.028	0.018	0.014	0.010
0.690	0.035	0.028	0.018	0.014	0.010
0.750	0.035	0.028	0.018	0.014	0.010

Fitting :

PS032 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC Order Code in your order.

Example: Metric Size 50 X 36 X 9

For Temp range: -20°C to +100°C (T ring material is NB04 & PT03) Order code is **PS032-M-01-050.00 X 036.00 X 09.00**

For Temp range: -40°C to +100°C (T ring material is NB06 & PT02) Order code is **PS032-M-05-050.00 X 036.00 X 09.00**

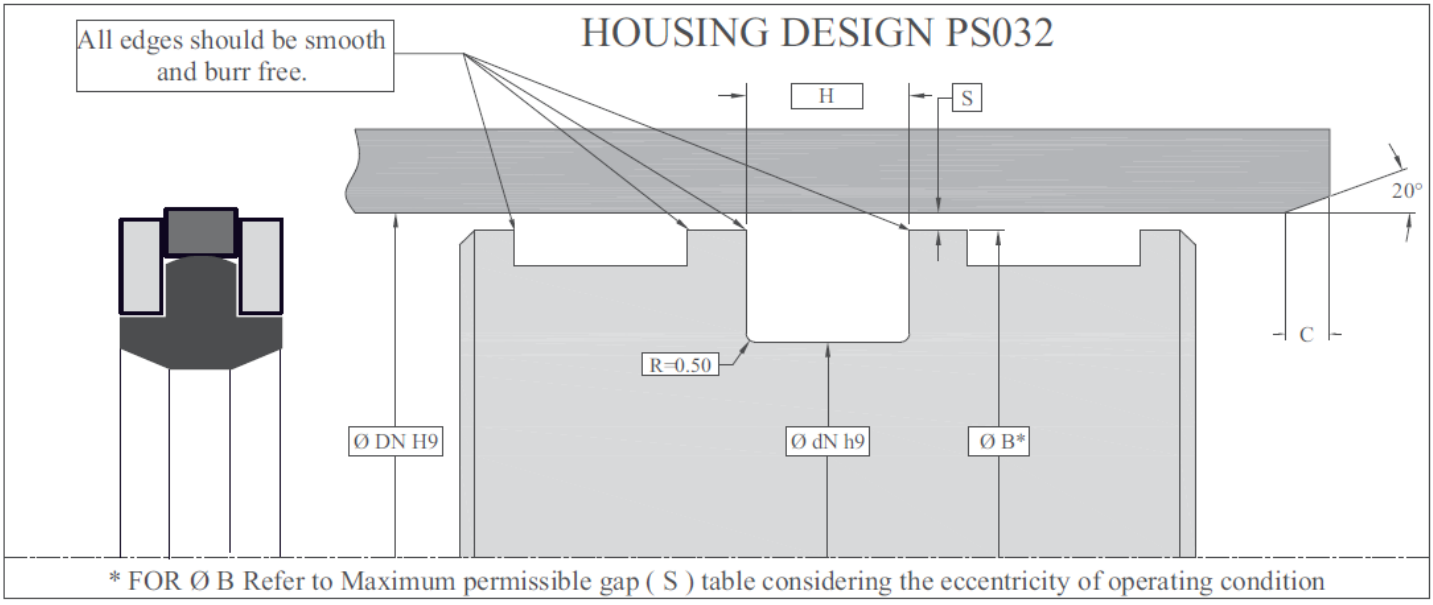
Example: Imperial Size 1.000" X 0.625" X 0.424"

For Temp range: -20°C to +100°C (T ring material is NB04 & PT02) Order code is **PS032-I-03-01.000 X 00.625 X 0.424**

For Temp range: -20°C to +100°C (T ring material is NB04 & PT21) Order code is **PS032-I-04-01.000 X 00.625 X 0.424**

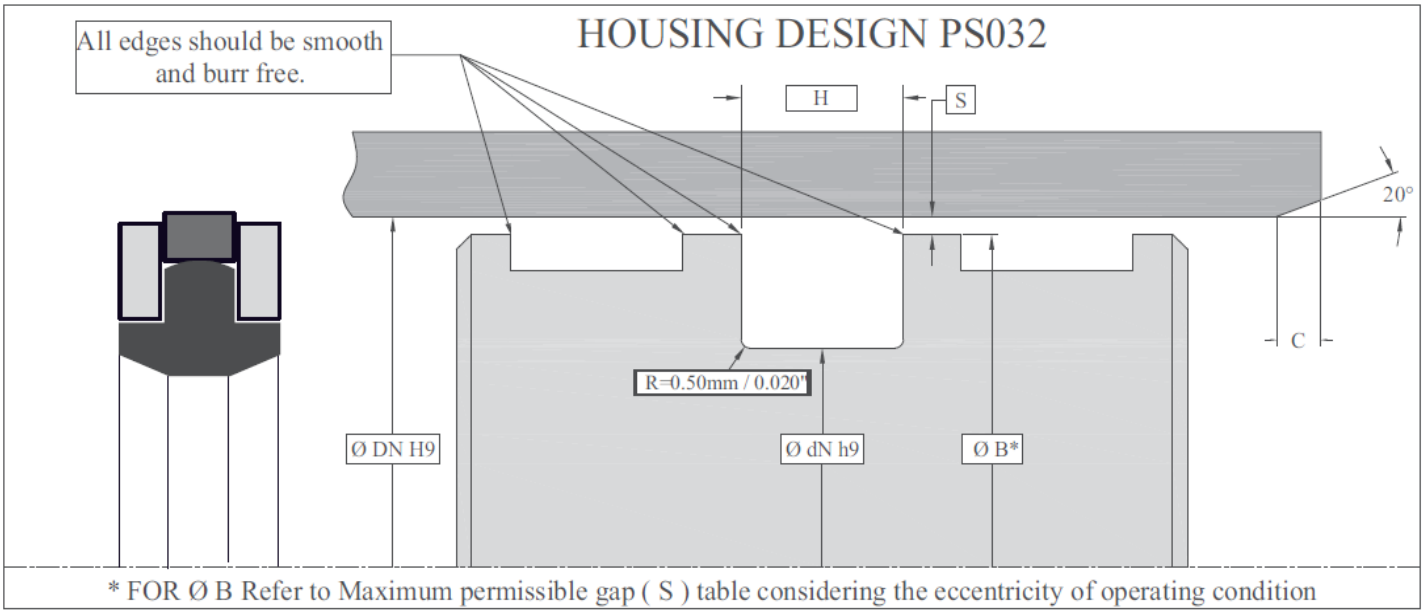
For Temp range: -40°C to +100°C (T ring material is NB06 & PT02) Order code is **PS032-I-05-01.000 X 00.625 X 0.424**

Please contact PEC if your required size is not mentioned in PEC standard size list or if you need a different combination.



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
40.00	30.00	8.00	4.00	PS032-M-01-040.00 X 030.00 X 08.00
50.00	36.00	9.00	4.00	PS032-M-01-050.00 X 036.00 X 09.00
50.00	40.00	8.00	4.00	PS032-M-01-050.00 X 040.00 X 08.00
50.00	41.00	9.00	4.00	PS032-M-01-050.00 X 041.00 X 09.00
55.00	41.00	9.00	4.00	PS032-M-01-055.00 X 041.00 X 09.00
60.00	46.00	9.00	4.00	PS032-M-01-060.00 X 046.00 X 09.00
63.00	48.00	11.00	5.00	PS032-M-01-063.00 X 048.00 X 11.00
63.00	53.00	8.00	5.00	PS032-M-01-063.00 X 053.00 X 08.00
65.00	50.00	11.00	5.00	PS032-M-01-065.00 X 050.00 X 11.00
70.00	55.00	11.00	5.00	PS032-M-01-070.00 X 055.00 X 11.00
70.00	60.00	8.00	5.00	PS032-M-01-070.00 X 060.00 X 08.00
75.00	60.00	11.00	5.00	PS032-M-01-075.00 X 060.00 X 11.00
80.00	65.00	11.00	5.00	PS032-M-01-080.00 X 065.00 X 11.00
80.00	65.00	12.00	5.00	PS032-M-01-080.00 X 065.00 X 12.00
80.00	65.00	12.50	5.00	PS032-M-01-080.00 X 065.00 X 12.50
85.00	70.00	11.00	5.00	PS032-M-01-085.00 X 070.00 X 11.00
90.00	75.00	11.00	5.00	PS032-M-01-090.00 X 075.00 X 11.00
90.00	75.00	12.00	5.00	PS032-M-01-090.00 X 075.00 X 12.00
90.00	75.00	12.50	5.00	PS032-M-01-090.00 X 075.00 X 12.50
95.00	80.00	11.00	5.00	PS032-M-01-095.00 X 080.00 X 11.00
95.00	80.00	12.50	5.00	PS032-M-01-095.00 X 080.00 X 12.50
100.00	85.00	12.50	6.50	PS032-M-01-100.00 X 085.00 X 12.50
105.00	90.00	12.50	6.50	PS032-M-01-105.00 X 090.00 X 12.50
110.00	95.00	12.50	6.50	PS032-M-01-110.00 X 095.00 X 12.50
115.00	100.00	12.50	6.50	PS032-M-01-115.00 X 100.00 X 12.50
120.00	100.00	16.00	6.50	PS032-M-01-120.00 X 100.00 X 16.00
120.00	105.00	12.50	6.50	PS032-M-01-120.00 X 105.00 X 12.50
125.00	102.00	16.00	6.50	PS032-M-01-125.00 X 102.00 X 16.00
125.00	105.00	16.00	6.50	PS032-M-01-125.00 X 105.00 X 16.00
125.00	108.00	16.00	6.50	PS032-M-01-125.00 X 108.00 X 16.00
130.00	105.00	25.00	6.50	PS032-M-01-130.00 X 105.00 X 25.00
130.00	107.00	16.00	6.50	PS032-M-01-130.00 X 107.00 X 16.00

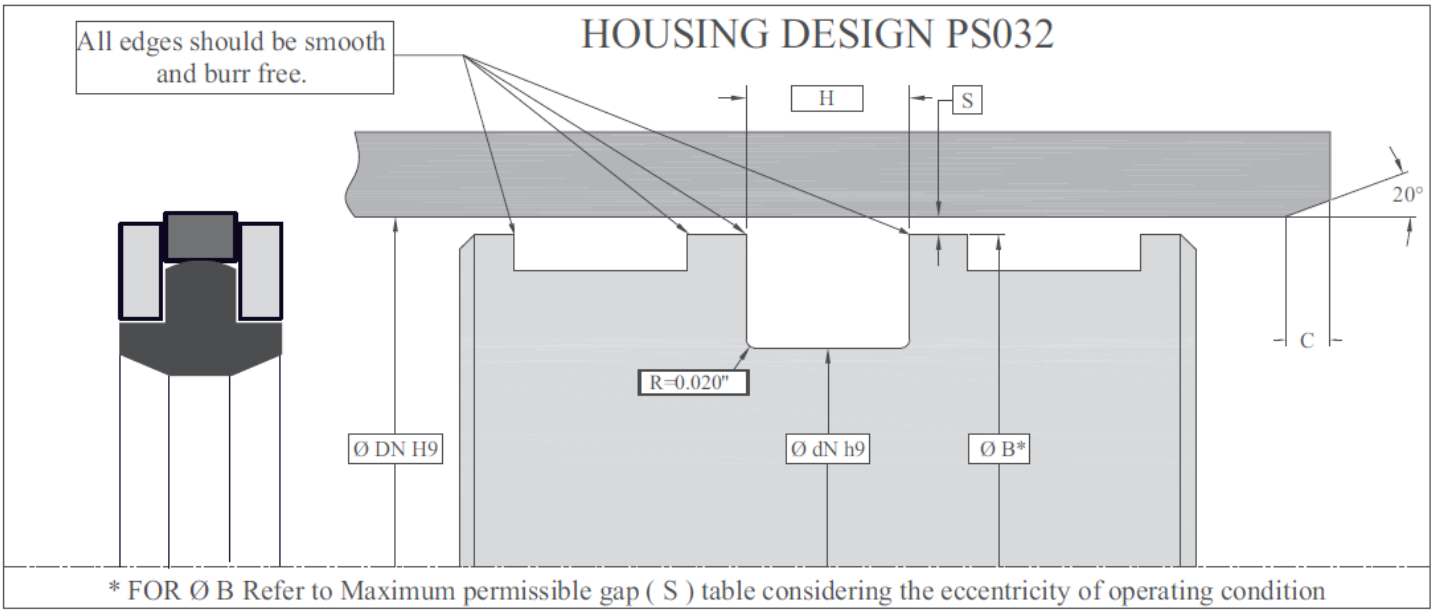


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
130.00	110.00	16.00	6.50	PS032-M-01-130.00 X 110.00 X 16.00
135.00	112.00	16.00	6.50	PS032-M-01-135.00 X 112.00 X 16.00
140.00	117.00	16.00	6.50	PS032-M-01-140.00 X 117.00 X 16.00
140.00	120.00	16.00	6.50	PS032-M-01-140.00 X 120.00 X 16.00
145.00	122.00	16.00	6.50	PS032-M-01-145.00 X 122.00 X 16.00
150.00	127.00	16.00	6.50	PS032-M-01-150.00 X 127.00 X 16.00
155.00	132.00	16.00	6.50	PS032-M-01-155.00 X 132.00 X 16.00
160.00	137.00	16.00	6.50	PS032-M-01-160.00 X 137.00 X 16.00
160.00	140.00	16.00	6.50	PS032-M-01-160.00 X 140.00 X 16.00
165.00	142.00	16.00	6.50	PS032-M-01-165.00 X 142.00 X 16.00
170.00	147.00	16.00	6.50	PS032-M-01-170.00 X 147.00 X 16.00
175.00	152.00	16.00	6.50	PS032-M-01-175.00 X 152.00 X 16.00
180.00	157.00	16.00	6.50	PS032-M-01-180.00 X 157.00 X 16.00
180.00	160.00	16.00	6.50	PS032-M-01-180.00 X 160.00 X 16.00
180.00	165.00	12.50	6.50	PS032-M-01-180.00 X 165.00 X 12.50
185.00	162.00	16.00	6.50	PS032-M-01-185.00 X 162.00 X 16.00
190.00	167.00	16.00	6.50	PS032-M-01-190.00 X 167.00 X 16.00
195.00	172.00	16.00	6.50	PS032-M-01-195.00 X 172.00 X 16.00
195.00	182.00	16.00	6.50	PS032-M-01-195.00 X 182.00 X 16.00
200.00	177.00	16.00	6.50	PS032-M-01-200.00 X 177.00 X 16.00
210.00	187.00	16.00	6.50	PS032-M-01-210.00 X 187.00 X 16.00
215.00	192.00	16.00	6.50	PS032-M-01-215.00 X 192.00 X 16.00
220.00	197.00	16.00	6.50	PS032-M-01-220.00 X 197.00 X 16.00
225.00	202.00	16.00	6.50	PS032-M-01-225.00 X 202.00 X 16.00
230.00	207.00	16.00	6.50	PS032-M-01-230.00 X 207.00 X 16.00
240.00	217.00	16.00	6.50	PS032-M-01-240.00 X 217.00 X 16.00
250.00	222.00	17.50	7.50	PS032-M-01-250.00 X 222.00 X 17.50
260.00	232.00	17.50	7.50	PS032-M-01-260.00 X 232.00 X 17.50
270.00	242.00	17.50	7.50	PS032-M-01-270.00 X 242.00 X 17.50
280.00	252.00	17.50	7.50	PS032-M-01-280.00 X 252.00 X 17.50
300.00	272.00	17.50	7.50	PS032-M-01-300.00 X 272.00 X 17.50
300.00	275.00	19.00	7.50	PS032-M-01-300.00 X 275.00 X 19.00

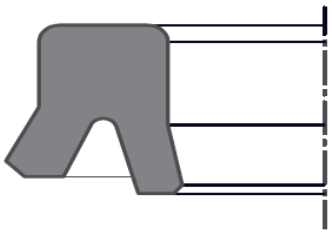
Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
320.00	292.00	17.50	7.50	PS032-M-01-320.00 X 292.00 X 17.50
350.00	322.00	17.50	7.50	PS032-M-01-350.00 X 322.00 X 17.50
360.00	332.00	17.50	7.50	PS032-M-01-360.00 X 332.00 X 17.50
380.00	352.00	17.50	7.50	PS032-M-01-380.00 X 352.00 X 17.50
IMPERIAL SIZES				
DN (H9)	**dN (h9)**	**H (+0.008")**	**C**	**ORDER CODE**
1.000	0.625	0.424	0.157	PS032-I-03-01.000 X 00.625 X 0.424
1.250	0.875	0.424	0.157	PS032-I-03-01.250 X 00.875 X 0.424
1.500	1.125	0.424	0.157	PS032-I-03-01.500 X 01.125 X 0.424
1.750	1.375	0.424	0.157	PS032-I-03-01.750 X 01.375 X 0.424
2.000	1.625	0.424	0.157	PS032-I-03-02.000 X 01.625 X 0.424
2.250	1.875	0.424	0.157	PS032-I-03-02.250 X 01.875 X 0.424
2.500	2.125	0.424	0.197	PS032-I-03-02.500 X 02.125 X 0.424
2.750	2.375	0.424	0.197	PS032-I-03-02.750 X 02.375 X 0.424
3.000	2.442	0.424	0.197	PS032-I-03-03.000 X 02.442 X 0.424
3.000	2.520	0.579	0.197	PS032-I-03-03.000 X 02.520 X 0.579
3.250	2.770	0.579	0.197	PS032-I-03-03.250 X 02.770 X 0.579
3.500	3.020	0.579	0.197	PS032-I-03-03.500 X 03.020 X 0.579
3.750	3.270	0.579	0.197	PS032-I-03-03.750 X 03.270 X 0.579
4.000	3.442	0.424	0.256	PS032-I-03-04.000 X 03.442 X 0.424
4.000	3.520	0.579	0.256	PS032-I-03-04.000 X 03.520 X 0.579
4.250	3.770	0.579	0.256	PS032-I-03-04.250 X 03.770 X 0.579
4.500	3.830	0.500	0.256	PS032-I-03-04.500 X 03.830 X 0.500
4.500	4.020	0.579	0.256	PS032-I-03-04.500 X 04.020 X 0.579
4.750	4.270	0.579	0.256	PS032-I-03-04.750 X 04.270 X 0.579
5.000	4.220	0.640	0.256	PS032-I-03-05.000 X 04.220 X 0.640
5.000	4.270	0.750	0.256	PS032-I-03-05.000 X 04.270 X 0.750
5.000	4.444	0.424	0.256	PS032-I-03-05.000 X 04.444 X 0.424
5.250	4.520	0.750	0.256	PS032-I-03-05.250 X 04.520 X 0.750
5.500	4.720	0.640	0.256	PS032-I-03-05.500 X 04.720 X 0.640
5.500	4.770	0.750	0.256	PS032-I-03-05.500 X 04.770 X 0.750
5.750	5.022	0.750	0.256	PS032-I-03-05.750 X 05.022 X 0.750
5.750	5.028	0.750	0.256	PS032-I-03-05.750 X 05.028 X 0.750
6.000	5.090	0.640	0.256	PS032-I-03-06.000 X 05.090 X 0.640
6.000	5.270	0.750	0.256	PS032-I-03-06.000 X 05.270 X 0.750
6.250	5.340	0.640	0.256	PS032-I-03-06.250 X 05.340 X 0.640
6.250	5.520	0.750	0.256	PS032-I-03-06.250 X 05.520 X 0.750
6.500	5.590	0.640	0.256	PS032-I-03-06.500 X 05.590 X 0.640
6.500	5.770	0.750	0.256	PS032-I-03-06.500 X 05.770 X 0.750
6.750	6.022	0.750	0.256	PS032-I-03-06.750 X 06.022 X 0.750
7.000	6.090	0.630	0.256	PS032-I-03-07.000 X 06.090 X 0.630
7.000	6.090	0.640	0.256	PS032-I-03-07.000 X 06.090 X 0.640
7.000	6.270	0.750	0.256	PS032-I-03-07.000 X 06.270 X 0.750



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
7.250	6.340	0.640	0.256	PS032-I-03-07.250 X 06.340 X 0.640
7.250	6.520	0.750	0.256	PS032-I-03-07.250 X 06.520 X 0.750
7.500	6.590	0.640	0.256	PS032-I-03-07.500 X 06.590 X 0.640
7.500	6.770	0.750	0.256	PS032-I-03-07.500 X 06.770 X 0.750
7.750	6.840	0.640	0.256	PS032-I-03-07.750 X 06.840 X 0.640
7.750	7.022	0.750	0.256	PS032-I-03-07.750 X 07.022 X 0.750
8.000	7.270	0.750	0.256	PS032-I-03-08.000 X 07.270 X 0.750
8.250	7.250	0.640	0.256	PS032-I-03-08.250 X 07.250 X 0.640
8.250	7.520	0.750	0.256	PS032-I-03-08.250 X 07.520 X 0.750
8.500	7.500	0.640	0.256	PS032-I-03-08.500 X 07.500 X 0.640
8.500	7.770	0.750	0.256	PS032-I-03-08.500 X 07.770 X 0.750
8.750	8.022	0.750	0.256	PS032-I-03-08.750 X 08.022 X 0.750
9.000	8.270	0.750	0.256	PS032-I-03-09.000 X 08.270 X 0.750
9.500	8.770	0.750	0.256	PS032-I-03-09.500 X 08.770 X 0.750
10.000	8.880	0.690	0.295	PS032-I-03-10.000 X 08.880 X 0.690
10.000	9.270	0.750	0.295	PS032-I-03-10.000 X 09.270 X 0.750
10.250	9.130	0.690	0.295	PS032-I-03-10.250 X 09.130 X 0.690
10.500	9.380	0.690	0.295	PS032-I-03-10.500 X 09.380 X 0.690
10.500	9.720	0.750	0.295	PS032-I-03-10.500 X 09.720 X 0.750
11.000	9.880	0.690	0.295	PS032-I-03-11.000 X 09.880 X 0.690
11.000	10.270	0.750	0.295	PS032-I-03-11.000 X 10.270 X 0.750
11.500	10.380	0.690	0.295	PS032-I-03-11.500 X 10.380 X 0.690
12.000	11.270	0.750	0.295	PS032-I-03-12.000 X 11.270 X 0.750
12.500	11.770	0.750	0.295	PS032-I-03-12.500 X 11.770 X 0.750
13.000	11.880	0.690	0.295	PS032-I-03-13.000 X 11.880 X 0.690
14.000	13.270	0.750	0.295	PS032-I-03-14.000 X 13.270 X 0.750
15.000	14.270	0.750	0.295	PS032-I-03-15.000 X 14.270 X 0.750
16.000	15.270	0.750	0.295	PS032-I-03-16.000 X 15.270 X 0.750

PISTON SEAL	PS040	

Features:

Piston seal profile PS040 is a single acting U cup type seal which has a very good static and dynamic tightness. The seal can be used for double acting applications by fitting back to back in separate grooves. The outer dynamic lip is more robust to provide improved sealing and compression set characteristics.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS040-01	PU01	-30 to 100°C	350 Bar*	0.5 m/s
PS040-02	VT04	-20 to 200°C	160 Bar*	0.5 m/s
PS040-03	NB01	-20 to 100°C	160 Bar*	0.5 m/s

* Maximum working pressure can be extended for PS040-01 up to 400 bar and for PS040-02 & 03 up to 250 bar with the use of a back up ring. If this option is required ask PEC.

Properties:

- High resistance to abrasion
- Easy installation
- Perfect sealing effect

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Surface finish:

Roughness depth	R(max.)	Ra
Sliding surface	≤ 2,5 µm	0,05-0,3 µm
Bottom of groove	≤ 6,3 µm	≤1,6 µm
Sides of groove	≤ 15 µm	≤ 3 µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances.

Profile Type	Maximum permissible gap (S) for Metric Sizes (mm)				
	160 Bar	260 Bar	320 Bar	400 Bar	
PS040-01	0.25	0.20	0.17	Ask PEC	
PS040-02	.20	Ask PEC	-	-	
PS040-03	.20	Ask PEC	-	-	

Profile Type	Maximum permissible gap (S) for Imperial Sizes (inch)				
	160 Bar	260 Bar	320 Bar	400 Bar	
PS040-01	0.010	0.008	0.007	Ask PEC	
PS040-02	0.008	Ask PEC	-	-	
PS040-03	0.008	Ask PEC	-	-	

Fitting:

PS040 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order

Example: Metric Size 16 X 8 X 6.3

For Temp range: -30°C to +100°C Order code for PU01 Material is **PS040-M-01-016.00 X 008.00 X 05.7/06.3**

For Temp range: -20°C to +200°C Order code for VT04 Material is **PS040-M-02-016.00 X 008.00 X 05.7/06.3**

Example: Imperial Size 2.000"X1.500"X0.375"/0.413"

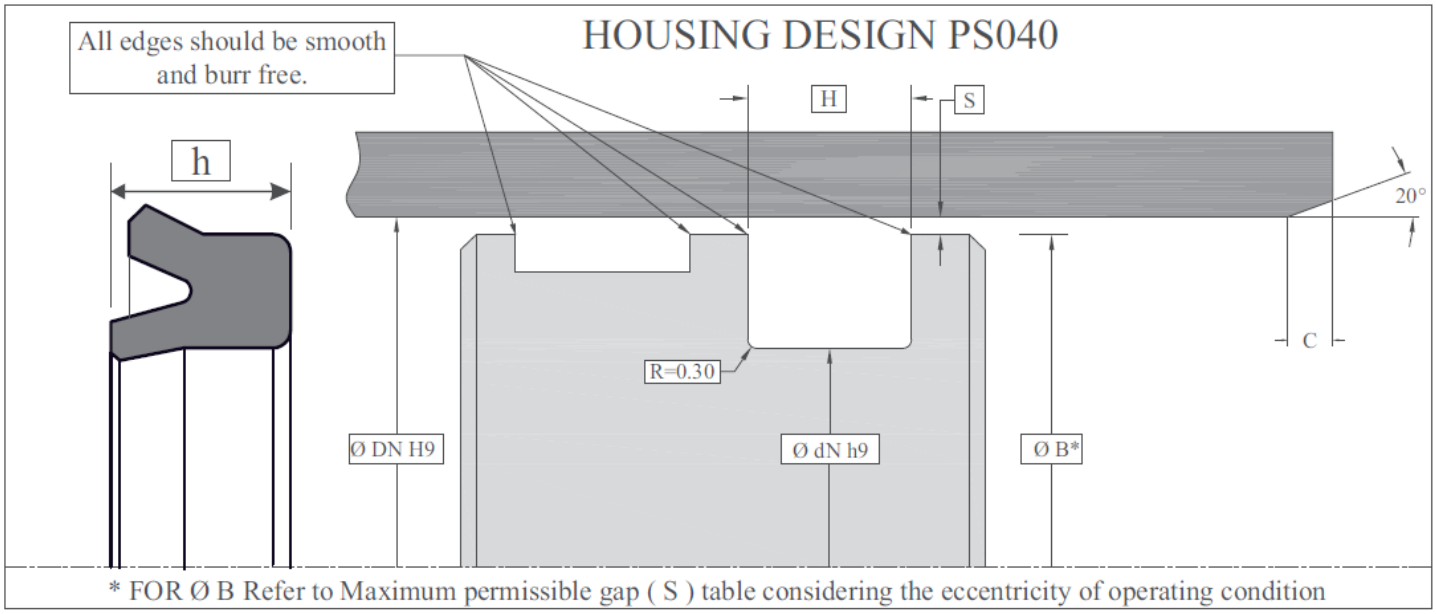
For Temp range: -30°C to +110°C Order code for PU01 Material is **PS040-I-01-02.000 X 01.500 X 0.375/0.413**

For Temp range: -20°C to +200°C Order code for VT04 Material is **PS040-I-02-02.000 X 01.500 X 0.375/0.413**

For Temp range: -20°C to +100°C Order code for NB01 Material is **PS040-I-03-02.000 X 01.500 X 0.375/0.413**

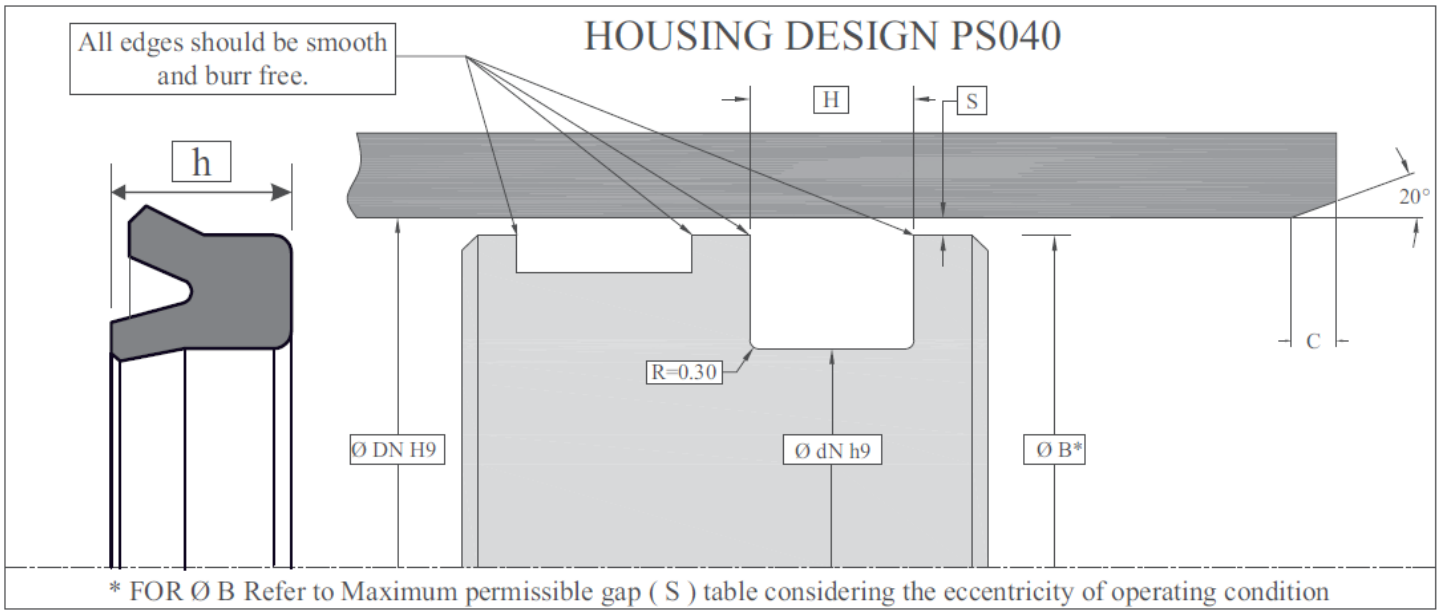
Please contact PEC for availability of PS040-02 & PS040-03 Series before placing your order.

Please contact PEC if your required size is not mentioned in the PEC standard size list.



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
10.00	4.00	4.00	4.50	PS040-M-01-010.00 X 004.00 X 04.0/04.5
16.00	8.00	5.70	6.30	PS040-M-01-016.00 X 008.00 X 05.7/06.3
18.00	8.00	7.30	8.00	PS040-M-01-018.00 X 008.00 X 07.3/08.0
18.00	10.00	5.70	6.30	PS040-M-01-018.00 X 010.00 X 05.7/06.3
20.00	12.00	5.70	6.30	PS040-M-01-020.00 X 012.00 X 05.7/06.3
20.00	12.00	7.90	8.70	PS040-M-01-020.00 X 012.00 X 07.9/08.7
22.00	14.00	5.70	6.30	PS040-M-01-022.00 X 014.00 X 05.7/06.3
22.00	14.00	9.10	10.00	PS040-M-01-022.00 X 014.00 X 09.1/10.0
25.00	17.00	5.70	6.30	PS040-M-01-025.00 X 017.00 X 05.7/06.3
26.00	18.00	5.70	6.30	PS040-M-01-026.00 X 018.00 X 05.7/06.3
28.00	20.00	5.70	6.30	PS040-M-01-028.00 X 020.00 X 05.7/06.3
28.00	22.00	3.60	4.00	PS040-M-01-028.00 X 022.00 X 03.6/04.0
30.00	20.00	6.70	7.50	PS040-M-01-030.00 X 020.00 X 06.7/07.5
32.00	24.00	5.70	6.30	PS040-M-01-032.00 X 024.00 X 05.7/06.3
35.00	20.00	6.80	7.50	PS040-M-01-035.00 X 020.00 X 06.8/07.5
35.00	25.00	7.30	8.00	PS040-M-01-035.00 X 025.00 X 07.3/08.0
36.00	26.00	7.30	8.00	PS040-M-01-036.00 X 026.00 X 07.3/08.0
40.00	25.00	10.00	11.00	PS040-M-01-040.00 X 025.00 X 10.0/11.0
40.00	28.00	10.00	11.00	PS040-M-01-040.00 X 028.00 X 10.0/11.0
40.00	30.00	7.30	8.00	PS040-M-01-040.00 X 030.00 X 07.3/08.0
40.00	30.00	10.00	11.00	PS040-M-01-040.00 X 030.00 X 10.0/11.0
40.00	32.00	5.70	6.30	PS040-M-01-040.00 X 032.00 X 05.7/06.3
40.00	32.00	7.30	8.00	PS040-M-01-040.00 X 032.00 X 07.3/08.0
45.00	30.00	10.00	11.00	PS040-M-01-045.00 X 030.00 X 10.0/11.0
45.00	35.00	7.30	8.00	PS040-M-01-045.00 X 035.00 X 07.3/08.0
50.00	35.00	7.30	8.00	PS040-M-01-050.00 X 035.00 X 07.3/08.0
50.00	35.00	9.10	10.00	PS040-M-01-050.00 X 035.00 X 09.1/10.0
50.00	35.00	10.00	11.00	PS040-M-01-050.00 X 035.00 X 10.0/11.0
50.00	35.00	11.80	13.00	PS040-M-01-050.00 X 035.00 X 11.8/13.0
50.00	36.00	10.00	11.00	PS040-M-01-050.00 X 036.00 X 10.0/11.0
50.00	38.00	7.30	8.00	PS040-M-01-050.00 X 038.00 X 07.3/08.0

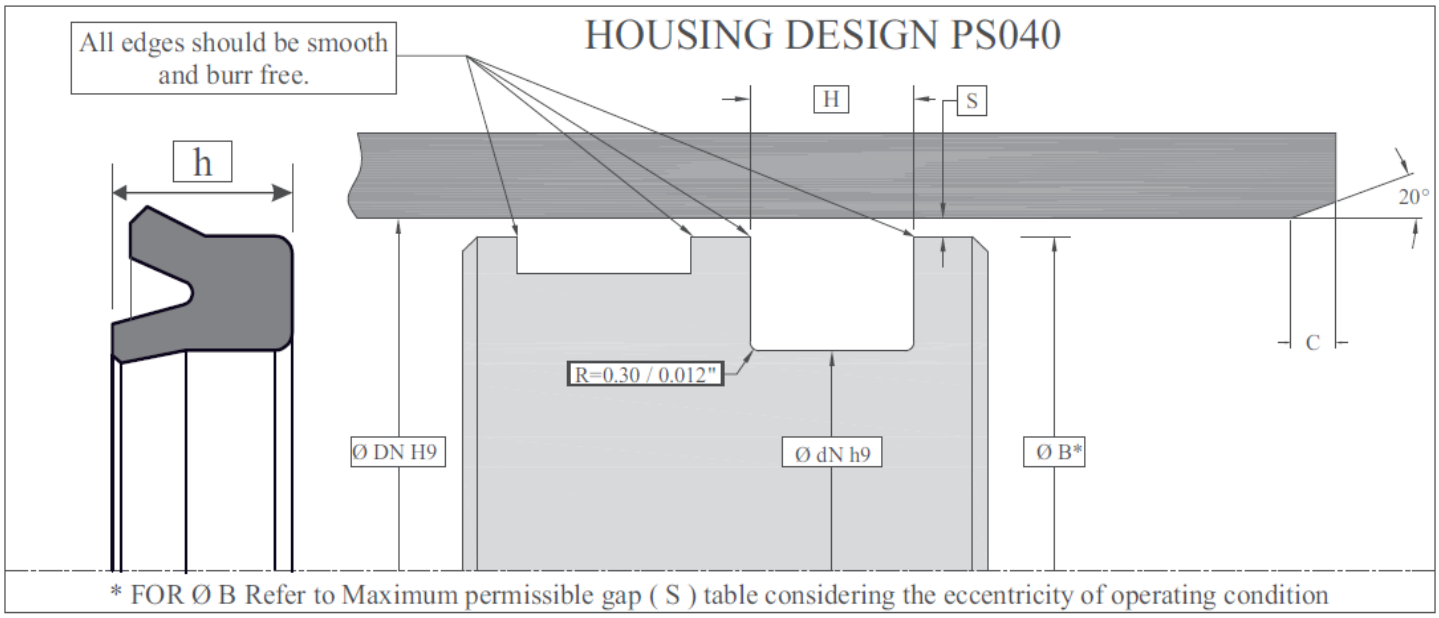


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
50.00	40.00	7.30	8.00	PS040-M-01-050.00 X 040.00 X 07.3/08.0
50.00	42.00	10.00	11.00	PS040-M-01-050.00 X 042.00 X 10.0/11.0
50.80	28.57	11.60	12.70	PS040-M-01-050.80 X 028.57 X 11.6/12.7
51.00	35.50	9.00	10.00	PS040-M-01-051.00 X 035.50 X 09.0/10.0
55.00	45.00	7.30	8.00	PS040-M-01-055.00 X 045.00 X 07.3/08.0
60.00	35.00	16.00	17.00	PS040-M-01-060.00 X 035.00 X 16.0/17.0
60.00	40.00	9.10	10.00	PS040-M-01-060.00 X 040.00 X 09.1/10.0
60.00	40.00	10.00	11.00	PS040-M-01-060.00 X 040.00 X 10.0/11.0
60.00	45.00	10.00	11.00	PS040-M-01-060.00 X 045.00 X 10.0/11.0
60.00	50.00	7.30	8.00	PS040-M-01-060.00 X 050.00 X 07.3/08.0
63.00	43.00	11.80	13.00	PS040-M-01-063.00 X 043.00 X 11.8/13.0
63.00	45.00	10.00	11.00	PS040-M-01-063.00 X 045.00 X 10.0/11.0
63.00	48.00	10.00	11.00	PS040-M-01-063.00 X 048.00 X 10.0/11.0
63.00	48.00	11.40	12.50	PS040-M-01-063.00 X 048.00 X 11.4/12.5
63.00	50.00	7.30	8.00	PS040-M-01-063.00 X 050.00 X 07.3/08.0
63.00	53.00	6.30	7.00	PS040-M-01-063.00 X 053.00 X 06.3/07.0
63.00	53.00	7.30	8.00	PS040-M-01-063.00 X 053.00 X 07.3/08.0
63.00	53.00	9.10	10.00	PS040-M-01-063.00 X 053.00 X 09.1/10.0
63.00	53.00	10.00	11.00	PS040-M-01-063.00 X 053.00 X 10.0/11.0
65.00	45.00	10.00	11.00	PS040-M-01-065.00 X 045.00 X 10.0/11.0
70.00	50.00	11.80	13.00	PS040-M-01-070.00 X 050.00 X 11.8/13.0
70.00	55.00	10.00	11.00	PS040-M-01-070.00 X 055.00 X 10.0/11.0
70.00	55.00	13.20	14.50	PS040-M-01-070.00 X 055.00 X 13.2/14.5
70.00	58.00	13.20	14.50	PS040-M-01-070.00 X 058.00 X 13.2/14.5
70.00	60.00	7.30	8.00	PS040-M-01-070.00 X 060.00 X 07.3/08.0
73.00	53.00	10.00	11.00	PS040-M-01-073.00 X 053.00 X 10.0/11.0
73.00	57.00	10.00	11.00	PS040-M-01-073.00 X 057.00 X 10.0/11.0
75.00	45.00	13.70	15.00	PS040-M-01-075.00 X 045.00 X 13.7/15.0
75.00	55.00	11.40	12.50	PS040-M-01-075.00 X 055.00 X 11.4/12.5
75.00	63.00	8.20	9.00	PS040-M-01-075.00 X 063.00 X 08.2/09.0
75.00	63.00	8.60	9.50	PS040-M-01-075.00 X 063.00 X 08.6/09.5

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
76.20	60.53	12.30	13.50	PS040-M-01-076.20 X 060.53 X 12.3/13.5
78.00	54.30	11.40	12.50	PS040-M-01-078.00 X 054.30 X 11.4/12.5
78.00	62.00	10.00	11.00	PS040-M-01-078.00 X 062.00 X 10.0/11.0
80.00	60.00	9.00	10.00	PS040-M-01-080.00 X 060.00 X 09.0/10.0
80.00	60.00	11.80	13.00	PS040-M-01-080.00 X 060.00 X 11.8/13.0
80.00	65.00	8.20	9.00	PS040-M-01-080.00 X 065.00 X 08.2/09.0
80.00	65.00	10.00	11.00	PS040-M-01-080.00 X 065.00 X 10.0/11.0
80.00	65.00	11.80	13.00	PS040-M-01-080.00 X 065.00 X 11.8/13.0
80.00	68.00	7.70	8.50	PS040-M-01-080.00 X 068.00 X 07.7/08.5
80.00	68.00	8.60	9.50	PS040-M-01-080.00 X 068.00 X 08.6/09.5
80.00	68.00	13.30	14.60	PS040-M-01-080.00 X 068.00 X 13.3/14.6
80.00	70.00	7.30	8.00	PS040-M-01-080.00 X 070.00 X 07.3/08.0
80.00	72.00	10.90	12.00	PS040-M-01-080.00 X 072.00 X 10.9/12.0
85.00	65.00	9.10	10.00	PS040-M-01-085.00 X 065.00 X 09.1/10.0
90.00	70.00	11.80	13.00	PS040-M-01-090.00 X 070.00 X 11.8/13.0
90.00	75.00	10.00	11.00	PS040-M-01-090.00 X 075.00 X 10.0/11.0
90.00	78.00	7.70	8.50	PS040-M-01-090.00 X 078.00 X 07.7/08.5
90.00	78.00	8.60	9.50	PS040-M-01-090.00 X 078.00 X 08.6/09.5
90.00	80.00	7.30	8.00	PS040-M-01-090.00 X 080.00 X 07.3/08.0
90.00	80.00	12.70	14.00	PS040-M-01-090.00 X 080.00 X 12.7/14.0
99.00	82.00	8.60	9.50	PS040-M-01-099.00 X 082.00 X 08.6/09.5
100.00	75.00	18.20	20.00	PS040-M-01-100.00 X 075.00 X 18.2/20.0
100.00	80.00	11.80	13.00	PS040-M-01-100.00 X 080.00 X 11.8/13.0
100.00	80.00	12.70	14.00	PS040-M-01-100.00 X 080.00 X 12.7/14.0
100.00	85.00	9.10	10.00	PS040-M-01-100.00 X 085.00 X 09.1/10.0
100.00	88.00	8.60	9.50	PS040-M-01-100.00 X 088.00 X 08.6/09.5
100.00	90.00	6.80	7.50	PS040-M-01-100.00 X 090.00 X 06.8/07.5
100.00	90.00	9.10	10.00	PS040-M-01-100.00 X 090.00 X 09.1/10.0
100.00	90.00	9.60	10.50	PS040-M-01-100.00 X 090.00 X 09.6/10.5
100.00	90.00	11.40	12.50	PS040-M-01-100.00 X 090.00 X 11.4/12.5
101.60	83.60	12.70	14.00	PS040-M-01-101.60 X 083.60 X 12.7/14.0
105.00	85.00	10.00	11.00	PS040-M-01-105.00 X 085.00 X 10.0/11.0
105.00	95.00	11.80	13.00	PS040-M-01-105.00 X 095.00 X 11.8/13.0
107.95	92.46	12.30	13.50	PS040-M-01-107.95 X 092.46 X 12.3/13.5
110.00	75.00	14.60	16.00	PS040-M-01-110.00 X 075.00 X 14.6/16.0
110.00	85.00	18.20	20.00	PS040-M-01-110.00 X 085.00 X 18.2/20.0
110.00	90.00	11.80	13.00	PS040-M-01-110.00 X 090.00 X 11.8/13.0
110.00	94.00	18.20	20.00	PS040-M-01-110.00 X 094.00 X 18.2/20.0
110.00	95.00	11.80	13.00	PS040-M-01-110.00 X 095.00 X 11.8/13.0
110.00	98.00	13.70	15.00	PS040-M-01-110.00 X 098.00 X 13.7/15.0
110.00	100.00	7.20	8.00	PS040-M-01-110.00 X 100.00 X 07.2/08.0
115.00	95.00	11.80	13.00	PS040-M-01-115.00 X 095.00 X 11.8/13.0
120.00	100.00	11.80	13.00	PS040-M-01-120.00 X 100.00 X 11.8/13.0
125.00	100.00	11.80	13.00	PS040-M-01-125.00 X 100.00 X 11.8/13.0
125.00	100.00	12.70	14.00	PS040-M-01-125.00 X 100.00 X 12.7/14.0
125.00	100.00	14.60	16.00	PS040-M-01-125.00 X 100.00 X 14.6/16.0
125.00	103.00	14.60	16.00	PS040-M-01-125.00 X 103.00 X 14.6/16.0

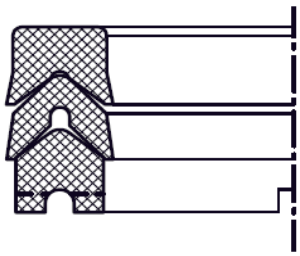


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
125.00	105.00	12.00	13.00	PS040-M-01-125.00 X 105.00 X 12.0/13.0
125.00	105.00	14.60	16.00	PS040-M-01-125.00 X 105.00 X 14.6/16.0
125.00	110.00	9.10	10.00	PS040-M-01-125.00 X 110.00 X 09.1/10.0
130.00	110.00	11.80	13.00	PS040-M-01-130.00 X 110.00 X 11.8/13.0
140.00	115.00	14.60	16.00	PS040-M-01-140.00 X 115.00 X 14.6/16.0
140.00	120.00	14.60	16.00	PS040-M-01-140.00 X 120.00 X 14.6/16.0
140.00	125.00	9.10	10.00	PS040-M-01-140.00 X 125.00 X 09.1/10.0
140.00	128.00	14.60	16.00	PS040-M-01-140.00 X 128.00 X 14.6/16.0
150.00	125.00	11.80	13.00	PS040-M-01-150.00 X 125.00 X 11.8/13.0
150.00	125.00	14.60	16.00	PS040-M-01-150.00 X 125.00 X 14.6/16.0
150.00	130.00	14.60	16.00	PS040-M-01-150.00 X 130.00 X 14.6/16.0
150.00	135.00	10.90	12.00	PS040-M-01-150.00 X 135.00 X 10.9/12.0
156.50	131.00	16.00	17.50	PS040-M-01-156.50 X 131.00 X 16.0/17.5
160.00	135.00	18.00	19.00	PS040-M-01-160.00 X 135.00 X 18.0/19.0
160.00	140.00	11.40	12.50	PS040-M-01-160.00 X 140.00 X 11.4/12.5
160.00	140.00	14.60	16.00	PS040-M-01-160.00 X 140.00 X 14.6/16.0
170.00	150.00	14.60	16.00	PS040-M-01-170.00 X 150.00 X 14.6/16.0
180.00	160.00	14.60	16.00	PS040-M-01-180.00 X 160.00 X 14.6/16.0
180.00	164.00	18.00	19.00	PS040-M-01-180.00 X 164.00 X 18.0/19.0
180.00	165.00	9.00	10.00	PS040-M-01-180.00 X 165.00 X 09.0/10.0
180.00	165.00	17.30	19.00	PS040-M-01-180.00 X 165.00 X 17.3/19.0
200.00	170.00	18.20	20.00	PS040-M-01-200.00 X 170.00 X 18.2/20.0
200.00	180.00	14.60	16.00	PS040-M-01-200.00 X 180.00 X 14.6/16.0
250.00	234.00	17.30	19.00	PS040-M-01-250.00 X 234.00 X 17.3/19.0
300.00	284.00	17.30	19.00	PS040-M-01-300.00 X 284.00 X 17.3/19.0

Polymer Engineering Standard Size List

IMPERIAL SIZE				
DN (H9)	dN (h9)	h	H (+0.008")	ORDER CODE
1.500	1.000	0.375	0.413	PS040-I-01-01.500 X 01.000 X 0.375/0.413
1.750	1.250	0.375	0.413	PS040-I-01-01.750 X 01.250 X 0.375/0.413
1.875	1.250	0.500	0.550	PS040-I-01-01.875 X 01.250 X 0.500/0.550
2.000	1.250	0.398	0.437	PS040-I-01-02.000 X 01.250 X 0.398/0.437
2.000	1.250	0.437	0.485	PS040-I-01-02.000 X 01.250 X 0.437/0.485
2.000	1.500	0.375	0.413	PS040-I-01-02.000 X 01.500 X 0.375/0.413
2.000	1.625	0.225	0.281	PS040-I-01-02.000 X 01.625 X 0.225/0.281
2.000	1.625	0.312	0.343	PS040-I-01-02.000 X 01.625 X 0.312/0.343
2.000	1.625	0.375	0.413	PS040-I-01-02.000 X 01.625 X 0.375/0.413
2.250	1.750	0.375	0.413	PS040-I-01-02.250 X 01.750 X 0.375/0.413
2.500	2.000	0.375	0.413	PS040-I-01-02.500 X 02.000 X 0.375/0.413
2.500	2.125	0.250	0.275	PS040-I-01-02.500 X 02.125 X 0.250/0.275
2.750	2.250	0.375	0.413	PS040-I-01-02.750 X 02.250 X 0.375/0.413
3.000	2.375	0.000	0.625	PS040-I-01-03.000 X 02.375 X 0.000/0.625
3.000	2.500	0.375	0.413	PS040-I-01-03.000 X 02.500 X 0.375/0.413
3.000	2.625	0.375	0.413	PS040-I-01-03.000 X 02.625 X 0.375/0.413
3.250	2.750	0.375	0.413	PS040-I-01-03.250 X 02.750 X 0.375/0.413
3.500	3.000	0.375	0.413	PS040-I-01-03.500 X 03.000 X 0.375/0.413
3.750	3.000	0.375	0.412	PS040-I-01-03.750 X 03.000 X 0.375/0.412
3.750	3.250	0.375	0.413	PS040-I-01-03.750 X 03.250 X 0.375/0.413
4.000	3.500	0.375	0.413	PS040-I-01-04.000 X 03.500 X 0.375/0.413
4.250	3.750	0.375	0.413	PS040-I-01-04.250 X 03.750 X 0.375/0.413
4.500	4.000	0.375	0.413	PS040-I-01-04.500 X 04.000 X 0.375/0.413
4.750	4.250	0.375	0.413	PS040-I-01-04.750 X 04.250 X 0.375/0.413
5.000	4.250	0.500	0.550	PS040-I-01-05.000 X 04.250 X 0.500/0.550
5.000	4.500	0.375	0.413	PS040-I-01-05.000 X 04.500 X 0.375/0.413
5.250	4.750	0.375	0.413	PS040-I-01-05.250 X 04.750 X 0.375/0.413
5.500	5.000	0.375	0.413	PS040-I-01-05.500 X 05.000 X 0.375/0.413
6.000	5.500	0.563	0.612	PS040-I-01-06.000 X 05.500 X 0.563/0.612

PISTON SEAL	PS048	

Features:

Pistons seal profile PS048 is a seal set consist of one or more chevron ring with a header and pressure ring.

Composition:

SEAL COMBINATION	HEADER RING COMPOUND	CHEVRON V SEAL (FABRIC)	RUBBER V SEAL	PRESSURE RING	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS048-01	FR51	FR51	NB10	FR51/PA04	-20 to 100°C	400 Bar	0.5 m/s
PS048-02	FR52	FR52	VT01	FR52	-20 to 140°C	400 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High resistance to extrusion due to fabric reinforced header ring
- Easy installation
- Excellent sealing function
- Long working life in extreme conditions

Application:

- Mobile Hydraulics
- Machine tools
- Agricultural equipment
- standard cylinders
- hydraulic presses
- iron and steel industry
- marine hydraulics

Surface finish:

Roughness depth	R(max.)	Ra
Sliding surface	≤ 2,5 µm	0,05-0,3 µm
Bottom of groove	≤ 6,3 µm	≤ 1,6 µm
Sides of groove	≤ 15 µm	≤ 3 µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Extrusion Gap as per Dia B in dimension table on next page.

Fitting:

PS048 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

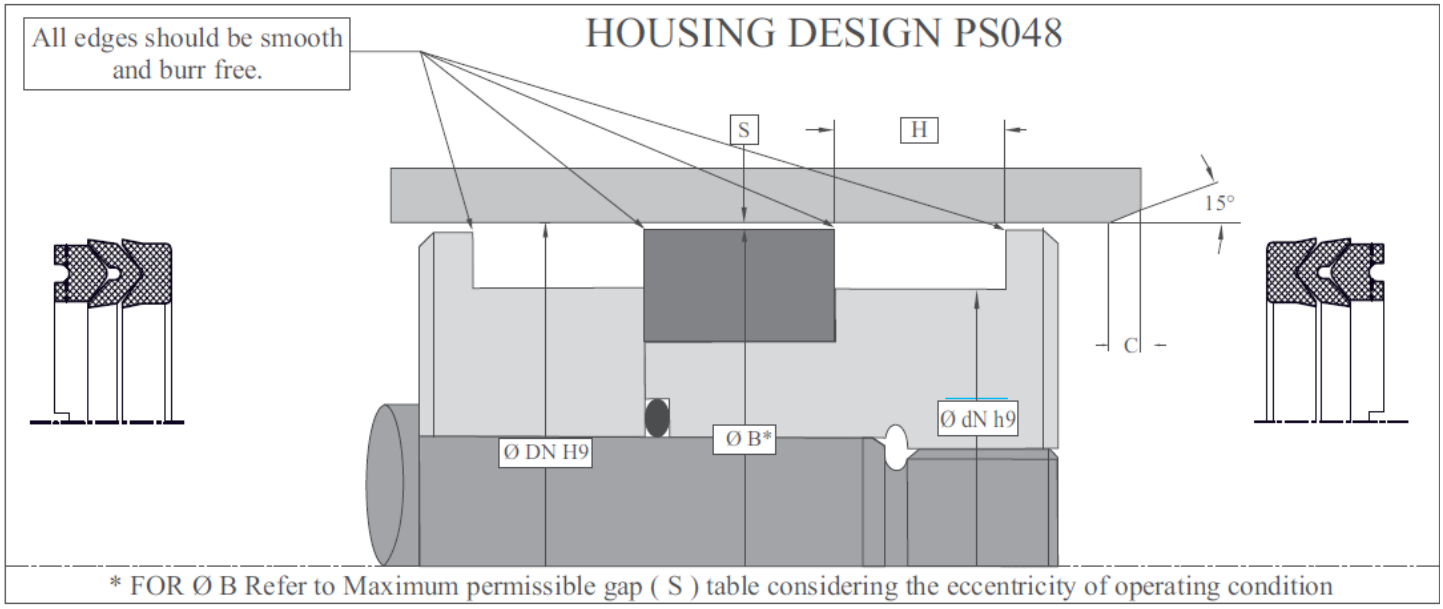
Please mention PEC order code in your order.

Example: Metric Size 40 X 25 X 11.5

For Temp range: -20°C to +100°C Order code is **PS048-M-01-040.00 X 025.00 X 11.50**

For Temp range: -15°C to +140°C Order code is **PS048-M-02-040.00 X 025.00 X 11.50**

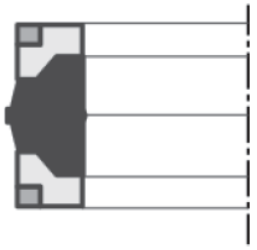
Please contact PEC if your required size is not mentioned in the PEC standard size list.



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

Ø DN (H9)	Ø dN (h9)	Ø B	H (+0.20)	C	ORDER CODE
40.00	25.00	39.00	11.50	5.00	PS048-M-01-040.00 X 025.00 X 11.50
45.00	30.00	44.00	11.50	5.00	PS048-M-01-045.00 X 030.00 X 11.50
50.00	35.00	49.00	11.50	5.00	PS048-M-01-050.00 X 035.00 X 11.50
56.00	41.00	55.00	11.50	5.00	PS048-M-01-056.00 X 041.00 X 11.50
60.00	45.00	59.00	11.50	5.00	PS048-M-01-060.00 X 045.00 X 11.50
63.00	48.00	62.00	13.00	5.00	PS048-M-01-063.00 X 048.00 X 13.00
70.00	50.00	69.00	15.20	7.50	PS048-M-01-070.00 X 050.00 X 15.20
80.00	60.00	79.00	15.20	7.50	PS048-M-01-080.00 X 060.00 X 15.20
90.00	70.00	89.00	21.20	7.50	PS048-M-01-090.00 X 070.00 X 21.20
100.00	80.00	99.00	21.20	7.50	PS048-M-01-100.00 X 080.00 X 21.20
110.00	90.00	109.00	21.20	7.50	PS048-M-01-110.00 X 090.00 X 21.20
115.00	95.00	114.00	21.20	7.50	PS048-M-01-115.00 X 095.00 X 21.20
125.00	100.00	124.00	25.80	10.00	PS048-M-01-125.00 X 100.00 X 25.80
140.00	115.00	139.00	25.80	10.00	PS048-M-01-140.00 X 115.00 X 25.80
150.00	120.00	148.50	29.00	10.00	PS048-M-01-150.00 X 120.00 X 29.00
160.00	130.00	158.50	29.00	10.00	PS048-M-01-160.00 X 130.00 X 29.00
180.00	150.00	178.50	31.50	10.00	PS048-M-01-180.00 X 150.00 X 31.50
200.00	170.00	198.50	33.50	10.00	PS048-M-01-200.00 X 170.00 X 33.50
225.00	195.00	223.50	33.50	10.00	PS048-M-01-225.00 X 195.00 X 33.50
250.00	220.00	248.50	33.50	10.00	PS048-M-01-250.00 X 220.00 X 33.50
280.00	250.00	278.50	33.50	10.00	PS048-M-01-280.00 X 250.00 X 33.50
300.00	270.00	298.00	33.50	10.00	PS048-M-01-300.00 X 270.00 X 33.50

PISTON SEAL	PS056	

Features:

Piston seal profile PS056 consists of five piece seal set for sealing pistons with one elastomer sealing component, two support rings and two anti-extrusion rings.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	BACK-UP RING COMPOUND	AE- RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS056-01	NB03	PU06	PA07	-20 to 100°C	315 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Less space required for seal and guide elements.
- Prevents distortion inside the groove.
- Single Piece Piston with one groove.
- No extrusion into the radial sealing gap
- Suitable for rapid energisation.
- Sealing component protected against twisting.
- Zero leakage.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Piston Accumulator.
- Agricultural equipment
- Standard cylinders

Fitting:

PS056 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Surface finish:

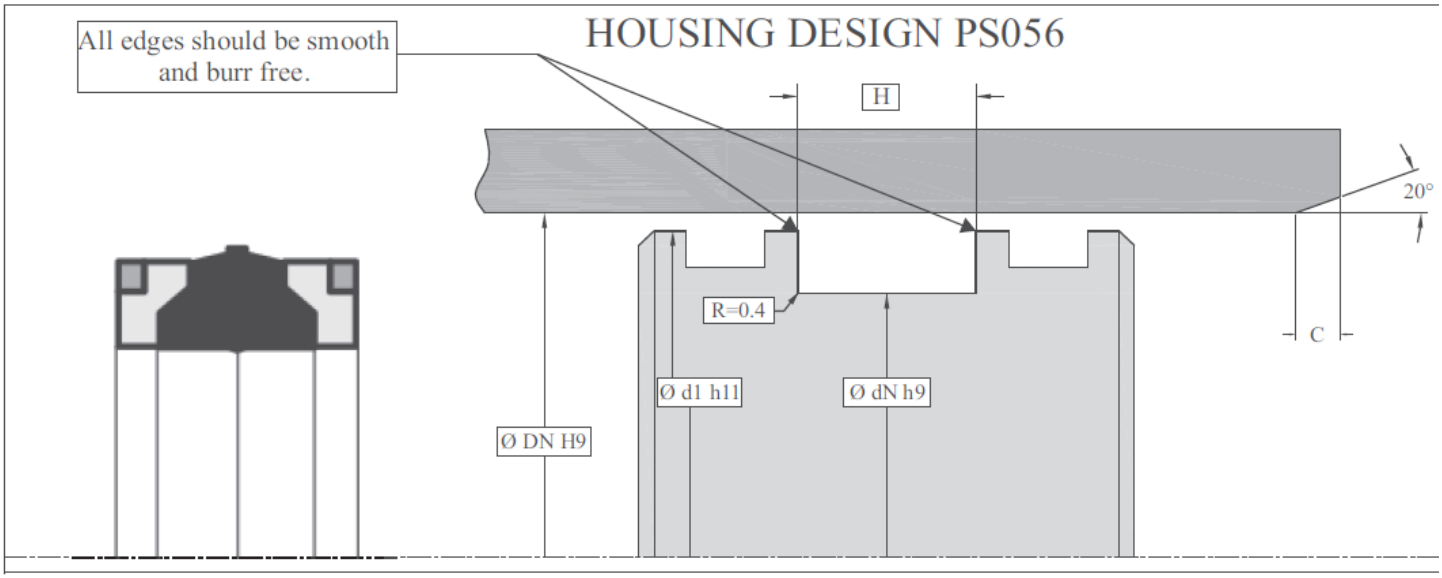
Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Ordering format:

Please mention PEC Order Code in your order.

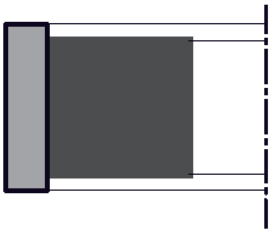
Example: Metric Size 70 X 55 X 22.4 Order Code is **PS056-M-01-070.00 X 055.00 X 22.40**

We have given all metric (mm) sizes here. For Imperial (inch) sizes please contact PEC.



Polymer Engineering Standard Size List

ØDN (H9)	ØdN (h9)	H (+0.20)	d1 (h11)	C	ORDER CODE
70.00	55.00	22.40	69.00	4.00	PS056-M-01-070.00 X 055.00 X 22.40
80.00	65.00	22.40	79.00	5.00	PS056-M-01-080.00 X 065.00 X 22.40
90.00	70.00	22.40	89.00	5.00	PS056-M-01-090.00 X 070.00 X 22.40
100.00	80.00	30.00	99.00	5.00	PS056-M-01-100.00 X 080.00 X 30.00
110.00	90.00	30.00	109.00	5.00	PS056-M-01-110.00 X 090.00 X 30.00
120.00	100.00	30.00	119.00	6.00	PS056-M-01-120.00 X 100.00 X 30.00
130.00	110.00	30.00	129.00	6.00	PS056-M-01-130.00 X 110.00 X 30.00

PISTON SEAL	PS064	

Features:

Piston seal profile PS064 consists of two piece seal set for sealing pistons with one seal ring and one energizer Square / Rectangular ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS064-01	PT02	NB03	-20 to 100°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S) in Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
4.50	0.25	0.20	0.15	ASK PEC
7.50	0.30	0.25	0.20	ASK PEC
11.00	0.35	0.30	0.22	ASK PEC

Installation :

PS064 piston seals can be fitted on single-piece pistons. First insert the rubber Square / Rectangular ring into the housing carefully to avoid twisting The PTFE ring is then carefully pushed over the piston into place above the Square / Rectangular ring. An assembly tool eases installation of small, PTFE rings. The PTFE seal normally returns to its original size after installation. It is advisable to calibrate the PTFE ring by mounting it on a steel tube (duly machined and polished), having inner diameter equal to cylinders bore diameter. Immediately after calibration, the piston should be installed in the cylinder.

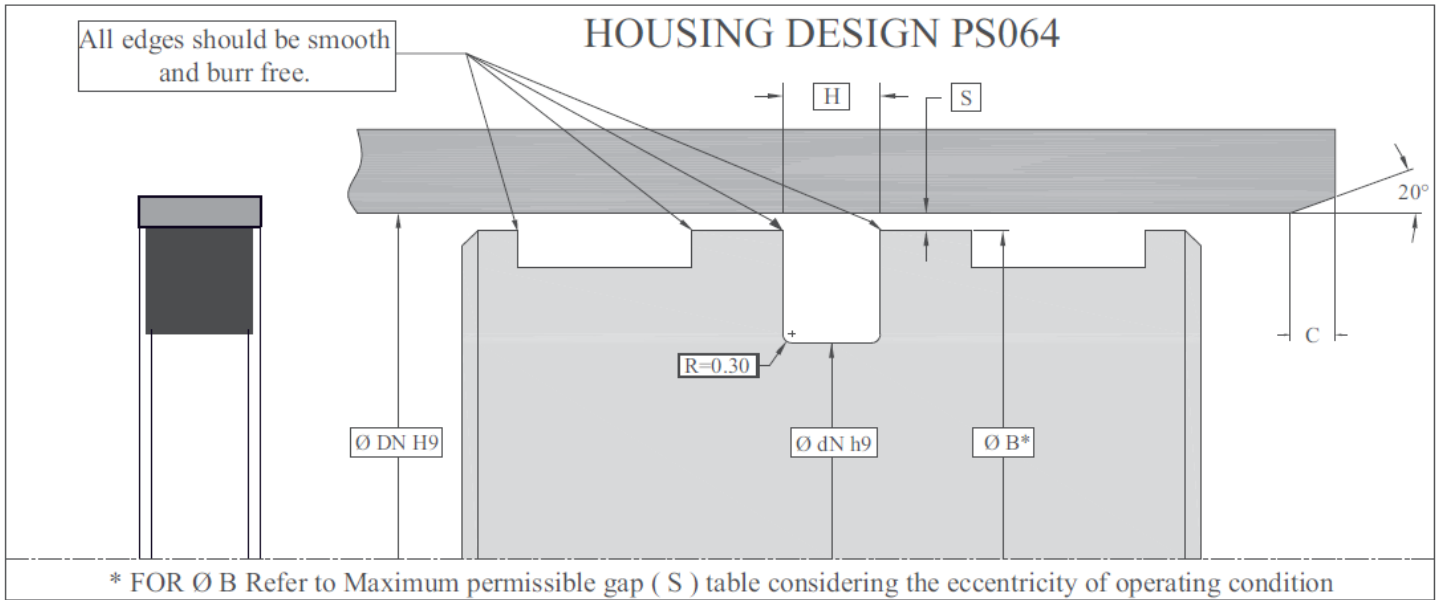
Ordering format :

Please mention PEC order code in your order.

Example: Metric Size 30 x 20.5 x 4.5

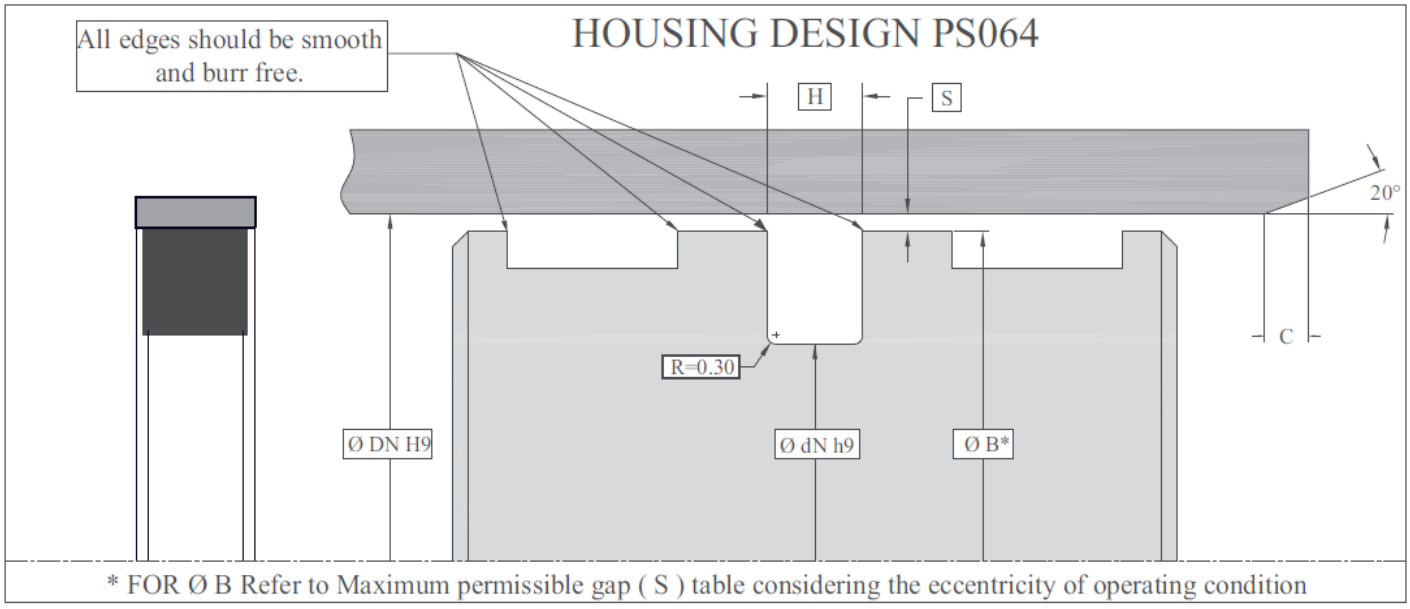
For temp range: -20°C to +100°C (Square Ring material is NB03) order code is PS064-M-01-030.00 X 020.50 X 04.50

We have given all metric (mm) sizes here. For Imperial (inch) sizes please contact PEC.



Polymer Engineering Standard Size List

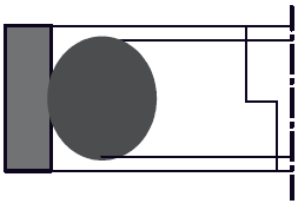
DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
30.00	20.50	4.50	2.00	PS064-M-01-030.00 X 020.50 X 04.50
31.50	22.00	4.50	3.50	PS064-M-01-031.50 X 022.00 X 04.50
32.00	22.50	4.50	3.50	PS064-M-01-032.00 X 022.50 X 04.50
35.00	25.50	4.50	3.50	PS064-M-01-035.00 X 025.50 X 04.50
35.50	26.00	4.50	3.50	PS064-M-01-035.50 X 026.00 X 04.50
40.00	30.00	4.50	3.50	PS064-M-01-040.00 X 030.00 X 04.50
45.00	35.00	4.50	3.50	PS064-M-01-045.00 X 035.00 X 04.50
50.00	40.00	4.50	4.00	PS064-M-01-050.00 X 040.00 X 04.50
55.00	45.00	4.50	4.00	PS064-M-01-055.00 X 045.00 X 04.50
56.00	46.00	4.50	4.00	PS064-M-01-056.00 X 046.00 X 04.50
60.00	50.00	4.50	4.00	PS064-M-01-060.00 X 050.00 X 04.50
63.00	48.00	7.50	4.00	PS064-M-01-063.00 X 048.00 X 07.50
65.00	50.00	7.50	4.00	PS064-M-01-065.00 X 050.00 X 07.50
70.00	55.00	7.50	5.00	PS064-M-01-070.00 X 055.00 X 07.50
75.00	60.00	7.50	5.00	PS064-M-01-075.00 X 060.00 X 07.50
80.00	65.00	7.50	5.00	PS064-M-01-080.00 X 065.00 X 07.50
85.00	70.00	7.50	5.00	PS064-M-01-085.00 X 070.00 X 07.50
90.00	75.00	7.50	5.00	PS064-M-01-090.00 X 075.00 X 07.50
95.00	80.00	7.50	5.00	PS064-M-01-095.00 X 080.00 X 07.50
100.00	85.00	7.50	5.00	PS064-M-01-100.00 X 085.00 X 07.50
105.00	90.00	7.50	5.00	PS064-M-01-105.00 X 090.00 X 07.50
108.00	92.00	7.50	5.00	PS064-M-01-108.00 X 092.00 X 07.50
110.00	94.00	7.50	5.00	PS064-M-01-110.00 X 094.00 X 07.50
112.00	96.00	7.50	6.50	PS064-M-01-112.00 X 096.00 X 07.50
115.00	99.00	7.50	6.50	PS064-M-01-115.00 X 099.00 X 07.50
120.00	104.00	7.50	6.50	PS064-M-01-120.00 X 104.00 X 07.50
125.00	109.00	7.50	6.50	PS064-M-01-125.00 X 109.00 X 07.50
130.00	114.00	7.50	6.50	PS064-M-01-130.00 X 114.00 X 07.50
135.00	119.00	7.50	6.50	PS064-M-01-135.00 X 119.00 X 07.50
140.00	124.00	7.50	6.50	PS064-M-01-140.00 X 124.00 X 07.50
145.00	129.00	7.50	6.50	PS064-M-01-145.00 X 129.00 X 07.50



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
150.00	134.00	7.50	6.50	PS064-M-01-150.00 X 134.00 X 07.50
155.00	139.00	7.50	6.50	PS064-M-01-155.00 X 139.00 X 07.50
160.00	144.00	7.50	6.50	PS064-M-01-160.00 X 144.00 X 07.50
170.00	148.00	11.00	6.50	PS064-M-01-170.00 X 148.00 X 11.00
180.00	158.00	11.00	6.50	PS064-M-01-180.00 X 158.00 X 11.00
200.00	178.00	11.00	6.50	PS064-M-01-200.00 X 178.00 X 11.00

PISTON SEAL	PS072	

Features:

Piston seal profile PS072 consists of two piece seal set for sealing pistons with one seal ring and one energizer Oval-ring.

Composition:

PS072 is a combination of split glass filled polyamide seal ring along with NBR Oval Energizer.

SEAL COMBINATION	SEAL RING COMPOUND	OVAL ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS072-01	PA09	NB10	-20 to 100°C	500 Bar	1.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High abrasion resistance
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Machine tools
- Material Handling Equipments
- Where Piston is Passing above an oil port

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Installation :

Ps072 piston seals can be fitted on single-piece pistons. First insert the rubber Oval Ring into the housing carefully to avoid twisting of Oval Ring Cord. The split polyamide ring is then carefully plased on the piston above the Oval Ring.

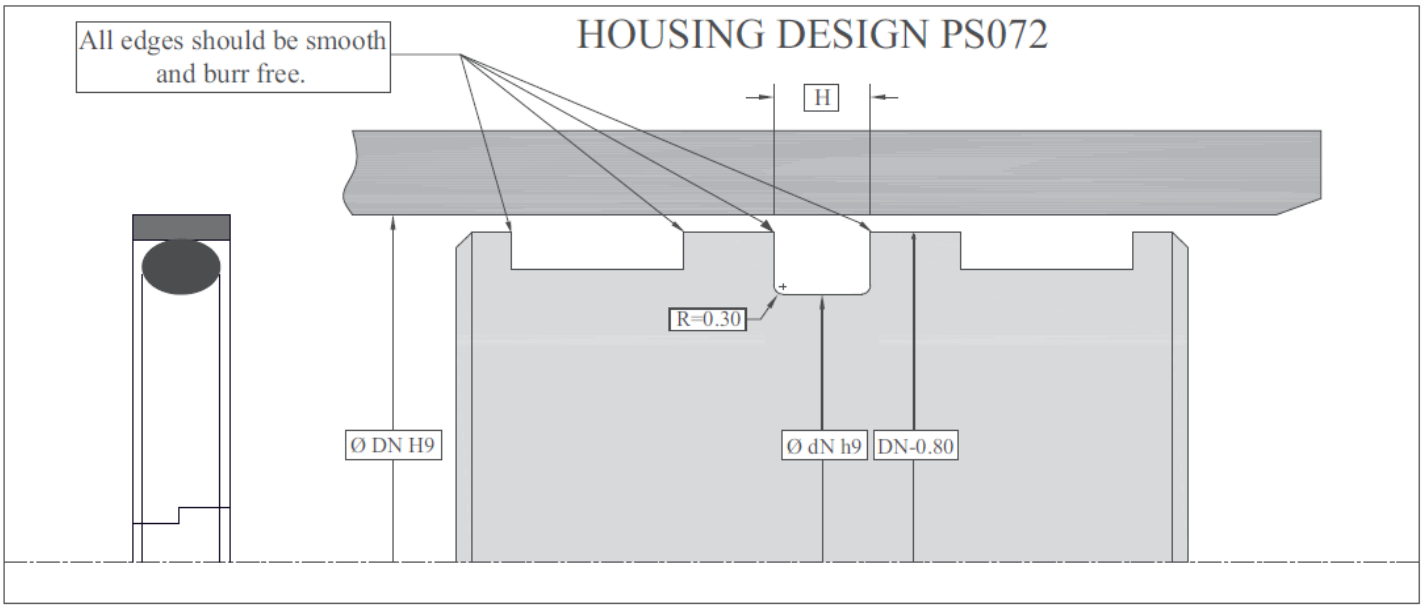
Ordering format :

Please follow PEC order code to place your order.

Example: for Metric Size 100 x 84.84 x 12.70 - order code is PS072-M-01-100.00 x 084.84 x 12.70

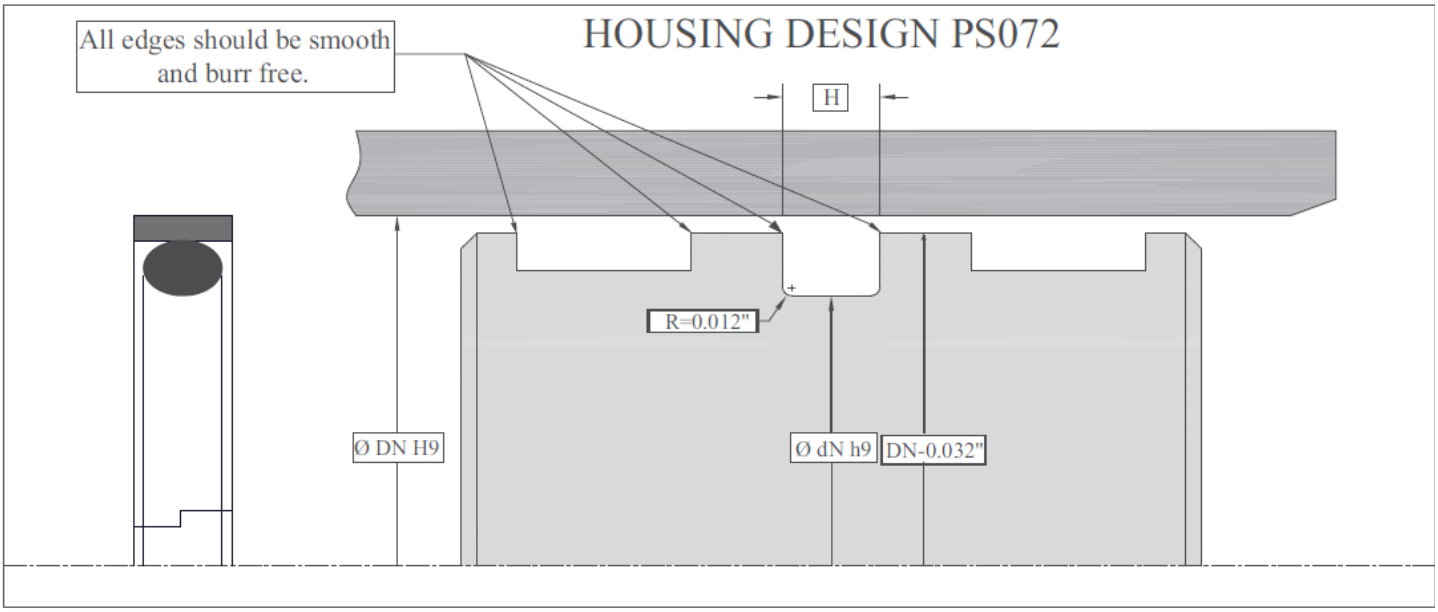
Example: for Imperial Size 2.000 x 1.408 x 0.312 - order code is PS072-I-01-02.000 x 01.408 x 0.312

Please contact PEC if your required size is not mentioned in PEC standard size list.



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)		ORDER CODE
100.00	84.84	12.70		PS072-M-01-100.00 X 084.84 X 12.70
100.00	85.75	7.24		PS072-M-01-100.00 X 085.75 X 07.24
105.00	90.75	7.24		PS072-M-01-105.00 X 090.75 X 07.24
110.00	95.00	12.70		PS072-M-01-110.00 X 095.00 X 12.70
110.00	95.75	7.24		PS072-M-01-110.00 X 095.75 X 07.24
115.00	100.75	7.24		PS072-M-01-115.00 X 100.75 X 07.24
120.00	105.74	7.24		PS072-M-01-120.00 X 105.74 X 07.24
130.00	115.74	7.24		PS072-M-01-130.00 X 115.74 X 07.24
140.00	119.13	8.13		PS072-M-01-140.00 X 119.13 X 08.13
140.00	120.62	9.63		PS072-M-01-140.00 X 120.62 X 09.63
150.00	130.63	9.63		PS072-M-01-150.00 X 130.63 X 09.63
160.00	140.61	9.63		PS072-M-01-160.00 X 140.61 X 09.63
170.00	150.62	9.63		PS072-M-01-170.00 X 150.62 X 09.63
180.00	160.62	9.63		PS072-M-01-180.00 X 160.62 X 09.63
190.00	170.68	9.63		PS072-M-01-190.00 X 170.68 X 09.63
200.00	174.73	9.63		PS072-M-01-200.00 X 174.73 X 09.63
220.00	194.74	9.63		PS072-M-01-220.00 X 194.74 X 09.63

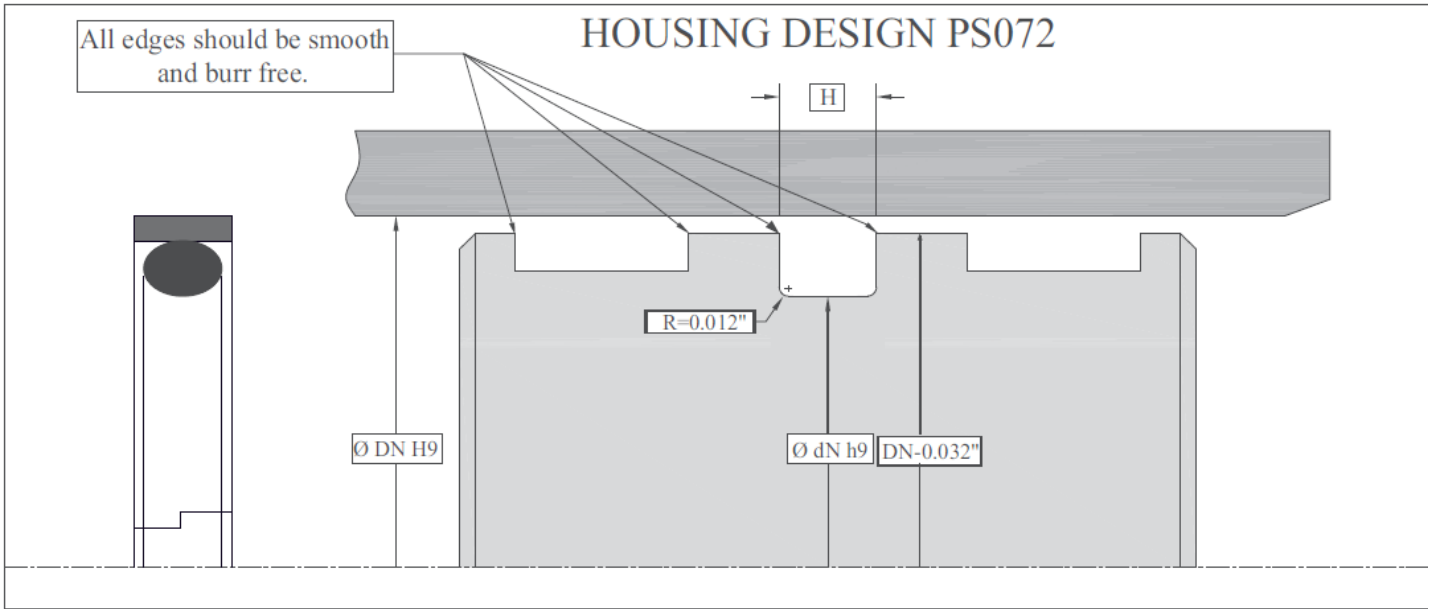


Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")		ORDER CODE
2.000	1.408	0.312		PS072-I-01-02.000 X 01.408 X 0.312
2.000	1.462	0.282		PS072-I-01-02.000 X 01.462 X 0.282
2.250	1.712	0.282		PS072-I-01-02.250 X 01.712 X 0.282
2.500	1.908	0.312		PS072-I-01-02.500 X 01.908 X 0.312
2.500	1.962	0.282		PS072-I-01-02.500 X 01.962 X 0.282
2.500	2.130	0.190		PS072-I-01-02.500 X 02.130 X 0.190
2.750	2.212	0.282		PS072-I-01-02.750 X 02.212 X 0.282
3.000	2.408	0.312		PS072-I-01-03.000 X 02.408 X 0.312
3.000	2.442	0.282		PS072-I-01-03.000 X 02.442 X 0.282
3.000	2.460	0.190		PS072-I-01-03.000 X 02.460 X 0.190
3.250	2.692	0.281		PS072-I-01-03.250 X 02.692 X 0.281
3.500	2.908	0.312		PS072-I-01-03.500 X 02.908 X 0.312
3.500	2.942	0.282		PS072-I-01-03.500 X 02.942 X 0.282
3.500	2.960	0.190		PS072-I-01-03.500 X 02.960 X 0.190
3.525	2.942	0.281		PS072-I-01-03.525 X 02.942 X 0.281
3.750	2.492	0.282		PS072-I-01-03.750 X 02.492 X 0.282
3.750	3.192	0.282		PS072-I-01-03.750 X 03.192 X 0.282
3.750	3.210	0.190		PS072-I-01-03.750 X 03.210 X 0.190
4.000	3.210	0.190		PS072-I-01-04.000 X 03.210 X 0.190
4.000	3.335	0.252		PS072-I-01-04.000 X 03.335 X 0.252
4.000	3.408	0.312		PS072-I-01-04.000 X 03.408 X 0.312
4.000	3.442	0.282		PS072-I-01-04.000 X 03.442 X 0.282
4.000	3.750	0.750		PS072-I-01-04.000 X 03.750 X 0.750
4.250	3.590	0.250		PS072-I-01-04.250 X 03.590 X 0.250
4.500	3.840	0.250		PS072-I-01-04.500 X 03.840 X 0.250
4.500	3.840	0.500		PS072-I-01-04.500 X 03.840 X 0.500
4.500	3.908	0.312		PS072-I-01-04.500 X 03.908 X 0.312
4.500	3.942	0.282		PS072-I-01-04.500 X 03.942 X 0.282
4.750	4.090	0.250		PS072-I-01-04.750 X 04.090 X 0.250

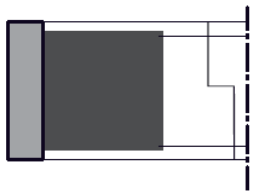
Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")		ORDER CODE
4.750	4.090	0.630		PS072-I-01-04.750 X 04.090 X 0.630
4.750	4.192	0.282		PS072-I-01-04.750 X 04.192 X 0.282
5.000	4.230	0.380		PS072-I-01-05.000 X 04.230 X 0.380
5.000	4.230	0.630		PS072-I-01-05.000 X 04.230 X 0.630
5.000	4.240	0.377		PS072-I-01-05.000 X 04.240 X 0.377
5.000	4.442	0.282		PS072-I-01-05.000 X 04.442 X 0.282
5.000	4.442	0.377		PS072-I-01-05.000 X 04.442 X 0.377
5.250	4.460	0.380		PS072-I-01-05.250 X 04.460 X 0.380
5.250	4.490	0.377		PS072-I-01-05.250 X 04.490 X 0.377
5.500	4.730	0.380		PS072-I-01-05.500 X 04.730 X 0.380
5.500	4.730	0.630		PS072-I-01-05.500 X 04.730 X 0.630
5.500	4.740	0.377		PS072-I-01-05.500 X 04.740 X 0.377
6.000	5.090	0.380		PS072-I-01-06.000 X 05.090 X 0.380
6.000	5.090	0.630		PS072-I-01-06.000 X 05.090 X 0.630
6.000	5.240	0.377		PS072-I-01-06.000 X 05.240 X 0.377
6.250	5.340	0.380		PS072-I-01-06.250 X 05.340 X 0.380
6.250	5.340	0.630		PS072-I-01-06.250 X 05.340 X 0.630
6.500	5.590	0.630		PS072-I-01-06.500 X 05.590 X 0.630
6.500	5.740	0.377		PS072-I-01-06.500 X 05.740 X 0.377
7.000	6.090	0.630		PS072-I-01-07.000 X 06.090 X 0.630
7.000	6.240	0.377		PS072-I-01-07.000 X 06.240 X 0.377
7.250	6.340	0.630		PS072-I-01-07.250 X 06.340 X 0.630
7.500	6.590	0.630		PS072-I-01-07.500 X 06.590 X 0.630
7.500	6.740	0.377		PS072-I-01-07.500 X 06.740 X 0.377
7.750	6.840	0.630		PS072-I-01-07.750 X 06.840 X 0.630
8.000	7.240	0.377		PS072-I-01-08.000 X 07.240 X 0.377
8.250	7.260	0.630		PS072-I-01-08.250 X 07.260 X 0.630
8.500	7.510	0.630		PS072-I-01-08.500 X 07.510 X 0.630
8.500	7.624	0.377		PS072-I-01-08.500 X 07.624 X 0.377
8.500	7.740	0.377		PS072-I-01-08.500 X 07.740 X 0.377
9.000	8.124	0.377		PS072-I-01-09.000 X 08.124 X 0.377
9.250	8.260	0.380		PS072-I-01-09.250 X 08.260 X 0.380
9.280	8.260	0.380		PS072-I-01-09.280 X 08.260 X 0.380
9.500	8.510	0.380		PS072-I-01-09.500 X 08.510 X 0.380
9.500	8.624	0.377		PS072-I-01-09.500 X 08.624 X 0.377
10.000	8.880	0.690		PS072-I-01-10.000 X 08.880 X 0.690
10.000	9.124	0.377		PS072-I-01-10.000 X 09.124 X 0.377
10.250	9.130	0.690		PS072-I-01-10.250 X 09.130 X 0.690
10.500	9.380	0.690		PS072-I-01-10.500 X 09.380 X 0.690
10.500	9.624	0.377		PS072-I-01-10.500 X 09.624 X 0.377
11.000	9.880	0.690		PS072-I-01-11.000 X 09.880 X 0.690
11.000	10.124	0.377		PS072-I-01-11.000 X 10.124 X 0.377
11.500	10.380	0.690		PS072-I-01-11.500 X 10.380 X 0.690
11.750	10.874	0.377		PS072-I-01-11.750 X 10.874 X 0.377
12.000	11.124	0.377		PS072-I-01-12.000 X 11.124 X 0.377
12.500	11.380	0.690		PS072-I-01-12.500 X 11.380 X 0.690



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")		ORDER CODE
13.000	11.880	0.690		PS072-I-01-13.000 X 11.880 X 0.690
13.500	12.380	0.690		PS072-I-01-13.500 X 12.400 X 0.690

PISTON SEAL	PS088	

Features:

Piston seal profile PS088 consists of two piece seal set for sealing pistons with one seal ring and one NBR square/rectangular energizer ring.

Composition:

PS088 is a combination of split glass filled polyamide seal ring along with NBR square energizer ring.

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS088-01	PA09	NB04	-20 to 100°C	500 Bar	1.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High abrasion resistance
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Machine tools
- Material Handling Equipments

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Installation :

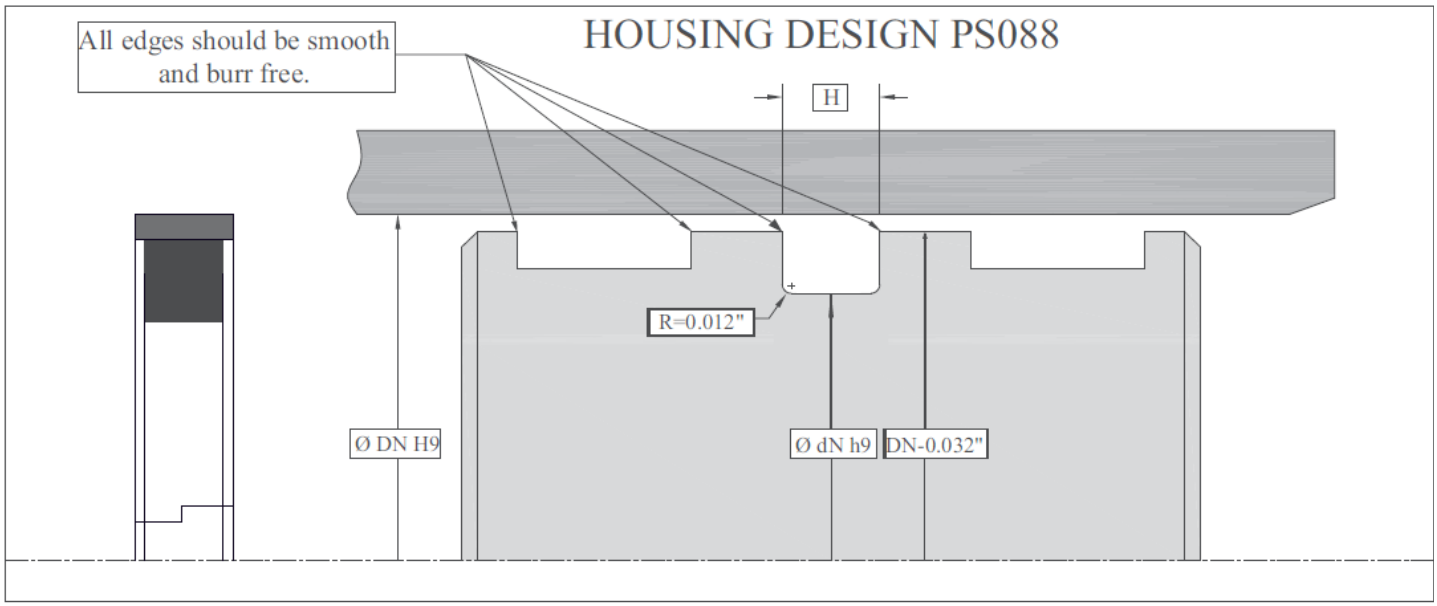
PS088 piston seals can be fitted on single-piece pistons. First insert the rubber Square Ring into the housing carefully to avoid twisting of Ring. The split polyamide ring is then carefully placed on the piston above the Square Ring.

Ordering format :

Please follow PEC order code to place order

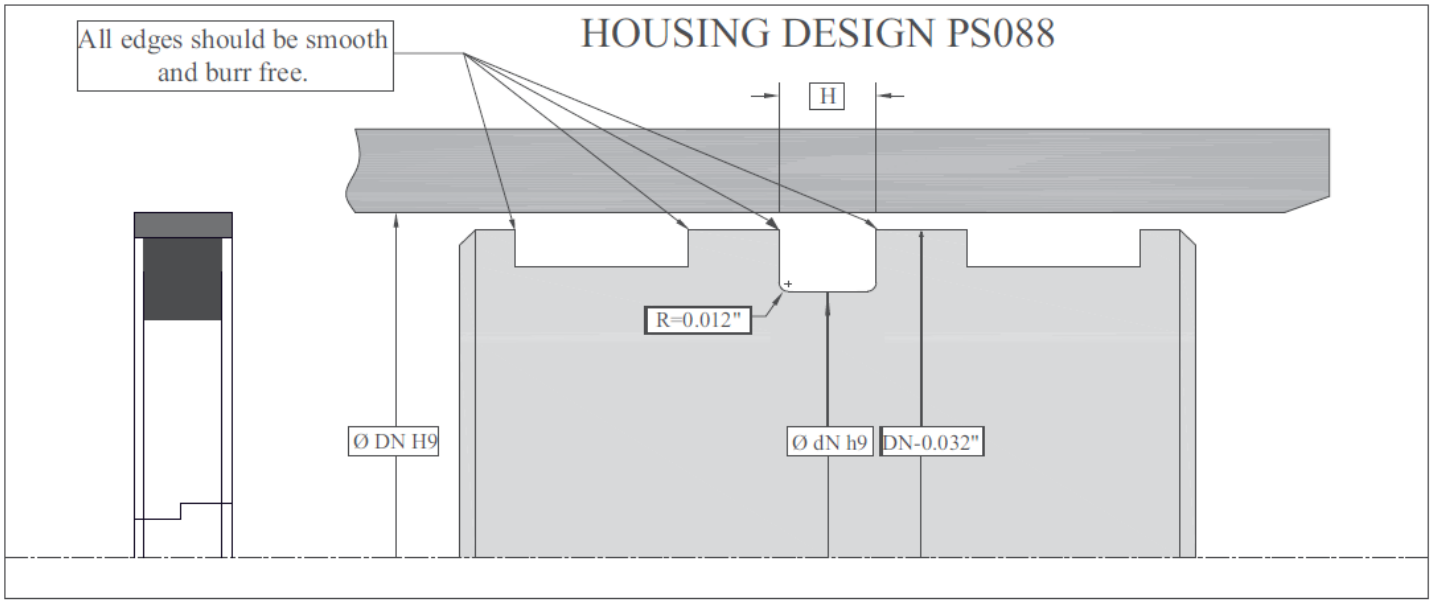
Example - for Imperial size 2.000” x 1.462” x 0.282” - order code is PS088-I-01-02.000 x 01.462 x 0.282

Please contact PEC if your required size is not mentioned in PEC standard size list



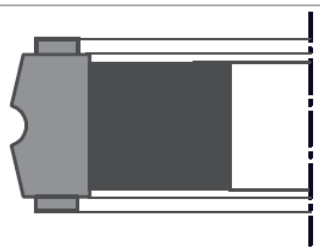
Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")		ORDER CODE
2.000	1.462	0.282		PS088-I-01-02.000 X 01.462 X 0.282
2.000	1.408	0.312		PS088-I-01-02.000 X 01.408 X 0.312
2.250	1.712	0.282		PS088-I-01-02.250 X 01.712 X 0.282
2.500	1.962	0.282		PS088-I-01-02.500 X 01.962 X 0.282
2.500	1.908	0.312		PS088-I-01-02.500 X 01.908 X 0.312
2.750	2.212	0.282		PS088-I-01-02.750 X 02.212 X 0.282
3.000	2.442	0.282		PS088-I-01-03.000 X 02.442 X 0.282
3.000	2.408	0.312		PS088-I-01-03.000 X 02.408 X 0.312
3.250	2.692	0.281		PS088-I-01-03.250 X 02.692 X 0.281
3.500	2.942	0.282		PS088-I-01-03.500 X 02.942 X 0.282
3.500	2.908	0.312		PS088-I-01-03.500 X 02.908 X 0.312
3.525	2.942	0.281		PS088-I-01-03.525 X 02.942 X 0.281
3.750	3.192	0.282		PS088-I-01-03.750 X 03.192 X 0.282
4.000	3.442	0.282		PS088-I-01-04.000 X 03.442 X 0.282
4.000	3.408	0.312		PS088-I-01-04.000 X 03.408 X 0.312
4.500	3.942	0.282		PS088-I-01-04.500 X 03.942 X 0.282
4.500	3.908	0.312		PS088-I-01-04.500 X 03.908 X 0.312
4.750	4.192	0.282		PS088-I-01-04.750 X 04.192 X 0.282
5.000	4.442	0.282		PS088-I-01-05.000 X 04.442 X 0.282
5.000	4.240	0.377		PS088-I-01-05.000 X 04.240 X 0.377
5.250	4.490	0.377		PS088-I-01-05.250 X 04.490 X 0.377
5.500	4.740	0.377		PS088-I-01-05.500 X 04.740 X 0.377
6.000	5.240	0.377		PS088-I-01-06.000 X 05.240 X 0.377
6.500	5.740	0.377		PS088-I-01-06.500 X 05.740 X 0.377
7.000	6.240	0.377		PS088-I-01-07.000 X 06.240 X 0.377
7.500	6.740	0.377		PS088-I-01-07.500 X 06.740 X 0.377
8.000	7.240	0.377		PS088-I-01-08.000 X 07.240 X 0.377
8.500	7.740	0.377		PS088-I-01-08.500 X 07.740 X 0.377
8.500	7.624	0.377		PS088-I-01-08.500 X 07.624 X 0.377



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")		ORDER CODE
9.000	8.124	0.377		PS088-I-01-09.000 X 08.124 X 0.377
9.500	8.624	0.377		PS088-I-01-09.500 X 08.624 X 0.377
10.000	9.124	0.377		PS088-I-01-10.000 X 09.124 X 0.377
10.500	9.624	0.377		PS088-I-01-10.500 X 09.624 X 0.377
11.000	10.124	0.377		PS088-I-01-11.000 X 10.124 X 0.377
11.750	10.874	0.377		PS088-I-01-11.750 X 10.874 X 0.377
12.000	11.124	0.377		PS088-I-01-12.000 X 11.124 X 0.377

PISTON SEAL	PS096	

Features:

Piston seal profile PS096 consists of two piece seal set for sealing pistons with one polyestar seal ring and one energizer square ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS096-01	HY13	NB03	-20 to 100°C	315 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High abrasion resistance.
- Low wear and high extrusion resistance.
- Easy installation.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments.
- Agricultural equipments

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)			
H	16 Mpa	26 Mpa	32 Mpa	
3.20	0.15	0.10	-	
4.20	0.20	0.15	-	
6.30	0.25	0.20	0.12	
8.10	0.30	0.25	0.15	

Profile dimension	Maximum permissible gap (S) for Imperial Sizes (inch)			
H	16 Mpa	26 Mpa	32 Mpa	
0.129	0.006	0.004	-	
0.166	0.008	0.006	-	
0.283	0.010	0.008	0.005	
0.378	0.012	0.010	0.006	

Installation:

PS096 piston seals can be fitted on single-piece pistons. First insert the rubber Square / Rectangular ring. into the housing carefully to avoid twisting of Square / Rectangular ring. . The polyurethane ring is then carefully pushed over the piston into place above the Square / Rectangular ring. The polyurethane seal normally returns to its original size after installation.

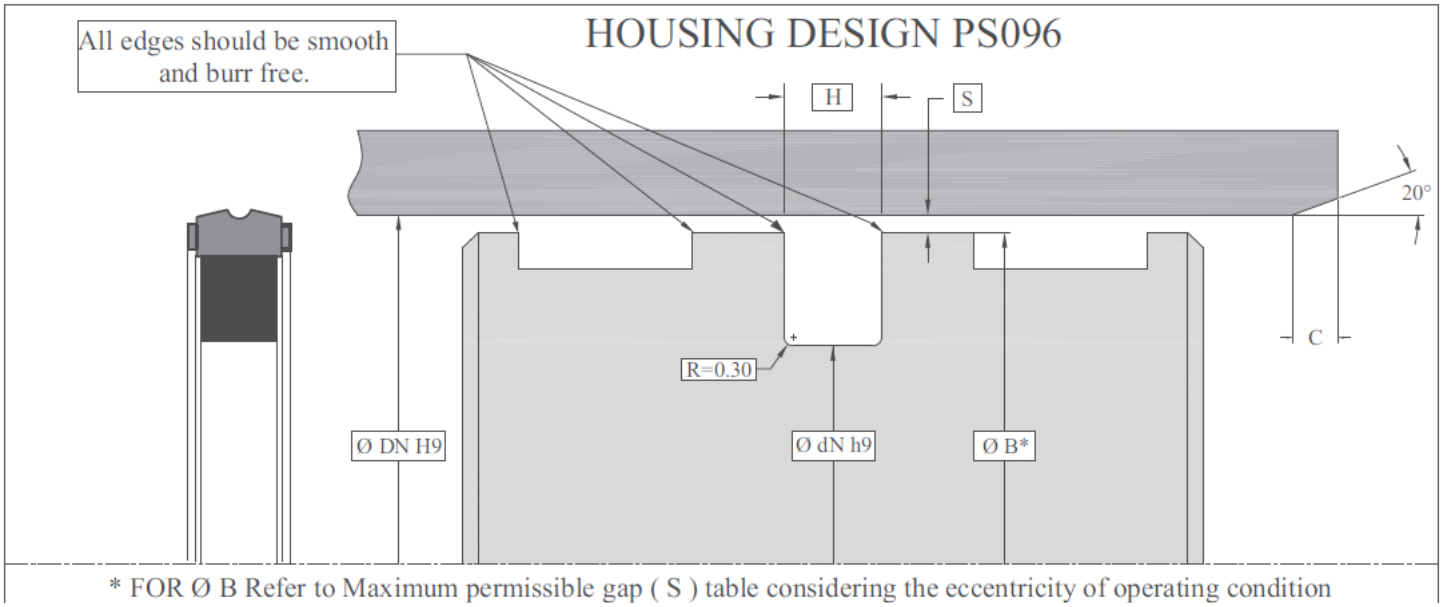
Ordering format :

Please mention PEC order code in your order.

Example: Metric size 25.00 x 17.50 x 3.20 x 2.00 for PS096-M-01-025.00 x 017.50 x 03.20

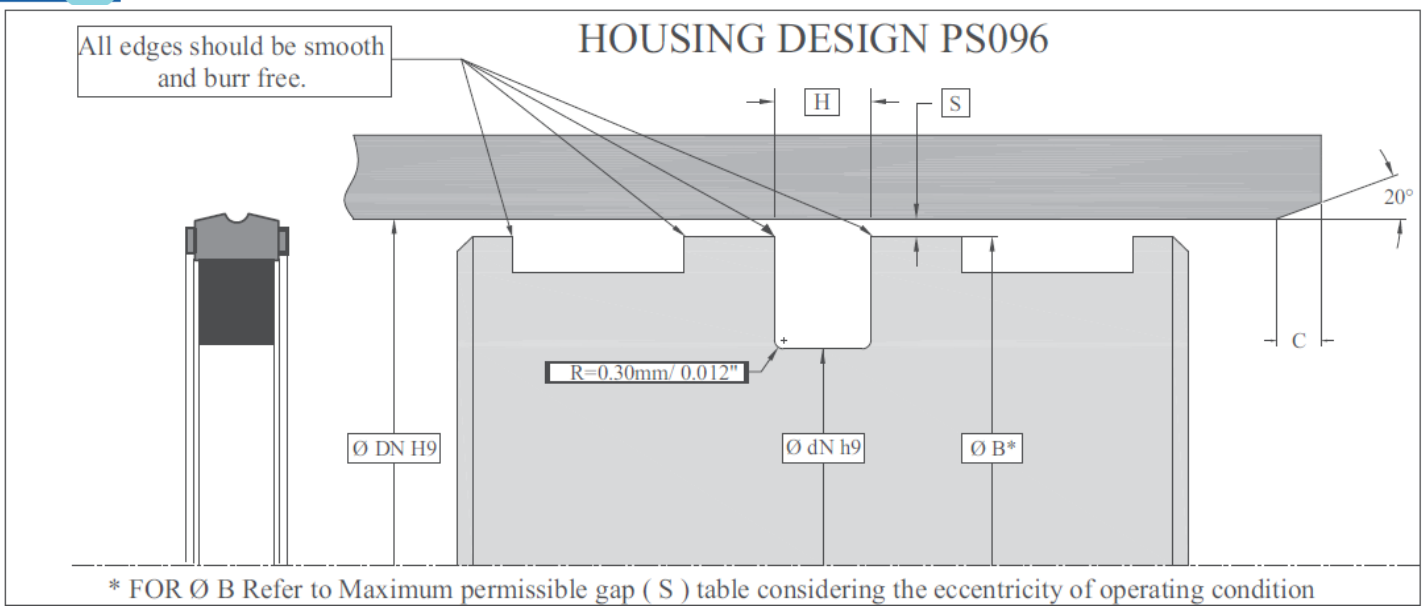
Example: Imperial size 1.000” x 0.691” x 0.129” x 0.118” for PS096-I-01-01.000 x 00.691 x 0.129

Please contact PEC if your required size is not mentioned in PEC standard size list.



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
25.00	17.50	3.20	2.00	PS096-M-01-025.00 X 017.50 X 03.20
30.00	22.50	3.20	2.00	PS096-M-01-030.00 X 022.50 X 03.20
32.00	24.50	3.20	2.00	PS096-M-01-032.00 X 024.50 X 03.20
40.00	29.00	4.20	2.50	PS096-M-01-040.00 X 029.00 X 04.20
45.00	34.00	4.20	2.50	PS096-M-01-045.00 X 034.00 X 04.20
50.00	37.00	6.30	2.50	PS096-M-01-050.00 X 037.00 X 06.30
50.00	39.00	4.20	2.50	PS096-M-01-050.00 X 039.00 X 04.20
55.00	39.50	6.30	3.00	PS096-M-01-055.00 X 039.50 X 06.30
60.00	44.50	6.30	3.00	PS096-M-01-060.00 X 044.50 X 06.30
60.00	49.00	6.30	3.00	PS096-M-01-060.00 X 049.00 X 06.30
63.00	47.50	6.30	3.00	PS096-M-01-063.00 X 047.50 X 06.30
63.00	48.00	7.50	5.00	PS096-M-01-063.00 X 048.00 X 07.50
65.00	49.50	6.30	3.00	PS096-M-01-065.00 X 049.50 X 06.30
65.00	52.00	6.30	3.00	PS096-M-01-065.00 X 052.00 X 06.30
70.00	54.50	6.30	4.00	PS096-M-01-070.00 X 054.50 X 06.30
70.00	55.00	7.50	4.00	PS096-M-01-070.00 X 055.00 X 07.50
70.00	59.00	4.20	3.00	PS096-M-01-070.00 X 059.00 X 04.20
75.00	59.50	6.30	4.00	PS096-M-01-075.00 X 059.50 X 06.30
75.00	62.00	6.30	3.00	PS096-M-01-075.00 X 062.00 X 06.30
80.00	64.50	6.30	4.00	PS096-M-01-080.00 X 064.50 X 06.30
80.00	66.50	6.30	4.00	PS096-M-01-080.00 X 066.50 X 06.30
90.00	74.50	6.30	4.00	PS096-M-01-090.00 X 074.50 X 06.30
100.00	79.00	8.10	5.00	PS096-M-01-100.00 X 079.00 X 08.10
100.00	84.50	6.30	4.00	PS096-M-01-100.00 X 084.50 X 06.30
110.00	89.00	8.10	5.00	PS096-M-01-110.00 X 089.00 X 08.10
115.00	94.00	8.10	5.00	PS096-M-01-115.00 X 094.00 X 08.10
120.00	99.00	8.10	5.00	PS096-M-01-120.00 X 099.00 X 08.10
120.00	99.00	10.50	5.00	PS096-M-01-120.00 X 099.00 X 10.50
125.00	104.00	8.10	5.00	PS096-M-01-125.00 X 104.00 X 08.10
130.00	109.00	8.10	5.00	PS096-M-01-130.00 X 109.00 X 08.10



Polymer Engineering Standard Size List

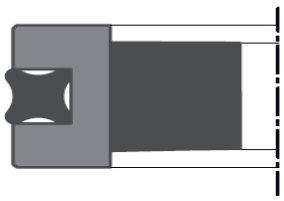
DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
140.00	119.00	8.10	5.00	PS096-M-01-140.00 X 119.00 X 08.10
140.00	119.00	10.50	7.00	PS096-M-01-140.00 X 119.00 X 10.50
150.00	129.00	8.10	5.00	PS096-M-01-150.00 X 129.00 X 08.10
150.00	129.00	10.50	7.00	PS096-M-01-150.00 X 129.00 X 10.50
160.00	139.00	8.10	5.00	PS096-M-01-160.00 X 139.00 X 08.10
165.00	144.00	8.10	5.00	PS096-M-01-165.00 X 144.00 X 08.10
170.00	149.00	8.10	5.00	PS096-M-01-170.00 X 149.00 X 08.10
180.00	159.00	8.10	5.00	PS096-M-01-180.00 X 159.00 X 08.10
200.00	179.00	8.10	5.00	PS096-M-01-200.00 X 179.00 X 08.10

IMPERIAL SIZES

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
1.000	0.691	0.129	0.118	PS096-I-01-01.000 X 00.691 X 0.129
1.250	0.941	0.129	0.118	PS096-I-01-01.250 X 00.941 X 0.129
1.500	1.191	0.129	0.118	PS096-I-01-01.500 X 01.191 X 0.129
1.750	1.441	0.129	0.118	PS096-I-01-01.750 X 01.441 X 0.129
2.000	1.691	0.129	0.118	PS096-I-01-02.000 X 01.691 X 0.129
2.250	1.941	0.129	0.118	PS096-I-01-02.250 X 01.941 X 0.129
2.500	2.191	0.129	0.118	PS096-I-01-02.500 X 02.191 X 0.129
2.750	2.441	0.129	0.118	PS096-I-01-02.750 X 02.441 X 0.129
3.000	2.462	0.283	0.197	PS096-I-01-03.000 X 02.462 X 0.283
3.000	2.575	0.166	0.197	PS096-I-01-03.000 X 02.575 X 0.166
3.250	2.712	0.283	0.197	PS096-I-01-03.250 X 02.712 X 0.283
3.500	2.962	0.283	0.197	PS096-I-01-03.500 X 02.962 X 0.283
3.750	3.212	0.283	0.197	PS096-I-01-03.750 X 03.212 X 0.283
4.000	3.462	0.283	0.197	PS096-I-01-04.000 X 03.462 X 0.283
4.250	3.712	0.283	0.197	PS096-I-01-04.250 X 03.712 X 0.283
4.500	3.962	0.283	0.197	PS096-I-01-04.500 X 03.962 X 0.283

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
4.750	4.212	0.283	0.197	PS096-I-01-04.750 X 04.212 X 0.283
5.000	4.462	0.283	0.197	PS096-I-01-05.000 X 04.462 X 0.283
5.250	4.504	0.378	0.295	PS096-I-01-05.250 X 04.504 X 0.378
5.500	4.754	0.378	0.295	PS096-I-01-05.500 X 04.754 X 0.378
5.750	5.004	0.378	0.295	PS096-I-01-05.750 X 05.004 X 0.378
6.000	5.254	0.378	0.295	PS096-I-01-06.000 X 05.254 X 0.378
6.250	5.504	0.378	0.295	PS096-I-01-06.250 X 05.504 X 0.378

PISTON SEAL	PS112	

Features:

Piston seal profile PS112 consists of three piece seal set for sealing pistons with one seal ring having a NBR quad ring installad on face groove and one energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENEGIZER	QUAD RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS112-01	PT02	NB03	NB02	-20 to 100°C	400 Bar	1 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- Low wear and high extrusion resistance
- Wide fluid application range
- Suitable for dual media like nitrogen on one side and hydraulic oil on another side

Application:

- Piston Accumulators
- Dampers
- Control and regulating apparatus
- For Hydro pneumatic cylinders

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) in Imperial Size (inch)			
H	160 bar	260 bar	320 bar	400 bar
0.210	0.010	0.008	0.006	ASK PEC
0.288	0.012	0.010	0.008	ASK PEC
0.375	0.012	0.010	0.008	ASK PEC

Installation :

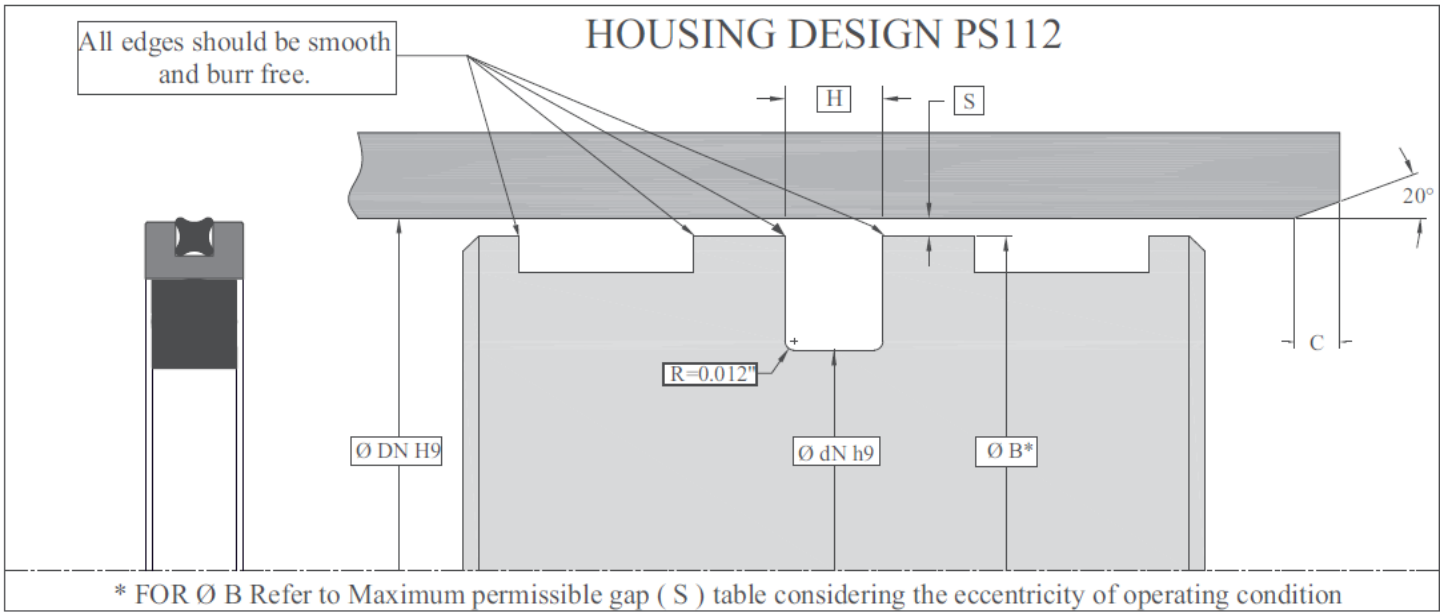
PS112 piston seals can be fitted on single-piece pistons. First insert the rubber O / Square Ring into the housing carefully to avoid twisting of Ring. Install the PTFE part carefully with fixture and then place the quad ring on the groove over PTFE part.

Ordering format :

Please follow PEC order code to place your order.

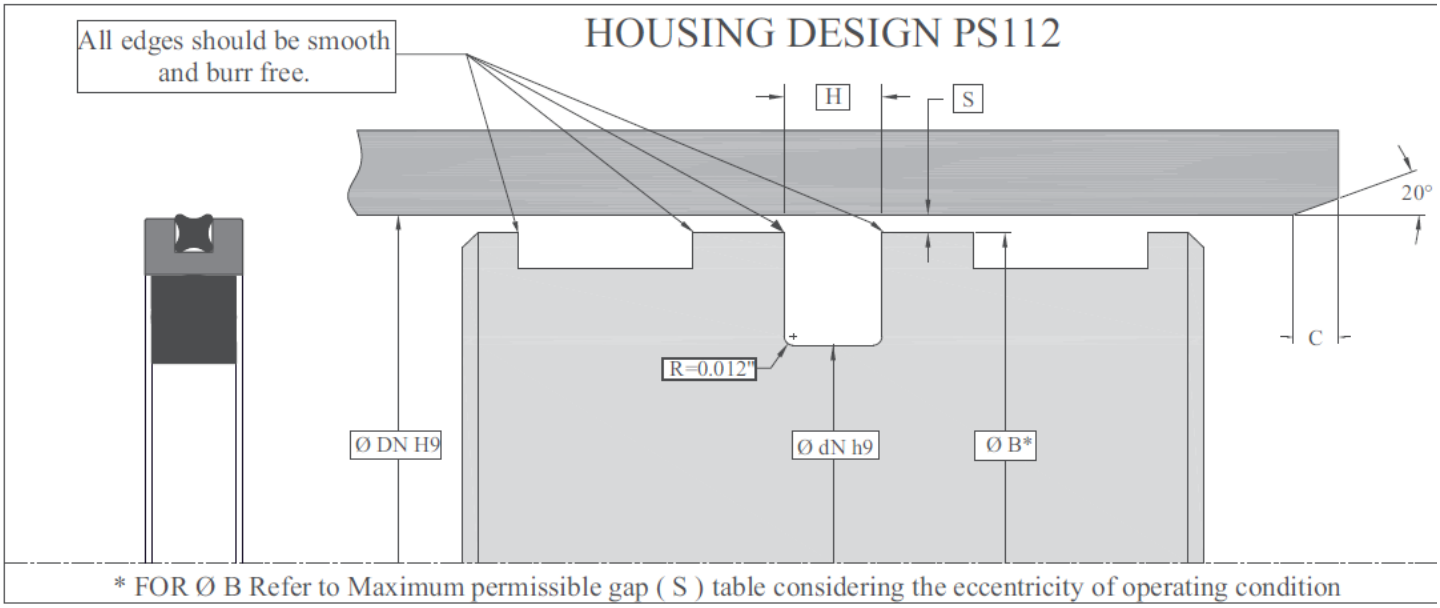
Example: For Imperial Size 1.000” x 0.576” x 0.210” Order Code is PS112-I-01-01.000 x 00.576 x 0.210

Please contact PEC if your required size is not mentioned in PEC standard size list.



Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
1.000	0.576	0.210		PS112-I-01-01.000 X 00.576 X 0.210
1.125	0.701	0.210		PS112-I-01-01.125 X 00.701 X 0.210
1.250	0.826	0.210		PS112-I-01-01.250 X 00.826 X 0.210
1.375	0.951	0.210		PS112-I-01-01.375 X 00.951 X 0.210
1.500	1.076	0.210		PS112-I-01-01.500 X 01.076 X 0.210
1.625	1.201	0.210		PS112-I-01-01.625 X 01.201 X 0.210
1.750	1.326	0.210		PS112-I-01-01.750 X 01.326 X 0.210
1.875	1.451	0.210		PS112-I-01-01.875 X 01.451 X 0.210
2.000	1.384	0.288		PS112-I-01-02.000 X 01.384 X 0.288
2.125	1.509	0.288		PS112-I-01-02.125 X 01.509 X 0.288
2.250	1.634	0.288		PS112-I-01-02.250 X 01.634 X 0.288
2.375	1.759	0.288		PS112-I-01-02.375 X 01.759 X 0.288
2.500	1.884	0.288		PS112-I-01-02.500 X 01.884 X 0.288
2.625	2.009	0.288		PS112-I-01-02.625 X 02.009 X 0.288
2.750	2.134	0.288		PS112-I-01-02.750 X 02.134 X 0.288
2.875	2.259	0.288		PS112-I-01-02.875 X 02.259 X 0.288
3.000	2.384	0.288		PS112-I-01-03.000 X 02.384 X 0.288
3.125	2.509	0.288		PS112-I-01-03.125 X 02.509 X 0.288
3.250	2.634	0.288		PS112-I-01-03.250 X 02.634 X 0.288
3.375	2.759	0.288		PS112-I-01-03.375 X 02.759 X 0.288
3.500	2.884	0.288		PS112-I-01-03.500 X 02.884 X 0.288
3.625	3.009	0.288		PS112-I-01-03.625 X 03.009 X 0.288
3.750	3.134	0.288		PS112-I-01-03.750 X 03.134 X 0.288
3.875	3.259	0.288		PS112-I-01-03.875 X 03.259 X 0.288
4.000	3.384	0.288		PS112-I-01-04.000 X 03.384 X 0.288
4.125	3.509	0.288		PS112-I-01-04.125 X 03.509 X 0.288
4.250	3.634	0.288		PS112-I-01-04.250 X 03.634 X 0.288
4.375	3.759	0.288		PS112-I-01-04.375 X 03.759 X 0.288
4.500	3.884	0.288		PS112-I-01-04.500 X 03.884 X 0.288

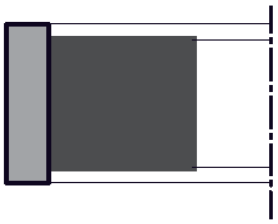


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
4.625	4.009	0.288		PS112-I-01-04.625 X 04.009 X 0.288
4.750	4.134	0.288		PS112-I-01-04.750 X 04.134 X 0.288
4.875	4.259	0.288		PS112-I-01-04.875 X 04.259 X 0.288
5.000	4.384	0.288		PS112-I-01-05.000 X 04.384 X 0.288
5.125	4.509	0.288		PS112-I-01-05.125 X 04.509 X 0.288
5.250	4.634	0.288		PS112-I-01-05.250 X 04.634 X 0.288
5.375	4.535	0.375		PS112-I-01-05.375 X 04.535 X 0.375
5.500	4.660	0.375		PS112-I-01-05.500 X 04.660 X 0.375
5.625	4.785	0.375		PS112-I-01-05.625 X 04.785 X 0.375
5.750	4.910	0.375		PS112-I-01-05.750 X 04.910 X 0.375
5.875	5.035	0.375		PS112-I-01-05.875 X 05.035 X 0.375
6.000	5.160	0.375		PS112-I-01-06.000 X 05.160 X 0.375
6.125	5.285	0.375		PS112-I-01-06.125 X 05.285 X 0.375
6.250	5.415	0.375		PS112-I-01-06.250 X 05.415 X 0.375
6.375	5.540	0.375		PS112-I-01-06.375 X 05.540 X 0.375
6.500	5.665	0.375		PS112-I-01-06.500 X 05.665 X 0.375
6.625	5.795	0.375		PS112-I-01-06.625 X 05.795 X 0.375
6.750	5.920	0.375		PS112-I-01-06.750 X 05.920 X 0.375
6.875	6.045	0.375		PS112-I-01-06.875 X 06.045 X 0.375
7.000	6.170	0.375		PS112-I-01-07.000 X 06.170 X 0.375
7.250	6.420	0.375		PS112-I-01-07.250 X 06.420 X 0.375
7.500	6.670	0.375		PS112-I-01-07.500 X 06.670 X 0.375
7.750	6.915	0.375		PS112-I-01-07.750 X 06.915 X 0.375
8.000	7.170	0.375		PS112-I-01-08.000 X 07.170 X 0.375
8.250	7.415	0.375		PS112-I-01-08.250 X 07.415 X 0.375
8.500	7.665	0.375		PS112-I-01-08.500 X 07.665 X 0.375
8.750	7.915	0.375		PS112-I-01-08.750 X 07.915 X 0.375
9.000	8.165	0.375		PS112-I-01-09.000 X 08.165 X 0.375
9.250	8.420	0.375		PS112-I-01-09.250 X 08.420 X 0.375
9.500	8.665	0.375		PS112-I-01-09.500 X 08.665 X 0.375
9.750	8.920	0.375		PS112-I-01-09.750 X 08.920 X 0.375

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
10.000	9.165	0.375		PS112-I-01-10.000 X 09.165 X 0.375
10.250	9.340	0.375		PS112-I-01-10.250 X 09.340 X 0.375
10.500	9.580	0.375		PS112-I-01-10.500 X 09.580 X 0.375
10.750	9.840	0.375		PS112-I-01-10.750 X 09.840 X 0.375
11.000	10.080	0.375		PS112-I-01-11.000 X 10.080 X 0.375
11.250	10.340	0.375		PS112-I-01-11.250 X 10.340 X 0.375
11.500	10.580	0.375		PS112-I-01-11.500 X 10.580 X 0.375
11.750	10.840	0.375		PS112-I-01-11.750 X 10.840 X 0.375
12.000	11.080	0.375		PS112-I-01-12.000 X 11.080 X 0.375
12.250	11.340	0.375		PS112-I-01-12.250 X 11.340 X 0.375
12.500	11.580	0.375		PS112-I-01-12.500 X 11.580 X 0.375
12.750	11.840	0.375		PS112-I-01-12.750 X 11.840 X 0.375
13.000	12.080	0.375		PS112-I-01-13.000 X 12.080 X 0.375
13.250	12.335	0.375		PS112-I-01-13.250 X 12.335 X 0.375
13.500	12.580	0.375		PS112-I-01-13.500 X 12.580 X 0.375
13.750	12.840	0.375		PS112-I-01-13.750 X 12.840 X 0.375
14.000	13.080	0.375		PS112-I-01-14.000 X 13.080 X 0.375

PISTON SEAL	PS120	

Features:

Piston seal profile PS 120 consists of two piece seal set for sealing pistons with one seal ring and one square/ rectangular energizer ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS120-01	PT06	NB03	-20 to 100°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Wide fluid application range

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on one side using the minimum piston OD and max bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S) in Imperial Size (inch)			
H	160 bar	260 bar	320 bar	400 bar
0.118 - 0.192	0.010	0.008	0.006	ASK PEC
0.252 - 0.284	0.012	0.010	0.008	ASK PEC
0.320 - 0.440	0.014	0.012	0.010	ASK PEC

Installation :

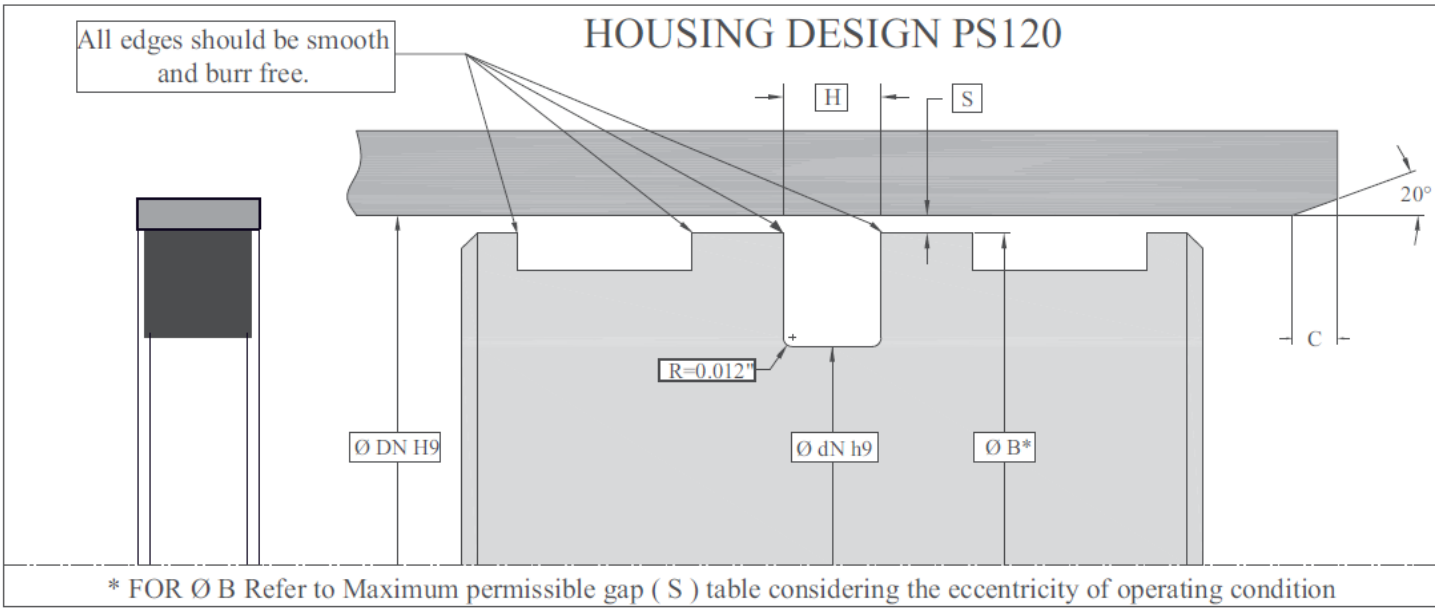
PS120 piston seals can be fitted on single-piece pistons. First insert the rubber Square/ rectangular Ring into the housing carefully to avoid twisting of Ring. Install the PTFE part carefully with fixture.

Ordering format :

Please follow PEC order code to place your order.

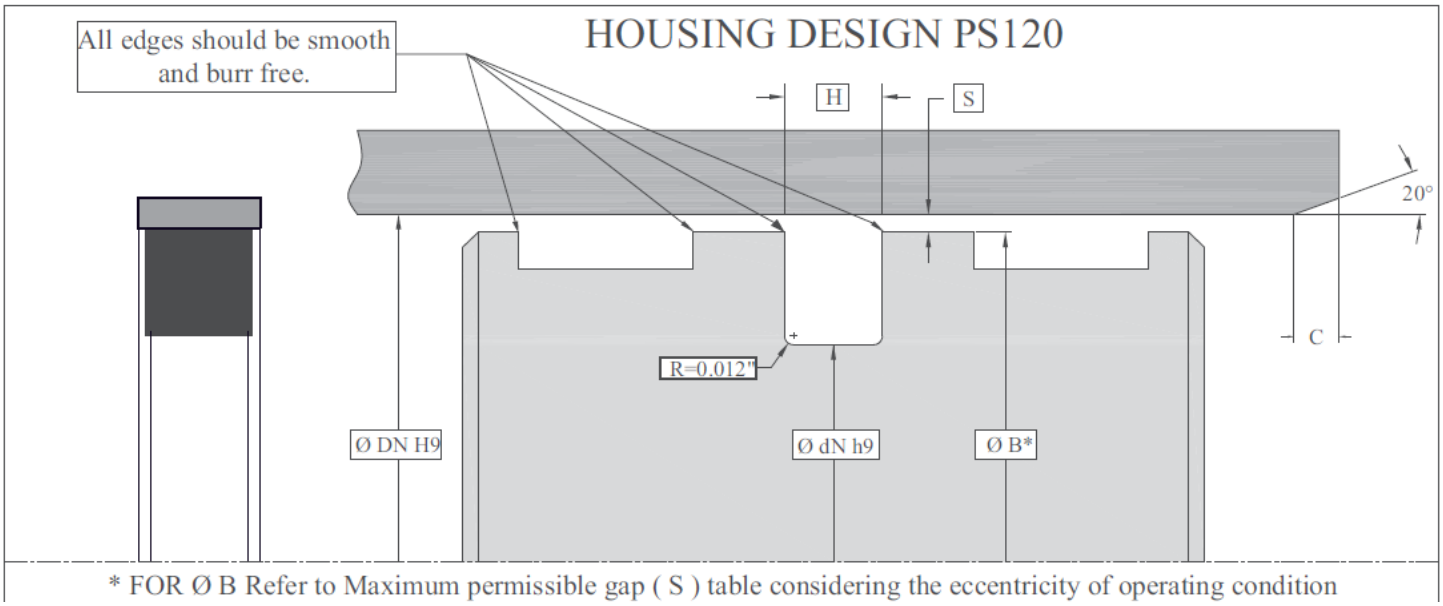
Example: for size 1.00 x 0.691 x 0.129 order code is PS120-I-01-01.000 x 00.691 x 0.129

Please contact PEC if your required size is not mentioned in PEC standard size list.



Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
1.000	0.691	0.129	0.177	PS120-I-01-01.000 X 00.691 X 0.129
1.250	0.941	0.129	0.177	PS120-I-01-01.250 X 00.941 X 0.129
1.500	1.106	0.118	0.177	PS120-I-01-01.500 X 01.106 X 0.118
1.500	1.190	0.129	0.177	PS120-I-01-01.500 X 01.190 X 0.129
1.750	1.441	0.129	0.177	PS120-I-01-01.750 X 01.441 X 0.129
2.000	1.690	0.129	0.177	PS120-I-01-02.000 X 01.690 X 0.129
2.000	1.625	0.192	0.275	PS120-I-01-02.000 X 01.625 X 0.192
2.250	1.940	0.129	0.177	PS120-I-01-02.250 X 01.940 X 0.129
2.250	1.875	0.192	0.275	PS120-I-01-02.250 X 01.875 X 0.192
2.500	2.190	0.129	0.177	PS120-I-01-02.500 X 02.190 X 0.129
2.500	2.125	0.192	0.275	PS120-I-01-02.500 X 02.125 X 0.192
2.500	1.951	0.255	0.315	PS120-I-01-02.500 X 01.951 X 0.255
2.750	2.440	0.129	0.177	PS120-I-01-02.750 X 02.440 X 0.129
2.750	2.375	0.192	0.275	PS120-I-01-02.750 X 02.375 X 0.192
2.750	2.190	0.284	0.375	PS120-I-01-02.750 X 02.190 X 0.284
3.000	2.460	0.192	0.275	PS120-I-01-03.000 X 02.460 X 0.192
3.000	2.440	0.284	0.375	PS120-I-01-03.000 X 02.440 X 0.284
3.150	2.594	0.284	0.375	PS120-I-01-03.150 X 02.594 X 0.284
3.250	2.860	0.129	0.177	PS120-I-01-03.250 X 02.860 X 0.129
3.250	2.710	0.192	0.275	PS120-I-01-03.250 X 02.710 X 0.192
3.250	2.690	0.284	0.375	PS120-I-01-03.250 X 02.690 X 0.284
3.500	2.960	0.192	0.275	PS120-I-01-03.500 X 02.960 X 0.192
3.500	2.940	0.284	0.375	PS120-I-01-03.500 X 02.940 X 0.284
3.750	3.210	0.192	0.275	PS120-I-01-03.750 X 03.210 X 0.192
3.750	3.190	0.284	0.375	PS120-I-01-03.750 X 03.190 X 0.284
4.000	3.210	0.192	0.275	PS120-I-01-04.000 X 03.210 X 0.192
4.000	3.335	0.252	0.315	PS120-I-01-04.000 X 03.335 X 0.252
4.000	3.482	0.252	0.315	PS120-I-01-04.000 X 03.482 X 0.252
4.000	3.440	0.284	0.375	PS120-I-01-04.000 X 03.440 X 0.284

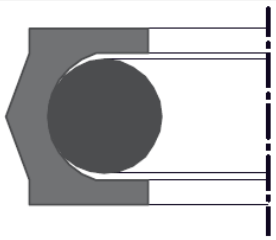


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
4.000	3.451	0.320	0.430	PS120-I-01-04.000 X 03.451 X 0.320
4.000	3.238	0.379	0.500	PS120-I-01-04.000 X 03.238 X 0.379
4.125	3.460	0.252	0.315	PS120-I-01-04.125 X 03.460 X 0.252
4.250	3.585	0.252	0.315	PS120-I-01-04.250 X 03.585 X 0.252
4.250	3.690	0.284	0.375	PS120-I-01-04.250 X 03.690 X 0.284
4.500	3.835	0.252	0.315	PS120-I-01-04.500 X 03.835 X 0.252
4.500	3.940	0.284	0.375	PS120-I-01-04.500 X 03.940 X 0.284
4.500	3.951	0.320	0.430	PS120-I-01-04.500 X 03.951 X 0.320
4.625	4.078	0.284	0.375	PS120-I-01-04.625 X 04.078 X 0.284
4.750	4.085	0.252	0.315	PS120-I-01-04.750 X 04.085 X 0.252
4.750	4.190	0.284	0.375	PS120-I-01-04.750 X 04.190 X 0.284
5.000	4.440	0.284	0.375	PS120-I-01-05.000 X 04.440 X 0.284
5.000	4.239	0.370	0.500	PS120-I-01-05.000 X 04.239 X 0.370
5.000	4.225	0.379	0.500	PS120-I-01-05.000 X 04.225 X 0.379
5.250	4.475	0.379	0.500	PS120-I-01-05.250 X 04.475 X 0.379
5.250	4.488	0.379	0.500	PS120-I-01-05.250 X 04.488 X 0.379
5.500	4.725	0.379	0.500	PS120-I-01-05.500 X 04.725 X 0.379
5.500	4.738	0.379	0.500	PS120-I-01-05.500 X 04.738 X 0.379
5.625	4.863	0.379	0.500	PS120-I-01-05.625 X 04.863 X 0.379
5.750	4.975	0.379	0.500	PS120-I-01-05.750 X 04.975 X 0.379
5.750	4.988	0.379	0.500	PS120-I-01-05.750 X 04.988 X 0.379
6.000	5.095	0.379	0.500	PS120-I-01-06.000 X 05.095 X 0.379
6.000	5.238	0.379	0.500	PS120-I-01-06.000 X 05.238 X 0.379
6.250	5.345	0.379	0.500	PS120-I-01-06.250 X 05.345 X 0.379
6.250	5.488	0.379	0.500	PS120-I-01-06.250 X 05.488 X 0.379
6.500	5.595	0.379	0.500	PS120-I-01-06.500 X 05.595 X 0.379
6.500	5.738	0.379	0.500	PS120-I-01-06.500 X 05.738 X 0.379
7.000	6.095	0.379	0.500	PS120-I-01-07.000 X 06.095 X 0.379
7.000	6.238	0.379	0.500	PS120-I-01-07.000 X 06.238 X 0.379
7.250	6.345	0.379	0.500	PS120-I-01-07.250 X 06.345 X 0.379

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
7.250	6.488	0.379	0.500	PS120-I-01-07.250 X 06.488 X 0.379
7.500	6.595	0.379	0.500	PS120-I-01-07.500 X 06.595 X 0.379
7.500	6.738	0.379	0.500	PS120-I-01-07.500 X 06.738 X 0.379
7.750	6.845	0.379	0.500	PS120-I-01-07.750 X 06.845 X 0.379
7.875	7.101	0.379	0.500	PS120-I-01-07.875 X 07.101 X 0.379
8.000	7.238	0.379	0.500	PS120-I-01-08.000 X 07.238 X 0.379
8.000	7.254	0.379	0.500	PS120-I-01-08.000 X 07.254 X 0.379
8.250	7.255	0.379	0.500	PS120-I-01-08.250 X 07.255 X 0.379
8.250	7.488	0.379	0.500	PS120-I-01-08.250 X 07.488 X 0.379
8.437	7.663	0.379	0.500	PS120-I-01-08.437 X 07.663 X 0.379
8.500	7.505	0.379	0.500	PS120-I-01-08.500 X 07.505 X 0.379
8.500	7.738	0.379	0.500	PS120-I-01-08.500 X 07.738 X 0.379
9.000	8.122	0.379	0.500	PS120-I-01-09.000 X 08.122 X 0.379
9.000	8.137	0.379	0.500	PS120-I-01-09.000 X 08.137 X 0.379
9.250	8.255	0.379	0.500	PS120-I-01-09.250 X 08.255 X 0.379
9.500	8.622	0.379	0.500	PS120-I-01-09.500 X 08.622 X 0.379
9.500	8.637	0.379	0.500	PS120-I-01-09.500 X 08.637 X 0.379
9.500	8.380	0.440	0.600	PS120-I-01-09.500 X 08.380 X 0.440
10.000	9.122	0.379	0.500	PS120-I-01-10.000 X 09.122 X 0.379
10.000	8.880	0.440	0.600	PS120-I-01-10.000 X 08.880 X 0.440
10.500	9.622	0.379	0.500	PS120-I-01-10.500 X 09.622 X 0.379
10.500	9.380	0.440	0.600	PS120-I-01-10.500 X 09.380 X 0.440
11.000	10.122	0.379	0.500	PS120-I-01-11.000 X 10.122 X 0.379
11.000	9.880	0.440	0.600	PS120-I-01-11.000 X 09.880 X 0.440
12.000	11.122	0.379	0.500	PS120-I-01-12.000 X 11.122 X 0.379
13.000	12.122	0.379	0.500	PS120-I-01-13.000 X 12.122 X 0.379
14.000	13.122	0.379	0.500	PS120-I-01-14.000 X 13.122 X 0.379

PISTON SEAL	PS152	

Features:

Piston seal profile PS152 consists of one polyurethane / polyester seal ring energized with one NBR 'O' ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS152-01	PU09	NB02	-20 to 100°C	315 Bar	0.5 m/s
PS152-02	HY03	NB02	-20 to 100°C	315 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Low wear
- Minimum installation space required

Application:

- Mobile Hydraulics
- Agricultural equipments
- Material Handling Equipments
- Control and regulating apparatus

Installation :

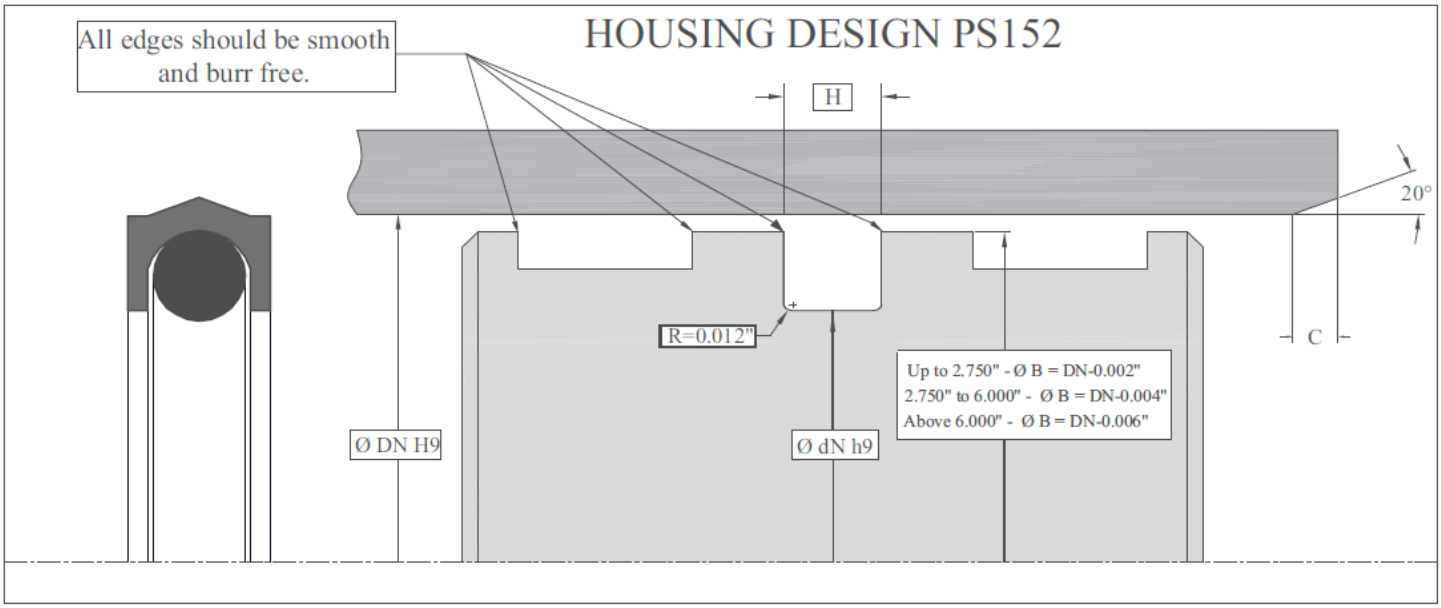
PS152 piston seals can be fitted on single-piece pistons. First insert the rubber O Ring into the housing carefully to avoid twisting of Ring. Install the Polyurethane / polyester part carefully over the O ring.

Ordering format :

Please follow PEC order code to place your order.

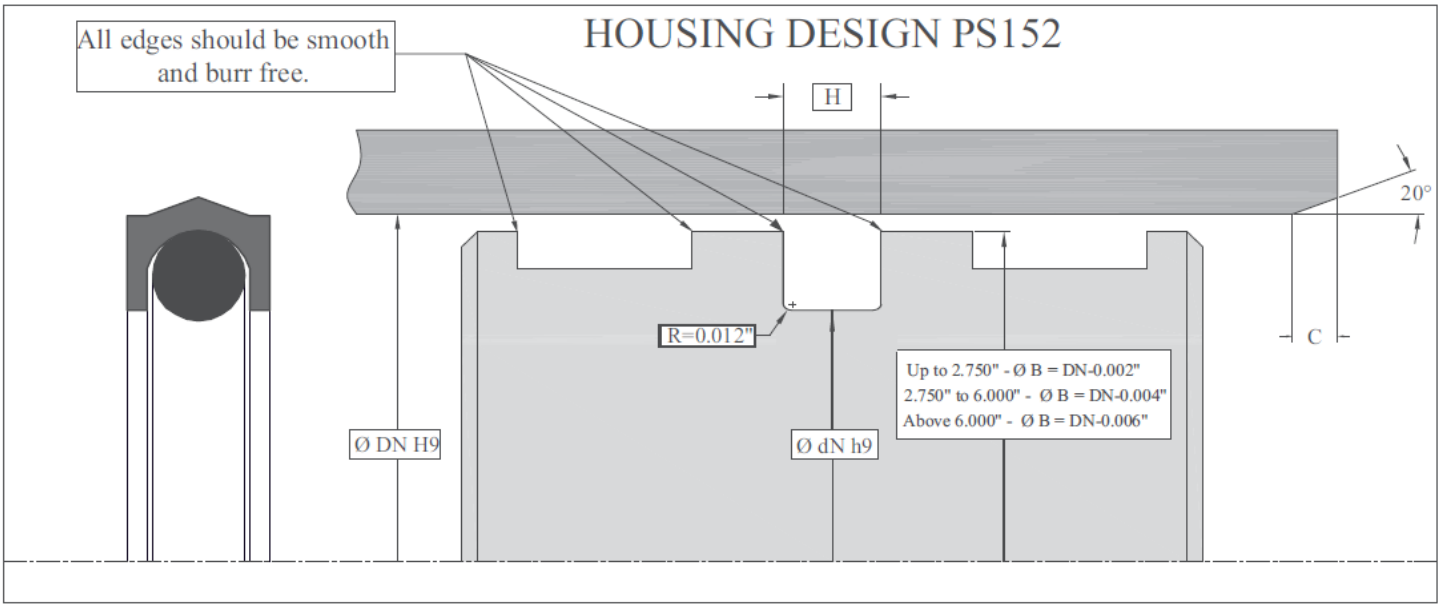
Example - for 1.000" x 0.754" x 0.185" x 210" Order Code is PS152-I-01-01-000 x 00.754 x 0.185

Please contact PEC if your required size is not mentioned in PEC standard size list.



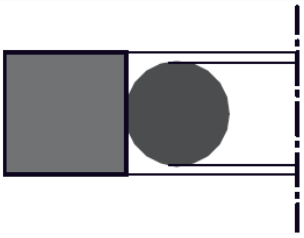
Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")	REF.O RING DASH NO.	ORDER CODE
1.000	0.754	0.185	210	PS152-I-01-01.000 X 00.754 X 0.185
1.125	0.879	0.185	212	PS152-I-01-01.125 X 00.879 X 0.185
1.250	1.004	0.185	214	PS152-I-01-01.250 X 01.004 X 0.185
1.375	1.129	0.185	216	PS152-I-01-01.375 X 01.129 X 0.185
1.500	1.254	0.185	218	PS152-I-01-01.500 X 01.254 X 0.185
1.500	1.254	0.304	218-2	PS152-I-01-01.500 X 01.254 X 0.304
1.625	1.379	0.185	220	PS152-I-01-01.625 X 01.379 X 0.185
1.750	1.504	0.185	222	PS152-I-01-01.750 X 01.504 X 0.185
1.750	1.504	0.304	222-2	PS152-I-01-01.750 X 01.504 X 0.304
2.000	1.625	0.280	326	PS152-I-01-02.000 X 01.625 X 0.280
2.000	1.625	0.424	326-2	PS152-I-01-02.000 X 01.625 X 0.424
2.250	1.875	0.280	328	PS152-I-01-02.250 X 01.875 X 0.280
2.500	2.125	0.280	330	PS152-I-01-02.500 X 02.125 X 0.280
2.500	2.125	0.424	330-2	PS152-I-01-02.500 X 02.125 X 0.424
2.750	2.375	0.280	332	PS152-I-01-02.750 X 02.375 X 0.280
2.750	2.375	0.424	332-2	PS152-I-01-02.750 X 02.375 X 0.424
3.000	2.625	0.280	334	PS152-I-01-03.000 X 02.625 X 0.280
3.000	2.625	0.424	334-2	PS152-I-01-03.000 X 02.625 X 0.424
3.250	2.875	0.280	336	PS152-I-01-03.250 X 02.875 X 0.280
3.250	2.875	0.424	336-2	PS152-I-01-03.250 X 02.875 X 0.424
3.500	3.125	0.280	338	PS152-I-01-03.500 X 03.125 X 0.280
3.500	3.125	0.424	338-2	PS152-I-01-03.500 X 03.125 X 0.424
3.750	3.375	0.280	340	PS152-I-01-03.750 X 03.375 X 0.280
3.875	3.500	0.280	341	PS152-I-01-03.875 X 03.500 X 0.280
4.000	3.625	0.280	342	PS152-I-01-04.000 X 03.625 X 0.280
4.000	3.625	0.424	342-2	PS152-I-01-04.000 X 03.625 X 0.424
4.250	3.875	0.280	344	PS152-I-01-04.250 X 03.875 X 0.280
4.250	3.875	0.424	344-2	PS152-I-01-04.250 X 03.875 X 0.424
4.500	4.125	0.280	346	PS152-I-01-04.500 X 04.125 X 0.280



Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	REF.O RING DASH NO.	ORDER CODE
4.500	4.125	0.424	346-2	PS152-I-01-04.500 X 04.125 X 0.424
4.750	4.375	0.280	348	PS152-I-01-04.750 X 04.375 X 0.280
4.750	4.375	0.424	348-2	PS152-I-01-04.750 X 04.375 X 0.424
5.000	4.520	0.365	425	PS152-I-01-05.000 X 04.520 X 0.365
5.000	4.520	0.579	425-2	PS152-I-01-05.000 X 04.520 X 0.579
5.000	4.520	0.280	350	PS152-I-01-05.000 X 04.520 X 0.280
5.500	5.020	0.365	429	PS152-I-01-05.500 X 05.020 X 0.365
6.000	5.520	0.365	433	PS152-I-01-06.000 X 05.520 X 0.365
6.000	5.520	0.579	433-2	PS152-I-01-06.000 X 05.520 X 0.579
6.250	5.770	0.365	435	PS152-I-01-06.250 X 05.770 X 0.365
6.500	6.020	0.365	437	PS152-I-01-06.500 X 06.020 X 0.365
6.750	6.270	0.365	438	PS152-I-01-06.750 X 06.270 X 0.365
7.000	6.520	0.365	439	PS152-I-01-07.000 X 06.520 X 0.365
7.250	6.770	0.365	440	PS152-I-01-07.250 X 06.770 X 0.365
7.500	7.020	0.365	441	PS152-I-01-07.500 X 07.020 X 0.365
7.750	7.270	0.365	442	PS152-I-01-07.750 X 07.270 X 0.365
8.000	7.520	0.365	443	PS152-I-01-08.000 X 07.520 X 0.365
9.000	8.520	0.365	446	PS152-I-01-09.000 X 08.520 X 0.365
10.000	9.520	0.365	448	PS152-I-01-10.000 X 09.520 X 0.365

PISTON SEAL	PS160	

Features:

Piston seal profile PS160 consists of two piece seal set for sealing pistons with one modified PTFE seal ring and one NBR 'O' ring as energizer.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS160-01	PT08	NB02	-20 to 100°C	315 Bar	4 m/s
PS160-02	PT02	NB02	-20 to 100°C	315 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Wide fluid application range
- Minimum installation space required

Application:

- Mobile Hydraulics
- Machine tools
- Control and regulating apparatus

Installation :

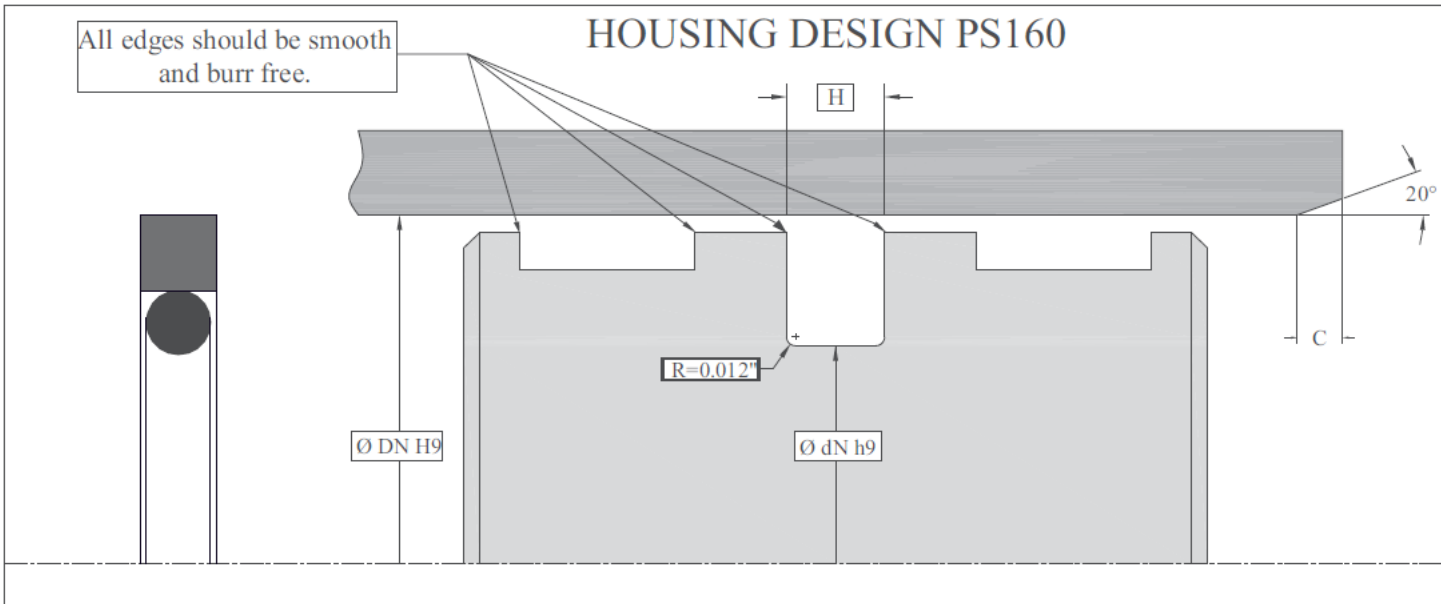
PS160 piston seals can be fitted on single-piece pistons. First insert the rubber O Ring into the housing carefully to avoid twisting of Ring. Install the PTFE part carefully over the O ring.

Ordering format :

Please follow PEC order code to place your order.

Example: For Imperial size 0.500" x 0.241" x 0.083" Order code is PS160-I-01-00.500 x 00.241 x 0.083

Please contact PEC if your required size is not mentioned in PEC standard size list

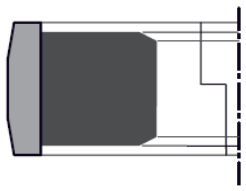


Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
0.500	0.241	0.083	0.118	PS160-I-01-00.500 X 00.241 X 0.083
0.625	0.366	0.083	0.118	PS160-I-01-00.625 X 00.366 X 0.083
0.750	0.491	0.083	0.118	PS160-I-01-00.750 X 00.491 X 0.083
1.000	0.741	0.083	0.118	PS160-I-01-01.000 X 00.741 X 0.083
1.125	0.866	0.083	0.118	PS160-I-01-01.125 X 00.866 X 0.083
1.250	0.991	0.083	0.118	PS160-I-01-01.250 X 00.991 X 0.083
1.375	1.116	0.083	0.118	PS160-I-01-01.375 X 01.116 X 0.083
1.500	1.241	0.083	0.118	PS160-I-01-01.500 X 01.241 X 0.083
1.625	1.235	0.122	0.177	PS160-I-01-01.625 X 01.235 X 0.122
1.750	1.360	0.122	0.177	PS160-I-01-01.750 X 01.360 X 0.122
1.875	1.483	0.122	0.177	PS160-I-01-01.875 X 01.483 X 0.122
2.000	1.606	0.130	0.177	PS160-I-01-02.000 X 01.606 X 0.130
2.125	1.733	0.130	0.177	PS160-I-01-02.125 X 01.733 X 0.130
2.250	1.856	0.130	0.177	PS160-I-01-02.250 X 01.856 X 0.130
2.375	1.981	0.130	0.177	PS160-I-01-02.375 X 01.981 X 0.130
2.500	2.106	0.130	0.177	PS160-I-01-02.500 X 02.106 X 0.130
2.750	2.356	0.130	0.177	PS160-I-01-02.750 X 02.356 X 0.130
3.000	2.606	0.130	0.177	PS160-I-01-03.000 X 02.606 X 0.130
3.125	2.733	0.130	0.177	PS160-I-01-03.125 X 02.733 X 0.130
3.250	2.856	0.130	0.177	PS160-I-01-03.250 X 02.856 X 0.130
3.375	2.983	0.130	0.177	PS160-I-01-03.375 X 02.983 X 0.130
3.500	3.106	0.130	0.177	PS160-I-01-03.500 X 03.106 X 0.130
3.625	3.233	0.130	0.177	PS160-I-01-03.625 X 03.233 X 0.130
3.750	3.356	0.130	0.177	PS160-I-01-03.750 X 03.356 X 0.130
4.000	3.606	0.130	0.177	PS160-I-01-04.000 X 03.606 X 0.130
4.250	3.856	0.130	0.177	PS160-I-01-04.250 X 03.856 X 0.130
4.400	4.008	0.130	0.177	PS160-I-01-04.400 X 04.008 X 0.130
4.500	4.106	0.130	0.177	PS160-I-01-04.500 X 04.106 X 0.130
4.750	4.356	0.130	0.177	PS160-I-01-04.750 X 04.356 X 0.130

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
4.875	4.483	0.130	0.177	PS160-I-01-04.875 X 04.483 X 0.130
5.000	4.606	0.130	0.177	PS160-I-01-05.000 X 04.606 X 0.130
5.250	4.856	0.130	0.177	PS160-I-01-05.250 X 04.856 X 0.130
5.500	5.106	0.130	0.177	PS160-I-01-05.500 X 05.106 X 0.130
5.750	5.232	0.159	0.236	PS160-I-01-05.750 X 05.232 X 0.159
5.875	5.357	0.159	0.236	PS160-I-01-05.875 X 05.357 X 0.159
6.000	5.482	0.159	0.236	PS160-I-01-06.000 X 05.482 X 0.159
6.125	5.607	0.159	0.236	PS160-I-01-06.125 X 05.607 X 0.159
6.250	5.732	0.159	0.236	PS160-I-01-06.250 X 05.732 X 0.159
6.500	5.982	0.159	0.236	PS160-I-01-06.500 X 05.982 X 0.159
6.750	6.232	0.159	0.236	PS160-I-01-06.750 X 06.232 X 0.159
7.000	6.482	0.159	0.236	PS160-I-01-07.000 X 06.482 X 0.159
7.250	6.732	0.159	0.236	PS160-I-01-07.250 X 06.732 X 0.159
7.500	6.982	0.159	0.236	PS160-I-01-07.500 X 06.982 X 0.159
7.750	7.232	0.159	0.236	PS160-I-01-07.750 X 07.232 X 0.159
8.000	7.482	0.159	0.236	PS160-I-01-08.000 X 07.482 X 0.159
8.125	4.607	0.159	0.236	PS160-I-01-08.125 X 04.607 X 0.159
8.250	7.732	0.159	0.236	PS160-I-01-08.250 X 07.732 X 0.159
8.500	7.982	0.159	0.236	PS160-I-01-08.500 X 07.982 X 0.159
8.750	8.232	0.159	0.236	PS160-I-01-08.750 X 08.232 X 0.159
9.000	8.482	0.159	0.236	PS160-I-01-09.000 X 08.482 X 0.159
9.250	8.732	0.159	0.236	PS160-I-01-09.250 X 08.732 X 0.159
9.500	8.982	0.159	0.236	PS160-I-01-09.500 X 08.982 X 0.159
9.750	9.232	0.159	0.236	PS160-I-01-09.750 X 09.232 X 0.159
10.000	9.482	0.159	0.236	PS160-I-01-10.000 X 09.482 X 0.159
10.250	9.732	0.159	0.236	PS160-I-01-10.250 X 09.732 X 0.159
10.500	9.982	0.159	0.236	PS160-I-01-10.500 X 09.982 X 0.159
10.750	10.232	0.159	0.236	PS160-I-01-10.750 X 10.232 X 0.159
11.000	10.482	0.159	0.236	PS160-I-01-11.000 X 10.482 X 0.159
11.500	10.982	0.159	0.236	PS160-I-01-11.500 X 10.982 X 0.159
12.000	11.482	0.159	0.236	PS160-I-01-12.000 X 11.482 X 0.159
12.500	11.982	0.159	0.236	PS160-I-01-12.500 X 11.982 X 0.159
13.000	12.482	0.159	0.236	PS160-I-01-13.000 X 12.482 X 0.159
14.000	13.482	0.159	0.236	PS160-I-01-14.000 X 13.482 X 0.159

PISTON SEAL	PS184	

Features:

Piston seal profile PS184 consists of two piece seal set for sealing pistons with one seal ring and one NBR square/rectangular energizer ring.

Composition:

PS184 is a combination of split glass filled polyamide seal ring along with NBR Square/Rectangular energizer ring.

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS184-01	PA09	NB04	-20 to 100°C	500 Bar	1.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High abrasion resistance
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Machine tools
- Material Handling Equipments

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Installation :

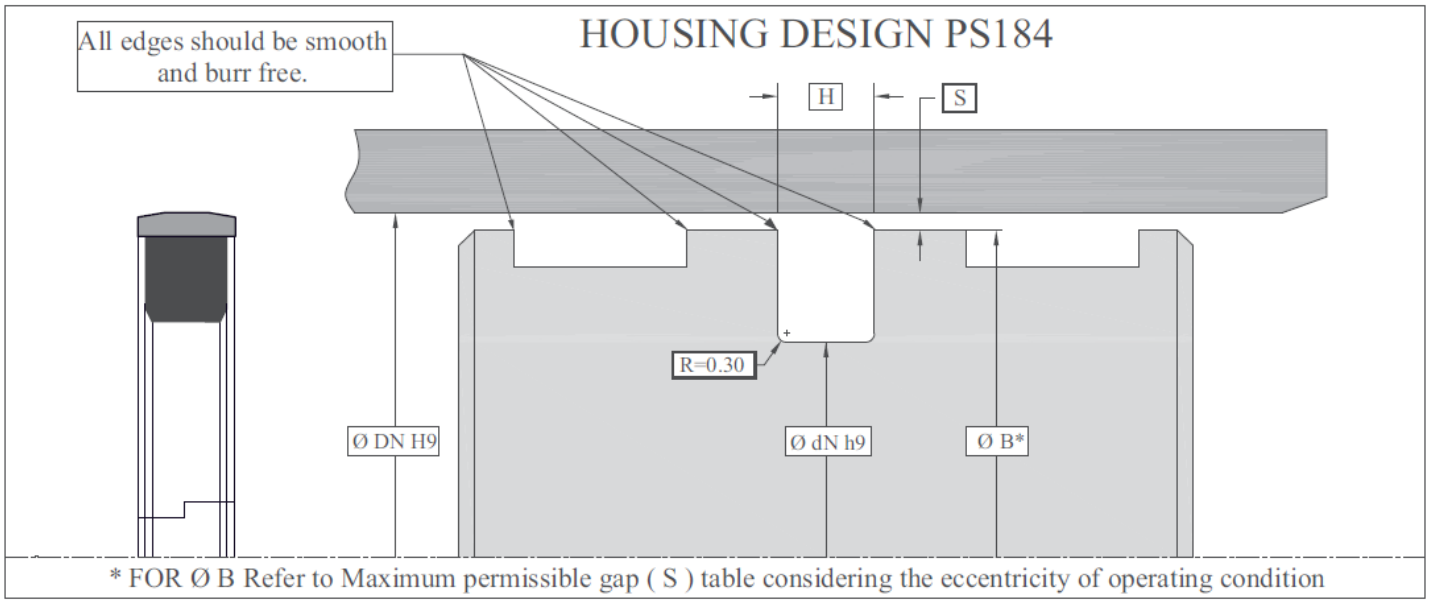
PS184 piston seals can be fitted on single-piece pistons. First insert the rubber Square Ring into the housing carefully to avoid twisting of Ring. The polyamide ring is then carefully placed on the piston above the Square Ring.

Ordering format :

Please follow PEC order code to place your order.

Example - for Metric size 50.00 x 34.50 x 6.30—order code is PS184-M-01-050.00 x 034.50 x 06.30

Please contact PEC if your required size is not mentioned in PEC standard size list

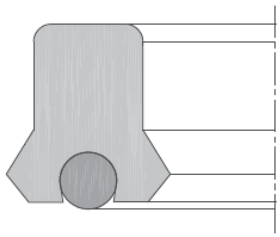


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)		ORDER CODE
50.00	34.50	6.30		PS184-M-01-050.00 X 034.50 X 06.30
63.00	47.50	6.30		PS184-M-01-063.00 X 047.50 X 06.30
75.00	54.00	8.10		PS184-M-01-075.00 X 054.00 X 08.10
75.00	59.50	6.30		PS184-M-01-075.00 X 059.50 X 06.30
80.00	59.00	8.10		PS184-M-01-080.00 X 059.00 X 08.10
80.00	64.50	6.30		PS184-M-01-080.00 X 064.50 X 06.30
85.00	64.00	8.10		PS184-M-01-085.00 X 064.00 X 08.10
90.00	69.00	8.10		PS184-M-01-090.00 X 069.00 X 08.10
90.00	74.50	6.30		PS184-M-01-090.00 X 074.50 X 06.30
95.00	74.00	8.10		PS184-M-01-095.00 X 074.00 X 08.10
100.00	79.00	8.10		PS184-M-01-100.00 X 079.00 X 08.10
100.00	84.50	6.30		PS184-M-01-100.00 X 084.50 X 06.30
105.00	84.00	8.10		PS184-M-01-105.00 X 084.00 X 08.10
110.00	89.00	8.10		PS184-M-01-110.00 X 089.00 X 08.10
110.00	94.50	6.30		PS184-M-01-110.00 X 094.50 X 06.30
115.00	94.00	8.10		PS184-M-01-115.00 X 094.00 X 08.10
120.00	99.00	8.10		PS184-M-01-120.00 X 099.00 X 08.10
125.00	104.00	8.10		PS184-M-01-125.00 X 104.00 X 08.10
125.00	109.50	6.30		PS184-M-01-125.00 X 109.50 X 06.30
130.00	109.00	8.10		PS184-M-01-130.00 X 109.00 X 08.10
135.00	114.00	8.10		PS184-M-01-135.00 X 114.00 X 08.10
140.00	119.00	8.10		PS184-M-01-140.00 X 119.00 X 08.10
145.00	124.00	8.10		PS184-M-01-145.00 X 124.00 X 08.10
150.00	129.00	8.10		PS184-M-01-150.00 X 129.00 X 08.10
155.00	134.00	8.10		PS184-M-01-155.00 X 134.00 X 08.10
160.00	139.00	8.10		PS184-M-01-160.00 X 139.00 X 08.10
165.00	144.00	8.10		PS184-M-01-165.00 X 144.00 X 08.10
170.00	149.00	8.10		PS184-M-01-170.00 X 149.00 X 08.10
175.00	154.00	8.10		PS184-M-01-175.00 X 154.00 X 08.10
180.00	159.00	8.10		PS184-M-01-180.00 X 159.00 X 08.10
185.00	164.00	8.10		PS184-M-01-185.00 X 164.00 X 08.10

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	H (+0.20)		ORDER CODE
190.00	169.00	8.10		PS184-M-01-190.00 X 169.00 X 08.10
195.00	174.00	8.10		PS184-M-01-195.00 X 174.00 X 08.10
200.00	179.00	8.10		PS184-M-01-200.00 X 179.00 X 08.10
230.00	209.00	8.10		PS184-M-01-230.00 X 209.00 X 08.10
260.00	239.00	8.10		PS184-M-01-260.00 X 239.00 X 08.10
290.00	269.00	8.10		PS184-M-01-290.00 X 269.00 X 08.10

SYMMETRIC SEAL	SS001	

Features :

SS001 is a single acting U cup type seal with O ring energizer used for both piston and rod seal.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
SS001-01	PU01	NB02	-20 to 100°C	400 Bar*	0.5 m/s
SS001-02	VT04	VT01	-20 to 200°C	160 Bar	0.5 m/s
SS001-03	NB01	NB02	-20 to 100°C	160 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

* Maximum working pressure can be extended up to 400 bar with the use of a back up ring. If this option is required ask PEC

Properties:

- High resistance to abrasion
- Easy installation
- Suitable for very low to high pressure

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances as well as maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap dimension (s) for Metric sizes (mm)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.2	0.2	0.17	0.15

Maximum permissible gap dimension (s) for Imperial sizes (inch)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.008	0.008	0.007	0.006

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

SS001 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

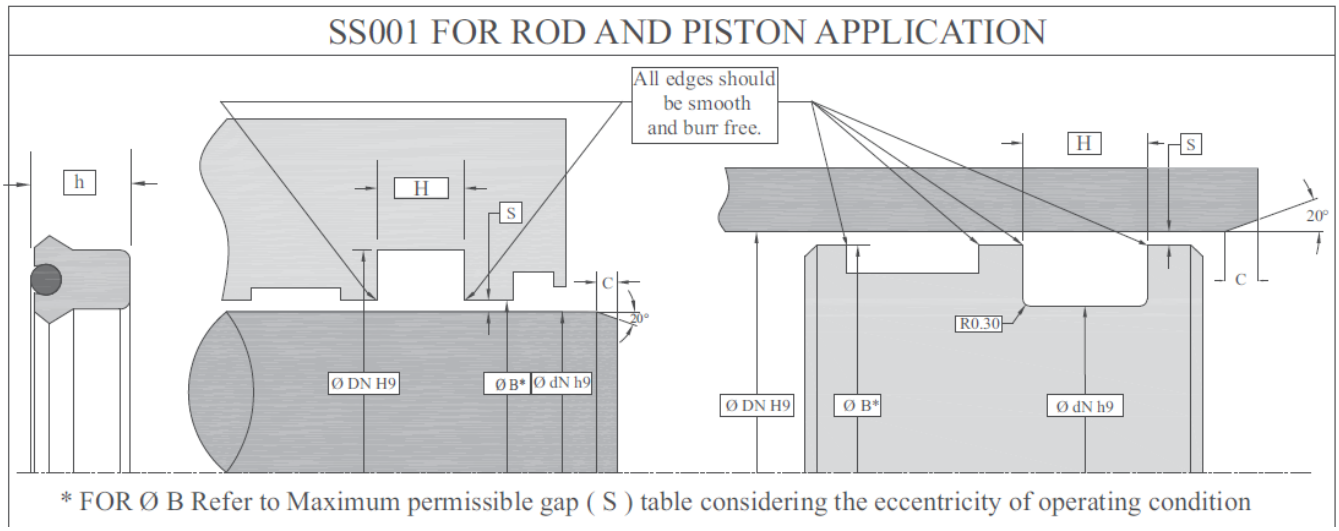
Please mention PEC order code in your order.

Example: Metric size 5.00 x 12.00 x 5.90/6.50

Order code is SS001-M-01-005.00 x 012.00 x 05.90/06.50

Example: Imperial size 0.750” x 1.000” x 0.125”/0.135”

Please contact PEC if your required size is not mentioned in PEC standard size list.



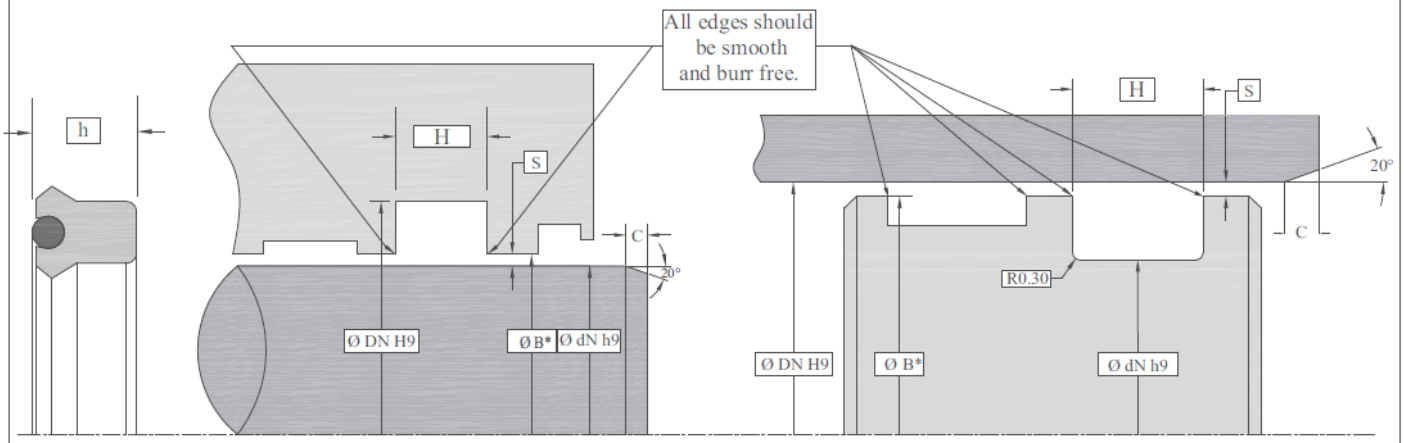
Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
5.00	12.00	5.90	6.50	SS001-M-01-005.00 X 012.00 X 05.9/06.5
10.00	15.00	3.60	4.00	SS001-M-01-010.00 X 015.00 X 03.6/04.0
12.00	18.00	5.50	6.00	SS001-M-01-012.00 X 018.00 X 05.5/06.0
12.00	22.00	7.30	8.00	SS001-M-01-012.00 X 022.00 X 07.3/08.0
18.00	26.00	5.30	5.80	SS001-M-01-018.00 X 026.00 X 05.3/05.8
20.00	28.00	5.70	6.30	SS001-M-01-020.00 X 028.00 X 05.7/06.3
25.00	33.00	5.50	6.00	SS001-M-01-025.00 X 033.00 X 05.5/06.0
25.00	33.00	6.40	7.00	SS001-M-01-025.00 X 033.00 X 06.4/07.0
25.00	38.00	9.10	10.00	SS001-M-01-025.00 X 038.00 X 09.1/10.0
26.00	36.00	7.30	8.00	SS001-M-01-026.00 X 036.00 X 07.3/08.0
30.00	40.00	7.30	8.00	SS001-M-01-030.00 X 040.00 X 07.3/08.0
30.00	40.00	9.10	10.00	SS001-M-01-030.00 X 040.00 X 09.1/10.0
31.50	41.50	6.20	6.80	SS001-M-01-031.50 X 041.50 X 06.2/06.8
35.00	45.00	7.30	8.00	SS001-M-01-035.00 X 045.00 X 07.3/08.0
40.00	50.00	7.30	8.00	SS001-M-01-040.00 X 050.00 X 07.3/08.0
45.00	55.00	7.30	8.00	SS001-M-01-045.00 X 055.00 X 07.3/08.0
45.00	55.00	9.10	10.00	SS001-M-01-045.00 X 055.00 X 09.1/10.0
45.00	55.00	10.00	11.00	SS001-M-01-045.00 X 055.00 X 10.0/11.0
45.00	65.00	11.40	12.50	SS001-M-01-045.00 X 065.00 X 11.4/12.5
48.00	58.00	10.00	11.00	SS001-M-01-048.00 X 058.00 X 10.0/11.0
50.00	60.00	7.30	8.00	SS001-M-01-050.00 X 060.00 X 07.3/08.0
50.00	70.00	14.50	16.00	SS001-M-01-050.00 X 070.00 X 14.5/16.0
55.00	65.00	11.80	13.00	SS001-M-01-055.00 X 065.00 X 11.8/13.0
55.00	70.00	9.10	10.00	SS001-M-01-055.00 X 070.00 X 09.1/10.0
55.00	70.00	10.90	12.00	SS001-M-01-055.00 X 070.00 X 10.9/12.0
55.00	75.00	14.50	16.00	SS001-M-01-055.00 X 075.00 X 14.5/16.0
56.00	66.00	10.00	11.00	SS001-M-01-056.00 X 066.00 X 10.0/11.0
56.00	71.00	9.10	10.00	SS001-M-01-056.00 X 071.00 X 09.1/10.0
58.00	72.00	9.10	10.00	SS001-M-01-058.00 X 072.00 X 09.1/10.0
60.00	70.00	7.20	8.00	SS001-M-01-060.00 X 070.00 X 07.2/08.0
60.00	73.00	12.80	14.00	SS001-M-01-060.00 X 073.00 X 12.8/14.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
60.00	75.00	9.00	10.00	SS001-M-01-060.00 X 075.00 X 09.0/10.0
60.00	80.00	11.80	13.00	SS001-M-01-060.00 X 080.00 X 11.8/13.0
62.00	72.00	7.30	8.00	SS001-M-01-062.00 X 072.00 X 07.3/08.0
62.00	72.00	10.00	11.00	SS001-M-01-062.00 X 072.00 X 10.0/11.0
68.00	76.00	9.10	10.00	SS001-M-01-068.00 X 076.00 X 09.1/10.0
70.00	80.00	9.10	10.00	SS001-M-01-070.00 X 080.00 X 09.1/10.0
70.00	80.00	11.80	13.00	SS001-M-01-070.00 X 080.00 X 11.8/13.0
72.00	82.00	10.00	11.00	SS001-M-01-072.00 X 082.00 X 10.0/11.0
72.00	87.00	9.10	10.00	SS001-M-01-072.00 X 087.00 X 09.1/10.0
75.00	85.00	11.80	13.00	SS001-M-01-075.00 X 085.00 X 11.8/13.0
75.00	95.00	14.50	16.00	SS001-M-01-075.00 X 095.00 X 14.5/16.0
80.00	90.00	10.00	11.00	SS001-M-01-080.00 X 090.00 X 10.0/11.0
80.00	100.00	14.50	16.00	SS001-M-01-080.00 X 100.00 X 14.5/16.0
82.00	92.00	10.00	11.00	SS001-M-01-082.00 X 092.00 X 10.0/11.0
85.00	100.00	9.10	10.00	SS001-M-01-085.00 X 100.00 X 09.1/10.0
85.00	100.00	11.40	12.50	SS001-M-01-085.00 X 100.00 X 11.4/12.5
85.70	100.00	16.40	18.00	SS001-M-01-085.70 X 100.00 X 16.4/18.0
86.00	94.00	9.10	10.00	SS001-M-01-086.00 X 094.00 X 09.1/10.0
88.00	98.00	7.30	8.00	SS001-M-01-088.00 X 098.00 X 07.3/08.0
90.00	105.00	11.40	12.50	SS001-M-01-090.00 X 105.00 X 11.4/12.5
90.00	110.00	11.80	13.00	SS001-M-01-090.00 X 110.00 X 11.8/13.0
90.00	110.00	14.50	16.00	SS001-M-01-090.00 X 110.00 X 14.5/16.0
94.00	104.00	11.80	13.00	SS001-M-01-094.00 X 104.00 X 11.8/13.0
95.00	110.00	10.00	11.00	SS001-M-01-095.00 X 110.00 X 10.0/11.0
100.00	110.00	9.10	10.00	SS001-M-01-100.00 X 110.00 X 09.1/10.0
100.00	115.00	11.40	12.50	SS001-M-01-100.00 X 115.00 X 11.4/12.5
105.00	120.00	10.00	11.00	SS001-M-01-105.00 X 120.00 X 10.0/11.0
112.00	122.00	7.30	8.00	SS001-M-01-112.00 X 122.00 X 07.3/08.0
114.00	124.00	11.80	13.00	SS001-M-01-114.00 X 124.00 X 11.8/13.0
130.00	160.00	17.30	19.00	SS001-M-01-130.00 X 160.00 X 17.3/19.0
210.00	230.00	14.50	16.00	SS001-M-01-210.00 X 230.00 X 14.5/16.0
230.00	250.00	14.50	16.00	SS001-M-01-230.00 X 250.00 X 14.5/16.0

SS001 FOR ROD AND PISTON APPLICATION



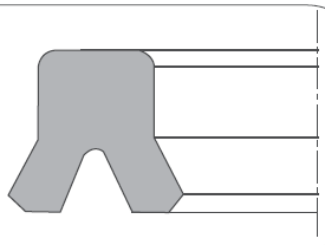
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

IMPERIAL SIZES				
dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
0.750	1.000	0.125	0.135	SS001-I-01-00.750 X 01.000 X 0.125/0.135
0.750	1.000	0.250	0.275	SS001-I-01-00.750 X 01.000 X 0.250/0.275
1.000	1.250	0.125	0.135	SS001-I-01-01.000 X 01.250 X 0.125/0.135
1.125	1.500	0.312	0.343	SS001-I-01-01.125 X 01.500 X 0.312/0.343
1.125	1.625	0.343	0.375	SS001-I-01-01.125 X 01.625 X 0.343/0.375
1.125	1.750	0.391	0.430	SS001-I-01-01.125 X 01.750 X 0.391/0.430
1.125	1.750	0.430	0.478	SS001-I-01-01.125 X 01.750 X 0.430/0.478
1.250	1.500	0.250	0.275	SS001-I-01-01.250 X 01.500 X 0.250/0.275
1.250	1.625	0.295	0.325	SS001-I-01-01.250 X 01.625 X 0.295/0.325
1.250	1.625	0.312	0.343	SS001-I-01-01.250 X 01.625 X 0.312/0.343
1.250	1.625	0.325	0.365	SS001-I-01-01.250 X 01.625 X 0.325/0.365
1.500	1.875	0.184	0.202	SS001-I-01-01.500 X 01.875 X 0.184/0.202
1.500	1.875	0.343	0.375	SS001-I-01-01.500 X 01.875 X 0.343/0.375
1.500	2.000	0.343	0.375	SS001-I-01-01.500 X 02.000 X 0.343/0.375
1.500	2.000	0.375	0.413	SS001-I-01-01.500 X 02.000 X 0.375/0.413
1.500	2.125	0.397	0.437	SS001-I-01-01.500 X 02.125 X 0.397/0.437
1.625	2.000	0.375	0.412	SS001-I-01-01.625 X 02.000 X 0.375/0.412
1.750	2.250	0.343	0.375	SS001-I-01-01.750 X 02.250 X 0.343/0.375
1.750	2.375	0.455	0.500	SS001-I-01-01.750 X 02.375 X 0.455/0.500
1.750	2.500	0.625	0.688	SS001-I-01-01.750 X 02.500 X 0.625/0.688
2.000	2.375	0.375	0.413	SS001-I-01-02.000 X 02.375 X 0.375/0.413
2.000	2.500	0.343	0.375	SS001-I-01-02.000 X 02.500 X 0.343/0.375
2.000	2.500	0.375	0.410	SS001-I-01-02.000 X 02.500 X 0.375/0.410
2.000	2.625	0.343	0.375	SS001-I-01-02.000 X 02.625 X 0.343/0.375
2.125	2.500	0.250	0.275	SS001-I-01-02.125 X 02.500 X 0.250/0.275
2.250	2.750	0.343	0.375	SS001-I-01-02.250 X 02.750 X 0.343/0.375
2.250	2.750	0.375	0.413	SS001-I-01-02.250 X 02.750 X 0.375/0.413
2.375	2.875	0.375	0.410	SS001-I-01-02.375 X 02.875 X 0.375/0.410
2.500	3.000	0.227	0.250	SS001-I-01-02.500 X 03.000 X 0.227/0.250

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
2.500	3.000	0.343	0.375	SS001-I-01-02.500 X 03.000 X 0.343/0.375
2.500	3.125	0.455	0.500	SS001-I-01-02.500 X 03.125 X 0.455/0.500
2.500	3.250	0.500	0.550	SS001-I-01-02.500 X 03.250 X 0.500/0.550
2.500	3.250	0.625	0.686	SS001-I-01-02.500 X 03.250 X 0.625/0.686
2.750	3.250	0.375	0.413	SS001-I-01-02.750 X 03.250 X 0.375/0.413
2.750	3.500	0.375	0.413	SS001-I-01-02.750 X 03.500 X 0.375/0.413
2.875	3.250	0.255	0.280	SS001-I-01-02.875 X 03.250 X 0.255/0.280
3.000	3.500	0.375	0.413	SS001-I-01-03.000 X 03.500 X 0.375/0.413
3.000	3.750	0.375	0.413	SS001-I-01-03.000 X 03.750 X 0.375/0.413
3.000	3.750	0.568	0.625	SS001-I-01-03.000 X 03.750 X 0.568/0.625
3.125	3.500	0.252	0.275	SS001-I-01-03.125 X 03.500 X 0.252/0.275
3.250	4.000	0.343	0.375	SS001-I-01-03.250 X 04.000 X 0.343/0.375
3.250	4.000	0.375	0.413	SS001-I-01-03.250 X 04.000 X 0.375/0.413
3.375	4.125	0.625	0.686	SS001-I-01-03.375 X 04.125 X 0.625/0.686
3.500	4.000	0.343	0.375	SS001-I-01-03.500 X 04.000 X 0.343/0.375
3.500	4.125	0.460	0.500	SS001-I-01-03.500 X 04.125 X 0.460/0.500
3.625	4.000	0.375	0.410	SS001-I-01-03.625 X 04.000 X 0.375/0.410
3.750	4.125	0.205	0.225	SS001-I-01-03.750 X 04.125 X 0.205/0.225
4.000	4.500	0.227	0.250	SS001-I-01-04.000 X 04.500 X 0.227/0.250
4.000	4.500	0.250	0.275	SS001-I-01-04.000 X 04.500 X 0.250/0.275
4.500	5.000	0.562	0.619	SS001-I-01-04.500 X 05.000 X 0.562/0.619
5.000	5.500	0.343	0.375	SS001-I-01-05.000 X 05.500 X 0.343/0.375
5.000	5.500	0.375	0.413	SS001-I-01-05.000 X 05.500 X 0.375/0.413
5.000	5.750	0.682	0.750	SS001-I-01-05.000 X 05.750 X 0.682/0.750
5.250	6.000	0.625	0.686	SS001-I-01-05.250 X 06.000 X 0.625/0.686
5.375	6.000	0.455	0.500	SS001-I-01-05.375 X 06.000 X 0.455/0.500
5.500	6.000	0.562	0.619	SS001-I-01-05.500 X 06.000 X 0.562/0.619
5.500	6.125	0.350	0.385	SS001-I-01-05.500 X 06.125 X 0.350/0.385
5.500	6.250	0.625	0.687	SS001-I-01-05.500 X 06.250 X 0.625/0.687
5.750	6.125	0.500	0.550	SS001-I-01-05.750 X 06.125 X 0.500/0.550
5.750	6.250	0.562	0.619	SS001-I-01-05.750 X 06.250 X 0.562/0.619
6.000	6.750	0.625	0.688	SS001-I-01-06.000 X 06.750 X 0.625/0.688
6.750	7.500	0.343	0.375	SS001-I-01-06.750 X 07.500 X 0.343/0.375
6.750	7.500	0.375	0.413	SS001-I-01-06.750 X 07.500 X 0.375/0.413
7.000	7.750	0.625	0.688	SS001-I-01-07.000 X 07.750 X 0.625/0.688
7.500	8.250	0.682	0.750	SS001-I-01-07.500 X 08.250 X 0.682/0.750
13.750	14.500	0.375	0.413	SS001-I-01-13.750 X 14.500 X 0.375/0.413
14.750	15.500	0.375	0.413	SS001-I-01-14.750 X 15.500 X 0.375/0.413
16.750	17.500	0.375	0.413	SS001-I-01-16.750 X 17.500 X 0.375/0.413

SYMMETRIC SEAL	SS002	

Features :

SS002 is a single acting U cup type seal used for both piston and rod seal.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
SS002-01	PU01	-20 to 100°C	315 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High resistance to abrasion
- Easy installation
- Used as piston seal & rod seal

Application:

- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using the minimum piston OD and max bore Ø considering respective tolerances as well as maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap dimension (s) for Metric sizes (mm)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.2	0.2	0.15	ASK PEC

Maximum permissible gap dimension (s) for Imperial sizes (inch)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.008	0.008	0.006	ASK PEC

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

SS002 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect function.

Ordering format:

Please mention PEC order code in your order

Example: for Metric size 16 x 22 x 5/6

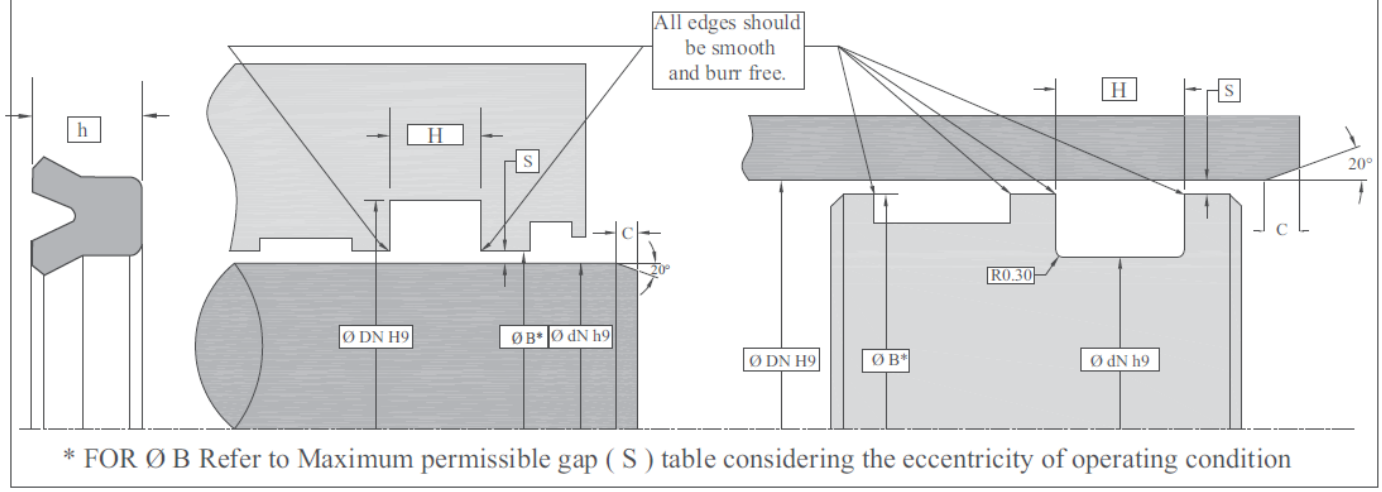
Order code is SS002-M-01-016.00 x 022.00 x 05.0/06.0

Example: for Imperial size 1.25” x 01.625” x 0.313”/0.343”

Order code is SS002-I-01-01.250 x 01.625 x 0.313/0.343

Please contact PEC if your required size is not mentioned in PEC standard size list

SS002 FOR ROD AND PISTON APPLICATION



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

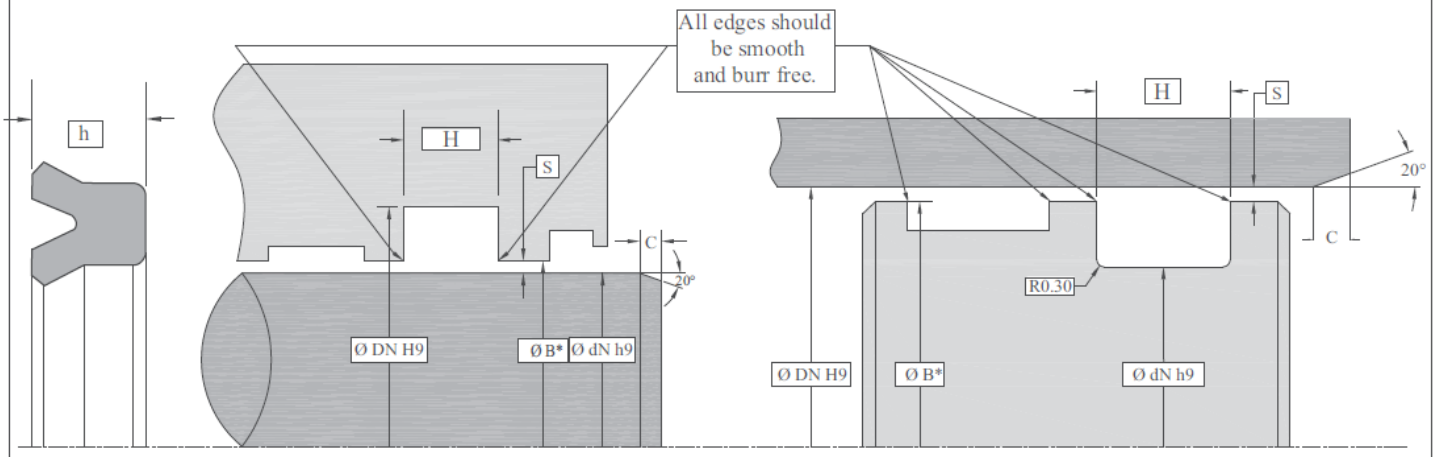
Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
16.00	22.00	5.00	6.00	SS002-M-01-016.00 X 022.00 X 05.0/06.0
18.00	24.00	8.00	9.00	SS002-M-01-018.00 X 024.00 X 08.0/09.0
20.00	28.00	5.00	5.50	SS002-M-01-020.00 X 028.00 X 05.0/05.5
20.00	30.00	6.00	7.00	SS002-M-01-020.00 X 030.00 X 06.0/07.0
25.00	33.00	5.00	5.50	SS002-M-01-025.00 X 033.00 X 05.0/05.5
25.00	35.00	6.00	7.00	SS002-M-01-025.00 X 035.00 X 06.0/07.0
30.00	40.00	6.00	7.00	SS002-M-01-030.00 X 040.00 X 06.0/07.0
31.50	41.50	6.00	7.00	SS002-M-01-031.50 X 041.50 X 06.0/07.0
35.00	45.00	6.00	7.00	SS002-M-01-035.00 X 045.00 X 06.0/07.0
35.00	55.00	10.00	11.00	SS002-M-01-035.00 X 055.00 X 10.0/11.0
36.00	44.00	6.00	6.50	SS002-M-01-036.00 X 044.00 X 06.0/06.5
38.00	50.00	9.00	10.00	SS002-M-01-038.00 X 050.00 X 09.0/10.0
40.00	50.00	6.00	7.00	SS002-M-01-040.00 X 050.00 X 06.0/07.0
45.00	55.00	6.00	7.00	SS002-M-01-045.00 X 055.00 X 06.0/07.0
50.00	60.00	6.00	7.00	SS002-M-01-050.00 X 060.00 X 06.0/07.0
53.00	63.00	6.00	7.00	SS002-M-01-053.00 X 063.00 X 06.0/07.0
53.00	63.00	6.30	7.00	SS002-M-01-053.00 X 063.00 X 06.3/07.0
55.00	63.00	5.00	5.50	SS002-M-01-055.00 X 063.00 X 05.0/05.5
55.00	65.00	6.00	7.00	SS002-M-01-055.00 X 065.00 X 06.0/07.0
56.00	66.00	6.00	7.00	SS002-M-01-056.00 X 066.00 X 06.0/07.0
60.00	70.00	6.00	7.00	SS002-M-01-060.00 X 070.00 X 06.0/07.0
65.00	75.00	6.00	7.00	SS002-M-01-065.00 X 075.00 X 06.0/07.0
65.00	80.00	7.30	8.00	SS002-M-01-065.00 X 080.00 X 07.3/08.0
70.00	80.00	6.00	7.00	SS002-M-01-070.00 X 080.00 X 06.0/07.0
70.00	80.00	8.00	8.80	SS002-M-01-070.00 X 080.00 X 08.0/08.8
105.00	130.00	12.00	13.00	SS002-M-01-105.00 X 130.00 X 12.0/13.0
110.00	125.00	11.00	12.00	SS002-M-01-110.00 X 125.00 X 11.0/12.0
115.00	130.00	11.00	12.00	SS002-M-01-115.00 X 130.00 X 11.0/12.0
125.00	140.00	12.00	13.00	SS002-M-01-125.00 X 140.00 X 12.0/13.0
145.00	160.00	8.00	9.00	SS002-M-01-145.00 X 160.00 X 08.0/09.0
180.00	205.00	19.00	21.00	SS002-M-01-180.00 X 205.00 X 19.0/21.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
190.00	210.00	15.00	16.00	SS002-M-01-190.00 X 210.00 X 15.0/16.0
200.00	180.00	12.00	13.00	SS002-M-01-200.00 X 180.00 X 12.0/13.0
200.00	230.00	15.00	16.00	SS002-M-01-200.00 X 230.00 X 15.0/16.0
204.00	224.00	12.00	13.00	SS002-M-01-204.00 X 224.00 X 12.0/13.0
270.00	300.00	17.30	19.00	SS002-M-01-270.00 X 300.00 X 17.3/19.0

SS002 FOR ROD AND PISTON APPLICATION



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

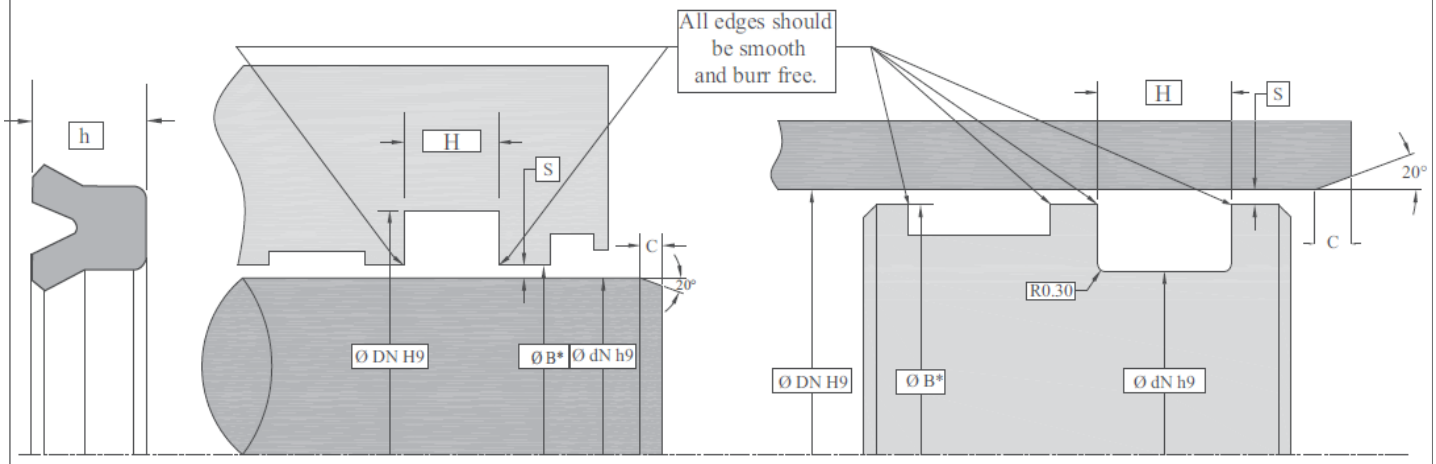
Polymer Engineering Standard Size List

IMPERIAL SIZES				
dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
0.694	0.876	0.125	0.140	SS002-I-01-00.694 X 00.876 X 0.125/0.140
1.250	1.625	0.313	0.343	SS002-I-01-01.250 X 01.625 X 0.313/0.343
1.250	1.625	0.375	0.413	SS002-I-01-01.250 X 01.625 X 0.375/0.413
1.250	1.750	0.375	0.413	SS002-I-01-01.250 X 01.750 X 0.375/0.413
1.375	1.625	0.250	0.275	SS002-I-01-01.375 X 01.625 X 0.250/0.275
1.375	1.875	0.375	0.413	SS002-I-01-01.375 X 01.875 X 0.375/0.413
1.500	1.875	0.375	0.413	SS002-I-01-01.500 X 01.875 X 0.375/0.413
1.500	2.000	0.250	0.281	SS002-I-01-01.500 X 02.000 X 0.250/0.281
1.500	2.000	0.375	0.413	SS002-I-01-01.500 X 02.000 X 0.375/0.413
1.625	2.125	0.375	0.413	SS002-I-01-01.625 X 02.125 X 0.375/0.413
1.750	2.125	0.375	0.413	SS002-I-01-01.750 X 02.125 X 0.375/0.413
1.750	2.250	0.375	0.413	SS002-I-01-01.750 X 02.250 X 0.375/0.413
1.750	2.375	0.375	0.413	SS002-I-01-01.750 X 02.375 X 0.375/0.413
2.000	2.375	0.375	0.413	SS002-I-01-02.000 X 02.375 X 0.375/0.413
2.000	2.500	0.500	0.550	SS002-I-01-02.000 X 02.500 X 0.500/0.550
2.000	2.625	0.375	0.413	SS002-I-01-02.000 X 02.625 X 0.375/0.413
2.000	2.625	0.500	0.550	SS002-I-01-02.000 X 02.625 X 0.500/0.550
2.250	2.750	0.375	0.413	SS002-I-01-02.250 X 02.750 X 0.375/0.413
2.375	3.125	0.375	0.413	SS002-I-01-02.375 X 03.125 X 0.375/0.413
2.500	2.875	0.375	0.413	SS002-I-01-02.500 X 02.875 X 0.375/0.413
2.500	3.000	0.250	0.288	SS002-I-01-02.500 X 03.000 X 0.250/0.288
2.500	3.250	0.375	0.413	SS002-I-01-02.500 X 03.250 X 0.375/0.413
2.500	3.250	0.500	0.550	SS002-I-01-02.500 X 03.250 X 0.500/0.550
2.625	3.000	0.375	0.413	SS002-I-01-02.625 X 03.000 X 0.375/0.413
2.750	3.125	0.375	0.413	SS002-I-01-02.750 X 03.125 X 0.375/0.413
2.750	3.250	0.375	0.413	SS002-I-01-02.750 X 03.250 X 0.375/0.413
2.750	3.375	0.500	0.550	SS002-I-01-02.750 X 03.375 X 0.500/0.550
2.750	3.500	0.375	0.413	SS002-I-01-02.750 X 03.500 X 0.375/0.413
2.750	3.500	0.500	0.550	SS002-I-01-02.750 X 03.500 X 0.500/0.550

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
3.000	3.375	0.375	0.413	SS002-I-01-03.000 X 03.375 X 0.375/0.413
3.000	3.500	0.375	0.413	SS002-I-01-03.000 X 03.500 X 0.375/0.413
3.000	3.625	0.375	0.413	SS002-I-01-03.000 X 03.625 X 0.375/0.413
3.000	3.625	0.500	0.550	SS002-I-01-03.000 X 03.625 X 0.500/0.550
3.000	4.000	0.500	0.550	SS002-I-01-03.000 X 04.000 X 0.500/0.550
3.125	3.875	0.625	0.688	SS002-I-01-03.125 X 03.875 X 0.625/0.688
3.250	3.625	0.375	0.413	SS002-I-01-03.250 X 03.625 X 0.375/0.413
3.250	3.750	0.375	0.413	SS002-I-01-03.250 X 03.750 X 0.375/0.413
3.250	4.000	0.375	0.413	SS002-I-01-03.250 X 04.000 X 0.375/0.413
3.375	3.750	0.375	0.413	SS002-I-01-03.375 X 03.750 X 0.375/0.413
3.375	4.000	0.500	0.550	SS002-I-01-03.375 X 04.000 X 0.500/0.550
3.500	3.875	0.375	0.413	SS002-I-01-03.500 X 03.875 X 0.375/0.413
3.500	4.000	0.250	0.280	SS002-I-01-03.500 X 04.000 X 0.250/0.280
3.500	4.000	0.375	0.413	SS002-I-01-03.500 X 04.000 X 0.375/0.413
3.500	4.000	0.500	0.550	SS002-I-01-03.500 X 04.000 X 0.500/0.550
3.500	4.125	0.500	0.550	SS002-I-01-03.500 X 04.125 X 0.500/0.550
3.625	4.000	0.375	0.413	SS002-I-01-03.625 X 04.000 X 0.375/0.413
3.625	4.250	0.375	0.413	SS002-I-01-03.625 X 04.250 X 0.375/0.413
3.750	4.375	0.500	0.550	SS002-I-01-03.750 X 04.375 X 0.500/0.550
3.750	4.375	0.875	0.935	SS002-I-01-03.750 X 04.375 X 0.875/0.935
3.750	4.500	0.500	0.550	SS002-I-01-03.750 X 04.500 X 0.500/0.550
3.750	4.500	0.625	0.688	SS002-I-01-03.750 X 04.500 X 0.625/0.688
4.000	4.500	0.375	0.413	SS002-I-01-04.000 X 04.500 X 0.375/0.413
4.000	4.500	0.500	0.550	SS002-I-01-04.000 X 04.500 X 0.500/0.550
4.000	5.000	0.500	0.550	SS002-I-01-04.000 X 05.000 X 0.500/0.550
4.125	4.500	0.375	0.413	SS002-I-01-04.125 X 04.500 X 0.375/0.413
4.250	5.000	0.375	0.413	SS002-I-01-04.250 X 05.000 X 0.375/0.413
4.375	4.750	0.375	0.413	SS002-I-01-04.375 X 04.750 X 0.375/0.413
4.375	5.000	0.375	0.413	SS002-I-01-04.375 X 05.000 X 0.375/0.413
4.375	5.000	0.500	0.550	SS002-I-01-04.375 X 05.000 X 0.500/0.550
4.500	4.875	0.375	0.413	SS002-I-01-04.500 X 04.875 X 0.375/0.413
4.500	5.000	0.375	0.413	SS002-I-01-04.500 X 05.000 X 0.375/0.413
4.500	5.000	0.562	0.613	SS002-I-01-04.500 X 05.000 X 0.562/0.613
4.500	5.250	0.500	0.550	SS002-I-01-04.500 X 05.250 X 0.500/0.550
4.750	5.125	0.375	0.413	SS002-I-01-04.750 X 05.125 X 0.375/0.413
4.750	5.375	0.500	0.550	SS002-I-01-04.750 X 05.375 X 0.500/0.550
4.750	5.375	0.625	0.688	SS002-I-01-04.750 X 05.375 X 0.625/0.688
4.750	5.375	0.875	0.935	SS002-I-01-04.750 X 05.375 X 0.875/0.935
4.750	5.000	0.500	0.550	SS002-I-01-04.750 X 05.000 X 0.500/0.550
5.000	5.500	0.375	0.413	SS002-I-01-05.000 X 05.500 X 0.375/0.413
5.000	5.500	0.562	0.580	SS002-I-01-05.000 X 05.500 X 0.562/0.580
5.000	5.625	0.500	0.550	SS002-I-01-05.000 X 05.625 X 0.500/0.550
5.000	6.000	0.500	0.550	SS002-I-01-05.000 X 06.000 X 0.500/0.550
5.250	6.000	0.375	0.413	SS002-I-01-05.250 X 06.000 X 0.375/0.413
5.250	6.250	0.562	0.619	SS002-I-01-05.250 X 06.250 X 0.562/0.619
5.500	6.000	0.511	0.562	SS002-I-01-05.500 X 06.000 X 0.511/0.562

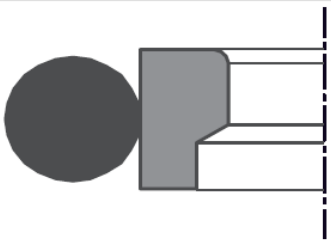
SS002 FOR ROD AND PISTON APPLICATION



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
5.750	6.125	0.375	0.413	SS002-I-01-05.750 X 06.125 X 0.375/0.413
5.750	6.250	0.375	0.413	SS002-I-01-05.750 X 06.250 X 0.375/0.413
5.750	6.250	0.500	0.550	SS002-I-01-05.750 X 06.250 X 0.500/0.550
5.750	6.500	0.375	0.413	SS002-I-01-05.750 X 06.500 X 0.375/0.413
6.250	6.750	0.562	0.613	SS002-I-01-06.250 X 06.750 X 0.562/0.613
6.250	7.000	0.500	0.550	SS002-I-01-06.250 X 07.000 X 0.500/0.550
6.500	7.000	0.375	0.413	SS002-I-01-06.500 X 07.000 X 0.375/0.413
6.750	7.250	0.375	0.413	SS002-I-01-06.750 X 07.250 X 0.375/0.413
7.500	8.000	0.562	0.580	SS002-I-01-07.500 X 08.000 X 0.562/0.580
8.000	8.750	0.500	0.550	SS002-I-01-08.000 X 08.750 X 0.500/0.550
9.000	10.000	0.750	0.825	SS002-I-01-09.000 X 10.000 X 0.750/0.825
11.000	12.000	0.750	0.825	SS002-I-01-11.000 X 12.000 X 0.750/0.825

ROD SEAL	RS018	

Features:

Rod seal profile RS018 consists of two piece seal set for sealing rod with one seal ring and one energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS018-01	PT02	NB02	-20 to 100°C	400 Bar	4 m/s
RS018-02	PT02	VT01	-20 to 200°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance.
- Wide temperature Range.
- Good thermal conductivity.
- Low wear and high extrusion resistance.
- Wide fluid application range.
- Resistance against cold flow.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
2.20	0.18	0.15	-	-
3.20	0.20	0.18	-	-
4.20	0.25	0.20	0.15	-
6.30	0.30	0.25	0.22	0.20
8.10	0.35	0.30	0.28	0.25

Profile dimension	Maximum permissible gap (S) for Imperial Sizes (inch)			
H	160 bar	260 bar	320 bar	400 bar
0.126	0.008	0.007	-	-
0.166	0.010	0.008	0.006	-
0.247	0.012	0.010	0.009	0.008
0.320	0.014	0.012	0.011	0.010

Installation:

RS018 is very easy to fit. Insert the O ring first and then turn the PTFE part in kidney shape and insert in the groove. Gauge the seal by a taper rod type fixture. Careful fitting of the seal is a pre-requisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order.

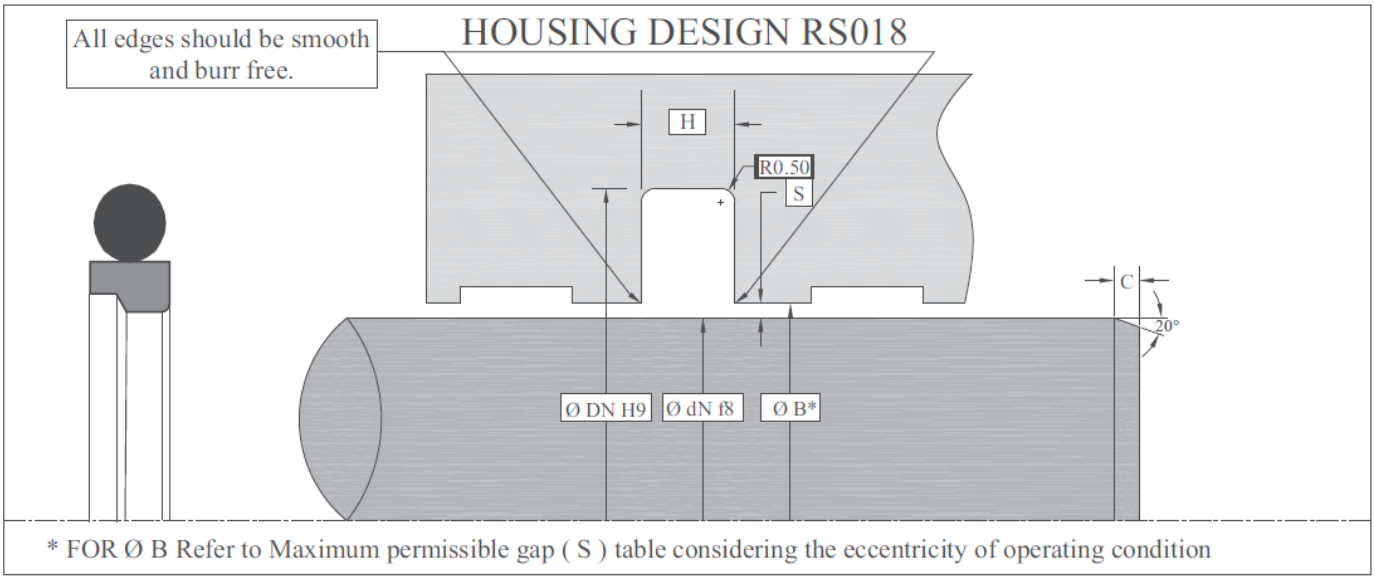
Example: For Metric size 6.00 x 10.90 x 2.20

Order code is RS018-M-01-006.00 x 010.90 x 02.20

Example: For Imperial size 0.500” x 0.787” x 0.126”

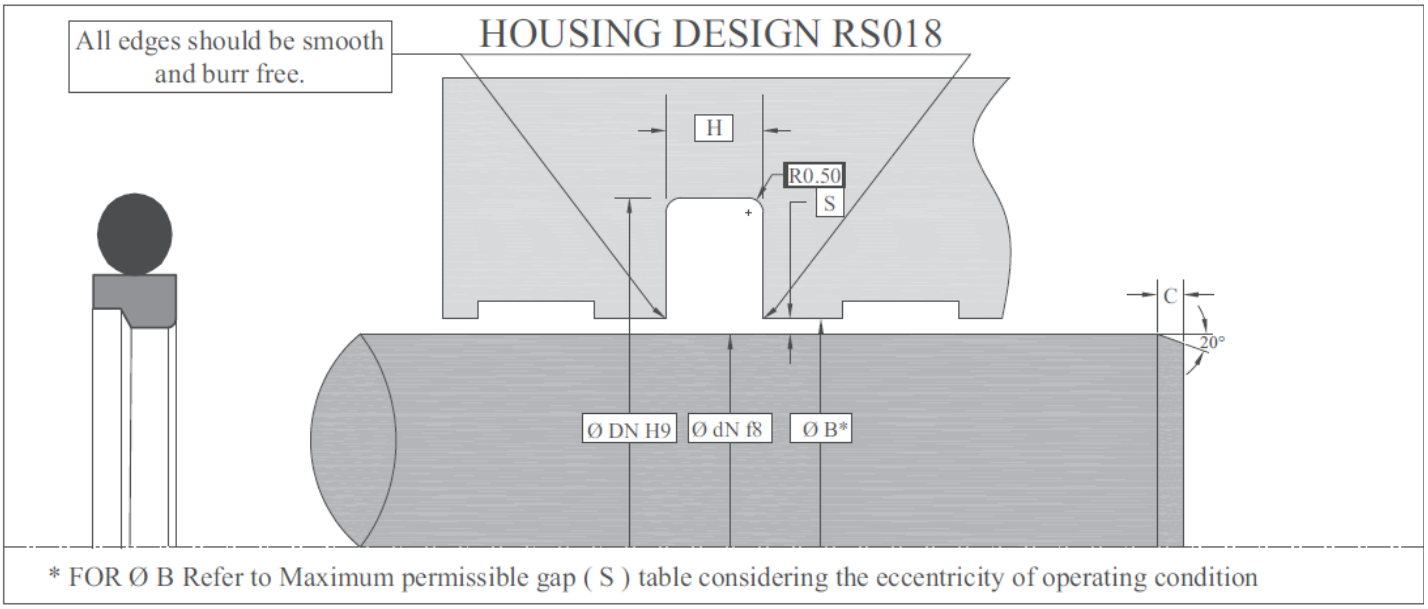
Order code is RS018-I01-00.500 x 00.787 x 01.26

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
6.00	10.90	2.20	2.50	7.65 X 1.78	RS018-M-01-006.00 X 010.90 X 02.20
8.00	12.90	2.20	2.50	9.50 X 1.80	RS018-M-01-008.00 X 012.90 X 02.20
10.00	14.90	2.20	2.50	12.42 X 1.78	RS018-M-01-010.00 X 014.90 X 02.20
10.00	17.30	3.20	2.50	10.77 X 2.62	RS018-M-01-010.00 X 017.30 X 03.20
12.00	16.90	2.20	2.50	12.42 X 1.78	RS018-M-01-012.00 X 016.90 X 02.20
12.00	19.30	3.20	2.50	13.94 X 2.62	RS018-M-01-012.00 X 019.30 X 03.20
14.00	18.90	2.20	2.50	15.60 X 1.78	RS018-M-01-014.00 X 018.90 X 02.20
14.00	21.30	3.20	2.50	17.12 X 2.62	RS018-M-01-014.00 X 021.30 X 03.20
15.00	22.30	3.20	2.50	17.12 X 2.62	RS018-M-01-015.00 X 022.30 X 03.20
15.00	30.10	6.30	6.00	19.99 X 5.33	RS018-M-01-015.00 X 030.10 X 06.30
16.00	20.90	2.20	2.50	17.17 X 1.78	RS018-M-01-016.00 X 020.90 X 02.20
16.00	23.30	3.20	2.50	18.72 X 2.62	RS018-M-01-016.00 X 023.30 X 03.20
18.00	22.90	2.20	2.50	18.77 X 1.78	RS018-M-01-018.00 X 022.90 X 02.20
18.00	25.30	3.20	2.50	20.29 X 2.62	RS018-M-01-018.00 X 025.30 X 03.20
18.00	28.70	4.20	3.50	21.89 X 3.53	RS018-M-01-018.00 X 028.70 X 04.20
20.00	27.30	3.20	2.50	21.89 X 2.62	RS018-M-01-020.00 X 027.30 X 03.20
20.00	30.70	4.20	3.50	23.40 X 3.53	RS018-M-01-020.00 X 030.70 X 04.20
20.00	35.10	6.30	6.00	24.77 X 5.33	RS018-M-01-020.00 X 035.10 X 06.30
22.00	29.30	3.20	2.50	25.07 X 2.62	RS018-M-01-022.00 X 029.30 X 03.20
22.00	32.70	4.20	3.50	26.58 X 3.53	RS018-M-01-022.00 X 032.70 X 04.20
25.00	32.30	3.20	2.50	28.24 X 2.62	RS018-M-01-025.00 X 032.30 X 03.20
25.00	35.70	4.20	3.50	29.75 X 3.53	RS018-M-01-025.00 X 035.70 X 04.20
25.00	40.10	6.30	6.00	29.51 X 5.33	RS018-M-01-025.00 X 040.10 X 06.30
28.00	35.30	3.20	2.50	29.82 X 2.62	RS018-M-01-028.00 X 035.30 X 03.20
28.00	38.70	4.20	3.50	32.92 X 3.53	RS018-M-01-028.00 X 038.70 X 04.20
30.00	37.30	3.20	2.50	32.99 X 2.62	RS018-M-01-030.00 X 037.30 X 03.20
30.00	40.70	4.20	3.50	34.52 X 3.53	RS018-M-01-030.00 X 040.70 X 04.20
30.00	45.10	6.30	6.00	34.29 X 5.33	RS018-M-01-030.00 X 045.10 X 06.30
32.00	39.30	3.20	2.50	34.59 X 2.62	RS018-M-01-032.00 X 039.30 X 03.20
32.00	42.70	4.20	3.50	36.09 X 3.53	RS018-M-01-032.00 X 042.70 X 04.20

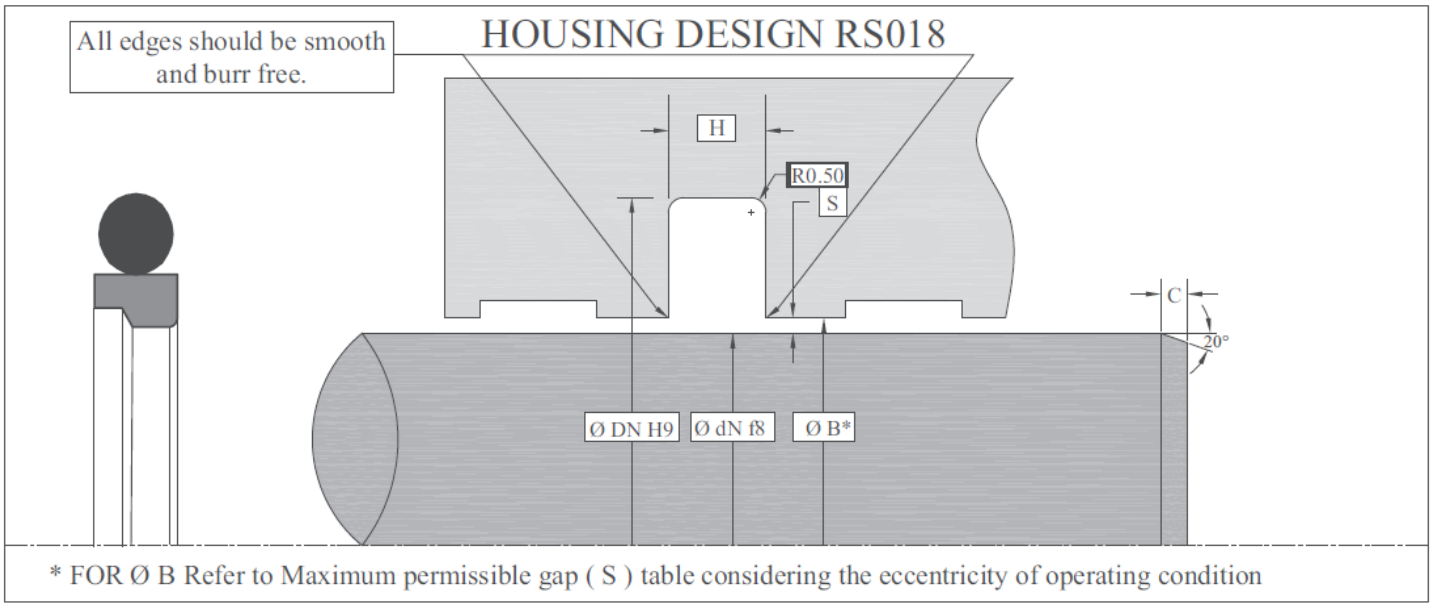


Polymer Engineering Standard Size List

ØdN	ØDN	H(+0.20)	C	O-RING SIZE	ORDER CODE
35.00	42.30	3.20	2.50	37.77 X 2.62	RS018-M-01-035.00 X 042.30 X 03.20
35.00	45.70	4.20	3.50	37.69 X 3.53	RS018-M-01-035.00 X 045.70 X 04.20
35.00	50.10	6.30	6.00	40.64 X 5.33	RS018-M-01-035.00 X 050.10 X 06.30
36.00	43.30	3.20	2.50	39.34 X 2.62	RS018-M-01-036.00 X 043.30 X 03.20
36.00	46.70	4.20	3.50	40.87 X 3.53	RS018-M-01-036.00 X 046.70 X 04.20
38.00	48.70	4.20	3.50	42.08 X 3.53	RS018-M-01-038.00 X 048.70 X 04.20
38.00	53.10	6.30	5.50	43.82 X 5.33	RS018-M-01-038.00 X 053.10 X 06.30
40.00	50.70	4.20	3.50	44.04 X 3.53	RS018-M-01-040.00 X 050.70 X 04.20
40.00	55.10	6.30	5.50	45.70 X 5.33	RS018-M-01-040.00 X 055.10 X 06.30
42.00	52.70	4.20	3.50	44.04 X 3.53	RS018-M-01-042.00 X 052.70 X 04.20
42.00	57.10	6.30	5.50	46.99 X 5.33	RS018-M-01-042.00 X 057.10 X 06.30
45.00	55.70	4.20	3.50	48.70 X 3.53	RS018-M-01-045.00 X 055.70 X 04.20
45.00	60.10	6.30	5.50	50.17 X 5.33	RS018-M-01-045.00 X 060.10 X 06.30
48.00	63.10	6.30	6.00	53.34 X 5.33	RS018-M-01-048.00 X 063.10 X 06.30
50.00	60.70	4.20	3.50	53.57 X 3.53	RS018-M-01-050.00 X 060.70 X 04.20
50.00	65.10	6.30	5.50	56.52 X 5.33	RS018-M-01-050.00 X 065.10 X 06.30
55.00	65.70	4.20	3.50	59.92 X 3.53	RS018-M-01-055.00 X 065.70 X 04.20
55.00	70.10	6.30	5.50	59.69 X 5.33	RS018-M-01-055.00 X 070.10 X 06.30
56.00	66.70	4.20	3.50	59.92 X 3.53	RS018-M-01-056.00 X 066.70 X 04.20
56.00	71.10	6.30	5.50	62.87 X 5.33	RS018-M-01-056.00 X 071.10 X 06.30
60.00	70.70	4.20	3.50	63.09 X 3.53	RS018-M-01-060.00 X 070.70 X 04.20
60.00	75.10	6.30	5.50	66.04 X 5.33	RS018-M-01-060.00 X 075.10 X 06.30
63.00	73.70	4.20	3.50	66.27 X 3.53	RS018-M-01-063.00 X 073.70 X 04.20
63.00	78.10	6.30	5.50	69.22 X 5.33	RS018-M-01-063.00 X 078.10 X 06.30
65.00	75.70	4.20	3.50	69.44 X 3.53	RS018-M-01-065.00 X 075.70 X 04.20
65.00	80.10	6.30	5.50	69.22 X 5.33	RS018-M-01-065.00 X 080.10 X 06.30
68.00	83.10	6.30	5.50	72.39 X 5.33	RS018-M-01-068.00 X 083.10 X 06.30
70.00	80.70	4.20	3.50	72.62 X 3.53	RS018-M-01-070.00 X 080.70 X 04.20
70.00	85.10	6.30	5.50	75.57 X 5.33	RS018-M-01-070.00 X 085.10 X 06.30
75.00	85.70	4.20	3.50	78.97 X 3.53	RS018-M-01-075.00 X 085.70 X 04.20

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
75.00	90.10	6.30	5.50	81.92 X 5.33	RS018-M-01-075.00 X 090.10 X 06.30
78.00	93.10	6.30	5.50	85.09 X 5.33	RS018-M-01-078.00 X 093.10 X 06.30
80.00	90.70	4.20	3.50	85.32 X 3.53	RS018-M-01-080.00 X 090.70 X 04.20
80.00	95.10	6.30	5.50	85.09 X 5.33	RS018-M-01-080.00 X 095.10 X 06.30
80.00	100.50	8.10	8.00	88.00 X 7.00	RS018-M-01-080.00 X 100.50 X 08.10
83.00	98.10	6.30	6.00	88.27 X 5.33	RS018-M-01-083.00 X 098.10 X 06.30
85.00	95.70	4.20	3.50	88.49 X 3.53	RS018-M-01-085.00 X 095.70 X 04.20
85.00	100.10	6.30	6.00	91.44 X 5.33	RS018-M-01-085.00 X 100.10 X 06.30
88.00	103.10	6.30	6.00	94.62 X 5.33	RS018-M-01-088.00 X 103.10 X 06.30
90.00	100.70	4.20	3.50	94.84 X 3.53	RS018-M-01-090.00 X 100.70 X 04.20
90.00	105.10	6.30	6.00	94.62 X 5.33	RS018-M-01-090.00 X 105.10 X 06.30
90.00	110.50	8.10	8.00	98.00 X 7.00	RS018-M-01-090.00 X 110.50 X 08.10
95.00	110.10	6.30	6.00	100.97 X 5.33	RS018-M-01-095.00 X 110.10 X 06.30
98.00	113.10	6.30	6.00	104.17 X 5.33	RS018-M-01-098.00 X 113.10 X 06.30
100.00	115.10	6.30	6.00	104.14 X 5.33	RS018-M-01-100.00 X 115.10 X 06.30
100.00	120.50	8.10	8.00	108.00 X 7.00	RS018-M-01-100.00 X 120.50 X 08.10
105.00	115.70	4.20	3.50	110.72 x 3.53	RS018-M-01-105.00 X 115.70 X 04.20
105.00	120.10	6.30	6.00	110.49 X 5.33	RS018-M-01-105.00 X 120.10 X 06.30
108.00	123.10	6.30	6.00	113.67 X 5.33	RS018-M-01-108.00 X 123.10 X 06.30
110.00	125.10	6.30	6.00	116.84 X 5.33	RS018-M-01-110.00 X 125.10 X 06.30
110.00	130.50	8.10	8.00	116.84 X 6.99	RS018-M-01-110.00 X 130.50 X 08.10
115.00	130.10	6.30	6.00	120.02 X 5.33	RS018-M-01-115.00 X 130.10 X 06.30
115.00	135.50	8.10	8.00	120.02 X 6.99	RS018-M-01-115.00 X 135.50 X 08.10
118.00	133.10	6.30	6.00	123.19 X 5.33	RS018-M-01-118.00 X 133.10 X 06.30
120.00	135.10	6.30	6.00	126.37 X 5.33	RS018-M-01-120.00 X 135.10 X 06.30
120.00	140.50	8.10	8.00	126.37 X 6.99	RS018-M-01-120.00 X 140.50 X 08.10
125.00	140.10	6.30	6.00	129.54 X 5.33	RS018-M-01-125.00 X 140.10 X 06.30
125.00	145.50	8.10	8.00	132.72 X 6.99	RS018-M-01-125.00 X 145.50 X 08.10
127.00	137.70	4.20	3.50	129.77 x 3.53	RS018-M-01-127.00 X 137.70 X 04.20
127.00	142.10	6.30	6.00	132.72 X 5.33	RS018-M-01-127.00 X 142.10 X 06.30
128.00	143.10	6.30	6.00	132.72 X 5.33	RS018-M-01-128.00 X 143.10 X 06.30
130.00	145.10	6.30	6.00	135.89 X 5.33	RS018-M-01-130.00 X 145.10 X 06.30
130.00	150.50	8.10	8.00	135.89 X 6.99	RS018-M-01-130.00 X 150.50 X 08.10
135.00	150.10	6.30	6.00	139.07 X 5.33	RS018-M-01-135.00 X 150.10 X 06.30
135.00	155.50	8.10	8.00	142.24 X 6.99	RS018-M-01-135.00 X 155.50 X 08.10
136.00	151.10	6.30	6.00	142.24 X 5.33	RS018-M-01-136.00 X 151.10 X 06.30
138.00	153.10	6.30	6.00	142.24 X 5.33	RS018-M-01-138.00 X 153.10 X 06.30
140.00	150.70	4.20	3.50	145.64 x 3.53	RS018-M-01-140.00 X 150.70 X 04.20
140.00	155.10	6.30	6.00	145.42 X 5.33	RS018-M-01-140.00 X 155.10 X 06.30
140.00	160.50	8.10	8.00	145.42 X 6.99	RS018-M-01-140.00 X 160.50 X 08.10
145.00	155.70	4.20	3.50	148.82 x 3.53	RS018-M-01-145.00 X 155.70 X 04.20
145.00	160.10	6.30	6.00	151.77 X 5.33	RS018-M-01-145.00 X 160.10 X 06.30
150.00	165.10	6.30	6.00	154.50 X 5.33	RS018-M-01-150.00 X 165.10 X 06.30
150.00	170.50	8.10	8.00	158.12 X 6.99	RS018-M-01-150.00 X 170.50 X 08.10
155.00	170.10	6.30	8.00	158.12 X 5.33	RS018-M-01-155.00 X 170.10 X 06.30
160.00	175.10	6.30	6.00	164.47 X 5.33	RS018-M-01-160.00 X 175.10 X 06.30



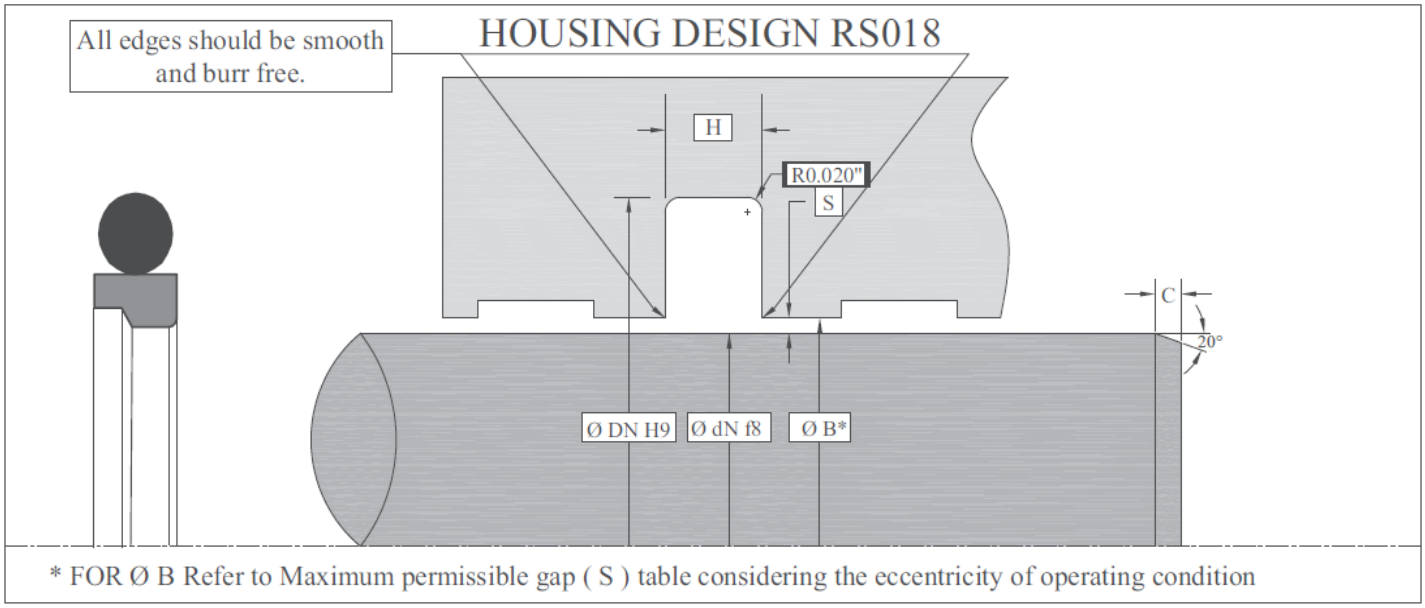
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
160.00	180.50	8.10	8.00	170.82 X 6.99	RS018-M-01-160.00 X 180.50 X 08.10
165.00	180.10	6.30	6.00	170.82 X 5.33	RS018-M-01-165.00 X 180.10 X 06.30
170.00	185.10	6.30	6.00	175.02 X 5.33	RS018-M-01-170.00 X 185.10 X 06.30
170.00	190.50	8.10	8.00	177.17 X 6.99	RS018-M-01-170.00 X 190.50 X 08.10
175.00	185.70	4.20	3.50	177.39 x 3.53	RS018-M-01-175.00 X 185.70 X 04.20
175.00	190.10	6.30	6.00	179.30 X 5.33	RS018-M-01-175.00 X 190.10 X 06.30
175.00	195.50	8.10	8.00	183.52 X 6.99	RS018-M-01-175.00 X 195.50 X 08.10
180.00	195.10	6.30	6.00	183.52 X 5.33	RS018-M-01-180.00 X 195.10 X 06.30
180.00	200.50	8.10	8.00	189.87 X 6.99	RS018-M-01-180.00 X 200.50 X 08.10
185.00	200.10	6.30	6.00	189.87 X 5.33	RS018-M-01-185.00 X 200.10 X 06.30
190.00	205.50	6.30	6.00	196.22 X 5.33	RS018-M-01-190.00 X 205.50 X 06.30
190.00	210.50	8.10	8.00	196.22 X 6.99	RS018-M-01-190.00 X 210.50 X 08.10
195.00	210.10	6.30	6.00	202.57 X 5.33	RS018-M-01-195.00 X 210.10 X 06.30
200.00	215.10	6.30	6.00	202.57 X 5.33	RS018-M-01-200.00 X 215.10 X 06.30
200.00	220.50	8.10	8.00	208.50 X 6.99	RS018-M-01-200.00 X 220.50 X 08.10
210.00	230.50	8.10	8.00	215.27 X 6.99	RS018-M-01-210.00 X 230.50 X 08.10
215.00	235.50	8.10	8.00	221.86 X 6.99	RS018-M-01-215.00 X 235.50 X 08.10
220.00	240.50	8.10	8.00	227.97 X 6.99	RS018-M-01-220.00 X 240.50 X 08.10
225.00	245.50	8.10	8.00	234.32 X 6.99	RS018-M-01-225.00 X 245.50 X 08.10
230.00	250.50	8.10	8.00	236.00 X 6.99	RS018-M-01-230.00 X 250.50 X 08.10
235.00	255.50	8.10	8.00	240.67 X 6.99	RS018-M-01-235.00 X 255.50 X 08.10
240.00	260.50	8.10	8.00	247.00 X 6.99	RS018-M-01-240.00 X 260.50 X 08.10
245.00	265.50	8.10	8.00	253.37 X 6.99	RS018-M-01-245.00 X 265.50 X 08.10
250.00	270.50	8.10	8.00	253.37 X 6.99	RS018-M-01-250.00 X 270.50 X 08.10
260.00	284.00	8.10	8.00	266.07 X 6.99	RS018-M-01-260.00 X 284.00 X 08.10
270.00	294.00	8.10	8.00	278.77 X 6.99	RS018-M-01-270.00 X 294.00 X 08.10
275.00	299.00	8.10	8.00	291.47 X 6.99	RS018-M-01-275.00 X 299.00 X 08.10
280.00	304.00	8.10	8.00	291.47 X 6.99	RS018-M-01-280.00 X 304.00 X 08.10
290.00	314.00	8.10	8.00	304.17 X 6.99	RS018-M-01-290.00 X 314.00 X 08.10
300.00	324.00	8.10	8.00	316.87 X 6.99	RS018-M-01-300.00 X 324.00 X 08.10

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
303.80	327.80	8.10	8.00	316.87 X 6.99	RS018-M-01-303.80 X 327.80 X 08.10
310.00	334.00	8.10	8.00	316.87 X 6.99	RS018-M-01-310.00 X 334.00 X 08.10
320.00	344.00	8.10	8.00	329.57 X 6.99	RS018-M-01-320.00 X 344.00 X 08.10
330.00	354.00	8.10	8.00	342.27 X 6.99	RS018-M-01-330.00 X 354.00 X 08.10
340.00	364.00	8.10	8.00	354.97 X 6.99	RS018-M-01-340.00 X 364.00 X 08.10
350.00	374.00	8.10	8.00	367.17 X 6.99	RS018-M-01-350.00 X 374.00 X 08.10
360.00	384.00	8.10	8.00	367.17 X 6.99	RS018-M-01-360.00 X 384.00 X 08.10
375.00	399.00	8.10	8.00	393.07 X 6.99	RS018-M-01-375.00 X 399.00 X 08.10
380.00	404.00	8.10	8.00	393.07 X 6.99	RS018-M-01-380.00 X 404.00 X 08.10
390.00	414.00	8.10	8.00	405.26 X 6.99	RS018-M-01-390.00 X 414.00 X 08.10
400.00	424.00	8.10	8.00	417.96 X 6.99	RS018-M-01-400.00 X 424.00 X 08.10
410.00	434.00	8.10	8.00	417.96 X 6.99	RS018-M-01-410.00 X 434.00 X 08.10



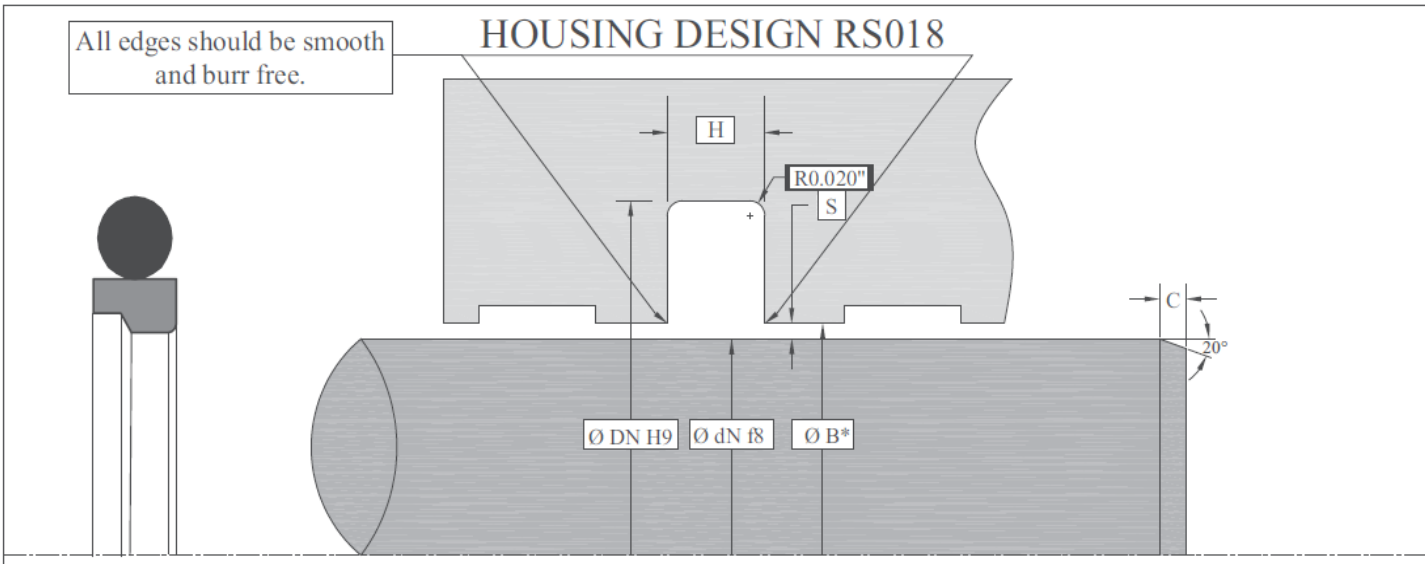
Polymer Engineering Standard Size List

IMPERIAL SIZE					
ØdN (f8)	ØDN (H9)	H (+0.008")	C	O-RING SIZE	ORDER CODE
0.500	0.787	0.126	0.098	15.54 X 2.62	RS018-I-01-00.500 X 00.787 X 0.126
0.625	0.912	0.126	0.098	18.72 X 2.62	RS018-I-01-00.625 X 00.912 X 0.126
0.750	1.037	0.126	0.098	21.90 X 2.62	RS018-I-01-00.750 X 01.037 X 0.126
0.750	1.171	0.165	0.138	24.82 X 3.53	RS018-I-01-00.750 X 01.171 X 0.165
0.875	1.162	0.126	0.098	25.07 X 2.62	RS018-I-01-00.875 X 01.162 X 0.126
0.875	1.296	0.165	0.138	26.57 X 3.53	RS018-I-01-00.875 X 01.296 X 0.165
1.000	1.287	0.126	0.098	28.25 X 2.62	RS018-I-01-01.000 X 01.287 X 0.126
1.000	1.421	0.165	0.138	29.75 X 3.53	RS018-I-01-01.000 X 01.421 X 0.165
1.125	1.412	0.126	0.098	31.42 X 2.62	RS018-I-01-01.125 X 01.412 X 0.126
1.125	1.546	0.165	0.138	32.92 X 3.53	RS018-I-01-01.125 X 01.546 X 0.165
1.250	1.537	0.126	0.098	34.60 X 2.62	RS018-I-01-01.250 X 01.537 X 0.126
1.250	1.671	0.165	0.138	36.10 X 3.53	RS018-I-01-01.250 X 01.671 X 0.165
1.375	1.662	0.126	0.098	37.77 X 2.62	RS018-I-01-01.375 X 01.662 X 0.126
1.375	1.796	0.165	0.138	37.70 X 3.53	RS018-I-01-01.375 X 01.796 X 0.165
1.500	1.787	0.126	0.098	40.95 X 2.62	RS018-I-01-01.500 X 01.787 X 0.126
1.500	1.921	0.165	0.138	40.87 X 3.53	RS018-I-01-01.500 X 01.921 X 0.165
1.500	2.094	0.248	0.217	43.82 X 5.33	RS018-I-01-01.500 X 02.094 X 0.248
1.625	1.912	0.126	0.098	44.12 X 2.62	RS018-I-01-01.625 X 01.912 X 0.126
1.625	2.046	0.165	0.138	44.05 X 3.53	RS018-I-01-01.625 X 02.046 X 0.165
1.750	2.037	0.126	0.098	17.30 X 2.62	RS018-I-01-01.750 X 02.037 X 0.126
1.750	2.171	0.165	0.138	47.22 X 3.53	RS018-I-01-01.750 X 02.171 X 0.165
1.750	2.344	0.248	0.217	50.16 X 5.33	RS018-I-01-01.750 X 02.344 X 0.248
1.875	2.296	0.165	0.138	50.40 X 3.53	RS018-I-01-01.875 X 02.296 X 0.165
2.000	2.421	0.165	0.138	53.57 X 3.53	RS018-I-01-02.000 X 02.421 X 0.165
2.000	2.594	0.248	0.217	56.52 X 5.33	RS018-I-01-02.000 X 02.594 X 0.248
2.125	2.546	0.165	0.138	56.75 X 3.53	RS018-I-01-02.125 X 02.546 X 0.165
2.250	2.671	0.165	0.138	59.92 X 3.53	RS018-I-01-02.250 X 02.671 X 0.165
2.250	2.844	0.248	0.217	62.87 X 5.33	RS018-I-01-02.250 X 02.844 X 0.248

Seals for Hydraulics & Pneumatics

Polymer Engineering Standard Size List

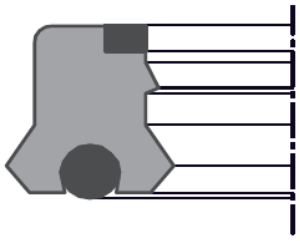
ØdN (f8)	ØDN (H9)	H (+0.008")	C	O-RING SIZE	ORDER CODE
2.375	2.796	0.165	0.138	63.10 X 3.53	RS018-I-01-02.375 X 02.796 X 0.165
2.500	2.921	0.165	0.138	66.27 X 3.53	RS018-I-01-02.500 X 02.921 X 0.165
2.500	3.094	0.248	0.217	69.22 X 5.33	RS018-I-01-02.500 X 03.094 X 0.248
2.625	3.046	0.165	0.138	69.44 X 3.53	RS018-I-01-02.625 X 03.046 X 0.165
2.625	3.219	0.248	0.217	72.39 X 5.33	RS018-I-01-02.625 X 03.219 X 0.248
2.750	3.171	0.165	0.138	72.62 X 3.53	RS018-I-01-02.750 X 03.171 X 0.165
2.750	3.344	0.248	0.217	75.57 X 5.33	RS018-I-01-02.750 X 03.344 X 0.248
2.875	3.296	0.165	0.138	75.79 X 3.53	RS018-I-01-02.875 X 03.296 X 0.165
3.000	3.421	0.165	0.138	78.97 X 3.53	RS018-I-01-03.000 X 03.421 X 0.165
3.000	3.594	0.248	0.217	81.92 X 5.33	RS018-I-01-03.000 X 03.594 X 0.248
3.250	3.844	0.248	0.217	88.27 X 5.33	RS018-I-01-03.250 X 03.844 X 0.248
3.500	4.094	0.248	0.217	94.62 X 5.33	RS018-I-01-03.500 X 04.094 X 0.248
3.625	4.219	0.248	0.217	97.79 X 5.33	RS018-I-01-03.625 X 04.219 X 0.248
3.750	4.344	0.248	0.217	100.96 X 5.33	RS018-I-01-03.750 X 04.344 X 0.248
4.000	4.594	0.248	0.217	107.32 X 5.33	RS018-I-01-04.000 X 04.594 X 0.248
4.000	4.807	0.319	0.315	107.32 X 6.99	RS018-I-01-04.000 X 04.807 X 0.319
4.250	4.844	0.248	0.217	113.67 X 5.33	RS018-I-01-04.250 X 04.844 X 0.248
4.250	5.057	0.319	0.315	116.84 X 6.99	RS018-I-01-04.250 X 05.057 X 0.319
4.500	5.094	0.248	0.217	120.02 X 5.33	RS018-I-01-04.500 X 05.094 X 0.248
4.500	5.307	0.319	0.315	120.02 X 6.99	RS018-I-01-04.500 X 05.307 X 0.319
4.750	5.344	0.248	0.217	126.37 X 5.33	RS018-I-01-04.750 X 05.344 X 0.248
4.750	5.557	0.319	0.315	129.54 X 6.99	RS018-I-01-04.750 X 05.557 X 0.319
5.000	5.594	0.248	0.217	132.72 X 5.33	RS018-I-01-05.000 X 05.594 X 0.248
5.000	5.807	0.319	0.315	135.89 X 6.99	RS018-I-01-05.000 X 05.807 X 0.319
5.125	5.719	0.248	0.217	135.89 X 5.33	RS018-I-01-05.125 X 05.719 X 0.248
5.250	5.844	0.248	0.217	139.07 X 5.33	RS018-I-01-05.250 X 05.844 X 0.248
5.250	6.057	0.319	0.315	142.24 X 6.99	RS018-I-01-05.250 X 06.057 X 0.319
5.375	5.969	0.248	0.217	142.24 X 5.33	RS018-I-01-05.375 X 05.969 X 0.248
5.500	6.094	0.248	0.217	145.42 X 5.33	RS018-I-01-05.500 X 06.094 X 0.248
5.500	6.307	0.319	0.315	145.42 X 6.99	RS018-I-01-05.500 X 06.307 X 0.319
5.750	6.344	0.248	0.217	151.77 X 5.33	RS018-I-01-05.750 X 06.344 X 0.248
5.750	6.557	0.319	0.315	151.77 X 6.99	RS018-I-01-05.750 X 06.557 X 0.319
6.000	6.594	0.248	0.217	158.12 X 5.33	RS018-I-01-06.000 X 06.594 X 0.248
6.000	6.807	0.319	0.315	158.12 X 6.99	RS018-I-01-06.000 X 06.807 X 0.319
6.500	7.307	0.319	0.315	170.82 X 6.99	RS018-I-01-06.500 X 07.307 X 0.319
7.000	7.807	0.319	0.315	183.52 X 6.99	RS018-I-01-07.000 X 07.807 X 0.319
7.500	8.307	0.319	0.315	196.22 X 6.99	RS018-I-01-07.500 X 08.307 X 0.319
8.000	8.594	0.248	0.217	208.92 X 5.33	RS018-I-01-08.000 X 08.594 X 0.248
8.000	8.807	0.319	0.315	202.57 X 6.99	RS018-I-01-08.000 X 08.807 X 0.319
8.500	9.307	0.319	0.315	215.27 X 6.99	RS018-I-01-08.500 X 09.307 X 0.319
9.000	9.807	0.319	0.315	227.97 X 6.99	RS018-I-01-09.000 X 09.807 X 0.319
10.000	10.807	0.319	0.315	253.37 X 6.99	RS018-I-01-10.000 X 10.807 X 0.319
10.500	11.307	0.319	0.315	266.07 X 6.99	RS018-I-01-10.500 X 11.307 X 0.319
11.000	11.807	0.319	0.315	278.77 X 6.99	RS018-I-01-11.000 X 11.807 X 0.319
12.000	12.807	0.319	0.315	304.17 X 6.99	RS018-I-01-12.000 X 12.807 X 0.319



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

IMPERIAL SIZE					
ØdN (f8)	ØDN (H9)	H (+0.008")	C	O-RING SIZE	ORDER CODE

ROD SEAL	RS027	

Features:

Rod seal profile RS027 is a single acting U cup type seal with energizer and anti extrusion polyamide ring for very high pressure and heavy duty application.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING COMPOUND	AE-RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS027-01	PU36	NB02	PA22	-20 to 110°C	400 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High resistance to abrasion
- Easy installation
- Anti-extrusion ring prevent extrusion in high pressure conditions

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Construction Machineries.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap (S) for Metric Sizes (mm)			
160 bar	260 bar	320 bar	400 bar
0.25	0.20	0.18	0.15

Maximum permissible gap (S) for Imperial Sizes (inch)			
160 bar	260 bar	320 bar	400 bar
0.010	0.008	0.007	0.006

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

RS027 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order.

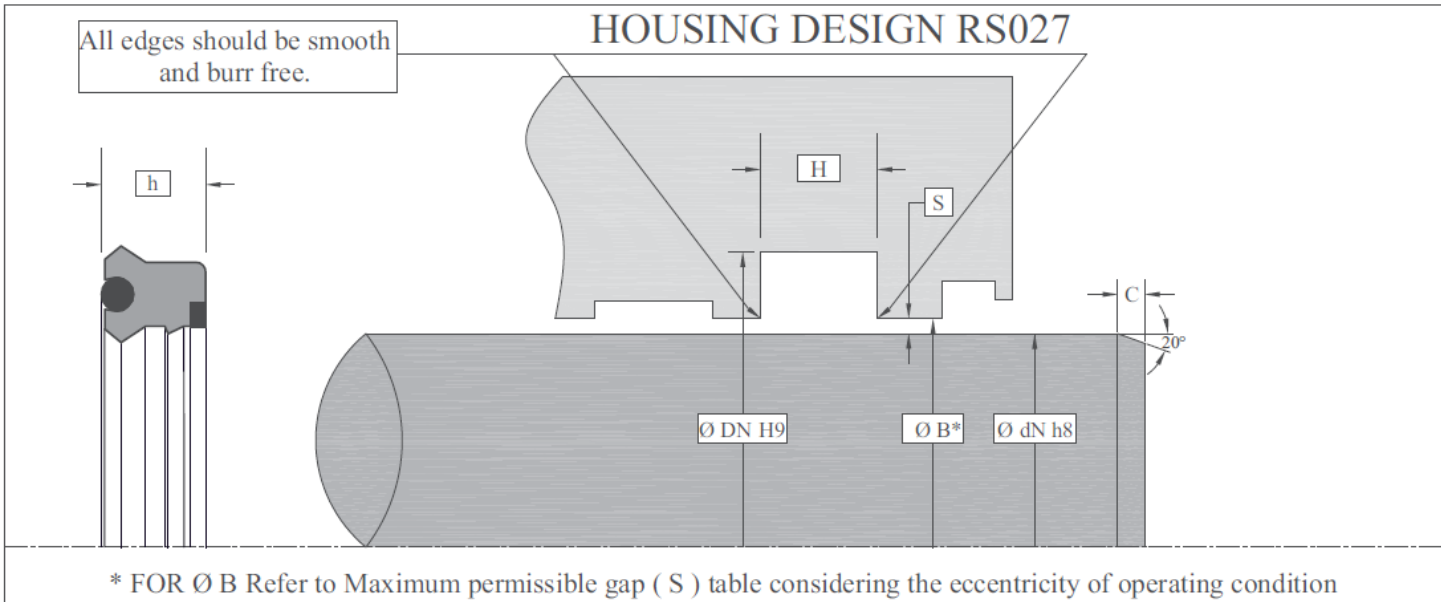
Example: Metric size 30.00 x 40.00 x 5.70/6.30

Order code is RS027-M-01-030.00 x 040.00 x 05.7/06.3

Example: Imperial size 1.500” x 2.000” x 0.375”/0.413”

Order Code is RS027-I-01-01.500 x 02.000 x 0.375/0.413

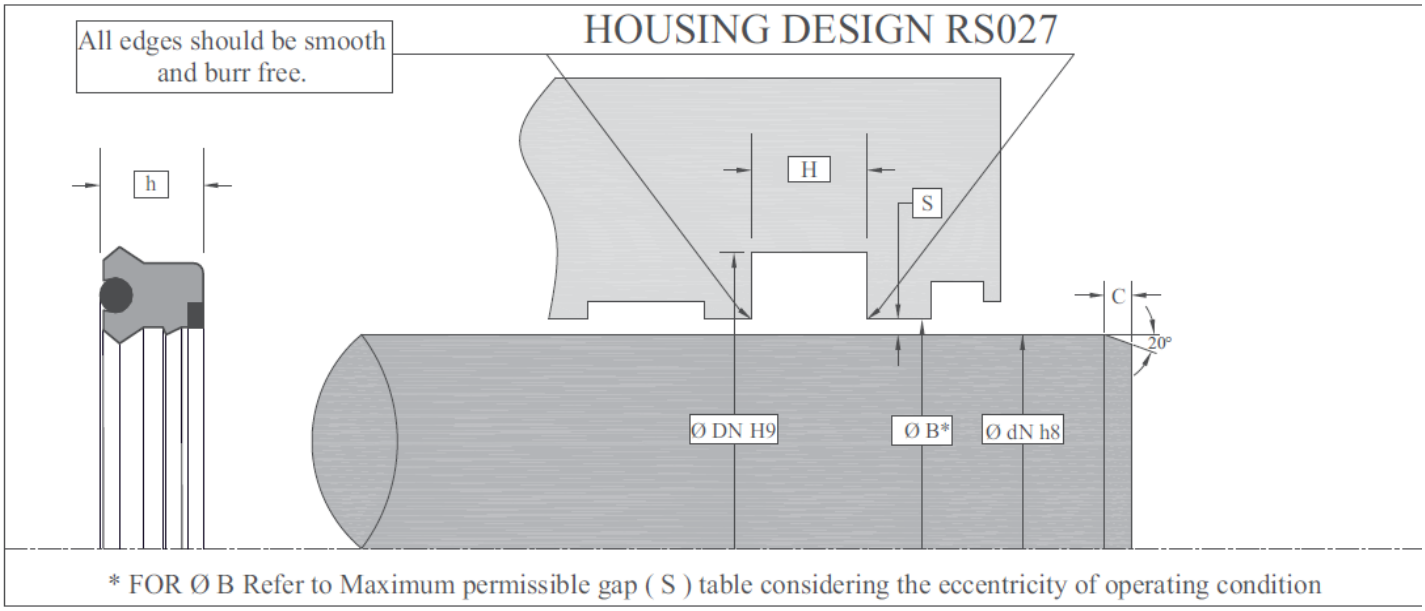
Please contact PEC if your required size is not mentioned in PEC standard size list



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
30.00	40.00	5.70	6.30	RS027-M-01-030.00 X 040.00 X 05.7/06.3
30.00	40.00	7.20	8.00	RS027-M-01-030.00 X 040.00 X 07.2/08.0
30.00	42.00	8.50	9.50	RS027-M-01-030.00 X 042.00 X 08.5/09.5
32.00	42.00	8.00	9.00	RS027-M-01-032.00 X 042.00 X 08.0/09.0
35.00	45.00	7.20	8.00	RS027-M-01-035.00 X 045.00 X 07.2/08.0
36.00	46.00	7.20	8.00	RS027-M-01-036.00 X 046.00 X 07.2/08.0
40.00	50.00	7.20	8.00	RS027-M-01-040.00 X 050.00 X 07.2/08.0
40.00	50.00	8.00	9.00	RS027-M-01-040.00 X 050.00 X 08.0/09.0
40.00	52.00	9.50	10.50	RS027-M-01-040.00 X 052.00 X 09.5/10.5
40.00	53.00	10.00	11.00	RS027-M-01-040.00 X 053.00 X 10.0/11.0
40.00	55.00	11.40	12.50	RS027-M-01-040.00 X 055.00 X 11.4/12.5
45.00	55.00	7.20	8.00	RS027-M-01-045.00 X 055.00 X 07.2/08.0
45.00	55.00	8.00	9.00	RS027-M-01-045.00 X 055.00 X 08.0/09.0
45.00	60.00	9.00	10.00	RS027-M-01-045.00 X 060.00 X 09.0/10.0
45.00	60.00	11.40	12.50	RS027-M-01-045.00 X 060.00 X 11.4/12.5
50.00	60.00	7.20	8.00	RS027-M-01-050.00 X 060.00 X 07.2/08.0
50.00	60.00	8.00	9.00	RS027-M-01-050.00 X 060.00 X 08.0/09.0
50.00	63.00	10.00	11.00	RS027-M-01-050.00 X 063.00 X 10.0/11.0
50.00	65.00	9.00	10.00	RS027-M-01-050.00 X 065.00 X 09.0/10.0
50.00	65.00	11.40	12.50	RS027-M-01-050.00 X 065.00 X 11.4/12.5
50.00	70.00	12.00	13.00	RS027-M-01-050.00 X 070.00 X 12.0/13.0
55.00	65.00	7.20	8.00	RS027-M-01-055.00 X 065.00 X 07.2/08.0
55.00	65.00	8.00	9.00	RS027-M-01-055.00 X 065.00 X 08.0/09.0
55.00	68.00	10.00	11.00	RS027-M-01-055.00 X 068.00 X 10.0/11.0
55.00	70.00	9.00	10.00	RS027-M-01-055.00 X 070.00 X 09.0/10.0
55.00	70.00	11.40	12.50	RS027-M-01-055.00 X 070.00 X 11.4/12.5
55.00	75.00	12.00	13.00	RS027-M-01-055.00 X 075.00 X 12.0/13.0
60.00	70.00	7.20	8.00	RS027-M-01-060.00 X 070.00 X 07.2/08.0
60.00	73.00	10.00	11.00	RS027-M-01-060.00 X 073.00 X 10.0/11.0
60.00	75.00	9.00	10.00	RS027-M-01-060.00 X 075.00 X 09.0/10.0

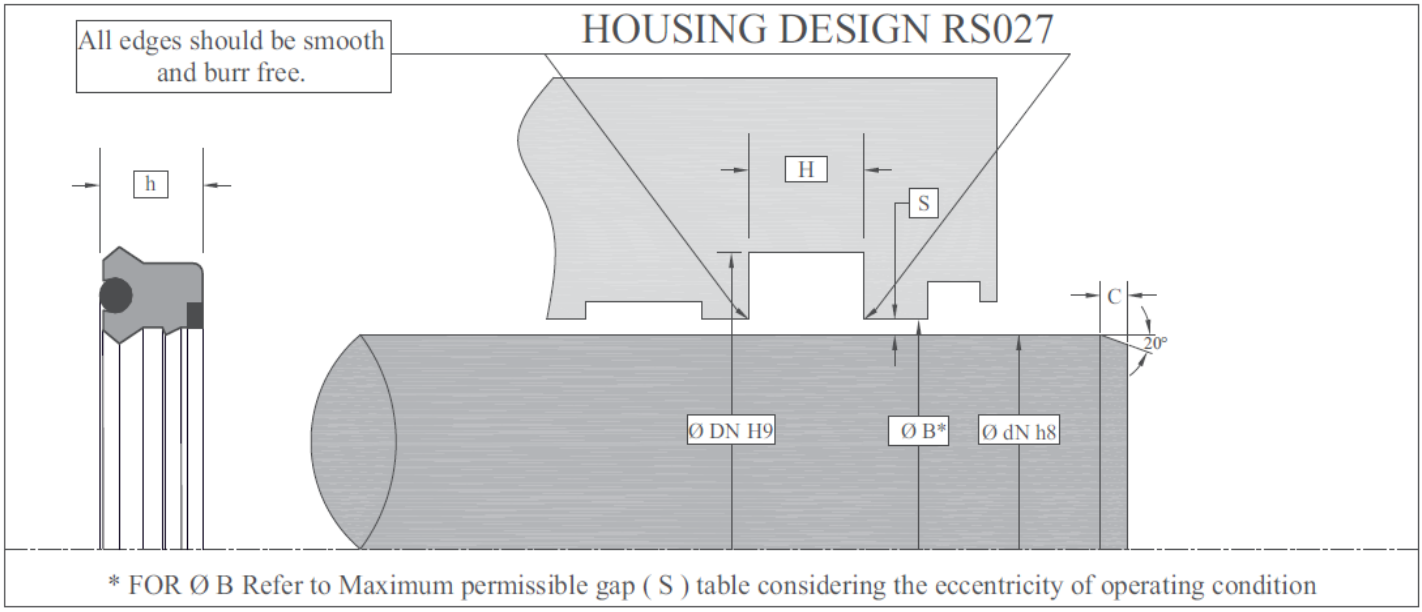


Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
60.00	75.00	11.40	12.50	RS027-M-01-060.00 X 075.00 X 11.4/12.5
63.00	78.00	11.40	12.50	RS027-M-01-063.00 X 078.00 X 11.4/12.5
65.00	75.00	8.00	9.00	RS027-M-01-065.00 X 075.00 X 08.0/09.0
65.00	78.00	10.00	11.00	RS027-M-01-065.00 X 078.00 X 10.0/11.0
65.00	80.00	9.00	10.00	RS027-M-01-065.00 X 080.00 X 09.0/10.0
65.00	80.00	11.40	12.50	RS027-M-01-065.00 X 080.00 X 11.4/12.5
70.00	80.00	5.50	6.00	RS027-M-01-070.00 X 080.00 X 05.5/06.0
70.00	80.00	6.30	7.00	RS027-M-01-070.00 X 080.00 X 06.3/07.0
70.00	83.00	10.00	11.00	RS027-M-01-070.00 X 083.00 X 10.0/11.0
70.00	85.00	9.00	10.00	RS027-M-01-070.00 X 085.00 X 09.0/10.0
70.00	85.00	11.40	12.50	RS027-M-01-070.00 X 085.00 X 11.4/12.5
70.00	90.00	12.00	13.00	RS027-M-01-070.00 X 090.00 X 12.0/13.0
75.00	85.00	6.30	7.00	RS027-M-01-075.00 X 085.00 X 06.3/07.0
75.00	85.00	7.20	8.00	RS027-M-01-075.00 X 085.00 X 07.2/08.0
75.00	88.00	10.00	11.00	RS027-M-01-075.00 X 088.00 X 10.0/11.0
75.00	90.00	9.00	10.00	RS027-M-01-075.00 X 090.00 X 09.0/10.0
75.00	90.00	11.40	12.50	RS027-M-01-075.00 X 090.00 X 11.4/12.5
75.00	95.00	12.00	13.00	RS027-M-01-075.00 X 095.00 X 12.0/13.0
77.50	87.50	6.30	7.00	RS027-M-01-077.50 X 087.50 X 06.3/07.0
80.00	90.00	6.30	7.00	RS027-M-01-080.00 X 090.00 X 06.3/07.0
80.00	93.00	10.00	11.00	RS027-M-01-080.00 X 093.00 X 10.0/11.0
80.00	95.00	9.00	10.00	RS027-M-01-080.00 X 095.00 X 09.0/10.0
80.00	95.00	11.40	12.50	RS027-M-01-080.00 X 095.00 X 11.4/12.5
80.00	100.00	12.00	13.00	RS027-M-01-080.00 X 100.00 X 12.0/13.0
85.00	100.00	9.00	10.00	RS027-M-01-085.00 X 100.00 X 09.0/10.0
85.00	100.00	11.40	12.50	RS027-M-01-085.00 X 100.00 X 11.4/12.5
85.00	105.00	12.00	13.00	RS027-M-01-085.00 X 105.00 X 12.0/13.0
90.00	105.00	9.00	10.00	RS027-M-01-090.00 X 105.00 X 09.0/10.0
90.00	105.00	11.40	12.50	RS027-M-01-090.00 X 105.00 X 11.4/12.5
90.00	110.00	12.00	13.00	RS027-M-01-090.00 X 110.00 X 12.0/13.0

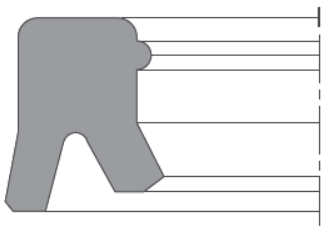
Polymer Engineering Standard Size List

DN (H9)	dN (h9)	h	H (+0.20)	ORDER CODE
90.00	110.00	13.00	14.00	RS027-M-01-090.00 X 110.00 X 13.0/14.0
90.00	110.00	15.15	16.58	RS027-M-01-090.00 X 110.00 X 15.2/16.6
90.00	110.00	14.60	16.00	RS027-M-01-090.00 X 110.00 X 14.6/16.0
98.00	112.00	8.90	9.50	RS027-M-01-098.00 X 112.00 X 08.9/09.5
95.00	110.00	9.00	10.00	RS027-M-01-095.00 X 110.00 X 09.0/10.0
95.00	110.00	11.40	12.50	RS027-M-01-095.00 X 110.00 X 11.4/12.5
95.00	115.00	12.00	13.00	RS027-M-01-095.00 X 115.00 X 12.0/13.0
100.00	115.00	9.00	10.00	RS027-M-01-100.00 X 115.00 X 09.0/10.0
100.00	115.00	11.40	12.50	RS027-M-01-100.00 X 115.00 X 11.4/12.5
100.00	120.00	12.00	13.00	RS027-M-01-100.00 X 120.00 X 12.0/13.0
105.00	120.00	9.00	10.00	RS027-M-01-105.00 X 120.00 X 09.0/10.0
105.00	120.00	12.00	13.00	RS027-M-01-105.00 X 120.00 X 12.0/13.0
105.00	125.00	12.00	13.00	RS027-M-01-105.00 X 125.00 X 12.0/13.0
108.00	118.00	5.70	6.30	RS027-M-01-108.00 X 118.00 X 05.7/06.3
110.00	125.00	9.00	10.00	RS027-M-01-110.00 X 125.00 X 09.0/10.0
110.00	125.00	10.00	11.00	RS027-M-01-110.00 X 125.00 X 10.0/11.0
110.00	125.00	11.40	12.50	RS027-M-01-110.00 X 125.00 X 11.4/12.5
110.00	125.00	14.50	16.00	RS027-M-01-110.00 X 125.00 X 14.5/16.0
110.00	130.00	12.00	13.00	RS027-M-01-110.00 X 130.00 X 12.0/13.0
110.00	130.00	14.60	16.00	RS027-M-01-110.00 X 130.00 X 14.6/16.0
115.00	130.00	9.00	10.00	RS027-M-01-115.00 X 130.00 X 09.0/10.0
115.00	130.00	10.00	11.00	RS027-M-01-115.00 X 130.00 X 10.0/11.0
115.00	135.00	12.00	13.00	RS027-M-01-115.00 X 135.00 X 12.0/13.0
115.00	135.00	14.80	16.00	RS027-M-01-115.00 X 135.00 X 14.8/16.0
120.00	135.00	9.00	10.00	RS027-M-01-120.00 X 135.00 X 09.0/10.0
120.00	140.00	12.00	13.00	RS027-M-01-120.00 X 140.00 X 12.0/13.0
120.00	140.00	13.00	14.00	RS027-M-01-120.00 X 140.00 X 13.0/14.0
125.00	145.00	12.00	13.00	RS027-M-01-125.00 X 145.00 X 12.0/13.0
130.00	145.00	9.00	10.00	RS027-M-01-130.00 X 145.00 X 09.0/10.0
130.00	150.00	12.00	13.00	RS027-M-01-130.00 X 150.00 X 12.0/13.0
130.00	150.00	13.00	14.00	RS027-M-01-130.00 X 150.00 X 13.0/14.0
140.00	150.00	6.30	7.00	RS027-M-01-140.00 X 150.00 X 06.3/07.0
140.00	155.00	9.00	10.00	RS027-M-01-140.00 X 155.00 X 09.0/10.0
140.00	155.00	10.00	11.00	RS027-M-01-140.00 X 155.00 X 10.0/11.0
140.00	160.00	12.00	13.00	RS027-M-01-140.00 X 160.00 X 12.0/13.0
140.00	160.00	13.00	14.00	RS027-M-01-140.00 X 160.00 X 13.0/14.0
140.00	160.00	14.80	16.00	RS027-M-01-140.00 X 160.00 X 14.8/16.0
145.00	155.00	6.30	7.00	RS027-M-01-145.00 X 155.00 X 06.3/07.0
150.00	170.00	12.00	13.00	RS027-M-01-150.00 X 170.00 X 12.0/13.0
150.00	170.00	14.60	16.00	RS027-M-01-150.00 X 170.00 X 14.6/16.0
155.00	165.00	6.30	7.00	RS027-M-01-155.00 X 165.00 X 06.3/07.0
160.00	175.00	9.00	10.00	RS027-M-01-160.00 X 175.00 X 09.0/10.0
160.00	180.00	13.00	14.00	RS027-M-01-160.00 X 180.00 X 13.0/14.0
160.00	180.00	14.60	16.00	RS027-M-01-160.00 X 180.00 X 14.6/16.0
180.00	200.00	14.60	16.00	RS027-M-01-180.00 X 200.00 X 14.6/16.0



Polymer Engineering Standard Size List

IMPERIAL SIZES				
DN (H9)	dN (h9)	h	H (+0.008")	ORDER CODE
1.500	2.000	0.375	0.413	RS027-I-01-01.500 X 02.000 X 0.375/0.413
1.750	2.125	0.375	0.413	RS027-I-01-01.750 X 02.125 X 0.375/0.413
1.750	2.250	0.375	0.413	RS027-I-01-01.750 X 02.250 X 0.375/0.413
2.000	2.500	0.375	0.413	RS027-I-01-02.000 X 02.500 X 0.375/0.413
2.250	2.750	0.375	0.413	RS027-I-01-02.250 X 02.750 X 0.375/0.413
2.500	3.000	0.375	0.413	RS027-I-01-02.500 X 03.000 X 0.375/0.413
3.000	3.500	0.375	0.413	RS027-I-01-03.000 X 03.500 X 0.375/0.413
3.500	4.000	0.375	0.413	RS027-I-01-03.500 X 04.000 X 0.375/0.413
3.500	4.125	0.500	0.540	RS027-I-01-03.500 X 04.125 X 0.500/0.540
4.000	4.500	0.375	0.413	RS027-I-01-04.000 X 04.500 X 0.375/0.413
4.000	4.625	0.562	0.619	RS027-I-01-04.000 X 04.625 X 0.562/0.619
4.500	5.125	0.625	0.688	RS027-I-01-04.500 X 05.125 X 0.625/0.688
5.000	5.500	0.562	0.619	RS027-I-01-05.000 X 05.500 X 0.562/0.619
5.000	5.625	0.625	0.688	RS027-I-01-05.000 X 05.625 X 0.625/0.688
5.500	6.000	0.562	0.619	RS027-I-01-05.500 X 06.000 X 0.562/0.619
7.000	8.000	0.725	0.798	RS027-I-01-07.000 X 08.000 X 0.725/0.798
7.000	8.000	0.750	0.825	RS027-I-01-07.000 X 08.000 X 0.750/0.825

ROD SEAL	RS036	

Features:

Rod seal profile RS036 is a single acting U cup type seal with additional rib commonly in use.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS036-01	PU01	-20 to 100°C	400 Bar*	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

*Maximum working pressure can be extended up to 400 bar with the use of a back up ring. If this option is required ask PEC.

Properties:

- High resistance to abrasion
- Easy installation
- Additional rib prevents ingress of dirt to a large degree

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap (S) for Metric Sizes (mm)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.25	0.20	0.17	ASK PEC

Maximum permissible gap (S) for Imperial Sizes (inch)			
160 bar	**260 bar**	**320 bar**	**400 bar**
0.010	0.008	0.007	ASK PEC

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

RS036 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Please mention PEC order code in your order.

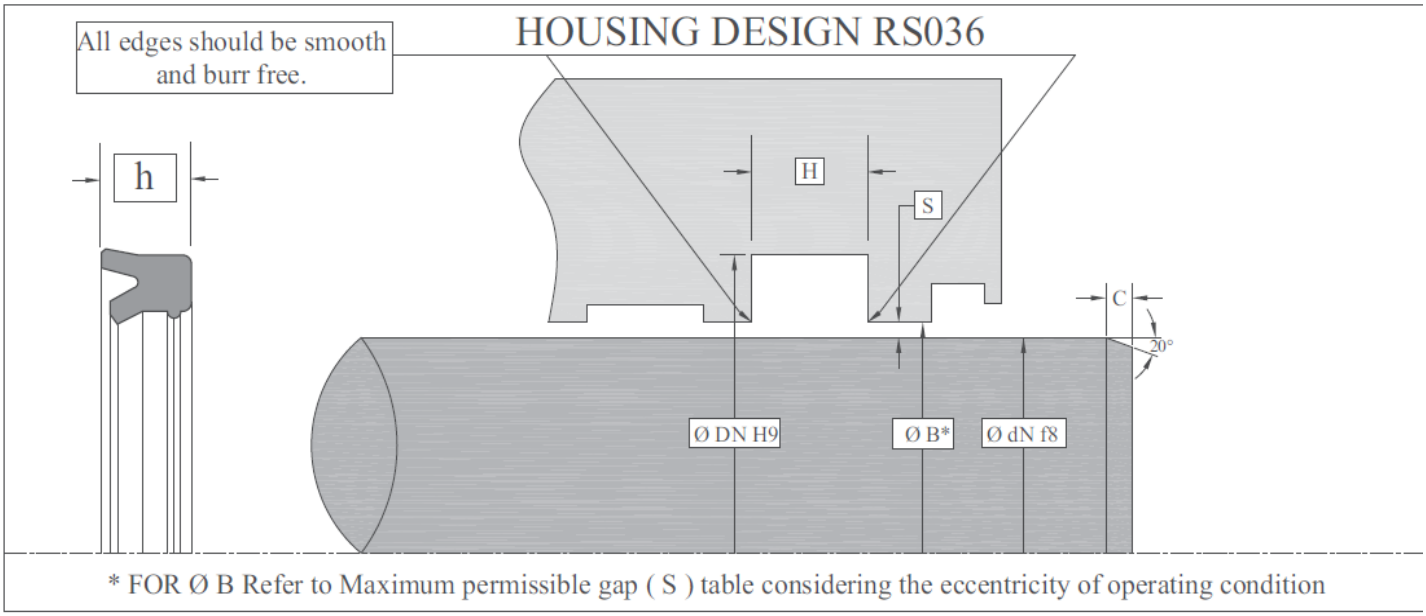
Example: Metric size 6.00 x 14.00 x 5.70 x 6.30

Order code is RS036-M-01-006.00 x 014.00 x 05.7/06.3

Example: Imperial size 0.625” x 0.875” x 0.241” x 0.265

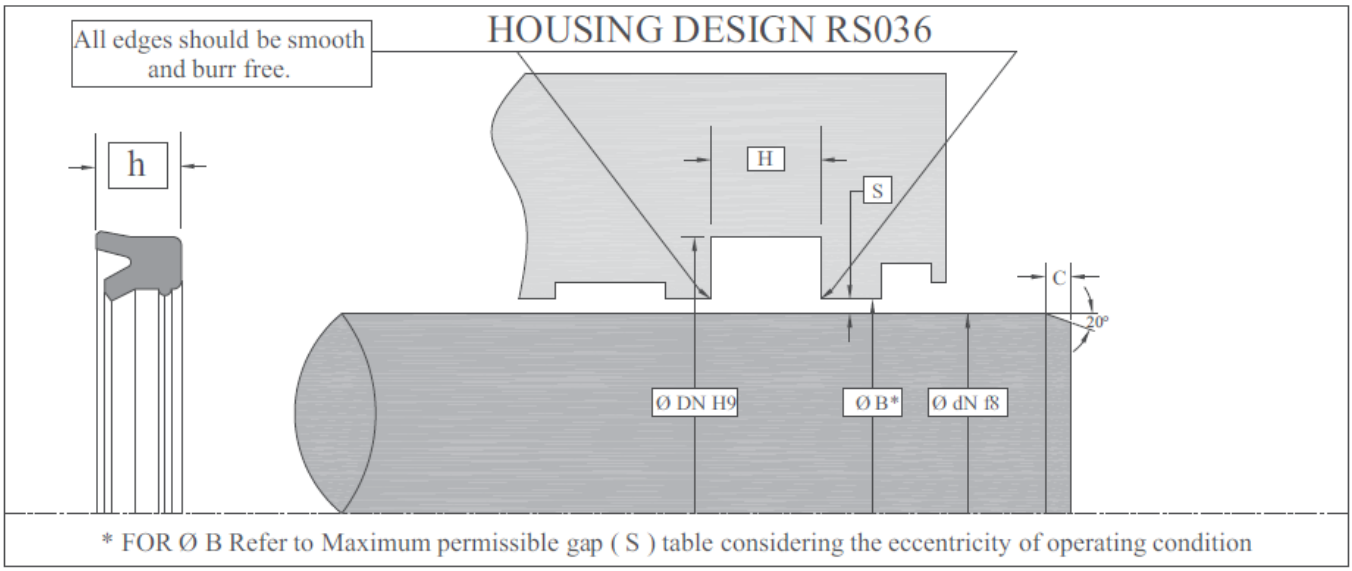
Order code is RS036-I-01-00.625 x 00.875 x 0.241/0.265

Please contact PEC if your required size is not mentioned in PEC standard size list.



Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
6.00	14.00	5.70	6.30	RS036-M-01-006.00 X 014.00 X 05.7/06.3
8.00	16.00	5.70	6.30	RS036-M-01-008.00 X 016.00 X 05.7/06.3
10.00	18.00	5.70	6.30	RS036-M-01-010.00 X 018.00 X 05.7/06.3
10.00	20.00	5.70	6.30	RS036-M-01-010.00 X 020.00 X 05.7/06.3
12.00	19.00	5.10	5.60	RS036-M-01-012.00 X 019.00 X 05.1/05.6
12.00	20.00	5.70	6.30	RS036-M-01-012.00 X 020.00 X 05.7/06.3
12.00	22.00	7.30	8.00	RS036-M-01-012.00 X 022.00 X 07.3/08.0
14.00	21.00	5.10	5.60	RS036-M-01-014.00 X 021.00 X 05.1/05.6
14.00	22.00	5.70	6.30	RS036-M-01-014.00 X 022.00 X 05.7/06.3
14.00	24.00	7.30	8.00	RS036-M-01-014.00 X 024.00 X 07.3/08.0
15.00	25.00	7.30	8.00	RS036-M-01-015.00 X 025.00 X 07.3/08.0
16.00	22.00	4.00	4.50	RS036-M-01-016.00 X 022.00 X 04.0/04.5
16.00	23.50	5.10	5.60	RS036-M-01-016.00 X 023.50 X 05.1/05.6
16.00	24.00	5.70	6.30	RS036-M-01-016.00 X 024.00 X 05.7/06.3
16.00	25.00	5.70	6.30	RS036-M-01-016.00 X 025.00 X 05.7/06.3
16.00	26.00	7.30	8.00	RS036-M-01-016.00 X 026.00 X 07.3/08.0
18.00	23.00	5.10	5.60	RS036-M-01-018.00 X 023.00 X 05.1/05.6
18.00	25.00	5.10	5.60	RS036-M-01-018.00 X 025.00 X 05.1/05.6
18.00	26.00	5.70	6.30	RS036-M-01-018.00 X 026.00 X 05.7/06.3
18.00	28.00	7.30	8.00	RS036-M-01-018.00 X 028.00 X 07.3/08.0
19.00	28.00	5.70	6.30	RS036-M-01-019.00 X 028.00 X 05.7/06.3
20.00	26.00	5.30	5.80	RS036-M-01-020.00 X 026.00 X 05.3/05.8
20.00	26.00	5.70	6.30	RS036-M-01-020.00 X 026.00 X 05.7/06.3
20.00	28.00	5.70	6.30	RS036-M-01-020.00 X 028.00 X 05.7/06.3
20.00	30.00	5.70	6.30	RS036-M-01-020.00 X 030.00 X 05.7/06.3
20.00	30.00	7.30	8.00	RS036-M-01-020.00 X 030.00 X 07.3/08.0
22.00	29.00	5.10	5.60	RS036-M-01-022.00 X 029.00 X 05.1/05.6
22.00	29.00	5.70	6.30	RS036-M-01-022.00 X 029.00 X 05.7/06.3
22.00	30.00	5.70	6.30	RS036-M-01-022.00 X 030.00 X 05.7/06.3
22.00	30.00	7.30	8.00	RS036-M-01-022.00 X 030.00 X 07.3/08.0
22.00	32.00	7.30	8.00	RS036-M-01-022.00 X 032.00 X 07.3/08.0

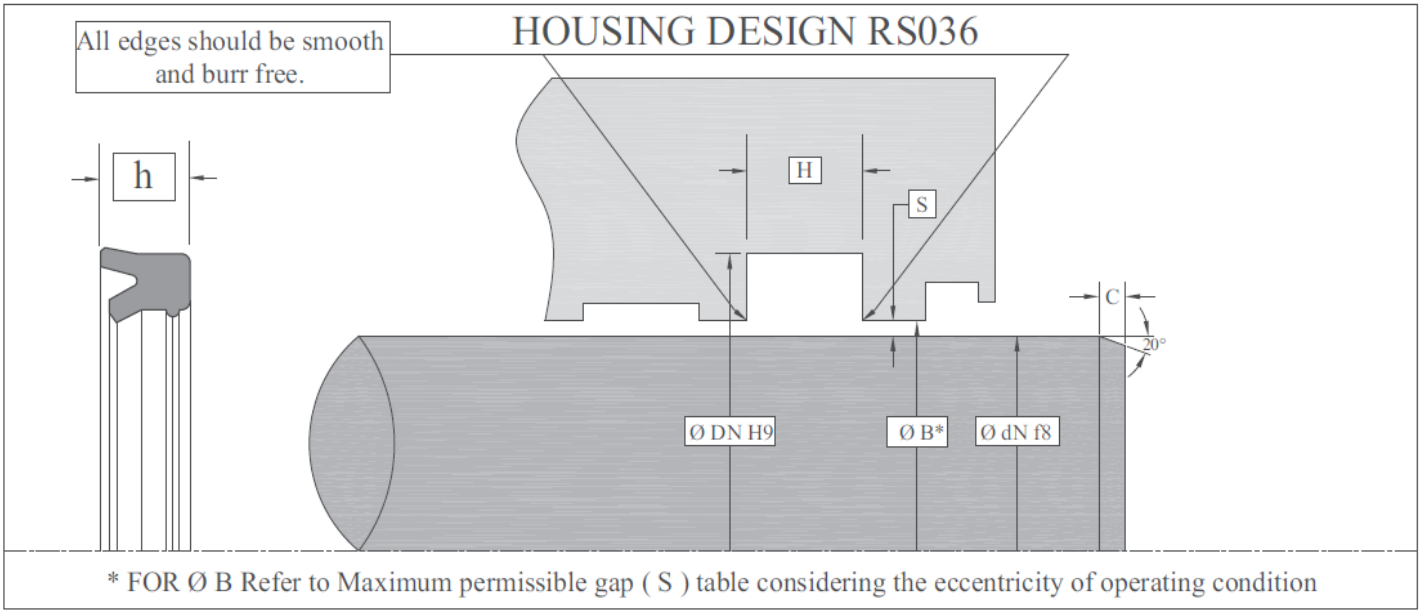


Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
25.00	33.00	5.70	6.30	RS036-M-01-025.00 X 033.00 X 05.7/06.3
25.00	33.00	7.30	8.00	RS036-M-01-025.00 X 033.00 X 07.3/08.0
25.00	35.00	7.30	8.00	RS036-M-01-025.00 X 035.00 X 07.3/08.0
25.00	38.00	6.80	7.50	RS036-M-01-025.00 X 038.00 X 06.8/07.5
28.00	26.00	7.30	8.00	RS036-M-01-028.00 X 026.00 X 07.3/08.0
28.00	36.00	5.70	6.30	RS036-M-01-028.00 X 036.00 X 05.7/06.3
28.00	36.00	7.30	8.00	RS036-M-01-028.00 X 036.00 X 07.3/08.0
28.00	38.00	7.30	8.00	RS036-M-01-028.00 X 038.00 X 07.3/08.0
30.00	37.00	5.30	5.80	RS036-M-01-030.00 X 037.00 X 05.3/05.8
30.00	37.00	8.20	9.00	RS036-M-01-030.00 X 037.00 X 08.2/09.0
30.00	38.00	5.70	6.30	RS036-M-01-030.00 X 038.00 X 05.7/06.3
30.00	40.00	5.70	6.30	RS036-M-01-030.00 X 040.00 X 05.7/06.3
30.00	40.00	7.30	8.00	RS036-M-01-030.00 X 040.00 X 07.3/08.0
30.00	41.00	3.90	4.20	RS036-M-01-030.00 X 041.00 X 03.9/04.2
30.00	50.00	10.00	11.00	RS036-M-01-030.00 X 050.00 X 10.0/11.0
31.50	41.50	6.40	7.00	RS036-M-01-031.50 X 041.50 X 06.4/07.0
32.00	40.00	5.70	6.30	RS036-M-01-032.00 X 040.00 X 05.7/06.3
32.00	40.00	10.00	11.00	RS036-M-01-032.00 X 040.00 X 10.0/11.0
32.00	42.00	7.30	8.00	RS036-M-01-032.00 X 042.00 X 07.3/08.0
32.00	42.00	9.10	10.00	RS036-M-01-032.00 X 042.00 X 09.1/10.0
32.00	42.00	10.00	11.00	RS036-M-01-032.00 X 042.00 X 10.0/11.0
32.00	47.00	10.00	11.00	RS036-M-01-032.00 X 047.00 X 10.0/11.0
33.00	43.00	7.30	8.00	RS036-M-01-033.00 X 043.00 X 07.3/08.0
33.00	46.00	8.00	9.00	RS036-M-01-033.00 X 046.00 X 08.0/09.0
34.00	43.00	5.70	6.30	RS036-M-01-034.00 X 043.00 X 05.7/06.3
35.00	42.00	6.90	7.60	RS036-M-01-035.00 X 042.00 X 06.9/07.6
35.00	43.00	5.70	6.30	RS036-M-01-035.00 X 043.00 X 05.7/06.3
35.00	43.00	10.00	11.00	RS036-M-01-035.00 X 043.00 X 10.0/11.0
35.00	45.00	5.70	6.30	RS036-M-01-035.00 X 045.00 X 05.7/06.3
35.00	45.00	7.30	8.00	RS036-M-01-035.00 X 045.00 X 07.3/08.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
35.00	45.00	10.00	11.00	RS036-M-01-035.00 X 045.00 X 10.0/11.0
35.00	46.00	6.80	7.50	RS036-M-01-035.00 X 046.00 X 06.8/07.5
36.00	43.00	6.40	7.00	RS036-M-01-036.00 X 043.00 X 06.4/07.0
36.00	43.00	8.20	9.00	RS036-M-01-036.00 X 043.00 X 08.2/09.0
36.00	44.00	5.70	6.30	RS036-M-01-036.00 X 044.00 X 05.7/06.3
36.00	44.00	7.80	8.50	RS036-M-01-036.00 X 044.00 X 07.8/08.5
36.00	46.00	5.70	6.30	RS036-M-01-036.00 X 046.00 X 05.7/06.3
36.00	46.00	7.30	8.00	RS036-M-01-036.00 X 046.00 X 07.3/08.0
36.00	46.00	10.00	11.00	RS036-M-01-036.00 X 046.00 X 10.0/11.0
36.00	47.00	8.60	9.50	RS036-M-01-036.00 X 047.00 X 08.6/09.5
36.00	50.00	11.40	12.50	RS036-M-01-036.00 X 050.00 X 11.4/12.5
36.00	51.00	11.40	12.50	RS036-M-01-036.00 X 051.00 X 11.4/12.5
38.00	48.00	7.30	8.00	RS036-M-01-038.00 X 048.00 X 07.3/08.0
40.00	50.00	5.70	6.30	RS036-M-01-040.00 X 050.00 X 05.7/06.3
40.00	50.00	7.30	8.00	RS036-M-01-040.00 X 050.00 X 07.3/08.0
40.00	50.00	8.20	9.00	RS036-M-01-040.00 X 050.00 X 08.2/09.0
40.00	50.00	10.00	11.00	RS036-M-01-040.00 X 050.00 X 10.0/11.0
40.00	55.00	9.10	10.00	RS036-M-01-040.00 X 055.00 X 09.1/10.0
40.00	55.00	10.00	11.00	RS036-M-01-040.00 X 055.00 X 10.0/11.0
40.00	55.00	11.40	12.50	RS036-M-01-040.00 X 055.00 X 11.4/12.5
40.00	55.50	5.70	6.30	RS036-M-01-040.00 X 055.50 X 05.7/06.3
45.00	53.00	5.70	6.30	RS036-M-01-045.00 X 053.00 X 05.7/06.3
45.00	53.00	8.20	9.00	RS036-M-01-045.00 X 053.00 X 08.2/09.0
45.00	53.00	11.80	13.00	RS036-M-01-045.00 X 053.00 X 11.8/13.0
45.00	55.00	5.70	6.30	RS036-M-01-045.00 X 055.00 X 05.7/06.3
45.00	55.00	6.40	7.00	RS036-M-01-045.00 X 055.00 X 06.4/07.0
45.00	55.00	7.30	8.00	RS036-M-01-045.00 X 055.00 X 07.3/08.0
45.00	55.00	8.20	9.00	RS036-M-01-045.00 X 055.00 X 08.2/09.0
45.00	55.00	10.00	11.00	RS036-M-01-045.00 X 055.00 X 10.0/11.0
45.00	56.00	7.20	8.00	RS036-M-01-045.00 X 056.00 X 07.2/08.0
45.00	60.00	5.70	6.30	RS036-M-01-045.00 X 060.00 X 05.7/06.3
45.00	60.00	11.40	12.50	RS036-M-01-045.00 X 060.00 X 11.4/12.5
50.00	57.00	9.10	10.00	RS036-M-01-050.00 X 057.00 X 09.1/10.0
50.00	60.00	5.70	6.30	RS036-M-01-050.00 X 060.00 X 05.7/06.3
50.00	60.00	7.30	8.00	RS036-M-01-050.00 X 060.00 X 07.3/08.0
50.00	60.00	8.20	9.00	RS036-M-01-050.00 X 060.00 X 08.2/09.0
50.00	60.00	10.00	11.00	RS036-M-01-050.00 X 060.00 X 10.0/11.0
50.00	60.00	11.80	13.00	RS036-M-01-050.00 X 060.00 X 11.8/13.0
50.00	63.00	10.00	11.00	RS036-M-01-050.00 X 063.00 X 10.0/11.0
50.00	65.00	11.40	12.50	RS036-M-01-050.00 X 065.00 X 11.4/12.5
50.00	65.50	5.70	6.30	RS036-M-01-050.00 X 065.50 X 05.7/06.3
50.80	59.60	9.00	9.80	RS036-M-01-050.80 X 059.60 X 09.0/09.8
53.00	63.00	6.30	7.00	RS036-M-01-053.00 X 063.00 X 06.3/07.0
54.00	62.00	10.00	11.00	RS036-M-01-054.00 X 062.00 X 10.0/11.0
55.00	65.00	7.30	8.00	RS036-M-01-055.00 X 065.00 X 07.3/08.0
55.00	65.00	10.00	11.00	RS036-M-01-055.00 X 065.00 X 10.0/11.0



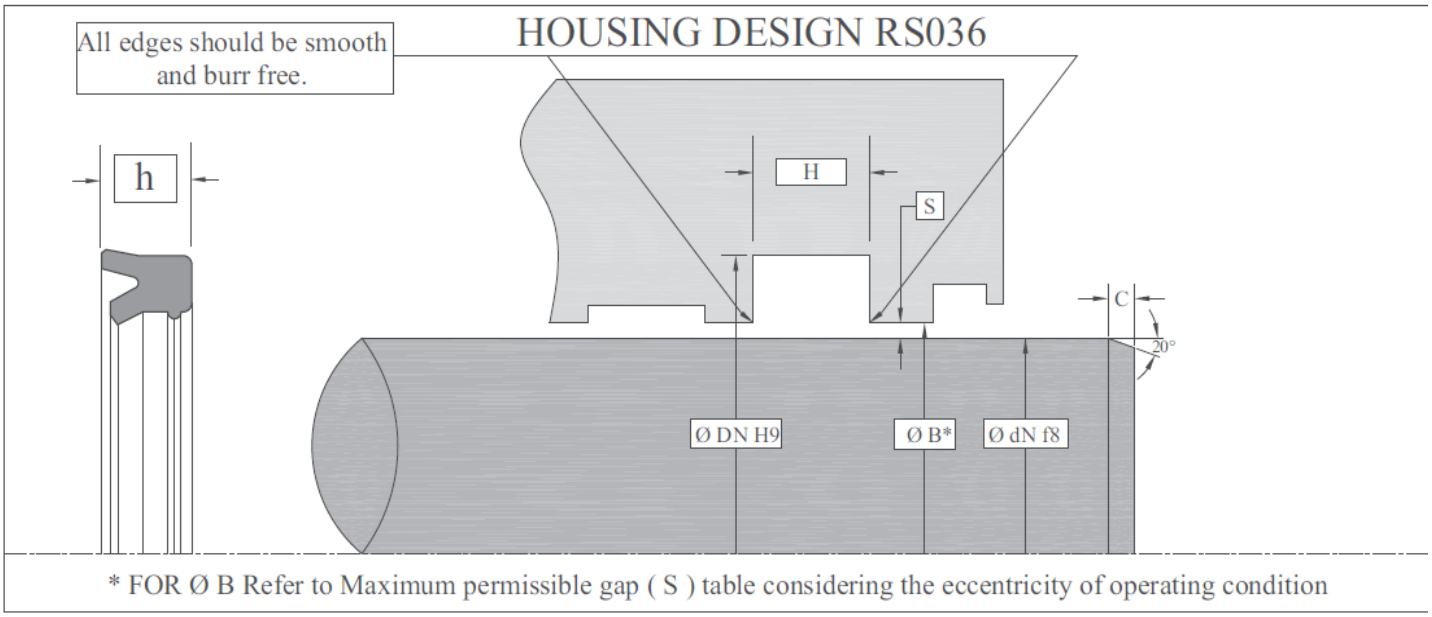
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
55.00	67.00	13.80	15.00	RS036-M-01-055.00 X 067.00 X 13.8/15.0
55.00	68.00	10.00	11.00	RS036-M-01-055.00 X 068.00 X 10.0/11.0
55.00	70.00	10.00	11.00	RS036-M-01-055.00 X 070.00 X 10.0/11.0
55.00	75.00	11.80	13.00	RS036-M-01-055.00 X 075.00 X 11.8/13.0
56.00	66.00	5.70	6.30	RS036-M-01-056.00 X 066.00 X 05.7/06.3
56.00	66.00	7.30	8.00	RS036-M-01-056.00 X 066.00 X 07.3/08.0
56.00	66.00	10.00	11.00	RS036-M-01-056.00 X 066.00 X 10.0/11.0
56.00	71.00	8.00	8.50	RS036-M-01-056.00 X 071.00 X 08.0/08.5
56.00	71.00	11.40	12.50	RS036-M-01-056.00 X 071.00 X 11.4/12.5
60.00	68.00	5.80	6.20	RS036-M-01-060.00 X 068.00 X 05.8/06.2
60.00	70.00	7.30	8.00	RS036-M-01-060.00 X 070.00 X 07.3/08.0
60.00	70.00	10.00	11.00	RS036-M-01-060.00 X 070.00 X 10.0/11.0
60.00	70.00	11.80	13.00	RS036-M-01-060.00 X 070.00 X 11.8/13.0
60.00	70.00	13.60	15.00	RS036-M-01-060.00 X 070.00 X 13.6/15.0
60.00	73.00	10.00	11.00	RS036-M-01-060.00 X 073.00 X 10.0/11.0
60.00	75.00	9.10	10.00	RS036-M-01-060.00 X 075.00 X 09.1/10.0
60.00	75.00	10.00	11.00	RS036-M-01-060.00 X 075.00 X 10.0/11.0
60.00	75.00	11.40	12.50	RS036-M-01-060.00 X 075.00 X 11.4/12.5
60.00	80.00	12.00	13.00	RS036-M-01-060.00 X 080.00 X 12.0/13.0
63.00	73.00	11.80	13.00	RS036-M-01-063.00 X 073.00 X 11.8/13.0
63.00	75.00	9.10	10.00	RS036-M-01-063.00 X 075.00 X 09.1/10.0
63.00	75.00	11.80	13.00	RS036-M-01-063.00 X 075.00 X 11.8/13.0
63.00	78.00	10.00	11.00	RS036-M-01-063.00 X 078.00 X 10.0/11.0
63.00	78.00	11.40	12.50	RS036-M-01-063.00 X 078.00 X 11.4/12.5
64.50	75.00	6.30	7.00	RS036-M-01-064.50 X 075.00 X 06.3/07.0
65.00	75.00	6.40	7.00	RS036-M-01-065.00 X 075.00 X 06.4/07.0
65.00	78.00	10.00	11.00	RS036-M-01-065.00 X 078.00 X 10.0/11.0
65.00	80.00	9.10	10.00	RS036-M-01-065.00 X 080.00 X 09.1/10.0
65.00	80.00	10.00	11.00	RS036-M-01-065.00 X 080.00 X 10.0/11.0
65.00	80.00	11.80	13.00	RS036-M-01-065.00 X 080.00 X 11.8/13.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
68.00	76.00	4.70	5.20	RS036-M-01-068.00 X 076.00 X 04.7/05.2
70.00	80.00	7.30	8.00	RS036-M-01-070.00 X 080.00 X 07.3/08.0
70.00	80.00	11.80	13.00	RS036-M-01-070.00 X 080.00 X 11.8/13.0
70.00	83.00	10.00	11.00	RS036-M-01-070.00 X 083.00 X 10.0/11.0
70.00	85.00	11.40	12.50	RS036-M-01-070.00 X 085.00 X 11.4/12.5
70.00	90.00	11.80	13.00	RS036-M-01-070.00 X 090.00 X 11.8/13.0
74.00	86.00	8.60	9.50	RS036-M-01-074.00 X 086.00 X 08.6/09.5
75.00	83.00	11.40	12.50	RS036-M-01-075.00 X 083.00 X 11.4/12.5
75.00	85.00	11.80	13.00	RS036-M-01-075.00 X 085.00 X 11.8/13.0
75.00	87.00	8.70	9.60	RS036-M-01-075.00 X 087.00 X 08.7/09.6
75.00	88.00	10.00	11.00	RS036-M-01-075.00 X 088.00 X 10.0/11.0
75.00	90.00	11.80	13.00	RS036-M-01-075.00 X 090.00 X 11.8/13.0
75.00	95.00	11.80	13.00	RS036-M-01-075.00 X 095.00 X 11.8/13.0
75.00	95.00	13.60	15.00	RS036-M-01-075.00 X 095.00 X 13.6/15.0
78.00	88.00	13.60	15.00	RS036-M-01-078.00 X 088.00 X 13.6/15.0
80.00	90.00	9.10	10.00	RS036-M-01-080.00 X 090.00 X 09.1/10.0
80.00	90.00	11.80	13.00	RS036-M-01-080.00 X 090.00 X 11.8/13.0
80.00	93.00	10.00	11.00	RS036-M-01-080.00 X 093.00 X 10.0/11.0
80.00	95.00	10.00	11.00	RS036-M-01-080.00 X 095.00 X 10.0/11.0
80.00	95.00	11.40	12.50	RS036-M-01-080.00 X 095.00 X 11.4/12.5
80.00	100.00	11.80	13.00	RS036-M-01-080.00 X 100.00 X 11.8/13.0
85.00	100.00	11.80	13.00	RS036-M-01-085.00 X 100.00 X 11.8/13.0
85.00	105.00	10.00	11.00	RS036-M-01-085.00 X 105.00 X 10.0/11.0
85.00	105.00	11.80	13.00	RS036-M-01-085.00 X 105.00 X 11.8/13.0
87.00	98.00	11.00	12.00	RS036-M-01-087.00 X 098.00 X 11.0/12.0
90.00	100.00	10.00	11.00	RS036-M-01-090.00 X 100.00 X 10.0/11.0
90.00	100.00	11.80	13.00	RS036-M-01-090.00 X 100.00 X 11.8/13.0
90.00	105.00	9.10	10.00	RS036-M-01-090.00 X 105.00 X 09.1/10.0
90.00	105.00	10.00	11.00	RS036-M-01-090.00 X 105.00 X 10.0/11.0
90.00	105.00	11.40	12.50	RS036-M-01-090.00 X 105.00 X 11.4/12.5
90.00	105.00	11.80	13.00	RS036-M-01-090.00 X 105.00 X 11.8/13.0
90.00	110.00	11.80	13.00	RS036-M-01-090.00 X 110.00 X 11.8/13.0
91.00	104.00	8.60	9.50	RS036-M-01-091.00 X 104.00 X 08.6/09.5
95.00	103.00	11.40	12.50	RS036-M-01-095.00 X 103.00 X 11.4/12.5
95.00	105.00	11.40	12.50	RS036-M-01-095.00 X 105.00 X 11.4/12.5
95.00	110.00	9.10	10.00	RS036-M-01-095.00 X 110.00 X 09.1/10.0
95.00	110.00	10.00	11.00	RS036-M-01-095.00 X 110.00 X 10.0/11.0
95.00	115.00	11.80	13.00	RS036-M-01-095.00 X 115.00 X 11.8/13.0
99.00	109.00	13.60	15.00	RS036-M-01-099.00 X 109.00 X 13.6/15.0
100.00	108.00	7.30	8.00	RS036-M-01-100.00 X 108.00 X 07.3/08.0
100.00	115.00	9.10	10.00	RS036-M-01-100.00 X 115.00 X 09.1/10.0
100.00	115.00	10.00	11.00	RS036-M-01-100.00 X 115.00 X 10.0/11.0
100.00	120.00	11.80	13.00	RS036-M-01-100.00 X 120.00 X 11.8/13.0
100.00	120.00	14.50	16.00	RS036-M-01-100.00 X 120.00 X 14.5/16.0
100.00	125.00	14.50	16.00	RS036-M-01-100.00 X 125.00 X 14.5/16.0
104.00	119.00	11.40	12.80	RS036-M-01-104.00 X 119.00 X 11.4/12.8



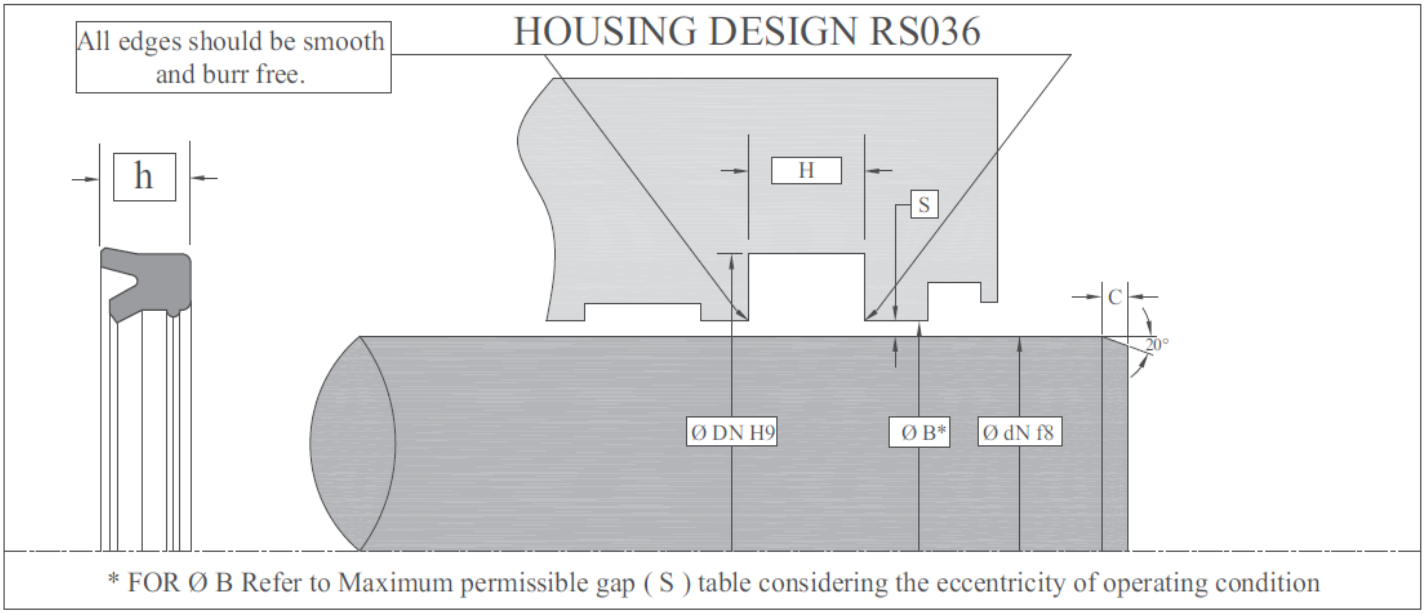
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
105.00	120.00	10.00	11.00	RS036-M-01-105.00 X 120.00 X 10.0/11.0
105.00	120.00	14.50	16.00	RS036-M-01-105.00 X 120.00 X 14.5/16.0
105.00	125.00	11.80	13.00	RS036-M-01-105.00 X 125.00 X 11.8/13.0
110.00	125.00	9.60	10.60	RS036-M-01-110.00 X 125.00 X 09.6/10.6
110.00	125.00	11.40	12.50	RS036-M-01-110.00 X 125.00 X 11.4/12.5
110.00	125.00	11.80	13.00	RS036-M-01-110.00 X 125.00 X 11.8/13.0
110.00	130.00	14.50	16.00	RS036-M-01-110.00 X 130.00 X 14.5/16.0
115.00	123.00	11.40	12.50	RS036-M-01-115.00 X 123.00 X 11.4/12.5
115.00	130.00	10.00	11.00	RS036-M-01-115.00 X 130.00 X 10.0/11.0
115.00	135.00	14.50	16.00	RS036-M-01-115.00 X 135.00 X 14.5/16.0
115.00	140.00	14.50	16.00	RS036-M-01-115.00 X 140.00 X 14.5/16.0
120.00	130.00	13.60	15.00	RS036-M-01-120.00 X 130.00 X 13.6/15.0
120.00	140.00	14.50	16.00	RS036-M-01-120.00 X 140.00 X 14.5/16.0
125.00	135.00	11.80	13.00	RS036-M-01-125.00 X 135.00 X 11.8/13.0
125.00	145.00	14.50	16.00	RS036-M-01-125.00 X 145.00 X 14.5/16.0
130.00	150.00	11.80	13.00	RS036-M-01-130.00 X 150.00 X 11.8/13.0
130.00	150.00	14.50	16.00	RS036-M-01-130.00 X 150.00 X 14.5/16.0
135.00	143.00	11.40	12.50	RS036-M-01-135.00 X 143.00 X 11.4/12.5
135.00	150.00	9.10	10.00	RS036-M-01-135.00 X 150.00 X 09.1/10.0
135.00	150.00	11.40	12.50	RS036-M-01-135.00 X 150.00 X 11.4/12.5
138.00	160.00	15.50	17.00	RS036-M-01-138.00 X 160.00 X 15.5/17.0
140.00	155.00	12.70	14.00	RS036-M-01-140.00 X 155.00 X 12.7/14.0
140.00	160.00	14.50	16.00	RS036-M-01-140.00 X 160.00 X 14.5/16.0
141.00	151.00	13.60	15.00	RS036-M-01-141.00 X 151.00 X 13.6/15.0
145.00	160.00	9.10	10.00	RS036-M-01-145.00 X 160.00 X 09.1/10.0
145.00	165.00	14.50	16.00	RS036-M-01-145.00 X 165.00 X 14.5/16.0
150.00	170.00	14.50	16.00	RS036-M-01-150.00 X 170.00 X 14.5/16.0
155.00	170.00	10.00	11.00	RS036-M-01-155.00 X 170.00 X 10.0/11.0
160.00	180.00	14.50	16.00	RS036-M-01-160.00 X 180.00 X 14.5/16.0
162.00	172.00	13.60	15.00	RS036-M-01-162.00 X 172.00 X 13.6/15.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
165.00	180.00	10.00	11.00	RS036-M-01-165.00 X 180.00 X 10.0/11.0
165.00	180.00	17.70	19.50	RS036-M-01-165.00 X 180.00 X 17.7/19.5
170.00	190.00	14.50	16.00	RS036-M-01-170.00 X 190.00 X 14.5/16.0
180.00	200.00	14.50	16.00	RS036-M-01-180.00 X 200.00 X 14.5/16.0
180.00	205.00	14.70	16.00	RS036-M-01-180.00 X 205.00 X 14.7/16.0
180.00	205.00	15.50	17.00	RS036-M-01-180.00 X 205.00 X 15.5/17.0
183.00	193.00	13.60	15.00	RS036-M-01-183.00 X 193.00 X 13.6/15.0
191.00	201.00	10.00	11.00	RS036-M-01-191.00 X 201.00 X 10.0/11.0
200.00	225.00	14.50	16.00	RS036-M-01-200.00 X 225.00 X 14.5/16.0
200.00	225.00	15.50	17.00	RS036-M-01-200.00 X 225.00 X 15.5/17.0
207.00	217.00	13.60	15.00	RS036-M-01-207.00 X 217.00 X 13.6/15.0
210.00	226.00	17.70	19.50	RS036-M-01-210.00 X 226.00 X 17.7/19.5
220.00	250.00	15.50	17.00	RS036-M-01-220.00 X 250.00 X 15.5/17.0
250.00	270.00	14.50	16.00	RS036-M-01-250.00 X 270.00 X 14.5/16.0

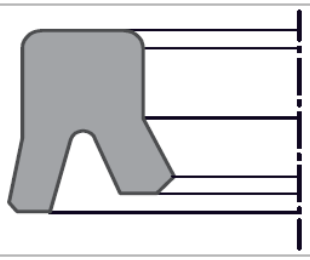


Polymer Engineering Standard Size List

IMPERIAL SIZES				
dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
0.625	0.875	0.241	0.265	RS036-I-01-00.625 X 00.875 X 0.241/0.265
0.750	1.000	0.252	0.275	RS036-I-01-00.750 X 01.000 X 0.252/0.275
0.750	1.125	0.283	0.312	RS036-I-01-00.750 X 01.125 X 0.283/0.312
0.750	1.125	0.312	0.343	RS036-I-01-00.750 X 01.125 X 0.312/0.343
1.000	1.250	0.252	0.275	RS036-I-01-01.000 X 01.250 X 0.252/0.275
1.000	1.375	0.283	0.312	RS036-I-01-01.000 X 01.375 X 0.283/0.312
1.000	1.375	0.312	0.343	RS036-I-01-01.000 X 01.375 X 0.312/0.343
1.000	1.500	0.375	0.413	RS036-I-01-01.000 X 01.500 X 0.375/0.413
1.125	1.375	0.187	0.205	RS036-I-01-01.125 X 01.375 X 0.187/0.205
1.125	1.375	0.252	0.275	RS036-I-01-01.125 X 01.375 X 0.252/0.275
1.125	1.625	0.343	0.375	RS036-I-01-01.125 X 01.625 X 0.343/0.375
1.125	1.625	0.375	0.413	RS036-I-01-01.125 X 01.625 X 0.375/0.413
1.250	1.500	0.188	0.207	RS036-I-01-01.250 X 01.500 X 0.188/0.207
1.250	1.500	0.252	0.275	RS036-I-01-01.250 X 01.500 X 0.252/0.275
1.250	1.500	0.312	0.343	RS036-I-01-01.250 X 01.500 X 0.312/0.343
1.250	1.625	0.311	0.343	RS036-I-01-01.250 X 01.625 X 0.311/0.343
1.250	1.625	0.375	0.413	RS036-I-01-01.250 X 01.625 X 0.375/0.413
1.375	1.625	0.252	0.275	RS036-I-01-01.375 X 01.625 X 0.252/0.275
1.500	1.750	0.252	0.275	RS036-I-01-01.500 X 01.750 X 0.252/0.275
1.500	1.875	0.250	0.275	RS036-I-01-01.500 X 01.875 X 0.250/0.275
1.500	1.875	0.311	0.343	RS036-I-01-01.500 X 01.875 X 0.311/0.343
1.500	1.875	0.375	0.413	RS036-I-01-01.500 X 01.875 X 0.375/0.413
1.500	2.000	0.375	0.413	RS036-I-01-01.500 X 02.000 X 0.375/0.413
1.750	2.000	0.312	0.343	RS036-I-01-01.750 X 02.000 X 0.312/0.343
1.750	2.125	0.252	0.275	RS036-I-01-01.750 X 02.125 X 0.252/0.275
1.750	2.125	0.275	0.306	RS036-I-01-01.750 X 02.125 X 0.275/0.306
1.750	2.125	0.375	0.413	RS036-I-01-01.750 X 02.125 X 0.375/0.413
1.750	2.250	0.375	0.413	RS036-I-01-01.750 X 02.250 X 0.375/0.413
2.000	2.375	0.312	0.343	RS036-I-01-02.000 X 02.375 X 0.312/0.343

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
2.000	2.375	0.343	0.375	RS036-I-01-02.000 X 02.375 X 0.343/0.375
2.000	2.375	0.375	0.413	RS036-I-01-02.000 X 02.375 X 0.375/0.413
2.000	2.500	0.343	0.375	RS036-I-01-02.000 X 02.500 X 0.343/0.375
2.000	2.500	0.375	0.413	RS036-I-01-02.000 X 02.500 X 0.375/0.413
2.250	2.625	0.312	0.343	RS036-I-01-02.250 X 02.625 X 0.312/0.343
2.250	2.750	0.375	0.413	RS036-I-01-02.250 X 02.750 X 0.375/0.413
2.375	2.875	0.312	0.343	RS036-I-01-02.375 X 02.875 X 0.312/0.343
2.500	2.875	0.375	0.413	RS036-I-01-02.500 X 02.875 X 0.375/0.413
2.500	2.937	0.323	0.354	RS036-I-01-02.500 X 02.937 X 0.323/0.354
2.500	3.000	0.343	0.375	RS036-I-01-02.500 X 03.000 X 0.343/0.375
2.500	3.000	0.375	0.413	RS036-I-01-02.500 X 03.000 X 0.375/0.413
2.750	3.125	0.375	0.413	RS036-I-01-02.750 X 03.125 X 0.375/0.413
2.750	3.250	0.375	0.413	RS036-I-01-02.750 X 03.250 X 0.375/0.413
3.000	3.375	0.375	0.413	RS036-I-01-03.000 X 03.375 X 0.375/0.413
3.000	3.500	0.343	0.375	RS036-I-01-03.000 X 03.500 X 0.343/0.375
3.000	3.500	0.375	0.413	RS036-I-01-03.000 X 03.500 X 0.375/0.413
3.000	3.500	0.625	0.688	RS036-I-01-03.000 X 03.500 X 0.625/0.688
3.250	3.750	0.343	0.375	RS036-I-01-03.250 X 03.750 X 0.343/0.375
3.250	3.750	0.375	0.413	RS036-I-01-03.250 X 03.750 X 0.375/0.413
3.500	4.000	0.343	0.375	RS036-I-01-03.500 X 04.000 X 0.343/0.375
3.500	4.000	0.375	0.413	RS036-I-01-03.500 X 04.000 X 0.375/0.413
4.000	4.500	0.375	0.413	RS036-I-01-04.000 X 04.500 X 0.375/0.413
4.000	4.750	0.575	0.625	RS036-I-01-04.000 X 04.750 X 0.575/0.625
4.000	4.750	0.625	0.688	RS036-I-01-04.000 X 04.750 X 0.625/0.688
4.500	5.250	0.575	0.625	RS036-I-01-04.500 X 05.250 X 0.575/0.625
4.500	5.250	0.625	0.688	RS036-I-01-04.500 X 05.250 X 0.625/0.688
4.750	5.125	0.375	0.413	RS036-I-01-04.750 X 05.125 X 0.375/0.413
5.000	5.500	0.563	0.619	RS036-I-01-05.000 X 05.500 X 0.563/0.619
5.750	6.500	0.455	0.500	RS036-I-01-05.750 X 06.500 X 0.455/0.500
6.000	6.500	0.562	0.619	RS036-I-01-06.000 X 06.500 X 0.562/0.619
6.000	6.750	0.575	0.625	RS036-I-01-06.000 X 06.750 X 0.575/0.625
6.000	6.750	0.625	0.688	RS036-I-01-06.000 X 06.750 X 0.625/0.688

ROD SEAL	RS045	

Features:

Rod seal profile RS045 is a single acting U cup type seal commonly in use.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS045-01	PU02	-20 to 100°C	400 Bar*	0.5 m/s
RS045-02	VT04	-20 to 200°C	160 Bar	0.5 m/s
RS045-03	NB01	-20 to 100°C	160 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

*Maximum working pressure can be extended up to 400 bar with the use of a back up ring. If this option is required ask PEC.

Properties:

- High resistance to abrasion
- Easy installation
- Minimum contact friction

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Seal Profile	Maximum permissible gap (S) for Metric Sizes (mm)			
	160 bar	260 bar	320 bar	400 bar
RS045-01	0.25	0.20	0.17	ASK PEC
RS045-02 & 03	0.005	Ask ROYAL	-	-

Seal Profile	Maximum permissible gap (S) for Imperial Sizes (inch)			
	160 bar	260 bar	320 bar	400 bar
RS045-01	0.010	0.008	0.006	ASK PEC
RS045-02 & 03	ASK PEC	ASK PEC	-	-

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

RS045 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order.

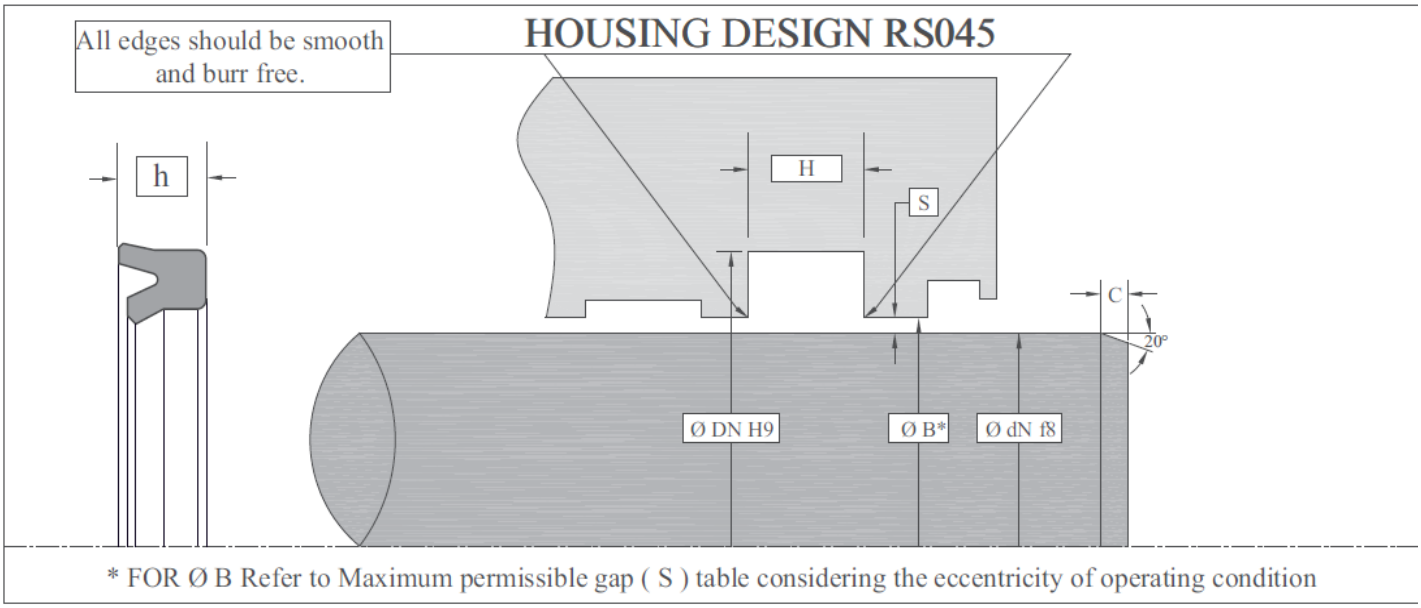
Example: Metric size 4.00 x 10.00 x 4.10/4.50

Order code is RS045-M-01-004.00 x 010.00 x 04.1/04.5

Example: Imperial size 0.500” x 0.750” x 0.154”/0.170”

* For size list of RS045-02 (FPM Material) & 03 (NBR Material) contact PEC

Please contact PEC if your required size is not mentioned in PEC standard size list.

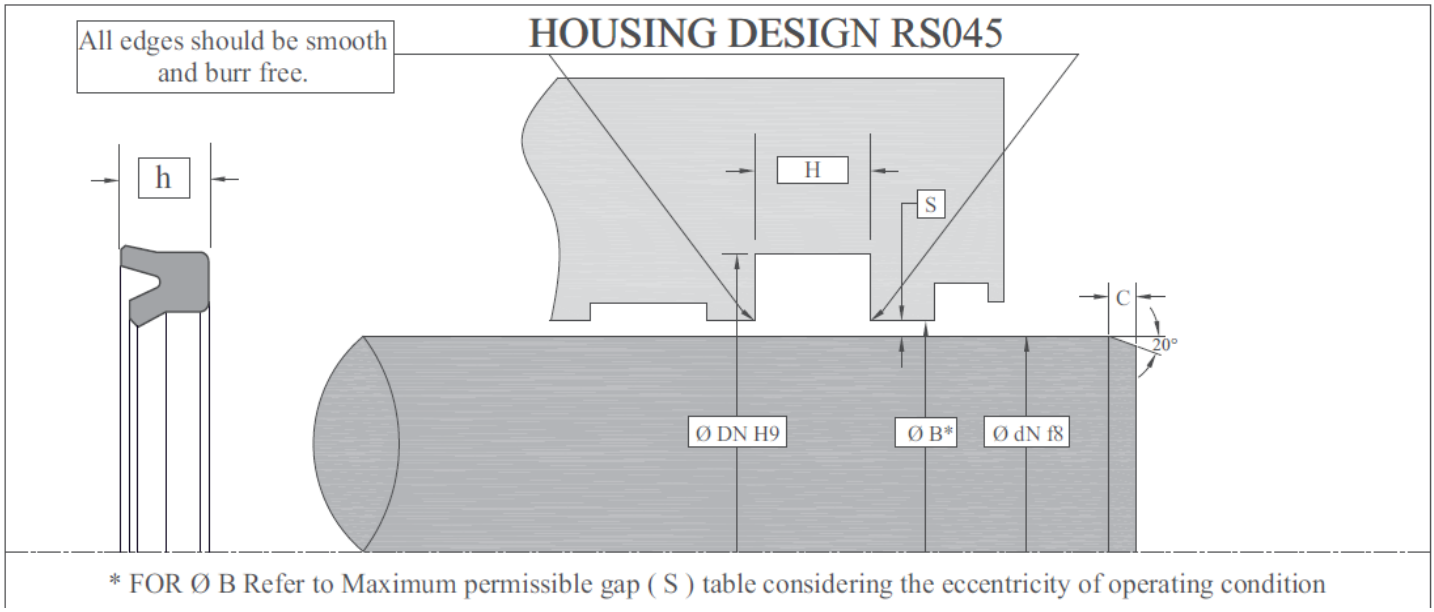


Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
4.00	10.00	4.10	4.50	RS045-M-01-004.00 X 010.00 X 04.1/04.5
10.00	20.00	10.00	11.00	RS045-M-01-010.00 X 020.00 X 10.0/11.0
12.00	20.00	5.20	5.70	RS045-M-01-012.00 X 020.00 X 05.2/05.7
12.00	20.00	7.30	8.00	RS045-M-01-012.00 X 020.00 X 07.3/08.0
14.00	24.00	10.00	11.00	RS045-M-01-014.00 X 024.00 X 10.0/11.0
14.00	26.00	11.00	12.00	RS045-M-01-014.00 X 026.00 X 11.0/12.0
16.00	22.00	4.10	4.50	RS045-M-01-016.00 X 022.00 X 04.1/04.5
16.00	22.30	4.40	4.80	RS045-M-01-016.00 X 022.30 X 04.4/04.8
16.00	24.00	4.50	5.00	RS045-M-01-016.00 X 024.00 X 04.5/05.0
16.00	26.00	10.00	11.00	RS045-M-01-016.00 X 026.00 X 10.0/11.0
18.00	27.50	7.00	8.00	RS045-M-01-018.00 X 027.50 X 07.0/08.0
19.05	31.75	11.80	13.00	RS045-M-01-019.05 X 031.75 X 11.8/13.0
20.00	26.00	5.00	5.60	RS045-M-01-020.00 X 026.00 X 05.0/05.6
20.00	28.00	5.20	5.70	RS045-M-01-020.00 X 028.00 X 05.2/05.7
20.00	30.00	10.00	11.00	RS045-M-01-020.00 X 030.00 X 10.0/11.0
25.00	33.00	5.20	5.70	RS045-M-01-025.00 X 033.00 X 05.2/05.7
25.00	33.00	5.70	6.30	RS045-M-01-025.00 X 033.00 X 05.7/06.3
25.40	38.00	12.70	14.00	RS045-M-01-025.40 X 038.00 X 12.7/14.0
28.00	36.00	5.20	5.70	RS045-M-01-028.00 X 036.00 X 05.2/05.7
28.00	38.00	10.00	11.00	RS045-M-01-028.00 X 038.00 X 10.0/11.0
30.00	40.00	5.70	6.30	RS045-M-01-030.00 X 040.00 X 05.7/06.3
30.00	40.00	6.40	7.00	RS045-M-01-030.00 X 040.00 X 06.4/07.0
30.00	40.00	7.30	8.00	RS045-M-01-030.00 X 040.00 X 07.3/08.0
30.00	40.00	8.20	9.00	RS045-M-01-030.00 X 040.00 X 08.2/09.0
30.00	45.00	9.10	10.00	RS045-M-01-030.00 X 045.00 X 09.1/10.0
32.00	42.00	8.00	9.00	RS045-M-01-032.00 X 042.00 X 08.0/09.0
32.00	42.00	10.00	11.00	RS045-M-01-032.00 X 042.00 X 10.0/11.0
35.00	45.00	7.30	8.00	RS045-M-01-035.00 X 045.00 X 07.3/08.0
35.00	45.00	8.20	9.00	RS045-M-01-035.00 X 045.00 X 08.2/09.0
35.00	47.00	6.80	7.50	RS045-M-01-035.00 X 047.00 X 06.8/07.5

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
35.00	47.70	11.80	13.00	RS045-M-01-035.00 X 047.70 X 11.8/13.0
35.00	50.00	9.10	10.00	RS045-M-01-035.00 X 050.00 X 09.1/10.0
36.00	46.00	7.30	8.00	RS045-M-01-036.00 X 046.00 X 07.3/08.0
40.00	50.00	7.30	8.00	RS045-M-01-040.00 X 050.00 X 07.3/08.0
40.00	50.00	8.20	9.00	RS045-M-01-040.00 X 050.00 X 08.2/09.0
40.00	50.00	9.00	10.00	RS045-M-01-040.00 X 050.00 X 09.0/10.0
40.00	50.00	10.00	11.00	RS045-M-01-040.00 X 050.00 X 10.0/11.0
40.00	53.00	10.00	11.00	RS045-M-01-040.00 X 053.00 X 10.0/11.0
40.00	55.00	9.10	10.00	RS045-M-01-040.00 X 055.00 X 09.1/10.0
40.00	60.00	11.80	13.00	RS045-M-01-040.00 X 060.00 X 11.8/13.0
42.00	52.00	7.30	8.00	RS045-M-01-042.00 X 052.00 X 07.3/08.0
43.00	53.00	6.40	7.00	RS045-M-01-043.00 X 053.00 X 06.4/07.0
45.00	55.00	7.30	8.00	RS045-M-01-045.00 X 055.00 X 07.3/08.0
45.00	55.00	8.20	9.00	RS045-M-01-045.00 X 055.00 X 08.2/09.0
45.00	58.00	10.00	11.00	RS045-M-01-045.00 X 058.00 X 10.0/11.0
45.00	60.00	9.10	10.00	RS045-M-01-045.00 X 060.00 X 09.1/10.0
50.00	60.00	7.30	8.00	RS045-M-01-050.00 X 060.00 X 07.3/08.0
50.00	60.00	8.00	9.00	RS045-M-01-050.00 X 060.00 X 08.0/09.0
50.00	60.00	10.00	11.00	RS045-M-01-050.00 X 060.00 X 10.0/11.0
50.00	63.00	10.00	11.00	RS045-M-01-050.00 X 063.00 X 10.0/11.0
50.00	65.00	9.10	10.00	RS045-M-01-050.00 X 065.00 X 09.1/10.0
50.00	65.00	11.40	12.50	RS045-M-01-050.00 X 065.00 X 11.4/12.5
50.00	70.00	11.80	13.00	RS045-M-01-050.00 X 070.00 X 11.8/13.0
55.00	65.00	5.70	6.30	RS045-M-01-055.00 X 065.00 X 05.7/06.3
55.00	65.00	7.30	8.00	RS045-M-01-055.00 X 065.00 X 07.3/08.0
55.00	65.00	10.00	11.00	RS045-M-01-055.00 X 065.00 X 10.0/11.0
55.00	68.00	10.00	11.00	RS045-M-01-055.00 X 068.00 X 10.0/11.0
55.00	70.00	9.10	10.00	RS045-M-01-055.00 X 070.00 X 09.1/10.0
55.00	71.00	11.80	13.00	RS045-M-01-055.00 X 071.00 X 11.8/13.0
55.00	75.00	11.80	13.00	RS045-M-01-055.00 X 075.00 X 11.8/13.0
56.00	66.00	7.30	8.00	RS045-M-01-056.00 X 066.00 X 07.3/08.0
56.00	66.00	10.00	11.00	RS045-M-01-056.00 X 066.00 X 10.0/11.0
56.00	71.00	11.40	12.50	RS045-M-01-056.00 X 071.00 X 11.4/12.5
60.00	70.00	7.30	8.00	RS045-M-01-060.00 X 070.00 X 07.3/08.0
60.00	70.00	11.80	13.00	RS045-M-01-060.00 X 070.00 X 11.8/13.0
60.00	73.00	10.00	11.00	RS045-M-01-060.00 X 073.00 X 10.0/11.0
60.00	75.00	9.10	10.00	RS045-M-01-060.00 X 075.00 X 09.1/10.0
60.00	75.00	11.40	12.50	RS045-M-01-060.00 X 075.00 X 11.4/12.5
65.00	75.00	7.30	8.00	RS045-M-01-065.00 X 075.00 X 07.3/08.0
65.00	75.00	9.00	10.00	RS045-M-01-065.00 X 075.00 X 09.0/10.0
65.00	78.00	10.00	11.00	RS045-M-01-065.00 X 078.00 X 10.0/11.0
65.00	80.00	9.10	10.00	RS045-M-01-065.00 X 080.00 X 09.1/10.0
65.00	80.00	11.40	12.50	RS045-M-01-065.00 X 080.00 X 11.4/12.5
65.00	80.00	11.80	13.00	RS045-M-01-065.00 X 080.00 X 11.8/13.0
70.00	80.00	5.50	6.00	RS045-M-01-070.00 X 080.00 X 05.5/06.0



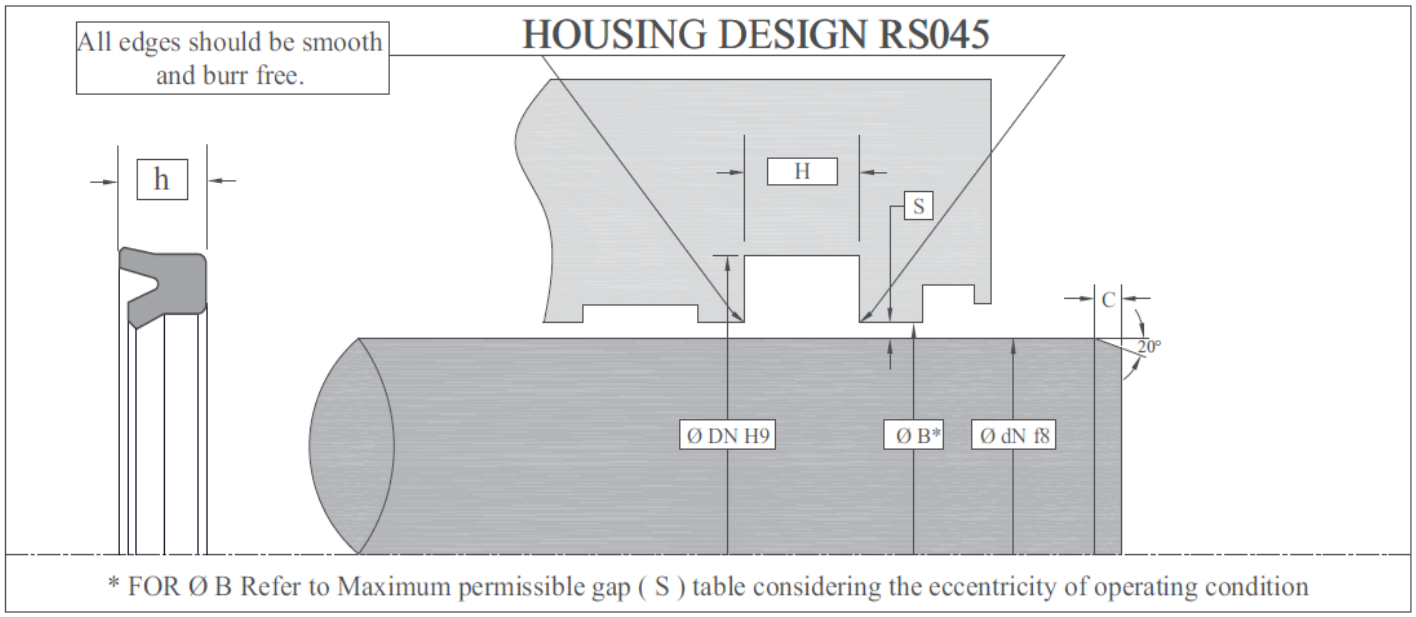
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
70.00	80.00	6.30	7.00	RS045-M-01-070.00 X 080.00 X 06.3/07.0
70.00	80.00	9.20	10.00	RS045-M-01-070.00 X 080.00 X 09.2/10.0
70.00	83.00	10.00	11.00	RS045-M-01-070.00 X 083.00 X 10.0/11.0
70.00	85.00	9.10	10.00	RS045-M-01-070.00 X 085.00 X 09.1/10.0
70.00	85.00	11.40	12.50	RS045-M-01-070.00 X 085.00 X 11.4/12.5
70.00	90.00	11.80	13.00	RS045-M-01-070.00 X 090.00 X 11.8/13.0
75.00	85.00	6.30	7.00	RS045-M-01-075.00 X 085.00 X 06.3/07.0
75.00	85.00	9.10	10.00	RS045-M-01-075.00 X 085.00 X 09.1/10.0
75.00	85.00	11.80	13.00	RS045-M-01-075.00 X 085.00 X 11.8/13.0
75.00	88.00	10.00	11.00	RS045-M-01-075.00 X 088.00 X 10.0/11.0
75.00	90.00	9.10	10.00	RS045-M-01-075.00 X 090.00 X 09.1/10.0
75.00	90.00	10.00	11.00	RS045-M-01-075.00 X 090.00 X 10.0/11.0
75.00	95.00	11.80	13.00	RS045-M-01-075.00 X 095.00 X 11.8/13.0
75.00	95.00	14.50	16.00	RS045-M-01-075.00 X 095.00 X 14.5/16.0
77.50	87.50	6.30	7.00	RS045-M-01-077.50 X 087.50 X 06.3/07.0
80.00	90.00	6.40	7.00	RS045-M-01-080.00 X 090.00 X 06.4/07.0
80.00	92.00	10.00	11.00	RS045-M-01-080.00 X 092.00 X 10.0/11.0
80.00	93.00	10.00	11.00	RS045-M-01-080.00 X 093.00 X 10.0/11.0
80.00	95.00	9.10	10.00	RS045-M-01-080.00 X 095.00 X 09.1/10.0
80.00	95.00	10.00	11.00	RS045-M-01-080.00 X 095.00 X 10.0/11.0
80.00	100.00	11.80	13.00	RS045-M-01-080.00 X 100.00 X 11.8/13.0
85.00	98.00	10.00	11.00	RS045-M-01-085.00 X 098.00 X 10.0/11.0
85.00	100.00	9.10	10.00	RS045-M-01-085.00 X 100.00 X 09.1/10.0
85.00	100.00	10.00	11.00	RS045-M-01-085.00 X 100.00 X 10.0/11.0
85.00	100.00	11.80	13.00	RS045-M-01-085.00 X 100.00 X 11.8/13.0
85.00	105.00	11.80	13.00	RS045-M-01-085.00 X 105.00 X 11.8/13.0
90.00	103.00	10.00	11.00	RS045-M-01-090.00 X 103.00 X 10.0/11.0
90.00	104.00	11.40	12.50	RS045-M-01-090.00 X 104.00 X 11.4/12.5
90.00	105.00	9.00	10.00	RS045-M-01-090.00 X 105.00 X 09.0/10.0
90.00	105.00	10.00	11.00	RS045-M-01-090.00 X 105.00 X 10.0/11.0

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
90.00	105.00	11.40	12.50	RS045-M-01-090.00 X 105.00 X 11.4/12.5
90.00	110.00	11.80	13.00	RS045-M-01-090.00 X 110.00 X 11.8/13.0
90.00	110.00	12.70	14.00	RS045-M-01-090.00 X 110.00 X 12.7/14.0
95.00	108.00	10.00	11.00	RS045-M-01-095.00 X 108.00 X 10.0/11.0
95.00	110.00	9.00	10.00	RS045-M-01-095.00 X 110.00 X 09.0/10.0
95.00	110.00	10.00	11.00	RS045-M-01-095.00 X 110.00 X 10.0/11.0
95.00	115.00	11.80	13.00	RS045-M-01-095.00 X 115.00 X 11.8/13.0
98.00	112.00	8.60	9.50	RS045-M-01-098.00 X 112.00 X 08.6/09.5
100.00	110.00	8.20	9.00	RS045-M-01-100.00 X 110.00 X 08.2/09.0
100.00	112.00	14.00	15.50	RS045-M-01-100.00 X 112.00 X 14.0/15.5
100.00	115.00	9.10	10.00	RS045-M-01-100.00 X 115.00 X 09.1/10.0
100.00	115.00	10.00	11.00	RS045-M-01-100.00 X 115.00 X 10.0/11.0
100.00	120.00	11.80	13.00	RS045-M-01-100.00 X 120.00 X 11.8/13.0
100.00	120.00	12.70	14.00	RS045-M-01-100.00 X 120.00 X 12.7/14.0
105.00	120.00	10.00	11.00	RS045-M-01-105.00 X 120.00 X 10.0/11.0
105.00	125.00	11.80	13.00	RS045-M-01-105.00 X 125.00 X 11.8/13.0
108.00	118.00	5.70	6.30	RS045-M-01-108.00 X 118.00 X 05.7/06.3
108.00	118.00	6.40	7.00	RS045-M-01-108.00 X 118.00 X 06.4/07.0
110.00	125.00	9.00	10.00	RS045-M-01-110.00 X 125.00 X 09.0/10.0
110.00	125.00	10.00	11.00	RS045-M-01-110.00 X 125.00 X 10.0/11.0
110.00	130.00	10.00	11.00	RS045-M-01-110.00 X 130.00 X 10.0/11.0
110.00	130.00	11.80	13.00	RS045-M-01-110.00 X 130.00 X 11.8/13.0
110.00	130.00	12.70	14.00	RS045-M-01-110.00 X 130.00 X 12.7/14.0
115.00	130.00	5.70	6.30	RS045-M-01-115.00 X 130.00 X 05.7/06.3
115.00	130.00	10.00	11.00	RS045-M-01-115.00 X 130.00 X 10.0/11.0
115.00	135.00	11.80	13.00	RS045-M-01-115.00 X 135.00 X 11.8/13.0
115.00	135.00	14.50	16.00	RS045-M-01-115.00 X 135.00 X 14.5/16.0
115.00	140.00	14.50	16.00	RS045-M-01-115.00 X 140.00 X 14.5/16.0
120.00	135.00	9.00	10.00	RS045-M-01-120.00 X 135.00 X 09.0/10.0
120.00	135.00	10.00	11.00	RS045-M-01-120.00 X 135.00 X 10.0/11.0
120.00	140.00	11.80	13.00	RS045-M-01-120.00 X 140.00 X 11.8/13.0
120.00	140.00	12.70	14.00	RS045-M-01-120.00 X 140.00 X 12.7/14.0
125.00	145.00	11.80	13.00	RS045-M-01-125.00 X 145.00 X 11.8/13.0
130.00	145.00	9.00	10.00	RS045-M-01-130.00 X 145.00 X 09.0/10.0
130.00	145.00	10.00	11.00	RS045-M-01-130.00 X 145.00 X 10.0/11.0
130.00	150.00	12.70	14.00	RS045-M-01-130.00 X 150.00 X 12.7/14.0
140.00	150.00	6.40	7.00	RS045-M-01-140.00 X 150.00 X 06.4/07.0
140.00	155.00	9.00	10.00	RS045-M-01-140.00 X 155.00 X 09.0/10.0
140.00	155.00	10.00	11.00	RS045-M-01-140.00 X 155.00 X 10.0/11.0
140.00	160.00	11.80	13.00	RS045-M-01-140.00 X 160.00 X 11.8/13.0
140.00	160.00	14.50	16.00	RS045-M-01-140.00 X 160.00 X 14.5/16.0
145.00	155.00	6.40	7.00	RS045-M-01-145.00 X 155.00 X 06.4/07.0
150.00	160.00	6.40	7.00	RS045-M-01-150.00 X 160.00 X 06.4/07.0
150.00	170.00	14.50	16.00	RS045-M-01-150.00 X 170.00 X 14.5/16.0
155.00	165.00	6.40	7.00	RS045-M-01-155.00 X 165.00 X 06.4/07.0
160.00	175.00	9.00	10.00	RS045-M-01-160.00 X 175.00 X 09.0/10.0



Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)	ORDER CODE
160.00	185.00	11.80	13.00	RS045-M-01-160.00 X 185.00 X 11.8/13.0
200.00	220.00	18.20	20.00	RS045-M-01-200.00 X 220.00 X 18.2/20.0
200.00	225.00	14.60	16.00	RS045-M-01-200.00 X 225.00 X 14.6/16.0
210.00	230.00	18.20	20.00	RS045-M-01-210.00 X 230.00 X 18.2/20.0

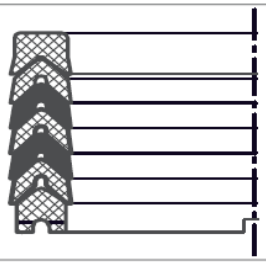
IMPERIAL SIZE

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
0.500	0.750	0.154	0.170	RS045-I-01-00.500 X 00.750 X 0.154/0.170
0.750	1.250	0.457	0.500	RS045-I-01-00.750 X 01.250 X 0.457/0.500
0.875	1.250	0.312	0.413	RS045-I-01-00.875 X 01.250 X 0.312/0.413
1.000	1.250	0.200	0.220	RS045-I-01-01.000 X 01.250 X 0.200/0.220
1.250	1.750	0.375	0.413	RS045-I-01-01.250 X 01.750 X 0.375/0.413
1.375	1.875	0.375	0.413	RS045-I-01-01.375 X 01.875 X 0.375/0.413
1.500	1.875	0.264	0.290	RS045-I-01-01.500 X 01.875 X 0.264/0.290
1.500	2.000	0.375	0.413	RS045-I-01-01.500 X 02.000 X 0.375/0.413
1.750	2.125	0.264	0.290	RS045-I-01-01.750 X 02.125 X 0.264/0.290
1.750	2.250	0.375	0.413	RS045-I-01-01.750 X 02.250 X 0.375/0.413
1.875	2.250	0.313	0.350	RS045-I-01-01.875 X 02.250 X 0.313/0.350
1.875	2.375	0.375	0.413	RS045-I-01-01.875 X 02.375 X 0.375/0.413
2.000	2.500	0.300	0.330	RS045-I-01-02.000 X 02.500 X 0.300/0.330
2.000	2.500	0.375	0.413	RS045-I-01-02.000 X 02.500 X 0.375/0.413
2.125	2.625	0.375	0.413	RS045-I-01-02.125 X 02.625 X 0.375/0.413
2.250	2.625	0.375	0.413	RS045-I-01-02.250 X 02.625 X 0.375/0.413
2.250	2.750	0.375	0.413	RS045-I-01-02.250 X 02.750 X 0.375/0.413
2.375	2.875	0.375	0.413	RS045-I-01-02.375 X 02.875 X 0.375/0.413
2.500	3.000	0.300	0.330	RS045-I-01-02.500 X 03.000 X 0.300/0.330
2.500	3.000	0.375	0.413	RS045-I-01-02.500 X 03.000 X 0.375/0.413

Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.008")	ORDER CODE
2.625	3.000	0.250	0.275	RS045-I-01-02.625 X 03.000 X 0.250/0.275
2.750	3.250	0.375	0.413	RS045-I-01-02.750 X 03.250 X 0.375/0.413
3.000	3.500	0.375	0.413	RS045-I-01-03.000 X 03.500 X 0.375/0.413
3.250	3.750	0.375	0.413	RS045-I-01-03.250 X 03.750 X 0.375/0.413
3.370	3.880	0.375	0.413	RS045-I-01-03.370 X 03.880 X 0.375/0.413
3.375	3.750	0.375	0.413	RS045-I-01-03.375 X 03.750 X 0.375/0.413
3.375	3.875	0.375	0.413	RS045-I-01-03.375 X 03.875 X 0.375/0.413
3.500	3.875	0.375	0.413	RS045-I-01-03.500 X 03.875 X 0.375/0.413
3.500	4.000	0.375	0.413	RS045-I-01-03.500 X 04.000 X 0.375/0.413
3.500	4.500	0.375	0.413	RS045-I-01-03.500 X 04.500 X 0.375/0.413
3.750	4.250	0.375	0.413	RS045-I-01-03.750 X 04.250 X 0.375/0.413
4.000	4.500	0.375	0.413	RS045-I-01-04.000 X 04.500 X 0.375/0.413
4.000	4.625	0.375	0.413	RS045-I-01-04.000 X 04.625 X 0.375/0.413
4.250	4.750	0.375	0.413	RS045-I-01-04.250 X 04.750 X 0.375/0.413
4.500	5.000	0.375	0.413	RS045-I-01-04.500 X 05.000 X 0.375/0.413
4.750	5.500	0.625	0.675	RS045-I-01-04.750 X 05.500 X 0.625/0.675
6.000	6.500	0.681	0.750	RS045-I-01-06.000 X 06.500 X 0.681/0.750
6.500	7.500	0.713	0.781	RS045-I-01-06.500 X 07.500 X 0.713/0.781
7.000	8.000	0.713	0.781	RS045-I-01-07.000 X 08.000 X 0.713/0.781

ROD SEAL — RS054



Features:

Rod seal profile RS054 is a seal set consist of five chevron ring (3 fabric reinforced and 2 rubber rings) or three chevron ring (2 fabric reinforced and 1 rubber ring) and a header and a pressure ring.

Composition:

SEAL COMBINATION	HEADER RING COMPOUND	CHEVRON V SEAL (FABRIC)	RUBBER V SEAL	PRESSURE RING	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS054-01	FR51	FR51	NB10	FR51/PA04	-20 to 100°C	400 Bar	0.5 m/s
RS054-02	FR52	FR52	VT01	FR52	-20 to 140°C	400 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High resistance to extrusion due to fabric reinforced header ring
- Easy installation
- Long working life in extreme conditions

Application:

- Mobile Hydraulics
- Machine tools
- Agricultural equipment
- standard cylinders
- hydraulic presses
- iron and steel industry
- marine hydraulics

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap dimension (s)			
160 bar	260 bar	320 bar	400 bar
0.32	0.22	0.20	0.17

Minimum chamfer C:

DN - dN	Up to 12	12.1 to15	15.1 to 20	20.1 to 25	25.1 to 30	30.1 and above
C	4.0	5.0	6.0	7.5	8.0	10.0

Fitting:

RS054 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order.

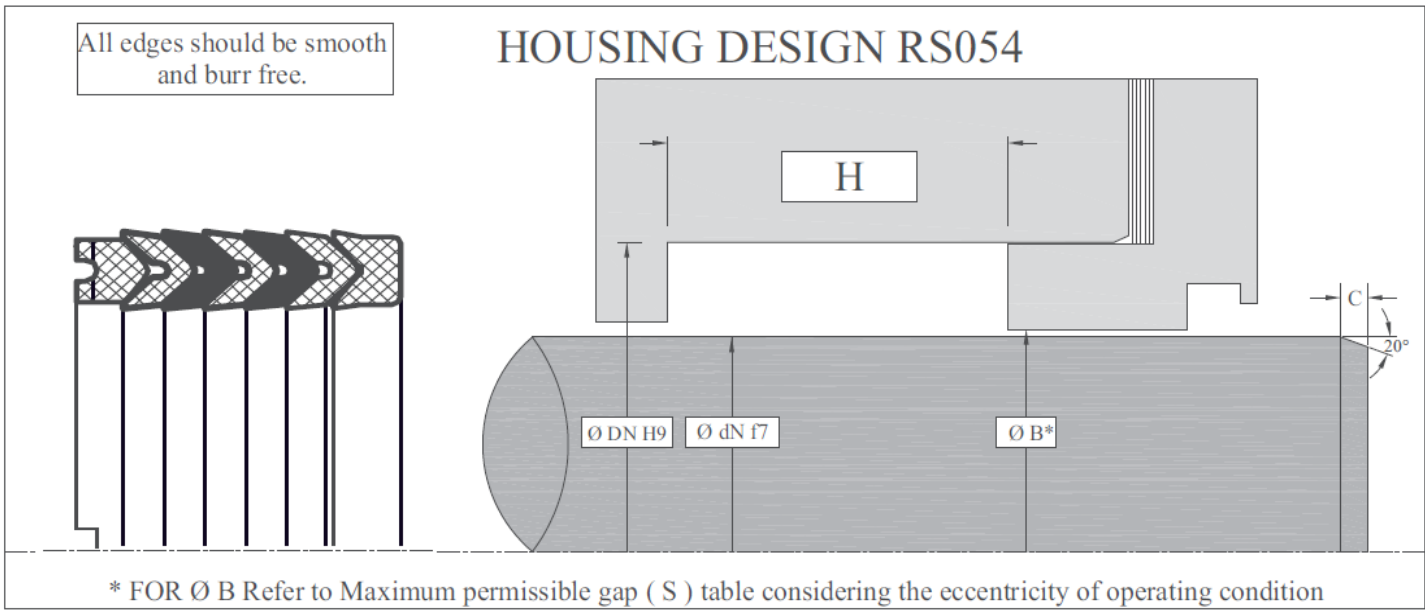
Example: Metric Size 25.00 X 37.00 X 22.50 for temperature range: -20 to 100°C

For Order code is **RS054-M-01-025.00 X 037.00 X 22.50**

Example: Metric Size 25.00 X 37.00 X 22.50 for temperature range: -20 to 140°C

For Order code is **RS054-M-02-025.00 X 037.00 X 22.50**

Please contact PEC if your required size is not mentioned in PEC standard size list.

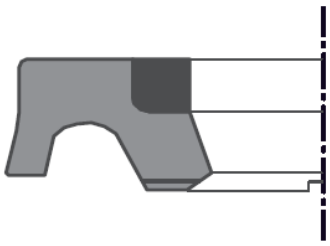


Polymer Engineering Standard Size List

ØdN (h9)	ØDN (H9)	H (+0.30)	ORDER CODE
25.00	37.00	22.50	RS054-M-01-025.00 X 037.00 X 22.50
28.00	40.00	22.50	RS054-M-01-028.00 X 040.00 X 22.50
32.00	47.00	22.50	RS054-M-01-032.00 X 047.00 X 22.50
35.00	50.00	22.50	RS054-M-01-035.00 X 050.00 X 22.50
36.00	48.00	22.50	RS054-M-01-036.00 X 048.00 X 22.50
36.00	51.00	22.50	RS054-M-01-036.00 X 051.00 X 22.50
40.00	55.00	22.50	RS054-M-01-040.00 X 055.00 X 22.50
40.00	56.00	26.00	RS054-M-01-040.00 X 056.00 X 26.00
45.00	60.00	22.50	RS054-M-01-045.00 X 060.00 X 22.50
45.00	63.00	30.00	RS054-M-01-045.00 X 063.00 X 30.00
50.00	70.00	30.00	RS054-M-01-050.00 X 070.00 X 30.00
55.00	70.00	35.00	RS054-M-01-055.00 X 070.00 X 35.00
55.00	75.00	30.00	RS054-M-01-055.00 X 075.00 X 30.00
56.00	76.00	37.00	RS054-M-01-056.00 X 076.00 X 37.00
60.00	80.00	37.00	RS054-M-01-060.00 X 080.00 X 37.00
63.00	83.00	37.00	RS054-M-01-063.00 X 083.00 X 37.00
63.00	88.00	37.00	RS054-M-01-063.00 X 088.00 X 37.00
65.00	45.00	15.00	RS054-M-01-065.00 X 045.00 X 15.00
70.00	90.00	9.50	RS054-M-01-070.00 X 090.00 X 09.50
70.00	90.00	40.00	RS054-M-01-070.00 X 090.00 X 40.00
75.00	90.00	22.50	RS054-M-01-075.00 X 090.00 X 22.50
75.00	95.00	40.00	RS054-M-01-075.00 X 095.00 X 40.00
80.00	95.00	22.50	RS054-M-01-080.00 X 095.00 X 22.50
80.00	100.00	40.00	RS054-M-01-080.00 X 100.00 X 40.00
85.00	105.00	40.00	RS054-M-01-085.00 X 105.00 X 40.00
90.00	105.00	25.00	RS054-M-01-090.00 X 105.00 X 25.00
90.00	110.00	40.00	RS054-M-01-090.00 X 110.00 X 40.00
95.00	115.00	40.00	RS054-M-01-095.00 X 115.00 X 40.00
100.00	120.00	40.00	RS054-M-01-100.00 X 120.00 X 40.00
110.00	130.00	40.00	RS054-M-01-110.00 X 130.00 X 40.00

Polymer Engineering Standard Size List

ØdN (h9)	ØDN (H9)	H (+0.30)	ORDER CODE
110.00	140.00	50.00	RS054-M-01-110.00 X 140.00 X 50.00
115.00	140.00	46.00	RS054-M-01-115.00 X 140.00 X 46.00
120.00	145.00	46.00	RS054-M-01-120.00 X 145.00 X 46.00
125.00	150.00	46.00	RS054-M-01-125.00 X 150.00 X 46.00
140.00	165.00	46.00	RS054-M-01-140.00 X 165.00 X 46.00
150.00	180.00	60.00	RS054-M-01-150.00 X 180.00 X 60.00
160.00	190.00	60.00	RS054-M-01-160.00 X 190.00 X 60.00
170.00	195.00	46.00	RS054-M-01-170.00 X 195.00 X 46.00
180.00	210.00	60.00	RS054-M-01-180.00 X 210.00 X 60.00
190.00	220.00	60.00	RS054-M-01-190.00 X 220.00 X 60.00
200.00	220.00	50.00	RS054-M-01-200.00 X 220.00 X 50.00
200.00	230.00	60.00	RS054-M-01-200.00 X 230.00 X 60.00
220.00	250.00	60.00	RS054-M-01-220.00 X 250.00 X 60.00
225.00	245.00	50.00	RS054-M-01-225.00 X 245.00 X 50.00
225.00	255.00	60.00	RS054-M-01-225.00 X 255.00 X 60.00
240.00	280.00	60.00	RS054-M-01-240.00 X 280.00 X 60.00
250.00	280.00	60.00	RS054-M-01-250.00 X 280.00 X 60.00
250.00	290.00	60.00	RS054-M-01-250.00 X 290.00 X 60.00
260.00	290.00	60.00	RS054-M-01-260.00 X 290.00 X 60.00
270.00	300.00	60.00	RS054-M-01-270.00 X 300.00 X 60.00
280.00	310.00	50.00	RS054-M-01-280.00 X 310.00 X 50.00
300.00	330.00	60.00	RS054-M-01-300.00 X 330.00 X 60.00
320.00	360.00	63.00	RS054-M-01-320.00 X 360.00 X 63.00

ROD SEAL	RS063	

Features:

Rod seal profile RS063 consists of two piece seal set with one seal ring and one backup ring used as buffer seal before Royal RS027, RS036, RS045.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	AE RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS063-01	PU02	PA15	-20 to 110°C	400 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy installation primary seal
- No pressure built up between primary and secondary seal
- Low friction , free of stick slip
- High abrasion resistance.
- Wide temperature Range.
- Good thermal conductivity.
- Low wear and high extrusion resistance.

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Material Handling Equipments.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Maximum permissible gap dimension (s) for Metric Sizes (mm)		
160 bar	**260 bar**	**400 bar**
0.20	0.17	0.15

Maximum permissible gap dimension (s) for Imperial Sizes (inch)		
160 bar	**260 bar**	**400 bar**
0.008	0.007	0.006

Installation:

RS063 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

Please mention PEC order code in your order

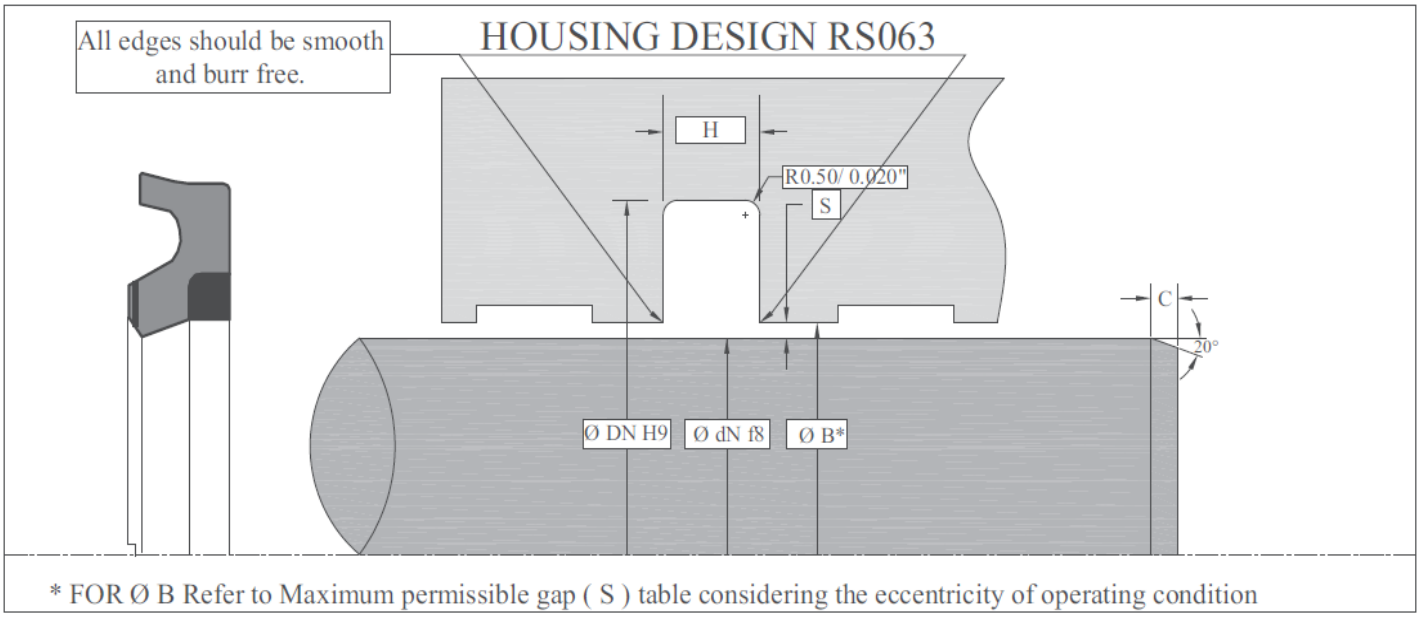
Example: Metric size 40.00 X 55.50 X 6.30

Order code is **RS063-M-01-040.00 X 055.50 X 6.30**

Example: Imperial size 1.500"X 2.062"X 0.140"

Order code is **RS063-I-01-01.500 X 02.062 X 0.140**

Please contact PEC if your required size is not mentioned in PEC standard size list



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

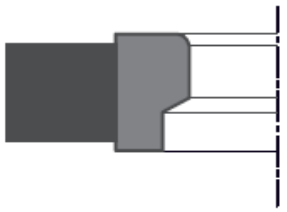
ØdN (h9)	ØDN (H9)	H (+0.20)	ORDER CODE
40.00	55.50	6.30	RS063-M-01-040.00 X 055.50 X 6.30
45.00	60.50	6.30	RS063-M-01-045.00 X 060.50 X 6.30
50.00	65.50	6.30	RS063-M-01-050.00 X 065.50 X 6.30
55.00	70.50	6.30	RS063-M-01-055.00 X 070.50 X 6.30
56.00	71.50	6.30	RS063-M-01-056.00 X 071.50 X 6.30
60.00	75.50	6.30	RS063-M-01-060.00 X 075.50 X 6.30
63.00	78.50	6.30	RS063-M-01-063.00 X 078.50 X 6.30
65.00	80.50	6.30	RS063-M-01-065.00 X 080.50 X 6.30
70.00	85.50	6.30	RS063-M-01-070.00 X 085.50 X 6.30
75.00	90.50	6.30	RS063-M-01-075.00 X 090.50 X 6.30
80.00	95.50	6.30	RS063-M-01-080.00 X 095.50 X 6.30
85.00	100.50	6.30	RS063-M-01-085.00 X 100.50 X 6.30
90.00	105.50	6.30	RS063-M-01-090.00 X 105.50 X 6.30
95.00	110.50	6.30	RS063-M-01-095.00 X 110.50 X 6.30
100.00	115.00	6.30	RS063-M-01-100.00 X 115.00 X 6.30
100.00	115.50	6.30	RS063-M-01-100.00 X 115.50 X 6.30
105.00	120.50	6.30	RS063-M-01-105.00 X 120.50 X 6.30
108.00	123.50	6.30	RS063-M-01-108.00 X 123.50 X 6.30
110.00	125.50	6.30	RS063-M-01-110.00 X 125.50 X 6.30
115.00	130.50	6.30	RS063-M-01-115.00 X 130.50 X 6.30
118.00	133.50	6.30	RS063-M-01-118.00 X 133.50 X 6.30
120.00	135.50	6.30	RS063-M-01-120.00 X 135.50 X 6.30
125.00	140.50	6.30	RS063-M-01-125.00 X 140.50 X 6.30
130.00	145.50	6.30	RS063-M-01-130.00 X 145.50 X 6.30
133.00	148.50	6.30	RS063-M-01-133.00 X 148.50 X 6.30
135.00	150.50	6.30	RS063-M-01-135.00 X 150.50 X 6.30
140.00	155.50	6.30	RS063-M-01-140.00 X 155.50 X 6.30
142.00	157.50	6.30	RS063-M-01-142.00 X 157.50 X 6.30
143.00	158.50	6.30	RS063-M-01-143.00 X 158.50 X 6.30
145.00	160.50	6.30	RS063-M-01-145.00 X 160.50 X 6.30

Polymer Engineering Standard Size List

ØdN (h9)	ØDN (H9)	H (+0.20)	ORDER CODE
150.00	165.50	6.30	RS063-M-01-150.00 X 165.50 X 6.30
155.00	170.50	6.30	RS063-M-01-155.00 X 170.50 X 6.30
160.00	175.50	6.30	RS063-M-01-160.00 X 175.50 X 6.30
170.00	185.50	6.30	RS063-M-01-170.00 X 185.50 X 6.30
180.00	195.50	6.30	RS063-M-01-180.00 X 195.50 X 6.30
190.00	205.50	6.30	RS063-M-01-190.00 X 205.50 X 6.30
200.00	221.00	8.10	RS063-M-01-200.00 X 221.00 X 8.10

IMPERIAL SIZES

ØdN (h9)	ØDN (H9)	H (+0.008")	ORDER CODE
1.500	2.062	0.140	RS063-I-01-01.500 X 02.062 X 0.140
1.750	2.313	0.140	RS063-I-01-01.750 X 02.313 X 0.140
2.000	2.563	0.140	RS063-I-01-02.000 X 02.563 X 0.140
2.250	2.938	0.234	RS063-I-01-02.250 X 02.938 X 0.234
2.500	3.188	0.234	RS063-I-01-02.500 X 03.188 X 0.234

ROD SEAL	RS099	

Features:

Rod seal profile RS099 consists of two piece seal set for sealing rod with one seal ring and one energizer Square / Rectangular ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS099-01	PT02	NB03	-20 to 100°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance.
- Wide temperature Range.
- Good thermal conductivity.
- Low wear and high extrusion resistance.
- Wide fluid application range.
- Resistance against cold flow.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments.

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Imperial Sizes (inch)			
H	160 bar	260 bar	320 bar	400 bar
0.140	0.008	0.007	-	-
0.220	0.010	0.008	0.006	-
0.250	0.012	0.010	0.009	0.008
0.320	0.014	0.012	0.011	0.010

Minimum chamfer C:

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Installation :

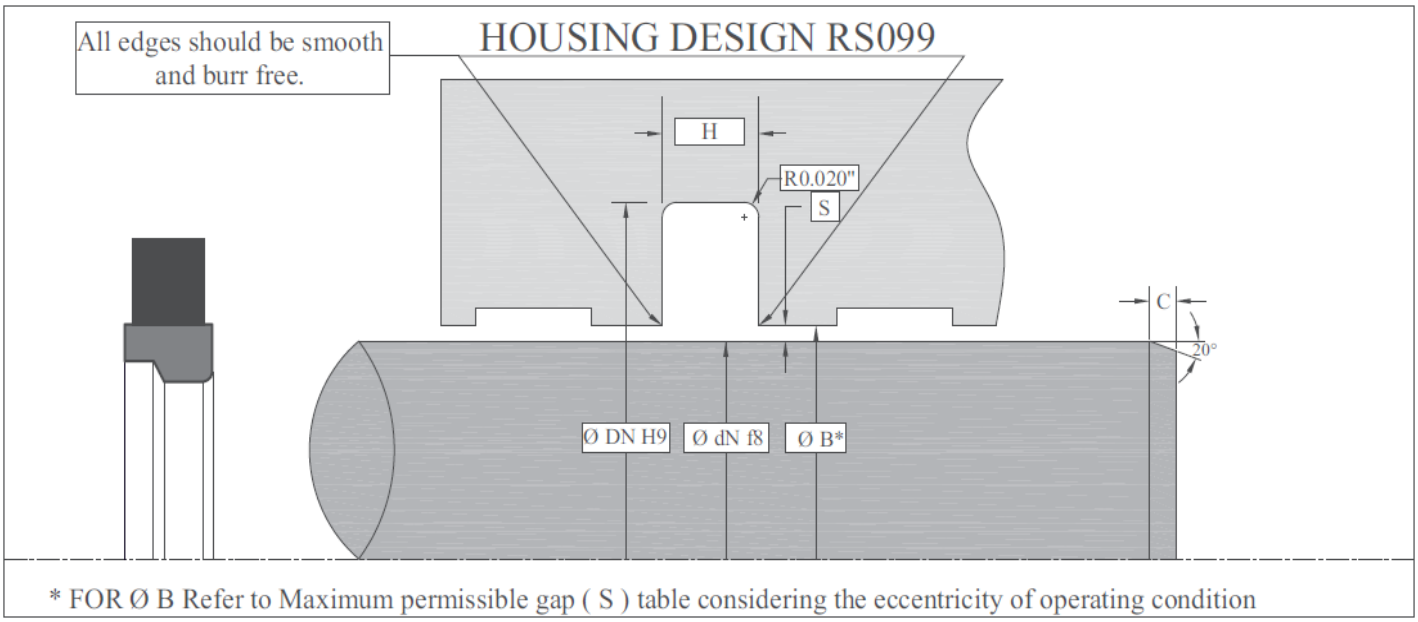
RS099 is very easy to fit. Insert the Square / Rectangular ring. first and then turn the PTFE part in kidney shape and insert in the groove. Gauge the seal by a taper rod type fixture. Careful fitting of the seal is a pre-requisite for it's perfect functioning.

Ordering format :

Please follow PEC order code to place your order

Example: for Imperial Size 1.250"X 1.783"X 0.140" Order Code is **RS099-I-01-01.250 X 01.783 X 0.140**

Please contact PEC if your required size is not mentioned in PEC standard size list



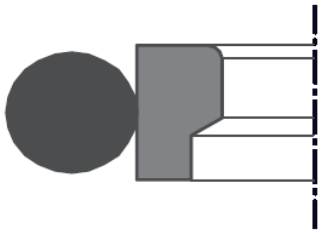
* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

ØdN (h9)	ØDN (H9)	H (+0.008")	ORDER CODE
1.250	1.783	0.140	RS099-I-01-01.250 X 01.783 X 0.140
1.500	2.033	0.140	RS099-I-01-01.500 X 02.033 X 0.140
1.625	2.158	0.140	RS099-I-01-01.625 X 02.158 X 0.140
1.750	2.283	0.140	RS099-I-01-01.750 X 02.283 X 0.140
1.875	2.252	0.140	RS099-I-01-01.875 X 02.252 X 0.140
2.000	2.533	0.140	RS099-I-01-02.000 X 02.533 X 0.140
2.125	2.627	0.140	RS099-I-01-02.125 X 02.627 X 0.140
2.250	2.891	0.220	RS099-I-01-02.250 X 02.891 X 0.220
2.375	3.016	0.220	RS099-I-01-02.375 X 03.016 X 0.220
2.500	3.141	0.220	RS099-I-01-02.500 X 03.141 X 0.220
2.625	3.266	0.220	RS099-I-01-02.625 X 03.266 X 0.220
2.750	3.391	0.220	RS099-I-01-02.750 X 03.391 X 0.220
3.000	3.641	0.220	RS099-I-01-03.000 X 03.641 X 0.220
3.250	3.891	0.220	RS099-I-01-03.250 X 03.891 X 0.220
3.500	4.141	0.220	RS099-I-01-03.500 X 04.141 X 0.220
3.750	4.391	0.220	RS099-I-01-03.750 X 04.391 X 0.220
4.000	4.641	0.220	RS099-I-01-04.000 X 04.641 X 0.220
4.250	5.225	0.250	RS099-I-01-04.250 X 05.225 X 0.250
4.500	5.475	0.250	RS099-I-01-04.500 X 05.475 X 0.250
4.750	5.725	0.250	RS099-I-01-04.750 X 05.725 X 0.250
5.000	5.960	0.250	RS099-I-01-05.000 X 05.960 X 0.250
5.250	6.210	0.250	RS099-I-01-05.250 X 06.210 X 0.250
5.500	6.116	0.250	RS099-I-01-05.500 X 06.116 X 0.250
5.750	6.725	0.250	RS099-I-01-05.750 X 06.725 X 0.250
6.000	6.619	0.250	RS099-I-01-06.000 X 06.619 X 0.250
6.500	7.502	0.250	RS099-I-01-06.500 X 07.502 X 0.250
6.750	7.695	0.250	RS099-I-01-06.750 X 07.695 X 0.250
7.000	7.945	0.250	RS099-I-01-07.000 X 07.945 X 0.250

Polymer Engineering Standard Size List

ØdN (h9)	ØDN (H9)	H (+0.008")	ORDER CODE
7.250	8.080	0.320	RS099-I-01-07.250 X 08.080 X 0.320
7.500	8.330	0.320	RS099-I-01-07.500 X 08.330 X 0.320
8.000	8.833	0.320	RS099-I-01-08.000 X 08.833 X 0.320
8.250	9.080	0.320	RS099-I-01-08.250 X 09.080 X 0.320
8.750	9.580	0.320	RS099-I-01-08.750 X 09.580 X 0.320

ROD SEAL	RS117	

Features:

Rod seal profile RS117 consists of two piece seal set for sealing rod with one polyurethane seal ring and one energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS117-01	HY04	NB02	-20 to 100°C	320 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High abrasion resistance.
- Low wear
- Least oil film release
- Very Easy Installation

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments.

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)		
H	160 bar	260 bar	320 bar
3.20	0.17	0.15	-
4.20	0.20	0.17	0.15
6.30	0.25	0.20	0.15
8.10	0.30	0.25	0.20

Installation:

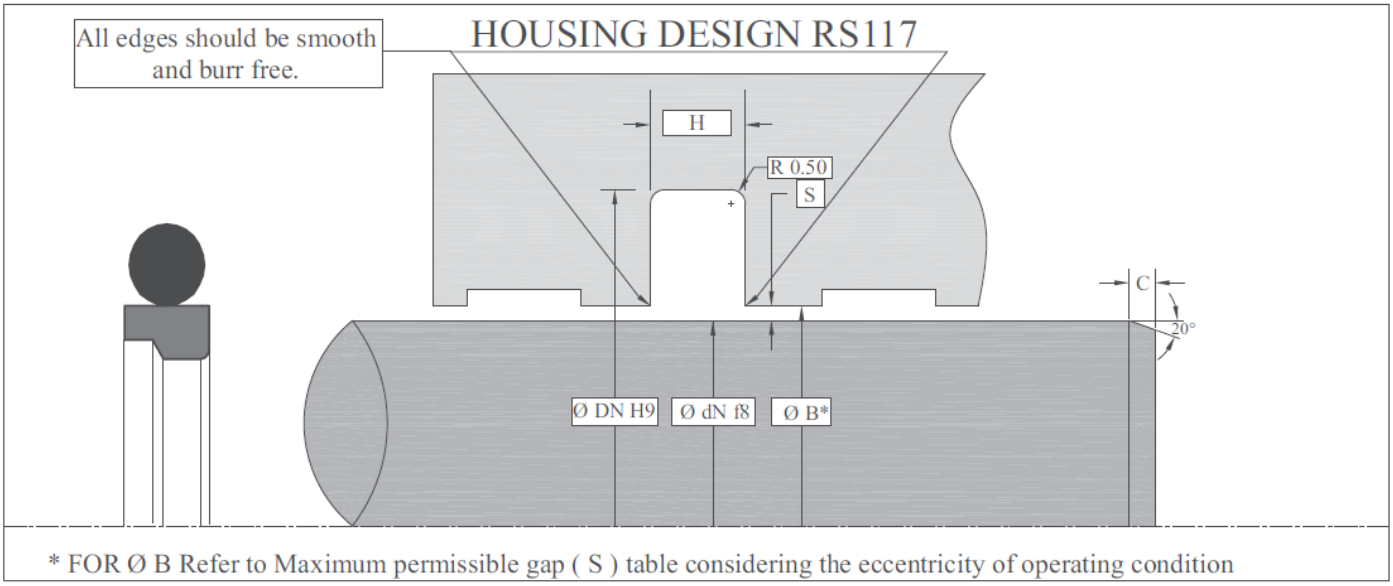
RS117 is very easy to fit. Insert the O ring first and then turn the PU part in kidney shape and insert in the groove. Careful fitting of the seal is a pre-requisite for it's perfect functioning.

Ordering format:

Please follow PEC order code to place your order.

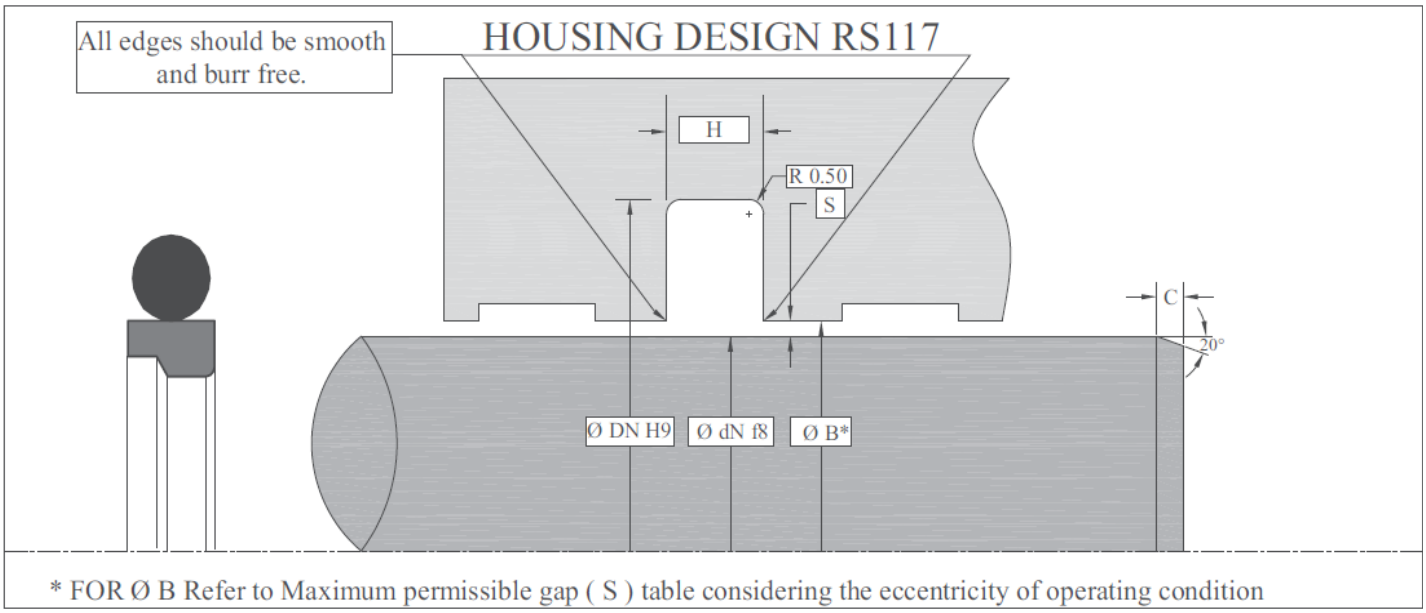
Example: For Metric size 12.00 x 19.30 x 3.20 Order code is RS117-M-01-012.00 x 019.30 x 03.20

We have given all metric (mm) sizes here. For Imperial (inch) sizes please contact PEC



Polymer Engineering Standard Size List

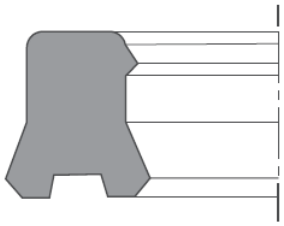
ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
12.00	19.30	3.20	2.50	13.94 X 2.62	RS117-M-01-012.00 X 019.30 X 03.20
14.00	21.30	3.20	2.50	17.42 X 2.62	RS117-M-01-014.00 X 021.30 X 03.20
16.00	23.30	3.20	2.50	18.72 X 2.62	RS117-M-01-016.00 X 023.30 X 03.20
18.00	25.30	3.20	2.50	20.29 X 2.62	RS117-M-01-018.00 X 025.30 X 03.20
20.00	24.90	2.20	2.50	20.35 X 1.78	RS117-M-01-020.00 X 024.90 X 02.20
20.00	30.70	4.20	3.50	23.40 X 3.53	RS117-M-01-020.00 X 030.70 X 04.20
22.00	26.90	2.20	2.50	23.52 X 1.78	RS117-M-01-022.00 X 026.90 X 02.20
22.00	32.70	4.20	3.50	26.58 X 3.53	RS117-M-01-022.00 X 032.70 X 04.20
25.00	35.70	4.20	3.50	29.57 X 3.53	RS117-M-01-025.00 X 035.70 X 04.20
28.00	38.70	4.20	3.50	32.92 X 3.53	RS117-M-01-028.00 X 038.70 X 04.20
30.00	40.70	4.20	3.50	34.52 X 3.53	RS117-M-01-030.00 X 040.70 X 04.20
32.00	42.70	4.20	3.50	36.09 X 3.53	RS117-M-01-032.00 X 042.70 X 04.20
35.00	45.70	4.20	3.50	37.69 X 3.53	RS117-M-01-035.00 X 045.70 X 04.20
36.00	46.70	4.20	3.50	40.87 X 3.53	RS117-M-01-036.00 X 046.70 X 04.20
40.00	50.70	4.20	3.50	44.04 X 3.53	RS117-M-01-040.00 X 050.70 X 04.20
40.00	55.10	6.30	5.50	45.70 X 5.33	RS117-M-01-040.00 X 055.10 X 06.30
45.00	60.10	6.30	5.50	50.17 X 5.33	RS117-M-01-045.00 X 060.10 X 06.30
50.00	65.10	6.30	5.50	56.52 X 5.33	RS117-M-01-050.00 X 065.10 X 06.30
56.00	71.10	6.30	5.50	62.87 X 5.33	RS117-M-01-056.00 X 071.10 X 06.30
60.00	75.10	6.30	5.50	66.04 X 5.33	RS117-M-01-060.00 X 075.10 X 06.30
70.00	85.10	6.30	6.00	75.57 X 5.33	RS117-M-01-070.00 X 085.10 X 06.30
80.00	95.10	6.30	6.00	85.09 X 5.33	RS117-M-01-080.00 X 095.10 X 06.30
85.00	100.10	6.30	6.00	91.44 X 5.33	RS117-M-01-085.00 X 100.10 X 06.30
90.00	105.10	6.30	6.00	94.62 X 5.33	RS117-M-01-090.00 X 105.10 X 06.30
95.00	110.10	6.30	6.00	100.97 X 5.33	RS117-M-01-095.00 X 110.10 X 06.30
100.00	115.10	6.30	6.00	104.14 X 5.33	RS117-M-01-100.00 X 115.10 X 06.30
110.00	125.10	6.30	6.00	116.84 X 5.33	RS117-M-01-110.00 X 125.10 X 06.30
120.00	135.10	6.30	6.00	126.37 X 5.33	RS117-M-01-120.00 X 135.10 X 06.30
125.00	140.10	6.30	6.00	129.54 X 5.33	RS117-M-01-125.00 X 140.10 X 06.30
155.00	170.10	6.30	6.00	158.12 X 5.33	RS117-M-01-155.00 X 170.10 X 06.30



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	C	O-RING SIZE	ORDER CODE
170.00	185.10	6.30	6.00	175.02 X 5.33	RS117-M-01-170.00 X 185.10 X 06.30
225.00	245.50	8.10	8.00	234.32 X 6.99	RS117-M-01-225.00 X 245.50 X 08.10

ROD SEAL	RS171	

Features:

Rod seal profile RS171 is a single acting U cup type seal with additional rib commonly in use.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
RS171-01	PU11	-20 to 100°C	400 Bar*	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

* Maximum working pressure can be extended up to 400 bar with the use of a back up ring. If this option is required ask PEC.

Properties:

- High resistance to abrasion
- Easy installation
- Additional rib prevents ingress of dirt to a large degree

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Agricultural equipment
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

	Maximum permissible gap (S) for Metric Sizes (mm)		
160 bar	**260 bar**	**320 bar**	**400 bar**
0.15	0.10	0.17	ASK PEC

Minimum chamfer C:

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Fitting:

RS171 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

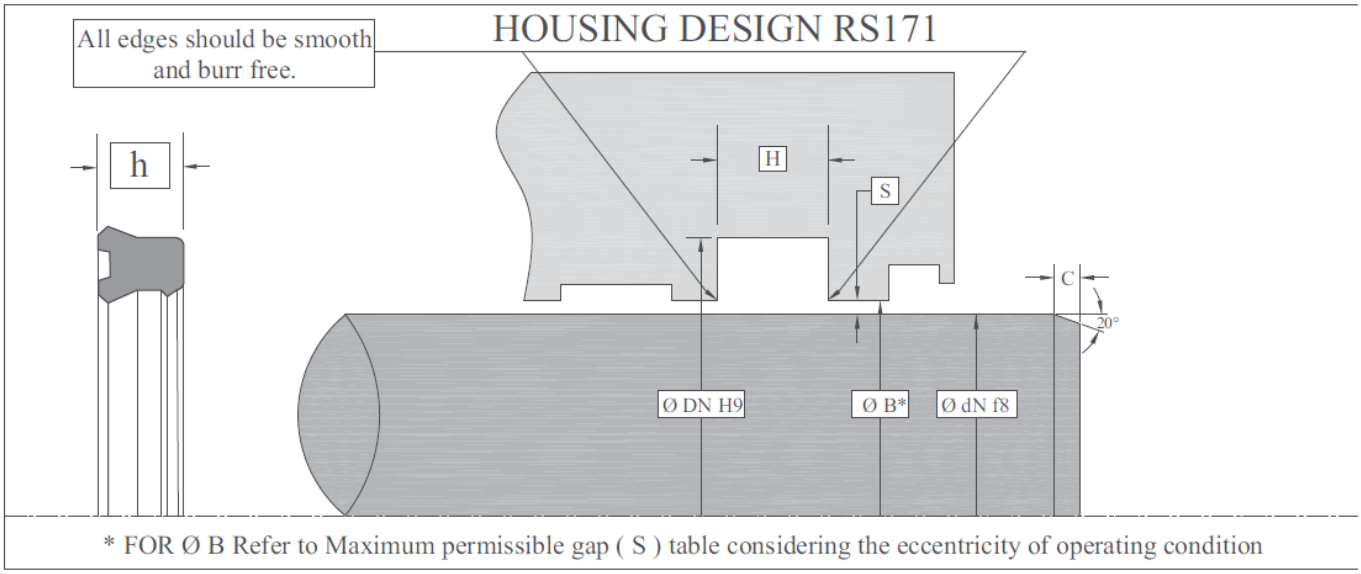
Ordering format:

Please mention PEC order code in your order.

Example: Metric size 28.00 x 36.00 x 7.20 x 8.00

Order code is RS171-M-01-028.00 x 036.00 x 07.2/08.0

Please contact PEC if your required size is not mentioned in PEC standard size list.



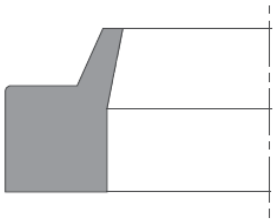
Polymer Engineering Standard Size List

dN (f8)	DN (H9)	h	H (+0.20)		PRODUCT CODE
28.00	36.00	7.20	8.00		RS171-M-01-028.00 X 036.00 X 07.2/08.0
30.00	38.00	5.80	6.50		RS171-M-01-030.00 X 038.00 X 05.8/06.5
40.00	48.00	5.70	6.30		RS171-M-01-040.00 X 048.00 X 05.7/06.3
45.00	55.00	7.20	8.00		RS171-M-01-045.00 X 055.00 X 07.2/08.0
50.00	58.00	8.00	9.00		RS171-M-01-050.00 X 058.00 X 08.0/09.0
55.00	63.00	8.00	9.00		RS171-M-01-055.00 X 063.00 X 08.0/09.0
60.00	68.00	8.00	9.00		RS171-M-01-060.00 X 068.00 X 08.0/09.0
60.00	68.00	7.20	8.00		RS171-M-01-060.00 X 068.00 X 07.2/08.0
70.00	78.00	8.00	9.00		RS171-M-01-070.00 X 078.00 X 08.0/09.0
79.00	87.70	7.20	8.00		RS171-M-01-079.00 X 087.70 X 07.2/08.0
90.00	98.00	6.30	7.00		RS171-M-01-090.00 X 098.00 X 06.3/07.0
105.00	113.00	6.30	7.00		RS171-M-01-105.00 X 113.00 X 06.3/07.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE

DUST SEAL — DS011



Features:

Wiper seal DS-011 is a single acting rod wiper for integral housing.

Composition :

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS011-01	PU19	-20 to 100°C	0.5 m/s
DS011-02	VT04	-20 to 200°C	0.5 m/s
DS011-03	NB01	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy snap in installation
- Very good wiping action
- Wiper can be used for a broad temperature range
- No pressure build-up between seal and wiper

Application:

- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Fitting:

Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

Ordering format:

Please mention PEC order code in your order.

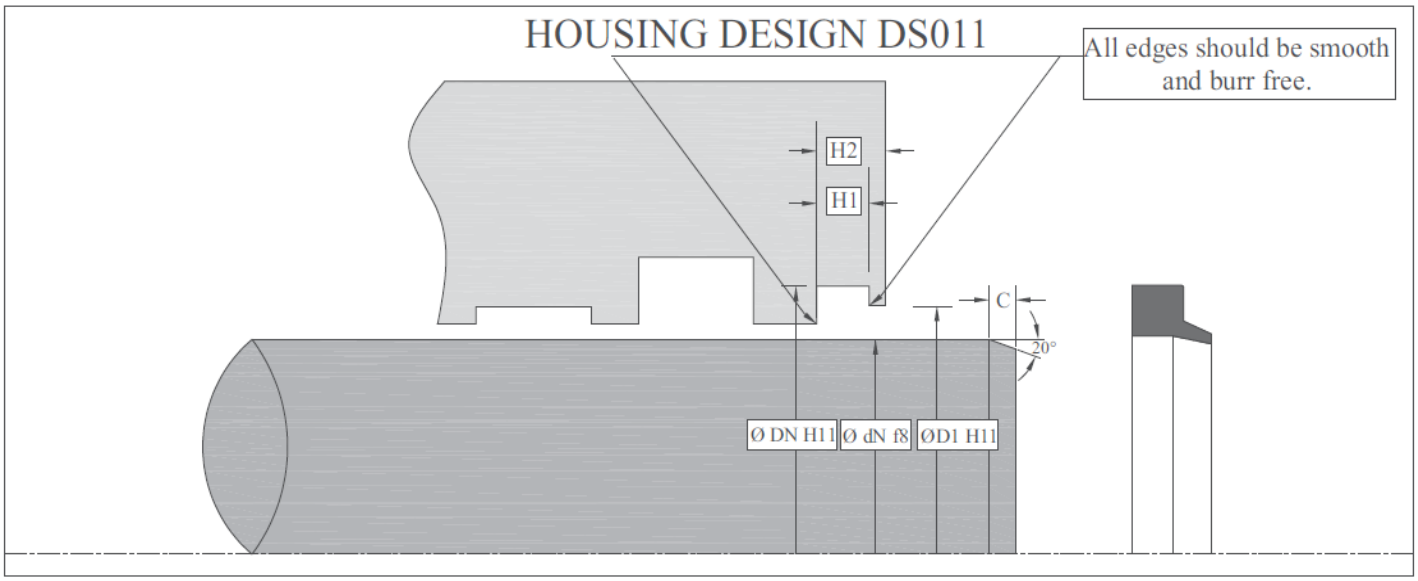
Example : for Size 10.00 X 16.60 X 3.80 / 5.30

For Temp range: - 20°C to +100°C	Material P.U.	Order code is **DS011-01-M-010.00X016.60X03.80/05.30**
For Temp range: - 20°C to +200°C	Material FPM	Order code is **DS011-02-M-010.00X016.60X03.80/05.30**
For Temp range: - 20°C to +100°C	Material NBR	Order code is **DS011-03-M-010.00X016.60X03.80/05.30**

Example : for Size 1.000 X 1.375 X 0.187 / 0.250

For Temp range: - 20°C to +100°C	Material P.U.	Order code is **DS011-01-I-01.000 X 01.375 X 0.187/0.250**
For Temp range: - 20°C to +200°C	Material FPM	Order code is **DS011-02-I-01.000 X 01.375 X 0.187/0.250**
For Temp range: - 20°C to +100°C	Material NBR	Order code is **DS011-03-I-01.000 X 01.375 X 0.187/0.250**

Please contact PEC if your required size is not mentioned in PEC standard size list

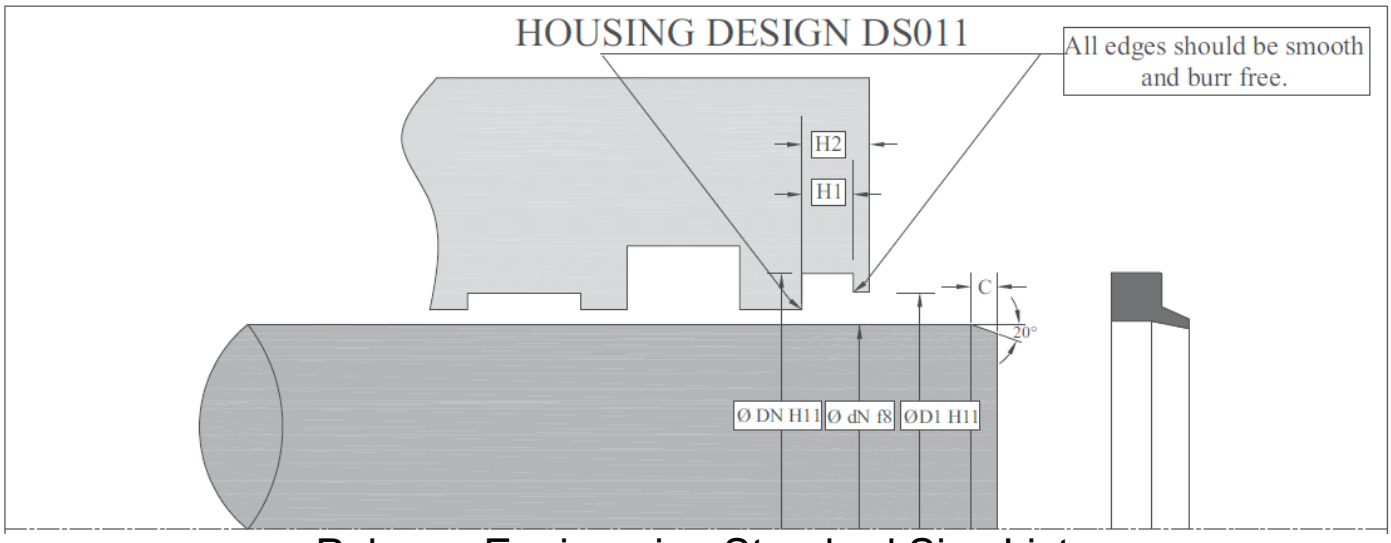


Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
9.50	14.00	12.50	2.00	3.00	DS011-M-01-009.50 X 014.00 X 02.0/03.0
10.00	14.60	12.50	1.50	3.00	DS011-M-01-010.00 X 014.60 X 01.5/03.0
10.00	16.00	13.00	2.50	4.00	DS011-M-01-010.00 X 016.00 X 02.5/04.0
10.00	16.60	13.00	3.80	5.30	DS011-M-01-010.00 X 016.60 X 03.8/05.3
12.00	17.00	14.50	2.50	4.50	DS011-M-01-012.00 X 017.00 X 02.5/04.5
12.00	18.00	15.00	3.80	5.00	DS011-M-01-012.00 X 018.00 X 03.8/05.0
12.00	18.60	15.00	3.80	5.30	DS011-M-01-012.00 X 018.60 X 03.8/05.3
12.00	20.00	15.00	5.00	7.00	DS011-M-01-012.00 X 020.00 X 05.0/07.0
14.00	19.00	16.50	2.50	4.00	DS011-M-01-014.00 X 019.00 X 02.5/04.0
14.00	20.00	17.00	3.80	5.50	DS011-M-01-014.00 X 020.00 X 03.8/05.5
14.00	20.60	17.00	3.80	5.30	DS011-M-01-014.00 X 020.60 X 03.8/05.3
15.00	20.00	17.50	2.50	4.00	DS011-M-01-015.00 X 020.00 X 02.5/04.0
16.00	22.00	19.00	2.50	4.00	DS011-M-01-016.00 X 022.00 X 02.5/04.0
16.00	22.00	19.00	3.00	5.00	DS011-M-01-016.00 X 022.00 X 03.0/05.0
16.00	22.50	19.00	3.30	5.30	DS011-M-01-016.00 X 022.50 X 03.3/05.3
16.00	22.60	19.00	3.80	5.30	DS011-M-01-016.00 X 022.60 X 03.8/05.3
16.00	26.00	19.00	5.00	7.00	DS011-M-01-016.00 X 026.00 X 05.0/07.0
18.00	24.00	21.00	3.80	5.30	DS011-M-01-018.00 X 024.00 X 03.8/05.3
18.00	24.60	21.00	3.80	5.30	DS011-M-01-018.00 X 024.60 X 03.8/05.3
18.00	25.00	21.00	2.50	4.50	DS011-M-01-018.00 X 025.00 X 02.5/04.5
18.00	25.00	21.00	2.60	4.00	DS011-M-01-018.00 X 025.00 X 02.6/04.0
18.00	26.00	21.00	5.00	7.00	DS011-M-01-018.00 X 026.00 X 05.0/07.0
20.00	28.00	23.00	2.50	4.00	DS011-M-01-020.00 X 028.00 X 02.5/04.0
20.00	28.00	23.00	5.00	7.00	DS011-M-01-020.00 X 028.00 X 05.0/07.0
20.00	28.60	23.00	5.30	7.00	DS011-M-01-020.00 X 028.60 X 05.3/07.0
22.00	28.00	25.00	5.00	7.00	DS011-M-01-022.00 X 028.00 X 05.0/07.0
22.00	30.00	25.00	3.50	5.00	DS011-M-01-022.00 X 030.00 X 03.5/05.0
22.00	30.00	25.00	5.00	7.00	DS011-M-01-022.00 X 030.00 X 05.0/07.0
22.00	30.60	25.00	5.30	7.00	DS011-M-01-022.00 X 030.60 X 05.3/07.0
25.00	33.00	28.00	3.50	5.00	DS011-M-01-025.00 X 033.00 X 03.5/05.0
25.00	33.00	28.00	5.00	7.00	DS011-M-01-025.00 X 033.00 X 05.0/07.0
25.00	33.60	28.00	5.30	7.00	DS011-M-01-025.00 X 033.60 X 05.3/07.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
25.00	35.00	28.00	5.00	7.00	DS011-M-01-025.00 X 035.00 X 05.0/07.0
28.00	36.00	31.00	5.00	7.00	DS011-M-01-028.00 X 036.00 X 05.0/07.0
28.00	36.60	31.00	5.30	7.00	DS011-M-01-028.00 X 036.60 X 05.3/07.0
30.00	38.00	33.00	3.00	5.50	DS011-M-01-030.00 X 038.00 X 03.0/05.5
30.00	38.00	33.00	5.00	7.00	DS011-M-01-030.00 X 038.00 X 05.0/07.0
30.00	38.60	33.00	5.30	7.00	DS011-M-01-030.00 X 038.60 X 05.3/07.0
32.00	40.00	35.00	5.00	7.00	DS011-M-01-032.00 X 040.00 X 05.0/07.0
32.00	40.60	35.00	5.30	7.00	DS011-M-01-032.00 X 040.60 X 05.3/07.0
35.00	43.00	38.00	5.00	7.00	DS011-M-01-035.00 X 043.00 X 05.0/07.0
35.00	43.60	38.00	5.30	7.00	DS011-M-01-035.00 X 043.60 X 05.3/07.0
35.00	45.00	38.00	5.00	7.00	DS011-M-01-035.00 X 045.00 X 05.0/07.0
35.00	48.00	38.00	5.50	10.00	DS011-M-01-035.00 X 048.00 X 05.5/10.0
36.00	44.00	39.00	3.50	6.00	DS011-M-01-036.00 X 044.00 X 03.5/06.0
36.00	44.00	39.00	5.00	7.00	DS011-M-01-036.00 X 044.00 X 05.0/07.0
36.00	44.60	39.00	5.30	7.00	DS011-M-01-036.00 X 044.60 X 05.3/07.0
38.00	48.00	41.00	5.00	7.00	DS011-M-01-038.00 X 048.00 X 05.0/07.0
40.00	48.00	43.00	5.00	7.00	DS011-M-01-040.00 X 048.00 X 05.0/07.0
40.00	48.60	43.00	5.30	7.00	DS011-M-01-040.00 X 048.60 X 05.3/07.0
40.00	50.00	43.00	7.00	12.00	DS011-M-01-040.00 X 050.00 X 07.0/12.0
42.00	50.00	45.00	5.00	7.00	DS011-M-01-042.00 X 050.00 X 05.0/07.0
42.00	50.60	45.00	5.30	7.00	DS011-M-01-042.00 X 050.60 X 05.3/07.0
45.00	53.00	48.00	5.00	7.00	DS011-M-01-045.00 X 053.00 X 05.0/07.0
45.00	54.00	48.00	3.50	6.00	DS011-M-01-045.00 X 054.00 X 03.5/06.0
45.00	55.00	48.00	5.00	7.00	DS011-M-01-045.00 X 055.00 X 05.0/07.0
45.00	55.60	48.00	5.30	7.00	DS011-M-01-045.00 X 055.60 X 05.3/07.0
50.00	58.00	53.00	5.00	7.00	DS011-M-01-050.00 X 058.00 X 05.0/07.0
50.00	58.00	53.00	7.00	10.00	DS011-M-01-050.00 X 058.00 X 07.0/10.0
50.00	58.60	53.00	5.30	7.00	DS011-M-01-050.00 X 058.60 X 05.3/07.0
50.00	60.00	53.00	5.00	7.00	DS011-M-01-050.00 X 060.00 X 05.0/07.0
50.00	60.00	53.00	7.00	12.00	DS011-M-01-050.00 X 060.00 X 07.0/12.0
50.00	60.60	53.00	5.30	7.00	DS011-M-01-050.00 X 060.60 X 05.3/07.0
50.00	68.00	53.00	2.00	6.50	DS011-M-01-050.00 X 068.00 X 02.0/06.5
55.00	65.60	58.00	5.30	7.00	DS011-M-01-055.00 X 065.60 X 05.3/07.0
55.00	66.00	58.00	5.00	8.00	DS011-M-01-055.00 X 066.00 X 05.0/08.0
56.00	66.00	59.00	5.00	8.00	DS011-M-01-056.00 X 066.00 X 05.0/08.0
56.00	66.60	59.00	5.30	7.00	DS011-M-01-056.00 X 066.60 X 05.3/07.0
60.00	68.00	63.00	5.00	7.00	DS011-M-01-060.00 X 068.00 X 05.0/07.0
60.00	70.00	63.00	5.00	8.50	DS011-M-01-060.00 X 070.00 X 05.0/08.5
60.00	70.00	63.00	6.00	10.00	DS011-M-01-060.00 X 070.00 X 06.0/10.0
60.00	70.00	63.00	7.00	12.00	DS011-M-01-060.00 X 070.00 X 07.0/12.0
60.00	70.60	63.00	5.30	7.00	DS011-M-01-060.00 X 070.60 X 05.3/07.0
60.00	75.00	63.00	5.00	7.00	DS011-M-01-060.00 X 075.00 X 05.0/07.0
63.00	73.00	66.00	5.00	7.00	DS011-M-01-063.00 X 073.00 X 05.0/07.0
63.00	73.00	66.00	6.00	10.00	DS011-M-01-063.00 X 073.00 X 06.0/10.0
63.00	73.60	66.00	5.30	7.00	DS011-M-01-063.00 X 073.60 X 05.3/07.0
65.00	75.00	68.00	5.00	7.00	DS011-M-01-065.00 X 075.00 X 05.0/07.0

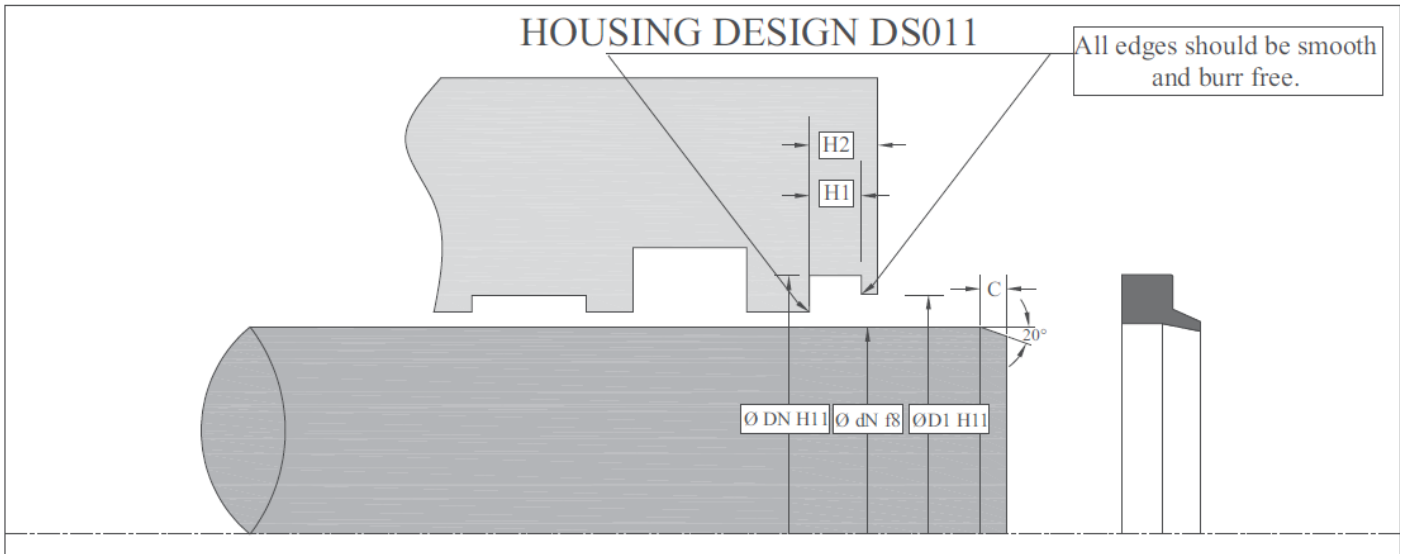


Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
65.00	75.00	68.00	6.30	10.00	DS011-M-01-065.00 X 075.00 X 06.3/10.0
65.00	75.00	68.00	7.00	12.00	DS011-M-01-065.00 X 075.00 X 07.0/12.0
65.00	75.60	68.00	5.30	7.00	DS011-M-01-065.00 X 075.60 X 05.3/07.0
68.00	76.00	68.00	3.10	5.00	DS011-M-01-068.00 X 076.00 X 03.1/05.0
70.00	80.00	73.00	5.00	7.00	DS011-M-01-070.00 X 080.00 X 05.0/07.0
70.00	80.60	73.00	5.30	7.00	DS011-M-01-070.00 X 080.60 X 05.3/07.0
70.00	82.00	73.00	5.00	8.00	DS011-M-01-070.00 X 082.00 X 05.0/08.0
75.00	87.00	81.00	7.00	12.00	DS011-M-01-075.00 X 087.00 X 07.0/12.0
75.00	87.20	81.00	7.10	12.00	DS011-M-01-075.00 X 087.20 X 07.1/12.0
77.50	92.50	80.50	7.00	11.00	DS011-M-01-077.50 X 092.50 X 07.0/11.0
78.00	88.00	81.00	5.00	8.50	DS011-M-01-078.00 X 088.00 X 05.0/08.5
80.00	92.00	86.00	7.00	12.00	DS011-M-01-080.00 X 092.00 X 07.0/12.0
80.00	92.20	86.00	7.10	12.00	DS011-M-01-080.00 X 092.20 X 07.1/12.0
84.00	95.00	89.00	5.00	8.00	DS011-M-01-084.00 X 095.00 X 05.0/08.0
85.00	97.00	91.00	7.00	12.00	DS011-M-01-085.00 X 097.00 X 07.0/12.0
85.00	97.20	91.00	7.10	12.00	DS011-M-01-085.00 X 097.20 X 07.1/12.0
90.00	102.00	96.00	7.00	12.00	DS011-M-01-090.00 X 102.00 X 07.0/12.0
90.00	102.20	96.00	7.10	12.00	DS011-M-01-090.00 X 102.20 X 07.1/12.0
90.00	105.00	96.00	7.00	12.00	DS011-M-01-090.00 X 105.00 X 07.0/12.0
95.00	107.00	101.00	7.00	12.00	DS011-M-01-095.00 X 107.00 X 07.0/12.0
99.00	109.00	104.00	5.00	8.50	DS011-M-01-099.00 X 109.00 X 05.0/08.5
100.00	112.00	106.00	7.00	12.00	DS011-M-01-100.00 X 112.00 X 07.0/12.0
100.00	112.20	106.00	7.10	12.00	DS011-M-01-100.00 X 112.20 X 07.1/12.0
104.00	116.00	110.00	8.00	11.00	DS011-M-01-104.00 X 116.00 X 08.0/11.0
105.00	117.00	111.00	7.00	12.00	DS011-M-01-105.00 X 117.00 X 07.0/12.0
110.00	122.00	116.00	7.00	12.00	DS011-M-01-110.00 X 122.00 X 07.0/12.0
110.00	122.20	116.00	7.10	12.00	DS011-M-01-110.00 X 122.20 X 07.1/12.0
115.00	127.00	121.00	7.00	12.00	DS011-M-01-115.00 X 127.00 X 07.0/12.0
115.00	127.20	121.00	7.10	12.00	DS011-M-01-115.00 X 127.20 X 07.1/12.0
115.00	130.00	121.00	6.30	9.00	DS011-M-01-115.00 X 130.00 X 06.3/09.0
120.00	130.00	125.00	5.00	8.50	DS011-M-01-120.00 X 130.00 X 05.0/08.5
120.00	132.00	126.00	7.00	12.00	DS011-M-01-120.00 X 132.00 X 07.0/12.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
120.00	132.20	126.00	7.10	12.00	DS011-M-01-120.00 X 132.20 X 07.1/12.0
120.00	135.00	126.00	10.00	16.00	DS011-M-01-120.00 X 135.00 X 10.0/16.0
125.00	137.00	131.00	7.00	12.00	DS011-M-01-125.00 X 137.00 X 07.0/12.0
125.00	137.20	131.00	7.10	12.00	DS011-M-01-125.00 X 137.20 X 07.1/12.0
130.00	142.00	136.00	7.00	12.00	DS011-M-01-130.00 X 142.00 X 07.0/12.0
130.00	142.20	136.00	7.10	12.00	DS011-M-01-130.00 X 142.20 X 07.1/12.0
130.00	143.00	136.00	7.00	12.00	DS011-M-01-130.00 X 143.00 X 07.0/12.0
135.00	147.00	141.00	7.00	12.00	DS011-M-01-135.00 X 147.00 X 07.0/12.0
140.00	152.00	146.00	7.00	12.00	DS011-M-01-140.00 X 152.00 X 07.0/12.0
140.00	152.20	146.00	7.70	12.00	DS011-M-01-140.00 X 152.20 X 07.7/12.0
140.00	153.00	146.00	7.00	12.00	DS011-M-01-140.00 X 153.00 X 07.0/12.0
140.00	155.00	147.00	8.00	14.00	DS011-M-01-140.00 X 155.00 X 08.0/14.0
140.00	155.00	147.60	10.20	16.00	DS011-M-01-140.00 X 155.00 X 10.2/16.0
141.00	151.00	146.00	5.00	8.50	DS011-M-01-141.00 X 151.00 X 05.0/08.5
145.00	157.00	151.00	7.00	12.00	DS011-M-01-145.00 X 157.00 X 07.0/12.0
150.00	162.00	156.00	7.00	12.00	DS011-M-01-150.00 X 162.00 X 07.0/12.0
150.00	162.20	156.00	7.70	12.00	DS011-M-01-150.00 X 162.20 X 07.7/12.0
150.00	165.00	157.60	10.20	16.00	DS011-M-01-150.00 X 165.00 X 10.2/16.0
155.00	167.00	161.00	7.00	12.00	DS011-M-01-155.00 X 167.00 X 07.0/12.0
155.00	167.20	161.00	7.20	12.00	DS011-M-01-155.00 X 167.20 X 07.2/12.0
160.00	172.00	166.00	7.00	12.00	DS011-M-01-160.00 X 172.00 X 07.0/12.0
160.00	172.20	166.00	7.70	12.00	DS011-M-01-160.00 X 172.20 X 07.7/12.0
160.00	175.00	167.00	10.00	16.00	DS011-M-01-160.00 X 175.00 X 10.0/16.0
160.00	175.00	167.60	10.20	16.00	DS011-M-01-160.00 X 175.00 X 10.2/16.0
162.00	172.00	167.00	5.00	8.50	DS011-M-01-162.00 X 172.00 X 05.0/08.5
170.00	182.00	176.00	7.00	12.00	DS011-M-01-170.00 X 182.00 X 07.0/12.0
170.00	182.20	176.00	7.70	12.00	DS011-M-01-170.00 X 182.20 X 07.7/12.0
170.00	185.00	177.00	10.00	16.00	DS011-M-01-170.00 X 185.00 X 10.0/16.0
180.00	200.00	190.00	10.20	18.00	DS011-M-01-180.00 X 200.00 X 10.2/18.0
183.00	193.00	188.00	5.00	8.50	DS011-M-01-183.00 X 193.00 X 05.0/08.5
190.00	210.00	200.00	10.20	18.00	DS011-M-01-190.00 X 210.00 X 10.2/18.0
191.00	201.00	196.00	6.00	10.00	DS011-M-01-191.00 X 201.00 X 06.0/10.0
200.00	220.00	207.00	7.00	14.00	DS011-M-01-200.00 X 220.00 X 07.0/14.0
200.00	220.00	210.00	10.20	18.00	DS011-M-01-200.00 X 220.00 X 10.2/18.0
207.00	217.00	212.00	5.00	8.50	DS011-M-01-207.00 X 217.00 X 05.0/08.5
210.00	230.00	217.00	7.00	14.00	DS011-M-01-210.00 X 230.00 X 07.0/14.0
210.00	230.00	220.00	10.20	18.00	DS011-M-01-210.00 X 230.00 X 10.2/18.0
220.00	240.00	230.00	10.20	18.00	DS011-M-01-220.00 X 240.00 X 10.2/18.0
225.00	245.00	232.00	10.00	16.00	DS011-M-01-225.00 X 245.00 X 10.0/16.0
230.00	250.00	240.00	10.20	18.00	DS011-M-01-230.00 X 250.00 X 10.2/18.0
240.00	260.00	250.00	10.20	18.00	DS011-M-01-240.00 X 260.00 X 10.2/18.0
250.00	270.00	260.00	10.20	18.00	DS011-M-01-250.00 X 270.00 X 10.2/18.0
260.00	280.00	270.00	10.20	18.00	DS011-M-01-260.00 X 280.00 X 10.2/18.0
270.00	290.00	280.00	10.20	18.00	DS011-M-01-270.00 X 290.00 X 10.2/18.0
280.00	300.00	290.00	10.20	18.00	DS011-M-01-280.00 X 300.00 X 10.2/18.0
300.00	320.00	310.00	10.20	18.00	DS011-M-01-300.00 X 320.00 X 10.2/18.0

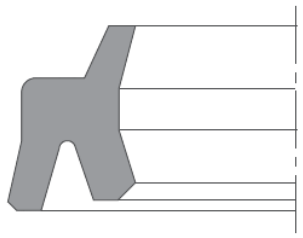


Polymer Engineering Standard Size List

IMPERIAL SIZE					
ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(0.008")	H2	ORDER CODE
0.312	0.562	0.475	0.125	0.187	DS011-I-01-00.312 X 00.562 X 0.125/0.187
0.500	0.750	0.660	0.125	0.187	DS011-I-01-00.500 X 00.750 X 0.125/0.187
0.625	0.875	0.000	0.125	0.187	DS011-I-01-00.625 X 00.875 X 0.125/0.187
0.750	1.125	0.995	0.187	0.250	DS011-I-01-00.750 X 01.125 X 0.187/0.250
1.000	1.375	1.245	0.187	0.250	DS011-I-01-01.000 X 01.375 X 0.187/0.250
1.125	1.375	0.000	0.187	0.250	DS011-I-01-01.125 X 01.375 X 0.187/0.250
1.125	1.500	1.370	0.187	0.250	DS011-I-01-01.125 X 01.500 X 0.187/0.250
1.250	1.625	1.495	0.187	0.250	DS011-I-01-01.250 X 01.625 X 0.187/0.250
1.375	1.750	1.620	0.187	0.250	DS011-I-01-01.375 X 01.750 X 0.187/0.250
1.500	1.875	0.000	0.187	0.250	DS011-I-01-01.500 X 01.875 X 0.187/0.250
1.500	1.875	1.745	0.250	0.375	DS011-I-01-01.500 X 01.875 X 0.250/0.375
1.750	2.125	1.995	0.187	0.250	DS011-I-01-01.750 X 02.125 X 0.187/0.250
1.875	2.250	0.000	0.187	0.250	DS011-I-01-01.875 X 02.250 X 0.187/0.250
2.000	2.500	2.327	0.250	0.375	DS011-I-01-02.000 X 02.500 X 0.250/0.375
2.250	2.750	2.577	0.250	0.375	DS011-I-01-02.250 X 02.750 X 0.250/0.375
2.500	3.000	2.827	0.250	0.375	DS011-I-01-02.500 X 03.000 X 0.250/0.375
2.500	3.125	0.000	0.500	0.375	DS011-I-01-02.500 X 03.125 X 0.500/0.375
2.750	3.250	3.077	0.250	0.375	DS011-I-01-02.750 X 03.250 X 0.250/0.375
3.000	3.500	3.327	0.250	0.375	DS011-I-01-03.000 X 03.500 X 0.250/0.375
3.250	3.750	3.577	0.250	0.375	DS011-I-01-03.250 X 03.750 X 0.250/0.375
3.500	4.000	3.827	0.250	0.375	DS011-I-01-03.500 X 04.000 X 0.250/0.375
3.750	4.250	4.077	0.250	0.375	DS011-I-01-03.750 X 04.250 X 0.250/0.375
4.000	4.500	4.327	0.250	0.375	DS011-I-01-04.000 X 04.500 X 0.250/0.375
5.000	5.700	0.000	0.380	0.540	DS011-I-01-05.000 X 05.700 X 0.380/0.540
5.000	5.750	5.493	0.375	0.550	DS011-I-01-05.000 X 05.750 X 0.375/0.550
5.250	6.000	5.743	0.375	0.550	DS011-I-01-05.250 X 06.000 X 0.375/0.550
6.250	6.750	6.577	0.250	0.375	DS011-I-01-06.250 X 06.750 X 0.250/0.375
6.500	7.250	6.943	0.335	0.500	DS011-I-01-06.500 X 07.250 X 0.335/0.500
6.500	7.500	7.100	0.781	1.125	DS011-I-01-06.500 X 07.500 X 0.781/1.125

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.008")	H2	ORDER CODE
6.750	7.500	7.243	0.375	0.550	DS011-I-01-06.750 X 07.500 X 0.375/0.550
7.000	8.000	7.600	0.500	0.750	DS011-I-01-07.000 X 08.000 X 0.500/0.750
7.000	8.000	7.600	0.781	1.125	DS011-I-01-07.000 X 08.000 X 0.781/1.125
7.500	8.500	8.100	0.375	0.550	DS011-I-01-07.500 X 08.500 X 0.375/0.550
7.500	8.500	8.100	0.500	0.750	DS011-I-01-07.500 X 08.500 X 0.500/0.750
8.125	8.625	8.462	0.250	0.375	DS011-I-01-08.125 X 08.625 X 0.250/0.375
8.500	9.250	8.993	0.375	0.550	DS011-I-01-08.500 X 09.250 X 0.375/0.550
9.000	9.500	9.337	0.250	0.375	DS011-I-01-09.000 X 09.500 X 0.250/0.375
9.000	9.750	9.493	0.375	0.550	DS011-I-01-09.000 X 09.750 X 0.375/0.550
10.750	11.750	11.409	0.500	0.750	DS011-I-01-10.750 X 11.750 X 0.500/0.750

DUST SEAL	DS022	

Features:

Wiper seal DS022 is a double acting rod wiper for integral housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS022-01	PU19	-20 to 100°C	0.5 m/s
DS022-02	VT04	-20 to 200°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy snap in installation
- Very good wiping action
- Highly abrasion resistance

Application:

- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:

Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

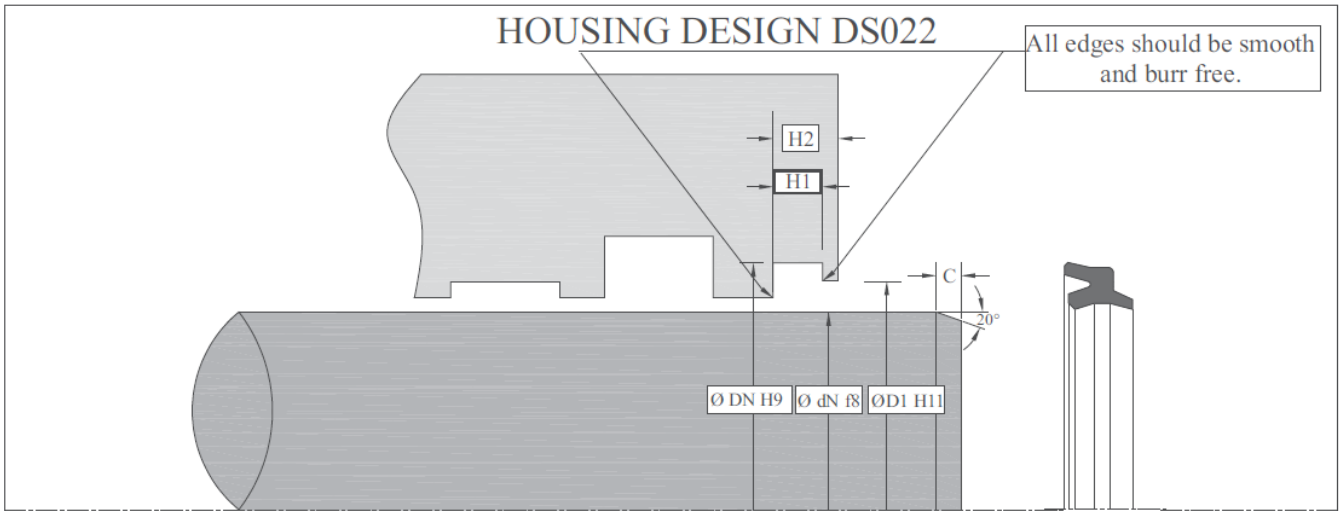
Ordering format:

Please mention PEC order code in your order.

Example: Size 10.00 x 16.00 x 4.00/6.00

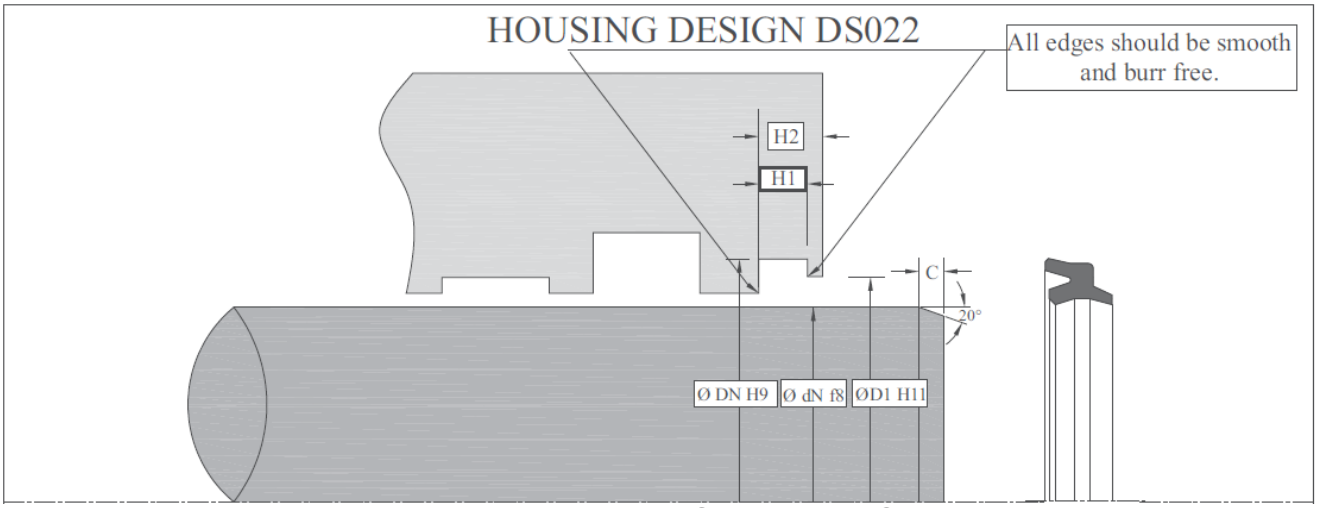
Order Code is DS022-M-01-010.00 x 016.00 x 04.0/06.0

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
7.00	12.00	9.50	3.50	5.00	DS022-M-01-007.00 X 012.00 X 03.5/05.0
10.00	16.00	12.50	4.00	6.00	DS022-M-01-010.00 X 016.00 X 04.0/06.0
10.00	16.00	12.50	4.00	7.00	DS022-M-01-010.00 X 016.00 X 04.0/07.0
12.00	18.00	14.50	4.00	7.00	DS022-M-01-012.00 X 018.00 X 04.0/07.0
14.00	20.00	16.50	4.00	6.00	DS022-M-01-014.00 X 020.00 X 04.0/06.0
14.00	20.00	16.50	4.00	7.00	DS022-M-01-014.00 X 020.00 X 04.0/07.0
16.00	22.00	18.50	4.00	6.00	DS022-M-01-016.00 X 022.00 X 04.0/06.0
16.00	22.00	18.50	4.00	7.00	DS022-M-01-016.00 X 022.00 X 04.0/07.0
16.00	24.00	20.30	5.00	7.00	DS022-M-01-016.00 X 024.00 X 05.0/07.0
16.00	26.00	19.00	4.00	7.50	DS022-M-01-016.00 X 026.00 X 04.0/07.5
16.00	26.00	19.00	4.50	7.50	DS022-M-01-016.00 X 026.00 X 04.5/07.5
18.00	24.00	20.50	4.00	6.00	DS022-M-01-018.00 X 024.00 X 04.0/06.0
18.00	24.00	20.50	4.00	7.00	DS022-M-01-018.00 X 024.00 X 04.0/07.0
18.00	26.00	22.30	5.00	7.00	DS022-M-01-018.00 X 026.00 X 05.0/07.0
20.00	26.00	22.50	4.00	7.00	DS022-M-01-020.00 X 026.00 X 04.0/07.0
20.00	28.00	23.00	4.00	6.00	DS022-M-01-020.00 X 028.00 X 04.0/06.0
22.00	28.00	24.50	4.00	6.00	DS022-M-01-022.00 X 028.00 X 04.0/06.0
22.00	28.00	24.50	4.00	7.00	DS022-M-01-022.00 X 028.00 X 04.0/07.0
25.00	31.00	27.50	4.00	6.00	DS022-M-01-025.00 X 031.00 X 04.0/06.0
25.00	31.00	27.50	4.00	7.00	DS022-M-01-025.00 X 031.00 X 04.0/07.0
25.00	33.00	28.00	4.00	6.00	DS022-M-01-025.00 X 033.00 X 04.0/06.0
25.00	33.00	28.00	4.00	7.00	DS022-M-01-025.00 X 033.00 X 04.0/07.0
25.00	33.00	28.00	5.00	7.00	DS022-M-01-025.00 X 033.00 X 05.0/07.0
28.00	36.00	31.00	5.00	7.00	DS022-M-01-028.00 X 036.00 X 05.0/07.0
28.00	36.00	31.00	5.00	8.00	DS022-M-01-028.00 X 036.00 X 05.0/08.0
30.00	38.00	33.00	5.00	7.00	DS022-M-01-030.00 X 038.00 X 05.0/07.0
30.00	38.00	33.00	5.00	8.00	DS022-M-01-030.00 X 038.00 X 05.0/08.0
30.00	40.00	34.00	6.00	8.00	DS022-M-01-030.00 X 040.00 X 06.0/08.0
31.50	40.00	34.50	5.00	7.00	DS022-M-01-031.50 X 040.00 X 05.0/07.0
32.00	40.00	35.00	5.00	8.00	DS022-M-01-032.00 X 040.00 X 05.0/08.0
32.00	40.00	35.00	8.00	11.00	DS022-M-01-032.00 X 040.00 X 08.0/11.0
35.00	43.00	38.00	5.00	8.00	DS022-M-01-035.00 X 043.00 X 05.0/08.0



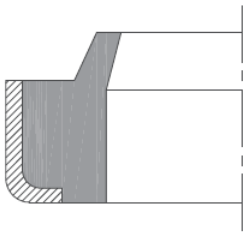
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
36.00	44.00	39.00	5.00	8.00	DS022-M-01-036.00 X 044.00 X 05.0/08.0
40.00	48.00	43.00	5.00	8.00	DS022-M-01-040.00 X 048.00 X 05.0/08.0
40.00	50.00	43.00	5.00	7.00	DS022-M-01-040.00 X 050.00 X 05.0/07.0
42.00	50.00	45.00	5.00	7.00	DS022-M-01-042.00 X 050.00 X 05.0/07.0
42.00	51.00	45.00	4.50	6.00	DS022-M-01-042.00 X 051.00 X 04.5/06.0
45.00	53.00	48.00	5.00	8.00	DS022-M-01-045.00 X 053.00 X 05.0/08.0
45.00	54.00	48.00	4.50	6.00	DS022-M-01-045.00 X 054.00 X 04.5/06.0
45.00	54.00	48.00	5.50	7.00	DS022-M-01-045.00 X 054.00 X 05.5/07.0
50.00	58.00	53.00	5.00	8.00	DS022-M-01-050.00 X 058.00 X 05.0/08.0
50.00	58.00	53.00	5.30	7.00	DS022-M-01-050.00 X 058.00 X 05.3/07.0
54.00	62.00	57.00	6.00	9.00	DS022-M-01-054.00 X 062.00 X 06.0/09.0
55.00	65.00	58.00	6.00	9.00	DS022-M-01-055.00 X 065.00 X 06.0/09.0
56.00	66.00	59.00	6.00	9.00	DS022-M-01-056.00 X 066.00 X 06.0/09.0
60.00	68.00	63.00	5.00	6.50	DS022-M-01-060.00 X 068.00 X 05.0/06.5
60.00	70.00	63.00	4.00	7.00	DS022-M-01-060.00 X 070.00 X 04.0/07.0
60.00	70.00	63.00	6.00	9.00	DS022-M-01-060.00 X 070.00 X 06.0/09.0
63.00	71.00	66.00	5.00	7.00	DS022-M-01-063.00 X 071.00 X 05.0/07.0
63.00	73.00	66.00	6.00	9.00	DS022-M-01-063.00 X 073.00 X 06.0/09.0
65.00	75.00	68.00	6.00	9.00	DS022-M-01-065.00 X 075.00 X 06.0/09.0
70.00	80.00	73.00	6.00	9.00	DS022-M-01-070.00 X 080.00 X 06.0/09.0
75.00	83.60	78.00	5.00	7.00	DS022-M-01-075.00 X 083.60 X 05.0/07.0
75.00	85.00	78.00	6.00	9.00	DS022-M-01-075.00 X 085.00 X 06.0/09.0
75.00	89.00	79.00	6.00	11.00	DS022-M-01-075.00 X 089.00 X 06.0/11.0
80.00	90.00	83.00	6.00	9.00	DS022-M-01-080.00 X 090.00 X 06.0/09.0
80.00	92.00	83.00	7.00	11.00	DS022-M-01-080.00 X 092.00 X 07.0/11.0
85.00	95.00	88.00	6.00	9.00	DS022-M-01-085.00 X 095.00 X 06.0/09.0
90.00	100.00	93.00	6.00	9.00	DS022-M-01-090.00 X 100.00 X 06.0/09.0
90.00	104.00	94.00	6.00	11.00	DS022-M-01-090.00 X 104.00 X 06.0/11.0
94.00	104.00	97.00	6.00	8.00	DS022-M-01-094.00 X 104.00 X 06.0/08.0
95.00	103.60	98.00	5.00	7.00	DS022-M-01-095.00 X 103.60 X 05.0/07.0
100.00	110.00	103.00	6.00	9.00	DS022-M-01-100.00 X 110.00 X 06.0/09.0
110.00	120.00	113.00	6.00	9.00	DS022-M-01-110.00 X 120.00 X 06.0/09.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1(+0.20)	H2	ORDER CODE
110.00	125.00	114.00	8.50	12.00	DS022-M-01-110.00 X 125.00 X 08.5/12.0
114.00	124.00	117.00	6.00	8.00	DS022-M-01-114.00 X 124.00 X 06.0/08.0
115.00	123.60	118.00	5.00	7.00	DS022-M-01-115.00 X 123.60 X 05.0/07.0
117.00	127.00	120.00	6.00	8.00	DS022-M-01-117.00 X 127.00 X 06.0/08.0
120.00	135.00	124.00	8.50	12.00	DS022-M-01-120.00 X 135.00 X 08.5/12.0
125.00	137.00	129.00	7.00	12.00	DS022-M-01-125.00 X 137.00 X 07.0/12.0
125.00	137.00	129.00	8.00	11.00	DS022-M-01-125.00 X 137.00 X 08.0/11.0
125.00	140.00	129.00	8.50	12.00	DS022-M-01-125.00 X 140.00 X 08.5/12.0
135.00	143.60	138.00	5.00	7.00	DS022-M-01-135.00 X 143.60 X 05.0/07.0
136.00	146.00	139.00	6.00	8.00	DS022-M-01-136.00 X 146.00 X 06.0/08.0
140.00	155.00	144.00	8.50	12.00	DS022-M-01-140.00 X 155.00 X 08.5/12.0
150.00	162.00	154.00	8.00	10.00	DS022-M-01-150.00 X 162.00 X 08.0/10.0
155.00	165.00	158.00	6.00	8.00	DS022-M-01-155.00 X 165.00 X 06.0/08.0
160.00	173.00	164.00	7.50	9.50	DS022-M-01-160.00 X 173.00 X 07.5/09.5
160.00	175.00	164.00	8.50	12.00	DS022-M-01-160.00 X 175.00 X 08.5/12.0
170.00	185.00	174.00	8.50	12.00	DS022-M-01-170.00 X 185.00 X 08.5/12.0
180.00	195.00	184.00	8.50	12.00	DS022-M-01-180.00 X 195.00 X 08.5/12.0
200.00	215.00	204.00	8.50	12.00	DS022-M-01-200.00 X 215.00 X 08.5/12.0
220.00	240.00	230.00	10.20	16.00	DS022-M-01-220.00 X 240.00 X 10.2/16.0

DUST SEAL — DS033



Features:
Wiper seal DS033 is a single acting rod wiper with metal casing for open housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	METAL CASING	TEMP. RANGE	SURFACE SPEED (Max.)
DS033-01	PU19	MILD STEEL	-20 to 100°C	0.5 m/s
DS033-02	VT04	MILD STEEL	-20 to 200°C	0.5 m/s
DS033-03	NB01	MILD STEEL	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:
- Easy push fit installation
- Very good wiping action
- Wiper can be used for a broad temperature range
- No pressure build-up between seal and wiper

Application:
- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:
Wiper seal DS033 are pressed in to open housings. Careful fitting is prerequisite for perfect functioning of the wiper seal.

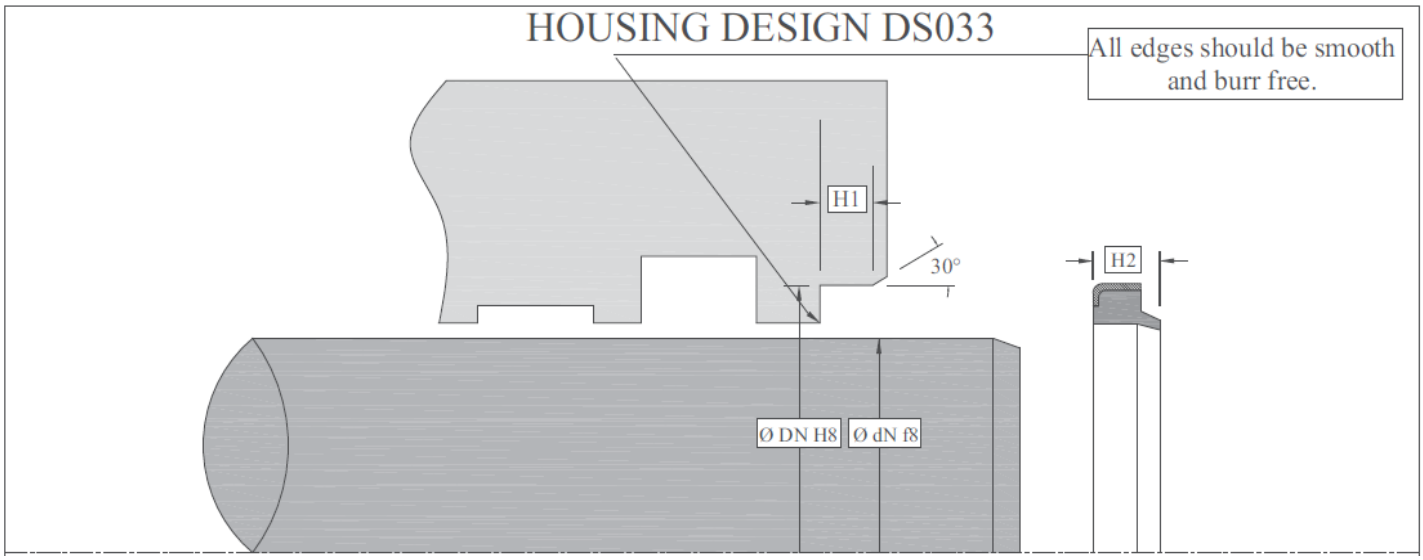
Ordering format:
Please mention PEC order code in your order
Example: Size: 150.00 X 60.00 X 07.0/10.0

For Temp range: -20°C to +100°C Material P.U. Order code is **DS033-M-01-050.00 X 060.00 X 07.0/10.0**

For Temp range: -20°C to +200°C Material FPM, Order code is **DS033-M-02-050.00 X 060.00 X 07.0/10.0**

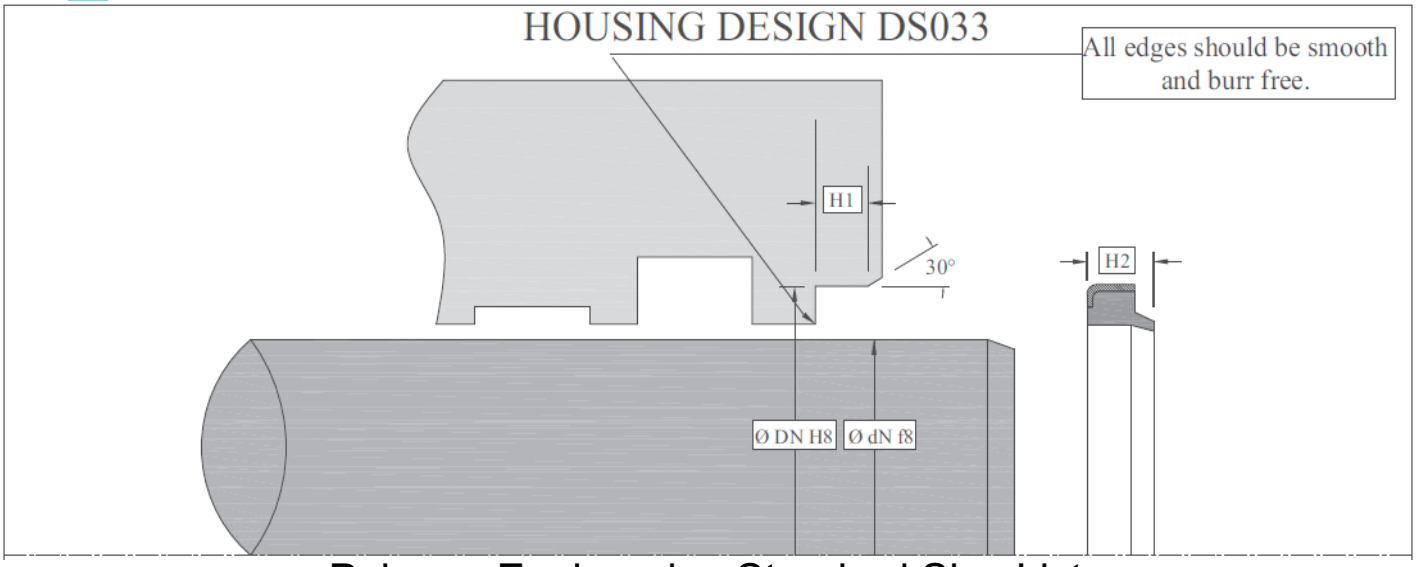
For Temp range: -20°C to +100°C Material NBR, Order code is **DS033-M-03-050.00 X 060.00 X 07.0/10.0**

Please contact PEC if your required size is not mentioned in PEC standard size list



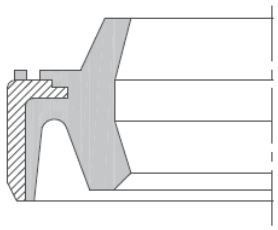
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H1 (+0.20)	H2	ORDER CODE
16.00	26.00	5.00	8.00	DS033-M-01-016.00 X 026.00 X 05.0/08.0
20.00	28.00	5.00	8.00	DS033-M-01-020.00 X 028.00 X 05.0/08.0
20.00	30.00	5.00	8.00	DS033-M-01-020.00 X 030.00 X 05.0/08.0
20.00	30.00	7.00	10.00	DS033-M-01-020.00 X 030.00 X 07.0/10.0
22.00	32.00	7.00	10.00	DS033-M-01-022.00 X 032.00 X 07.0/10.0
25.00	35.00	5.00	8.00	DS033-M-01-025.00 X 035.00 X 05.0/08.0
25.00	35.00	7.00	10.00	DS033-M-01-025.00 X 035.00 X 07.0/10.0
25.00	37.00	7.00	10.00	DS033-M-01-025.00 X 037.00 X 07.0/10.0
28.00	38.00	5.00	7.00	DS033-M-01-028.00 X 038.00 X 05.0/07.0
30.00	40.00	5.00	7.00	DS033-M-01-030.00 X 040.00 X 05.0/07.0
30.00	40.00	7.00	10.00	DS033-M-01-030.00 X 040.00 X 07.0/10.0
32.00	42.00	5.00	7.00	DS033-M-01-032.00 X 042.00 X 05.0/07.0
32.00	45.00	7.00	10.00	DS033-M-01-032.00 X 045.00 X 07.0/10.0
32.00	52.00	8.00	12.00	DS033-M-01-032.00 X 052.00 X 08.0/12.0
35.00	45.00	7.00	10.00	DS033-M-01-035.00 X 045.00 X 07.0/10.0
36.00	45.00	7.00	10.00	DS033-M-01-036.00 X 045.00 X 07.0/10.0
36.00	46.00	7.00	10.00	DS033-M-01-036.00 X 046.00 X 07.0/10.0
36.00	48.00	5.00	8.00	DS033-M-01-036.00 X 048.00 X 05.0/08.0
40.00	50.00	7.00	10.00	DS033-M-01-040.00 X 050.00 X 07.0/10.0
45.00	55.00	7.00	10.00	DS033-M-01-045.00 X 055.00 X 07.0/10.0
45.00	58.00	7.00	10.00	DS033-M-01-045.00 X 058.00 X 07.0/10.0
48.00	60.00	7.00	10.00	DS033-M-01-048.00 X 060.00 X 07.0/10.0
50.00	60.00	7.00	10.00	DS033-M-01-050.00 X 060.00 X 07.0/10.0
55.00	65.00	7.00	10.00	DS033-M-01-055.00 X 065.00 X 07.0/10.0
55.00	70.00	7.00	10.00	DS033-M-01-055.00 X 070.00 X 07.0/10.0
56.00	66.00	7.00	10.00	DS033-M-01-056.00 X 066.00 X 07.0/10.0
60.00	70.00	7.00	10.00	DS033-M-01-060.00 X 070.00 X 07.0/10.0
60.00	72.00	5.00	8.00	DS033-M-01-060.00 X 072.00 X 05.0/08.0
60.00	74.00	5.00	8.00	DS033-M-01-060.00 X 074.00 X 05.0/08.0
63.00	73.00	7.00	10.00	DS033-M-01-063.00 X 073.00 X 07.0/10.0
63.00	75.00	7.00	10.00	DS033-M-01-063.00 X 075.00 X 07.0/10.0



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H1 (+0.20)	H2	ORDER CODE
70.00	80.00	7.00	10.00	DS033-M-01-070.00 X 080.00 X 07.0/10.0
72.00	84.00	5.00	8.00	DS033-M-01-072.00 X 084.00 X 05.0/08.0
75.00	83.00	7.00	10.00	DS033-M-01-075.00 X 083.00 X 07.0/10.0
75.00	85.00	7.00	10.00	DS033-M-01-075.00 X 085.00 X 07.0/10.0
80.00	90.00	7.00	10.00	DS033-M-01-080.00 X 090.00 X 07.0/10.0
85.00	95.00	7.00	10.00	DS033-M-01-085.00 X 095.00 X 07.0/10.0
90.00	100.00	7.00	10.00	DS033-M-01-090.00 X 100.00 X 07.0/10.0
90.00	102.00	7.00	10.00	DS033-M-01-090.00 X 102.00 X 07.0/10.0
93.00	105.00	5.00	8.00	DS033-M-01-093.00 X 105.00 X 05.0/08.0
95.00	105.00	7.00	10.00	DS033-M-01-095.00 X 105.00 X 07.0/10.0
100.00	110.00	7.00	10.00	DS033-M-01-100.00 X 110.00 X 07.0/10.0
105.00	115.00	7.00	10.00	DS033-M-01-105.00 X 115.00 X 07.0/10.0
105.00	117.00	5.00	8.00	DS033-M-01-105.00 X 117.00 X 05.0/08.0
105.00	121.00	8.00	11.00	DS033-M-01-105.00 X 121.00 X 08.0/11.0
110.00	120.00	7.00	10.00	DS033-M-01-110.00 X 120.00 X 07.0/10.0
120.00	130.00	7.00	10.00	DS033-M-01-120.00 X 130.00 X 07.0/10.0
125.00	140.00	9.00	12.00	DS033-M-01-125.00 X 140.00 X 09.0/12.0
130.00	145.00	9.00	12.00	DS033-M-01-130.00 X 145.00 X 09.0/12.0
140.00	155.00	9.00	12.00	DS033-M-01-140.00 X 155.00 X 09.0/12.0
150.00	165.00	9.00	12.00	DS033-M-01-150.00 X 165.00 X 09.0/12.0
160.00	175.00	9.00	12.00	DS033-M-01-160.00 X 175.00 X 09.0/12.0
170.00	185.00	10.00	14.00	DS033-M-01-170.00 X 185.00 X 10.0/14.0
180.00	195.00	10.00	14.00	DS033-M-01-180.00 X 195.00 X 10.0/14.0
190.00	202.00	9.00	12.00	DS033-M-01-190.00 X 202.00 X 09.0/12.0
200.00	220.00	12.00	16.00	DS033-M-01-200.00 X 220.00 X 12.0/16.0
200.00	225.00	12.00	18.00	DS033-M-01-200.00 X 225.00 X 12.0/18.0
240.00	260.00	12.00	16.00	DS033-M-01-240.00 X 260.00 X 12.0/16.0

DUST SEAL	DS044	

Features:.

Wiper seal DS044 is a double acting rod wiper with metal casing for open housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	METAL CASING	TEMP. RANGE	SURFACE SPEED (Max.)
DS044-01	PU18	MILD STEEL	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy press fit installation in open housing with locking circlip
- Very good wiping action
- Wiper can be used for a broad temperature range with different materials
- Sealing lips directed inwards gives both side wiping effect.

Application:

- presses, fork lift & material handling equipments
- injection moulding machines
- Standard cylinders
- mining & construction machineries

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:

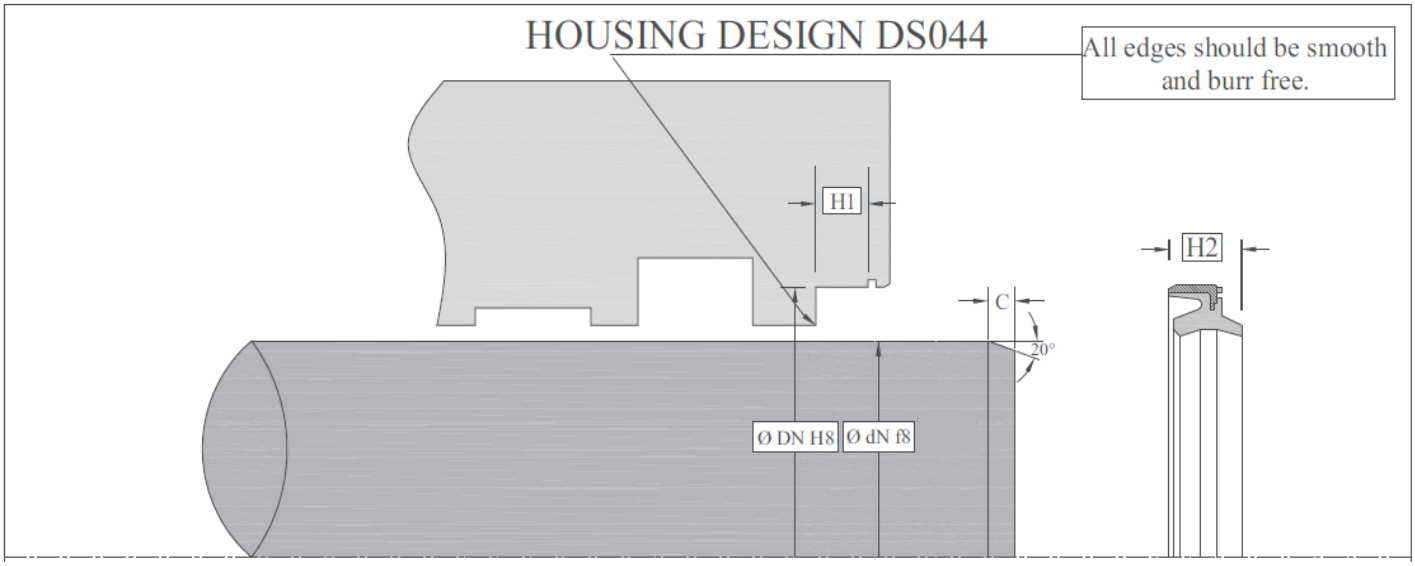
Wiper seal DS044 are pressed in to open housings with locking circlip. Careful fitting is prerequisite for perfect functioning of the wiper seal.

Ordering format:

Please mention PEC order code in vour order.
Example: Size 25.00 X 37.00 X 6.00/9.00

For Temp range: -20°C to +100°C Material-P.U. Order code is **DS044-M-01-025.00 X 037.00 X 06.0/09.0**

We have given all metric (mm) sizes here. For Imperial (inch) size please contact PEC.



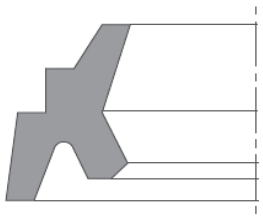
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H8)	H1 (+0.20)	H2	ORDER CODE
19.00	26.00	5.00	7.00	DS044-M-01-019.00 X 026.00 X 05.0/07.0
20.00	30.00	7.00	10.00	DS044-M-01-020.00 X 030.00 X 07.0/10.0
20.00	32.00	6.00	9.00	DS044-M-01-020.00 X 032.00 X 06.0/09.0
22.00	34.00	6.00	9.00	DS044-M-01-022.00 X 034.00 X 06.0/09.0
25.00	37.00	6.00	9.00	DS044-M-01-025.00 X 037.00 X 06.0/09.0
25.35	32.00	4.00	6.00	DS044-M-01-025.35 X 032.00 X 04.0/06.0
25.40	34.85	4.70	8.00	DS044-M-01-025.40 X 034.85 X 04.7/08.0
28.00	40.00	6.00	9.00	DS044-M-01-028.00 X 040.00 X 06.0/09.0
30.00	42.00	6.00	9.00	DS044-M-01-030.00 X 042.00 X 06.0/09.0
32.00	44.00	7.00	10.00	DS044-M-01-032.00 X 044.00 X 07.0/10.0
35.00	47.00	7.00	10.00	DS044-M-01-035.00 X 047.00 X 07.0/10.0
36.00	48.00	7.00	10.00	DS044-M-01-036.00 X 048.00 X 07.0/10.0
38.00	50.00	7.00	10.00	DS044-M-01-038.00 X 050.00 X 07.0/10.0
40.00	52.00	7.00	10.00	DS044-M-01-040.00 X 052.00 X 07.0/10.0
45.00	57.00	7.00	10.00	DS044-M-01-045.00 X 057.00 X 07.0/10.0
50.00	62.00	7.00	10.00	DS044-M-01-050.00 X 062.00 X 07.0/10.0
50.00	63.50	8.00	11.00	DS044-M-01-050.00 X 063.50 X 08.0/11.0
50.00	64.00	8.00	11.00	DS044-M-01-050.00 X 064.00 X 08.0/11.0
50.00	72.00	8.00	11.00	DS044-M-01-050.00 X 072.00 X 08.0/11.0
55.00	69.00	8.00	11.00	DS044-M-01-055.00 X 069.00 X 08.0/11.0
56.00	70.00	8.00	11.00	DS044-M-01-056.00 X 070.00 X 08.0/11.0
60.00	73.00	6.00	9.00	DS044-M-01-060.00 X 073.00 X 06.0/09.0
60.00	74.00	8.00	11.00	DS044-M-01-060.00 X 074.00 X 08.0/11.0
63.00	77.00	8.00	11.00	DS044-M-01-063.00 X 077.00 X 08.0/11.0
65.00	79.00	8.00	11.00	DS044-M-01-065.00 X 079.00 X 08.0/11.0
70.00	84.00	8.00	11.00	DS044-M-01-070.00 X 084.00 X 08.0/11.0
75.00	89.00	8.00	11.00	DS044-M-01-075.00 X 089.00 X 08.0/11.0
80.00	94.00	8.00	11.00	DS044-M-01-080.00 X 094.00 X 08.0/11.0
85.00	99.00	8.00	11.00	DS044-M-01-085.00 X 099.00 X 08.0/11.0
90.00	100.00	7.00	9.50	DS044-M-01-090.00 X 100.00 X 07.0/09.5
90.00	104.00	8.00	11.00	DS044-M-01-090.00 X 104.00 X 08.0/11.0
95.00	109.00	8.00	11.00	DS044-M-01-095.00 X 109.00 X 08.0/11.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H8)	H1 (+0.20)	H2	ORDER CODE
100.00	114.00	8.00	11.00	DS044-M-01-100.00 X 114.00 X 08.0/11.0
105.00	121.00	9.00	12.00	DS044-M-01-105.00 X 121.00 X 09.0/12.0
110.00	126.00	9.00	12.00	DS044-M-01-110.00 X 126.00 X 09.0/12.0
115.00	131.00	9.00	12.00	DS044-M-01-115.00 X 131.00 X 09.0/12.0
120.00	136.00	9.00	12.00	DS044-M-01-120.00 X 136.00 X 09.0/12.0
125.00	141.00	9.00	12.00	DS044-M-01-125.00 X 141.00 X 09.0/12.0
130.00	146.00	9.00	12.00	DS044-M-01-130.00 X 146.00 X 09.0/12.0
135.00	155.00	10.00	14.00	DS044-M-01-135.00 X 155.00 X 10.0/14.0
140.00	160.00	10.00	14.00	DS044-M-01-140.00 X 160.00 X 10.0/14.0
150.00	170.00	10.00	14.00	DS044-M-01-150.00 X 170.00 X 10.0/14.0
160.00	180.00	10.00	14.00	DS044-M-01-160.00 X 180.00 X 10.0/14.0
165.00	185.00	10.00	14.00	DS044-M-01-165.00 X 185.00 X 10.0/14.0
170.00	190.00	10.00	14.00	DS044-M-01-170.00 X 190.00 X 10.0/14.0
180.00	200.00	10.00	14.00	DS044-M-01-180.00 X 200.00 X 10.0/14.0
180.00	205.00	12.00	17.00	DS044-M-01-180.00 X 205.00 X 12.0/17.0
190.00	215.00	12.00	17.00	DS044-M-01-190.00 X 215.00 X 12.0/17.0
200.00	216.00	9.00	12.00	DS044-M-01-200.00 X 216.00 X 09.0/12.0
200.00	225.00	12.00	17.00	DS044-M-01-200.00 X 225.00 X 12.0/17.0
260.00	285.00	12.00	17.00	DS044-M-01-260.00 X 285.00 X 12.0/17.0

DUST SEAL — DS055



Features:
Wiper seal DS055 is a double acting rod wiper for integral housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS055-01	PU35	-20 to 100°C	0.5 m/s
DS055-02	VT04	-20 to 200°C	0.5 m/s
DS055-03	NB01	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:
- Easy snap in installation
- Very good wiping action
- Wiper can be used for a broad temperature range

Application:
- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

The double lip wiper DS055 is preferably fitted in combination with rod seal RS018. We recommend in any case a pressure release hole be provided in front of the double lip wiper in order to avoid pressure build-up between seal and wiper.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

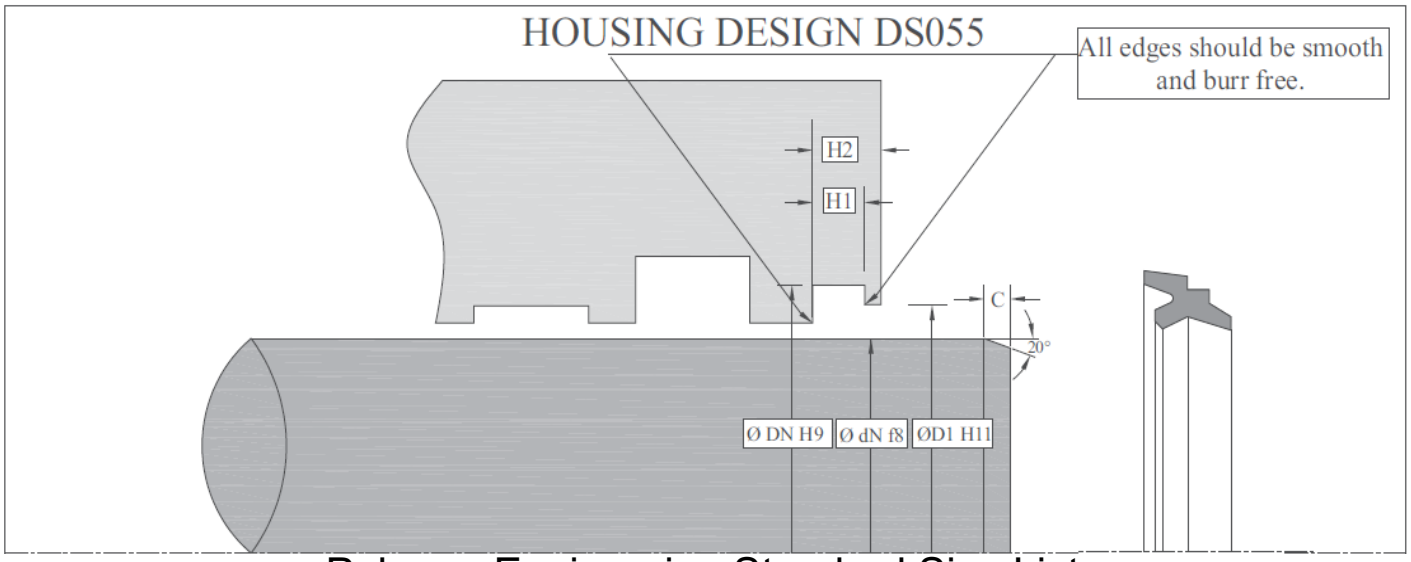
Fitting:
Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

Ordering format:
Please mention PEC order code in your order

Example: Size 12.00 x 20.00 x 6.00/8.00

For Temp range: -20°C to +100°C	Material P.U.:	Order code is DS055-M-01-012.00 X 020.00 X 06.0/08.0
For Temp range: -20°C to +200°C	Material FPM:	Order code is DS055-M-01-012.00 X 020.00 X 06.0/08.0
For Temp range: -20°C to +100°C	Material NBR:	Order code is DS055-M-01-012.00 X 020.00 X 06.0/08.0

We have given all metric (mm) sizes here. For Imperial (inch) sizes please contact PEC.



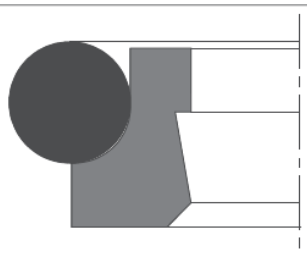
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1 (+0.20)	H2	ORDER CODE
10.00	18.00	13.50	6.00	8.00	DS055-M-01-010.00 X 018.00 X 06.0/08.0
12.00	20.00	15.50	6.00	8.00	DS055-M-01-012.00 X 020.00 X 06.0/08.0
14.00	22.00	17.50	6.00	8.00	DS055-M-01-014.00 X 022.00 X 06.0/08.0
15.00	23.00	18.50	6.00	8.00	DS055-M-01-015.00 X 023.00 X 06.0/08.0
16.00	24.00	19.50	6.00	8.00	DS055-M-01-016.00 X 024.00 X 06.0/08.0
18.00	26.00	21.50	6.00	8.00	DS055-M-01-018.00 X 026.00 X 06.0/08.0
20.00	28.00	23.50	6.00	8.00	DS055-M-01-020.00 X 028.00 X 06.0/08.0
22.00	30.00	25.50	6.00	8.00	DS055-M-01-022.00 X 030.00 X 06.0/08.0
25.00	33.00	28.50	6.00	8.00	DS055-M-01-025.00 X 033.00 X 06.0/08.0
28.00	36.00	31.50	6.00	8.00	DS055-M-01-028.00 X 036.00 X 06.0/08.0
30.00	38.00	33.50	6.00	8.00	DS055-M-01-030.00 X 038.00 X 06.0/08.0
32.00	40.00	35.50	6.00	8.00	DS055-M-01-032.00 X 040.00 X 06.0/08.0
35.00	43.00	38.50	6.00	8.00	DS055-M-01-035.00 X 043.00 X 06.0/08.0
36.00	44.00	39.50	6.00	8.00	DS055-M-01-036.00 X 044.00 X 06.0/08.0
38.00	46.00	41.50	6.00	8.00	DS055-M-01-038.00 X 046.00 X 06.0/08.0
40.00	48.00	43.50	6.00	8.00	DS055-M-01-040.00 X 048.00 X 06.0/08.0
42.00	50.00	45.50	6.00	8.00	DS055-M-01-042.00 X 050.00 X 06.0/08.0
45.00	53.00	48.50	6.00	8.00	DS055-M-01-045.00 X 053.00 X 06.0/08.0
50.00	58.00	53.50	6.00	8.00	DS055-M-01-050.00 X 058.00 X 06.0/08.0
55.00	63.00	58.50	6.00	8.00	DS055-M-01-055.00 X 063.00 X 06.0/08.0
56.00	64.00	59.50	6.00	8.00	DS055-M-01-056.00 X 064.00 X 06.0/08.0
57.00	65.00	60.50	6.00	8.00	DS055-M-01-057.00 X 065.00 X 06.0/08.0
60.00	68.00	63.50	6.00	8.00	DS055-M-01-060.00 X 068.00 X 06.0/08.0
63.00	71.00	66.50	6.00	8.00	DS055-M-01-063.00 X 071.00 X 06.0/08.0
65.00	73.00	68.50	6.00	8.00	DS055-M-01-065.00 X 073.00 X 06.0/08.0
68.00	76.00	71.50	6.00	8.00	DS055-M-01-068.00 X 076.00 X 06.0/08.0
70.00	78.00	73.50	6.00	8.00	DS055-M-01-070.00 X 078.00 X 06.0/08.0
75.00	83.00	78.50	6.00	8.00	DS055-M-01-075.00 X 083.00 X 06.0/08.0
80.00	88.00	83.50	6.00	8.00	DS055-M-01-080.00 X 088.00 X 06.0/08.0
85.00	93.00	88.50	6.00	8.00	DS055-M-01-085.00 X 093.00 X 06.0/08.0
90.00	98.00	93.50	6.00	8.00	DS055-M-01-090.00 X 098.00 X 06.0/08.0
95.00	103.00	98.50	6.00	8.00	DS055-M-01-095.00 X 103.00 X 06.0/08.0

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1 (+0.20)	H2	ORDER CODE
100.00	108.00	103.50	6.00	8.00	DS055-M-01-100.00 X 108.00 X 06.0/08.0
105.00	117.00	110.00	8.20	11.10	DS055-M-01-105.00 X 117.00 X 08.2/11.1
110.00	122.00	115.00	8.20	11.10	DS055-M-01-110.00 X 122.00 X 08.2/11.1
115.00	127.00	120.00	8.20	11.10	DS055-M-01-115.00 X 127.00 X 08.2/11.1
120.00	132.00	125.00	8.20	11.10	DS055-M-01-120.00 X 132.00 X 08.2/11.1
125.00	137.00	130.00	8.20	11.10	DS055-M-01-125.00 X 137.00 X 08.2/11.1
130.00	142.00	135.00	8.20	11.10	DS055-M-01-130.00 X 142.00 X 08.2/11.1
135.00	147.00	140.00	8.20	11.10	DS055-M-01-135.00 X 147.00 X 08.2/11.1
140.00	152.00	145.00	8.20	11.10	DS055-M-01-140.00 X 152.00 X 08.2/11.1
145.00	157.00	150.00	8.20	11.10	DS055-M-01-145.00 X 157.00 X 08.2/11.1
150.00	162.00	155.00	8.20	11.10	DS055-M-01-150.00 X 162.00 X 08.2/11.1
160.00	172.00	165.00	8.20	11.10	DS055-M-01-160.00 X 172.00 X 08.2/11.1
170.00	182.00	175.00	8.20	11.10	DS055-M-01-170.00 X 182.00 X 08.2/11.1
180.00	192.00	185.00	8.20	11.10	DS055-M-01-180.00 X 192.00 X 08.2/11.1
190.00	202.00	195.00	8.20	11.10	DS055-M-01-190.00 X 202.00 X 08.2/11.1
200.00	212.00	205.00	8.20	11.10	DS055-M-01-200.00 X 212.00 X 08.2/11.1
210.00	225.00	217.00	9.50	12.50	DS055-M-**03**-210.00 X 225.00 X 09.5/12.5
220.00	235.00	227.00	9.50	12.50	DS055-M-03-220.00 X 235.00 X 09.5/12.5
225.00	240.00	233.00	9.50	12.50	DS055-M-03-225.00 X 240.00 X 09.5/12.5
230.00	245.00	237.00	9.50	12.50	DS055-M-03-230.00 X 245.00 X 09.5/12.5
240.00	255.00	247.00	9.50	12.50	DS055-M-03-240.00 X 255.00 X 09.5/12.5
250.00	265.00	257.00	9.50	12.50	DS055-M-03-250.00 X 265.00 X 09.5/12.5
255.00	270.00	262.00	9.50	12.50	DS055-M-03-255.00 X 270.00 X 09.5/12.5
260.00	275.00	267.00	9.50	12.50	DS055-M-03-260.00 X 275.00 X 09.5/12.5
265.00	280.00	272.00	9.50	12.50	DS055-M-03-265.00 X 280.00 X 09.5/12.5
270.00	285.00	277.00	9.50	12.50	DS055-M-03-270.00 X 285.00 X 09.5/12.5
280.00	295.00	287.00	9.50	12.50	DS055-M-03-280.00 X 295.00 X 09.5/12.5
300.00	315.00	307.00	9.50	12.50	DS055-M-03-300.00 X 315.00 X 09.5/12.5
320.00	335.00	327.00	9.50	12.50	DS055-M-03-320.00 X 335.00 X 09.5/12.5
350.00	365.00	357.00	9.50	12.50	DS055-M-03-350.00 X 365.00 X 09.5/12.5
360.00	375.00	367.00	9.50	12.50	DS055-M-03-360.00 X 375.00 X 09.5/12.5
380.00	395.00	387.00	9.50	12.50	DS055-M-03-380.00 X 395.00 X 09.5/12.5
400.00	415.00	407.00	9.50	12.50	DS055-M-03-400.00 X 415.00 X 09.5/12.5
410.00	425.00	417.00	9.50	12.50	DS055-M-03-410.00 X 425.00 X 09.5/12.5
450.00	465.00	457.00	9.50	12.50	DS055-M-03-450.00 X 465.00 X 09.5/12.5
520.00	535.00	527.00	9.50	12.50	DS055-M-03-520.00 X 535.00 X 09.5/12.5

DUST SEAL — DS066



Features:

Wiper seal profile DS066 consists of two piece seal set for wiping rod with one PTFE ring and one Energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	O-RING	TEMP. RANGE	SURFACE SPEED (Max.)
DS066-01	PT02	NB02	-20 to 100°C	4.0 m/s
DS066-02	PT02	VT01	-20 to 200°C	4.0 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- For short stroke and high frequency
-

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Material Handling Equipments.
- Standard cylinders

Minimum chamfer C:

DN - dN	Up to 12	12.1 to15	15.1 to 20	20.1 to 25	25.1 to 30	30.1 and above
C	4.0	5.0	6.0	7.5	8.0	10.0

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:

Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

Ordering format:

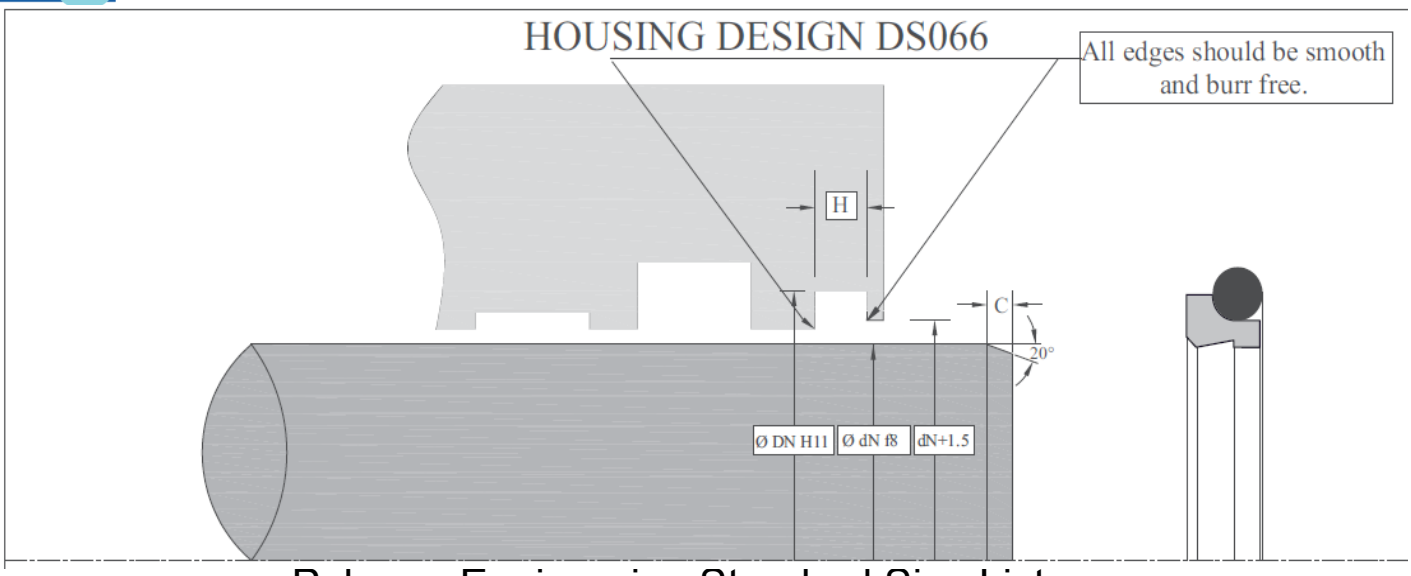
Please mention PEC order code in your order.

Example: Size 12.00 X 18.80 X 5.00

For Temp range: -20°C to +100°C. (O ring material is NB02) Order code is **DS066-M-01-012.00 X 018.80 X 05.00**

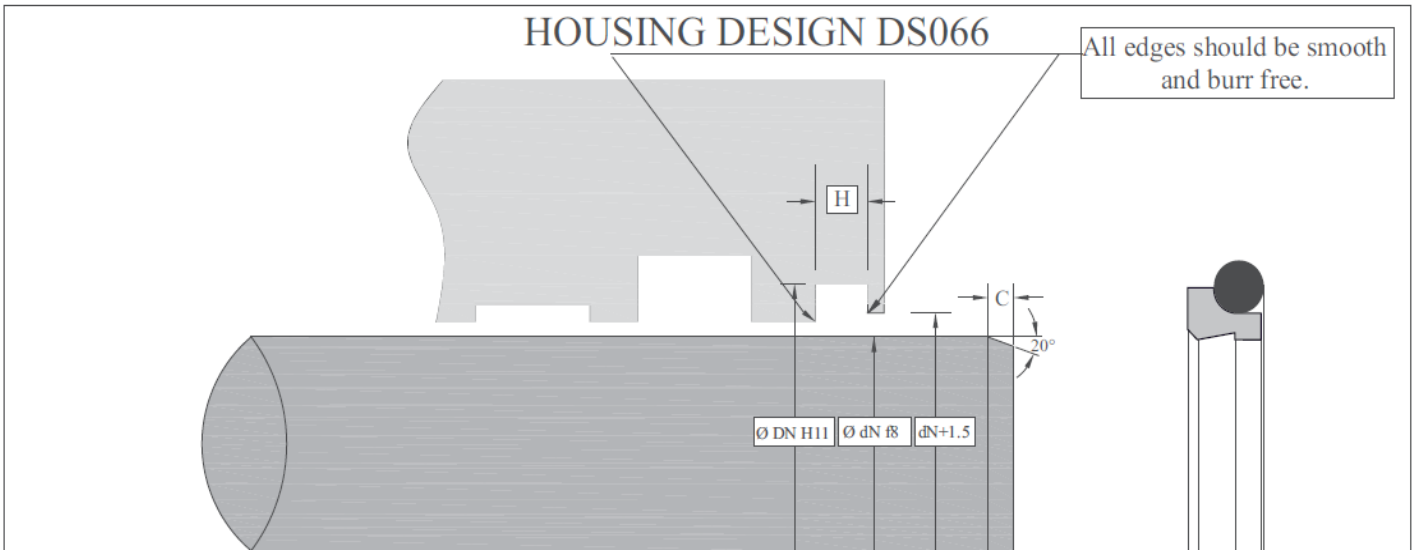
For Temp range: -20°C to +200°C. (O ring material is VT01) Order code is **DS066-M-02-012.00 X 018.80 X 05.00**

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.20)	O ring size	ORDER CODE
12.00	18.80	5.00	13.94 X 2.62	DS066-M-01-012.00 X 018.80 X 05.00
14.00	20.80	5.00	15.54 X 2.62	DS066-M-01-014.00 X 020.80 X 05.00
15.00	21.80	5.00	17.12 X 2.62	DS066-M-01-015.00 X 021.80 X 05.00
16.00	22.80	5.00	17.12 X 2.62	DS066-M-01-016.00 X 022.80 X 05.00
18.00	24.80	5.00	20.29 X 2.62	DS066-M-01-018.00 X 024.80 X 05.00
20.00	26.80	5.00	21.89 X 2.62	DS066-M-01-020.00 X 026.80 X 05.00
22.00	28.80	5.00	23.47 X 2.62	DS066-M-01-022.00 X 028.80 X 05.00
25.00	31.80	5.00	26.64 X 2.62	DS066-M-01-025.00 X 031.80 X 05.00
28.00	34.80	5.00	29.82 X 2.62	DS066-M-01-028.00 X 034.80 X 05.00
30.00	36.80	5.00	31.42 X 2.62	DS066-M-01-030.00 X 036.80 X 05.00
32.00	38.80	5.00	34.59 X 2.62	DS066-M-01-032.00 X 038.80 X 05.00
35.00	41.80	5.00	36.17 X 2.62	DS066-M-01-035.00 X 041.80 X 05.00
36.00	42.80	5.00	37.77 X 2.62	DS066-M-01-036.00 X 042.80 X 05.00
38.00	44.80	5.00	39.34 X 2.62	DS066-M-01-038.00 X 044.80 X 05.00
40.00	46.80	5.00	42.42 X 2.62	DS066-M-01-040.00 X 046.80 X 05.00
45.00	51.80	5.00	47.29 X 2.62	DS066-M-01-045.00 X 051.80 X 05.00
50.00	56.80	5.00	52.07 X 2.62	DS066-M-01-050.00 X 056.80 X 05.00
50.00	58.80	6.30	53.64 X 2.62	DS066-M-01-050.00 X 058.80 X 06.30
55.00	61.80	5.00	56.82 X 2.62	DS066-M-01-055.00 X 061.80 X 05.00
56.00	62.80	5.00	58.42 X 2.62	DS066-M-01-056.00 X 062.80 X 05.00
60.00	66.80	5.00	61.60 X 2.62	DS066-M-01-060.00 X 066.80 X 05.00
60.00	68.00	6.30	63.17 X 2.62	DS066-M-01-060.00 X 068.00 X 06.30
63.00	69.80	5.00	64.77 X 2.62	DS066-M-01-063.00 X 069.80 X 05.00
65.00	73.80	6.00	66.27 X 3.53	DS066-M-01-065.00 X 073.80 X 06.00
70.00	78.80	6.00	72.62 X 3.53	DS066-M-01-070.00 X 078.80 X 06.00
75.00	83.80	6.00	75.79 X 3.53	DS066-M-01-075.00 X 083.80 X 06.00
80.00	88.80	6.00	82.14 X 3.53	DS066-M-01-080.00 X 088.80 X 06.00
85.00	93.80	6.00	88.49 X 3.53	DS066-M-01-085.00 X 093.80 X 06.00
85.00	97.20	8.10	91.67 X 3.53	DS066-M-01-085.00 X 097.20 X 08.10
90.00	98.80	6.00	91.67 X 3.53	DS066-M-01-090.00 X 098.80 X 06.00



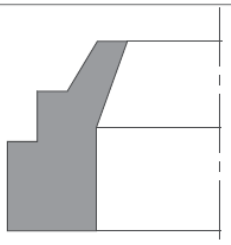
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.20)	O ring size	ORDER CODE
90.00	102.20	8.10	94.84 X3.53	DS066-M-01-090.00 X 102.20 X 08.10
95.00	103.80	6.00	98.02 X 3.53	DS066-M-01-095.00 X 103.80 X 06.00
95.00	107.20	8.10	101.19 X 3.53	DS066-M-01-095.00 X 107.20 X 08.10
100.00	108.80	6.00	101.19 X 3.53	DS066-M-01-100.00 X 108.80 X 06.00
100.00	112.20	8.10	104.37 X 3.53	DS066-M-01-100.00 X 112.20 X 08.10
105.00	113.80	6.00	107.54 X 3.53	DS066-M-01-105.00 X 113.80 X 06.00
110.00	118.80	6.00	110.72 X 3.53	DS066-M-01-110.00 X 118.80 X 06.00
110.00	122.20	8.10	117.07 X 3.53	DS066-M-01-110.00 X 122.20 X 08.10
115.00	123.80	6.00	117.07 X 3.53	DS066-M-01-115.00 X 123.80 X 06.00
120.00	128.80	6.00	120.24 X 3.53	DS066-M-01-120.00 X 128.80 X 06.00
125.00	133.80	6.00	126.59 X 3.53	DS066-M-01-125.00 X 133.80 X 06.00
130.00	138.80	6.00	132.94 X 3.53	DS066-M-01-130.00 X 138.80 X 06.00
135.00	143.80	6.00	136.12 X 3.53	DS066-M-01-135.00 X 143.80 X 06.00
140.00	148.80	6.00	142.47 X 3.53	DS066-M-01-140.00 X 148.80 X 06.00
150.00	158.80	6.00	151.99 X 3.53	DS066-M-01-150.00 X 158.80 X 06.00
160.00	168.80	6.00	158.34 X 3.53	DS066-M-01-160.00 X 168.80 X 06.00
170.00	178.80	6.00	171.04 X 3.53	DS066-M-01-170.00 X 178.80 X 06.00
180.00	188.80	6.00	183.74 X 3.53	DS066-M-01-180.00 X 188.80 X 06.00
190.00	198.80	6.00	190.09 X 3.53	DS066-M-01-190.00 X 198.80 X 06.00
200.00	208.80	6.00	202.79 X 3.53	DS066-M-01-200.00 X 208.80 X 06.00
210.00	218.80	6.00	209.14 X 3.53	DS066-M-01-210.00 X 218.80 X 06.00
220.00	228.80	6.00	221.84 X 3.53	DS066-M-01-220.00 X 228.80 X 06.00
225.00	233.80	6.00	228.19 X 3.53	DS066-M-01-225.00 X 233.80 X 06.00
230.00	238.80	6.00	228.19 X 3.53	DS066-M-01-230.00 X 238.80 X 06.00
240.00	248.80	6.00	240.89 X 3.53	DS066-M-01-240.00 X 248.80 X 06.00
250.00	258.80	6.00	253.59 X 3.53	DS066-M-01-250.00 X 258.80 X 06.00
260.00	272.20	8.40	266.07 X 5.33	DS066-M-01-260.00 X 272.20 X 08.40
270.00	282.20	8.40	278.77 X 5.33	DS066-M-01-270.00 X 282.20 X 08.40
280.00	292.20	8.40	278.77 X 5.33	DS066-M-01-280.00 X 292.20 X 08.40
300.00	312.20	8.40	304.17 X 5.33	DS066-M-01-300.00 X 312.20 X 08.40

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.20)	O ring size	ORDER CODE
320.00	332.20	8.40	329.57 X 5.33	DS066-M-01-320.00 X 332.20 X 08.40
350.00	362.20	8.40	354.97 X 5.33	DS066-M-01-350.00 X 362.20 X 08.40
360.00	372.20	8.40	354.97 X 5.33	DS066-M-01-360.00 X 372.20 X 08.40
400.00	412.20	8.40	405.26 X 5.33	DS066-M-01-400.00 X 412.20 X 08.40

DUST SEAL — DS077



Features:

Wiper seal DS077 is a single acting rod wiper for integral housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS077-01	PU19	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy snap in installation
- Very good wiping action
- Wiper can be used for a broad temperature range
- No pressure build-up between seal and wiper

Application:

- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Minimum chamfer C:

DN - dN	Up to 12	12.1 to15	15.1 to 20	20.1 to 25	25.1 to 30	30.1 and above
C	4.0	5.0	6.0	7.5	8.0	10.0

Fitting:

Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

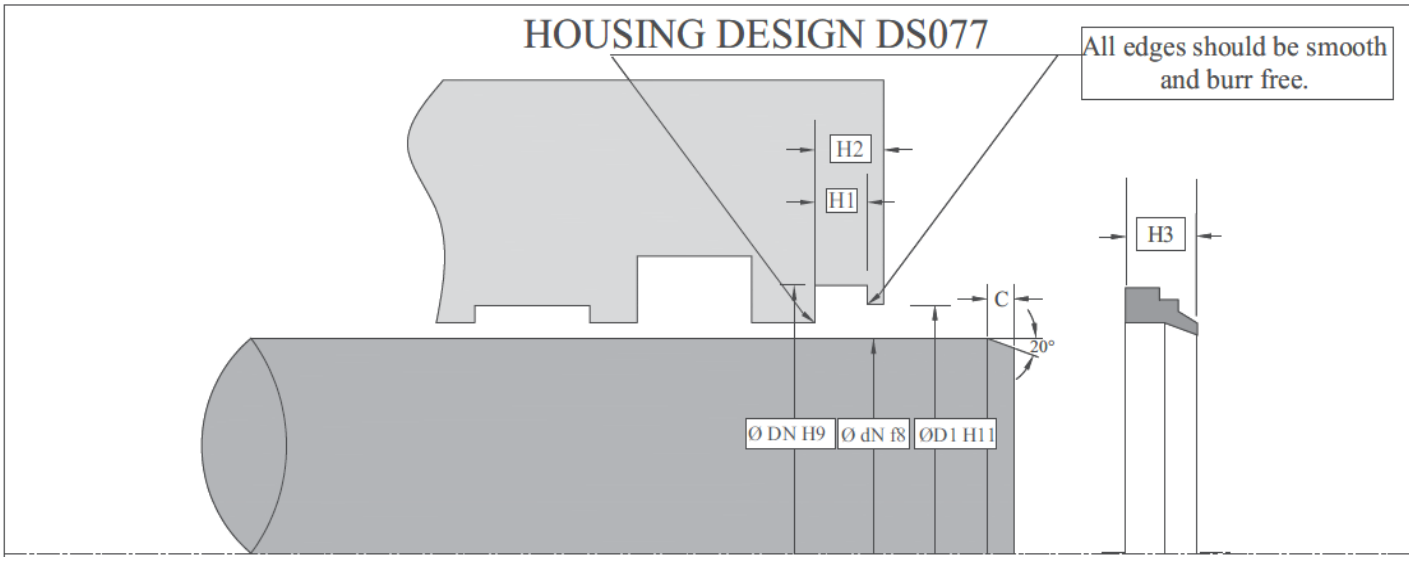
Ordering format:

Please mention PEC order code in your order.

Example: Size 10.00 X 18.00 X 4.00/7.00

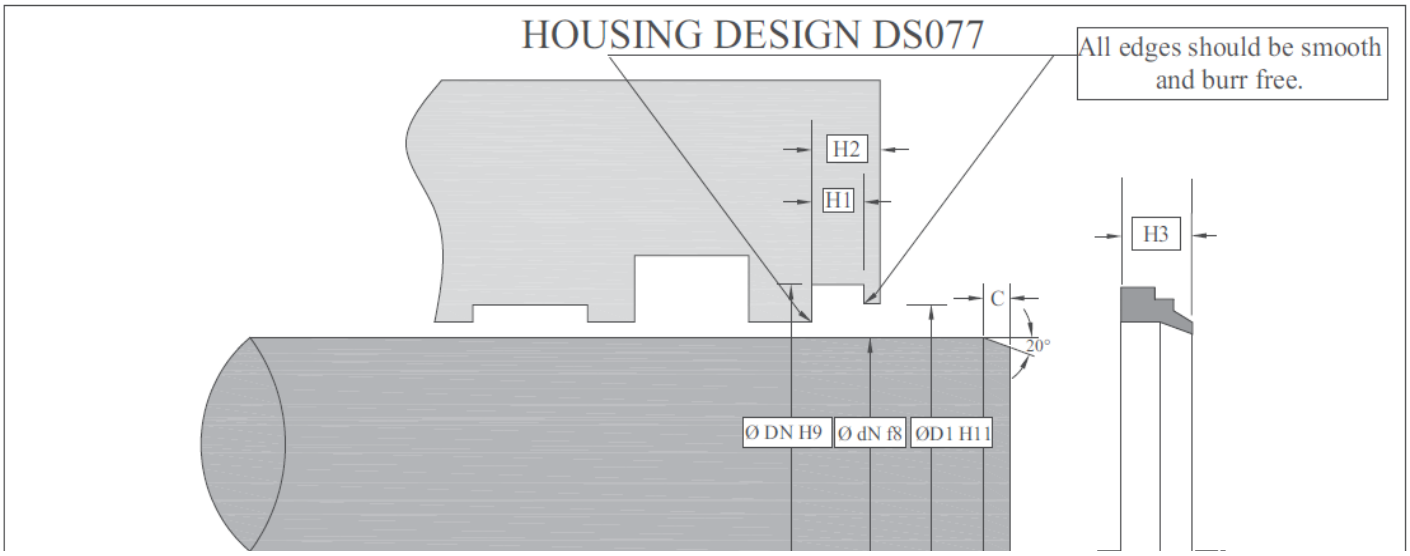
The Order code is **DS077-M-01-010.00 X 018.00 X 04.0/07.0**

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

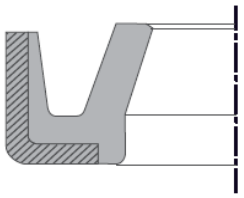
ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1 (+0.20)	H2	H3	ORDER CODE
10.00	18.00	16.00	4.00	5.00	7.00	DS077-M-01-010.00 X 018.00 X 04.0/07.0
12.00	20.00	18.00	4.00	5.00	7.00	DS077-M-01-012.00 X 020.00 X 04.0/07.0
14.00	22.00	20.00	4.00	5.00	7.00	DS077-M-01-014.00 X 022.00 X 04.0/07.0
15.00	23.00	21.00	4.00	5.00	7.00	DS077-M-01-015.00 X 023.00 X 04.0/07.0
16.00	24.00	22.00	4.00	5.00	7.00	DS077-M-01-016.00 X 024.00 X 04.0/07.0
18.00	26.00	24.00	4.00	5.00	7.00	DS077-M-01-018.00 X 026.00 X 04.0/07.0
20.00	28.00	26.00	4.00	5.00	7.00	DS077-M-01-020.00 X 028.00 X 04.0/07.0
22.00	30.00	28.00	4.00	5.00	7.00	DS077-M-01-022.00 X 030.00 X 04.0/07.0
25.00	33.00	31.00	4.00	5.00	7.00	DS077-M-01-025.00 X 033.00 X 04.0/07.0
28.00	36.00	34.00	4.00	5.00	7.00	DS077-M-01-028.00 X 036.00 X 04.0/07.0
30.00	38.00	36.00	4.00	5.00	7.00	DS077-M-01-030.00 X 038.00 X 04.0/07.0
32.00	40.00	38.00	4.00	5.00	7.00	DS077-M-01-032.00 X 040.00 X 04.0/07.0
33.00	41.00	39.00	4.00	5.00	7.00	DS077-M-01-033.00 X 041.00 X 04.0/07.0
35.00	43.00	41.00	4.00	5.00	7.00	DS077-M-01-035.00 X 043.00 X 04.0/07.0
36.00	44.00	42.00	4.00	5.00	7.00	DS077-M-01-036.00 X 044.00 X 04.0/07.0
38.00	46.00	44.00	4.00	5.00	7.00	DS077-M-01-038.00 X 046.00 X 04.0/07.0
40.00	48.00	46.00	4.00	5.00	7.00	DS077-M-01-040.00 X 048.00 X 04.0/07.0
42.00	50.00	48.00	4.00	5.00	7.00	DS077-M-01-042.00 X 050.00 X 04.0/07.0
45.00	53.00	51.00	4.00	5.00	7.00	DS077-M-01-045.00 X 053.00 X 04.0/07.0
50.00	58.00	56.00	4.00	5.00	7.00	DS077-M-01-050.00 X 058.00 X 04.0/07.0
55.00	63.00	61.00	4.00	5.00	7.00	DS077-M-01-055.00 X 063.00 X 04.0/07.0
56.00	64.00	62.00	4.00	5.00	7.00	DS077-M-01-056.00 X 064.00 X 04.0/07.0
60.00	68.00	66.00	4.00	5.00	7.00	DS077-M-01-060.00 X 068.00 X 04.0/07.0
62.00	70.00	68.00	4.00	5.00	7.00	DS077-M-01-062.00 X 070.00 X 04.0/07.0
63.00	71.00	69.00	4.00	5.00	7.00	DS077-M-01-063.00 X 071.00 X 04.0/07.0
65.00	73.00	71.00	4.00	5.00	7.00	DS077-M-01-065.00 X 073.00 X 04.0/07.0
70.00	78.00	76.00	4.00	5.00	7.00	DS077-M-01-070.00 X 078.00 X 04.0/07.0
72.00	80.00	78.00	4.00	5.00	7.00	DS077-M-01-072.00 X 080.00 X 04.0/07.0
75.00	83.00	81.00	4.00	5.00	7.00	DS077-M-01-075.00 X 083.00 X 04.0/07.0
80.00	88.00	86.00	4.00	5.00	7.00	DS077-M-01-080.00 X 088.00 X 04.0/07.0
82.00	90.00	88.00	4.00	5.00	7.00	DS077-M-01-082.00 X 090.00 X 04.0/07.0



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1 (+0.20)	H2	H3	ORDER CODE
85.00	93.00	91.00	4.00	5.00	7.00	DS077-M-01-085.00 X 093.00 X 04.0/07.0
90.00	98.00	96.00	4.00	5.00	7.00	DS077-M-01-090.00 X 098.00 X 04.0/07.0
90.00	102.20	98.00	5.50	7.00	10.00	DS077-M-01-090.00 X 102.20 X 05.5/10.0
95.00	103.00	101.00	4.00	5.00	7.00	DS077-M-01-095.00 X 103.00 X 04.0/07.0
100.00	108.00	106.00	4.00	5.00	7.00	DS077-M-01-100.00 X 108.00 X 04.0/07.0
105.00	117.00	114.00	5.50	7.00	10.00	DS077-M-01-105.00 X 117.00 X 05.5/10.0
110.00	122.00	119.00	5.50	7.00	10.00	DS077-M-01-110.00 X 122.00 X 05.5/10.0
115.00	127.00	124.00	5.50	7.00	10.00	DS077-M-01-115.00 X 127.00 X 05.5/10.0
120.00	132.00	129.00	5.50	7.00	10.00	DS077-M-01-120.00 X 132.00 X 05.5/10.0
125.00	137.00	134.00	5.50	7.00	10.00	DS077-M-01-125.00 X 137.00 X 05.5/10.0
130.00	142.00	139.00	5.50	7.00	10.00	DS077-M-01-130.00 X 142.00 X 05.5/10.0
135.00	147.00	144.00	5.50	7.00	10.00	DS077-M-01-135.00 X 147.00 X 05.5/10.0
140.00	150.00	146.00	5.50	7.00	10.00	DS077-M-01-140.00 X 150.00 X 05.5/10.0
140.00	152.00	149.00	5.50	7.00	10.00	DS077-M-01-140.00 X 152.00 X 05.5/10.0
150.00	162.00	159.00	5.50	7.00	10.00	DS077-M-01-150.00 X 162.00 X 05.5/10.0
160.00	172.00	169.00	5.50	7.00	10.00	DS077-M-01-160.00 X 172.00 X 05.5/10.0
170.00	182.00	179.00	5.50	7.00	10.00	DS077-M-01-170.00 X 182.00 X 05.5/10.0
180.00	192.00	189.00	5.50	7.00	10.00	DS077-M-01-180.00 X 192.00 X 05.5/10.0
190.00	202.00	199.00	5.50	7.00	10.00	DS077-M-01-190.00 X 202.00 X 05.5/10.0
200.00	212.00	209.00	5.50	7.00	10.00	DS077-M-01-200.00 X 212.00 X 05.5/10.0

DUST SEAL — DS088



Features:
Wiper seal DS088 is a single acting rod wiper with metal casing for open housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	METAL CASING	TEMP. RANGE	SURFACE SPEED (Max.)
DS088-01	PU11	MILD STEEL	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:
- Easy press fit installation in open housing
- Very good wiping action
- Wiper can be used for a broad temperature range with different materials

Application:
- presses, fork lift & material handling equipments
- injection moulding machines
- Standard cylinders
- mining & construction machineries

Minimum chamfer C (mm) :

DN - dN	Up to 12	12.1 to15	15.1 to 20	20.1 to 25	25.1 to 30	30.1 and above
C	4.0	5.0	6.0	7.5	8.0	10.0

Fitting:
Wiper seal DS088 are pressed in to open housings with locking circlip. Careful fitting is prerequisite for perfect functioning of the wiper seal.

Ordering format:
Please mention PEC order code in your order.

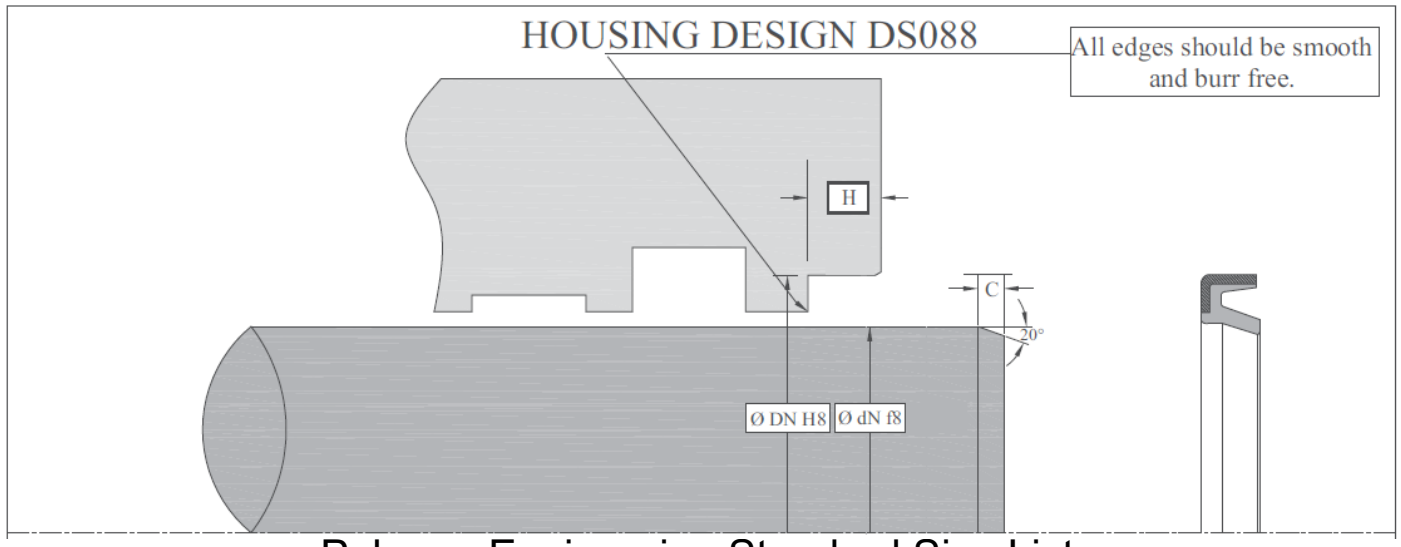
Example: for Metric Size: 25.00 X 32.00 X 7.00

For Temp range: -20°C to +100°C Material-P.U. Order code is **DS088-M-01-025.00 X 032.00 X 07.00**

Example: for Imperial Size: 0.750 X 1.250 X 0.312

For Temp range: -20°C to +100°C Material-P.U. Order code is **DS088-I-01-00.750 X 01.250 X 0.312**

Please contact PEC if your required size is not mentioned in PEC standard size list.

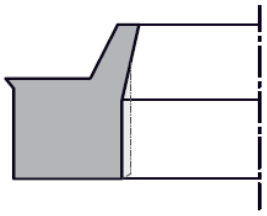


Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.20)	ORDER CODE
25.00	32.00	7.00	DS088-M-01-025.00 X 032.00 X 07.00
25.00	35.00	4.00	DS088-M-01-025.00 X 035.00 X 04.00
25.00	35.00	5.00	DS088-M-01-025.00 X 035.00 X 05.00
32.00	42.00	4.00	DS088-M-01-032.00 X 042.00 X 04.00
35.00	45.00	4.00	DS088-M-01-035.00 X 045.00 X 04.00
40.00	50.00	5.00	DS088-M-01-040.00 X 050.00 X 05.00
40.00	50.00	7.00	DS088-M-01-040.00 X 050.00 X 07.00
40.00	55.00	9.00	DS088-M-01-040.00 X 055.00 X 09.00
45.00	55.00	4.00	DS088-M-01-045.00 X 055.00 X 04.00
45.00	55.00	5.00	DS088-M-01-045.00 X 055.00 X 05.00
45.00	55.00	6.00	DS088-M-01-045.00 X 055.00 X 06.00
45.00	56.00	5.00	DS088-M-01-045.00 X 056.00 X 05.00
45.00	60.00	7.50	DS088-M-01-045.00 X 060.00 X 07.50
50.00	60.00	4.00	DS088-M-01-050.00 X 060.00 X 04.00
50.00	60.00	5.00	DS088-M-01-050.00 X 060.00 X 05.00
50.00	60.00	7.00	DS088-M-01-050.00 X 060.00 X 07.00
55.00	65.00	4.00	DS088-M-01-055.00 X 065.00 X 04.00
55.00	65.00	5.00	DS088-M-01-055.00 X 065.00 X 05.00
56.00	68.00	7.00	DS088-M-01-056.00 X 068.00 X 07.00
60.00	70.00	4.00	DS088-M-01-060.00 X 070.00 X 04.00
60.00	70.00	5.00	DS088-M-01-060.00 X 070.00 X 05.00
60.00	73.00	6.00	DS088-M-01-060.00 X 073.00 X 06.00
60.00	75.00	8.00	DS088-M-01-060.00 X 075.00 X 08.00
65.00	80.00	8.00	DS088-M-01-065.00 X 080.00 X 08.00
70.00	80.00	7.00	DS088-M-01-070.00 X 080.00 X 07.00
70.00	83.50	6.00	DS088-M-01-070.00 X 083.50 X 06.00
70.00	85.00	8.00	DS088-M-01-070.00 X 085.00 X 08.00
70.00	90.00	10.00	DS088-M-01-070.00 X 090.00 X 10.00
75.00	90.00	8.00	DS088-M-01-075.00 X 090.00 X 08.00
80.00	90.00	4.50	DS088-M-01-080.00 X 090.00 X 04.50
80.00	90.00	7.00	DS088-M-01-080.00 X 090.00 X 07.00

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H1+0.2	ORDER CODE
85.00	100.00	8.00	DS088-M-01-085.00 X 100.00 X 08.00
90.00	100.00	3.18	DS088-M-01-090.00 X 100.00 X 03.18
95.00	110.00	8.00	DS088-M-01-095.00 X 110.00 X 08.00
100.00	120.00	7.50	DS088-M-01-100.00 X 120.00 X 07.50
110.00	125.00	8.00	DS088-M-01-110.00 X 125.00 X 08.00
110.00	126.00	9.00	DS088-M-01-110.00 X 126.00 X 09.00
115.00	130.00	8.00	DS088-M-01-115.00 X 130.00 X 08.00
115.00	131.00	9.00	DS088-M-01-115.00 X 131.00 X 09.00
115.00	135.00	6.00	DS088-M-01-115.00 X 135.00 X 06.00
120.00	135.00	8.00	DS088-M-01-120.00 X 135.00 X 08.00
125.00	140.00	7.00	DS088-M-01-125.00 X 140.00 X 07.00
130.00	146.00	9.00	DS088-M-01-130.00 X 146.00 X 09.00
130.00	150.00	7.00	DS088-M-01-130.00 X 150.00 X 07.00
140.00	155.00	8.00	DS088-M-01-140.00 X 155.00 X 08.00
145.00	160.00	8.00	DS088-M-01-145.00 X 160.00 X 08.00
170.00	190.00	9.00	DS088-M-01-170.00 X 190.00 X 09.00
205.00	225.00	10.00	DS088-M-01-205.00 X 225.00 X 10.00
IMPERIAL SIZES			
ØdN (f8)	ØDN (H11)	H1(+0.008")	ORDER CODE
0.750	1.250	0.312	DS088-I-01-00.750 X 01.250 X 0.312
0.875	1.375	0.312	DS088-I-01-00.875 X 01.375 X 0.312
1.125	1.625	0.375	DS088-I-01-01.125 X 01.625 X 0.375
1.250	1.750	0.312	DS088-I-01-01.250 X 01.750 X 0.312
1.375	1.875	0.315	DS088-I-01-01.375 X 01.875 X 0.315
1.500	1.875	0.250	DS088-I-01-01.500 X 01.875 X 0.250
1.500	2.000	0.312	DS088-I-01-01.500 X 02.000 X 0.312
1.625	2.125	0.250	DS088-I-01-01.625 X 02.125 X 0.250
1.750	2.250	0.312	DS088-I-01-01.750 X 02.250 X 0.312
1.750	2.625	0.250	DS088-I-01-01.750 X 02.625 X 0.250
1.875	2.562	0.410	DS088-I-01-01.875 X 02.562 X 0.410
2.000	2.500	0.312	DS088-I-01-02.000 X 02.500 X 0.312
2.000	2.500	0.315	DS088-I-01-02.000 X 02.500 X 0.315
2.250	2.750	0.132	DS088-I-01-02.250 X 02.750 X 0.132
2.500	3.000	0.312	DS088-I-01-02.500 X 03.000 X 0.312
2.500	3.000	0.375	DS088-I-01-02.500 X 03.000 X 0.375

DUST SEAL	DS110	

Features:

Wiper seal DS110 is a single acting rod wiper for integral housing with extermal dust protecting lip

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
DS110-01	HY06	-20 to 110°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy snap in installation
- Very good wiping action
- Wiper can be used for a broad temperature range
- No pressure build-up between seal and wiper

Application:

- Presses, fork lift & material handling equipments
- Injection molding machines
- Standard cylinders

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Minimum chamfer C for :

Metric Sizes (mm)						
DN - dN	Up to 8	8.1 to10	10.1 to 15	15.1 to 20	20.1 to 25	25.1 and above
C	4.0	4.5	6.0	7.5	8.0	10.0

Fitting:

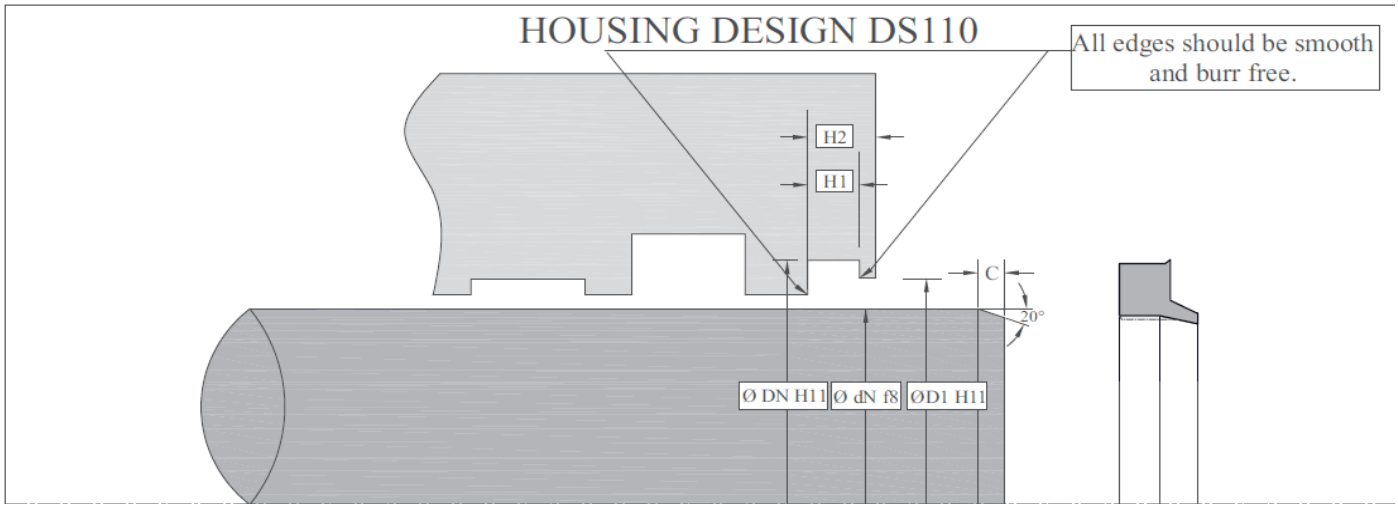
Snap in fitting through a kidney-shaped distortion. Careful fitting is prerequisite for perfect functioning of the wiper.

Ordering format:

Please mention PEC order code in your order

Example: for Metric Size 50 X 58 X 5 / 8 Order code is **DS110-M-01-050.00 X 058.00 X 05.0/08.0**

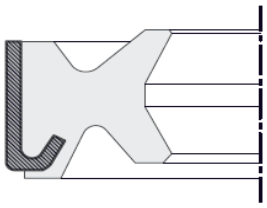
Please contact PEC of your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	ØD1 (H11)	H1 (+0.20)	H2	ORDER CODE
40.00	48.60	43.00	5.30	7.00	DS110-M-01-040.00 X 048.60 X 05.3/07.0
50.00	58.00	55.50	5.00	8.00	DS110-M-01-050.00 X 058.00 X 05.0/08.0
56.00	66.00	63.00	6.30	10.00	DS110-M-01-056.00 X 066.00 X 06.3/10.0
60.00	68.60	63.00	5.30	7.00	DS110-M-01-060.00 X 068.60 X 05.3/07.0
70.00	80.00	77.00	6.30	10.00	DS110-M-01-070.00 X 080.00 X 06.3/10.0
80.00	90.00	87.00	6.30	10.00	DS110-M-01-080.00 X 090.00 X 06.3/10.0
110.00	125.00	120.00	9.50	14.00	DS110-M-01-110.00 X 125.00 X 09.5/14.0
125.00	140.00	135.00	9.50	14.00	DS110-M-01-125.00 X 140.00 X 09.5/14.0
155.00	170.00	165.00	9.50	14.00	DS110-M-01-155.00 X 170.00 X 09.5/14.0

DUST SEAL — DS121



Features:

Wiper seal DS121 is a double acting rod wiper with metal casing for open housing.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	METAL CASING	TEMP. RANGE	SURFACE SPEED (Max.)
DS0121-01	PU16	MILD STEEL	-20 to 100°C	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Easy press fit installation in open housing with locking circlip
- Very good wiping action
- Wiper can be used for a broad temperature range with different materials
- Sealing lips directed inwards gives both side wiping effect

Application:

- presses, fork lift & material handling equipments
- injection moulding machines
- Standard cylinders
- mining & construction machineries

Minimum chamfer C:

Imperial Sizes (inch)						
DN - dN	Up to 0.314	0.315 to 0.393	0.394 to 0.590	0.591 to 0.787	0.788 to 0.984	0.985 and above
C	0.157	0.177	0.236	0.295	0.315	0.393

Fitting:

Wiper seal DS121 are pressed in to open housings with locking circlip. Careful fitting is prerequisite for perfect functioning of the wiper seal.

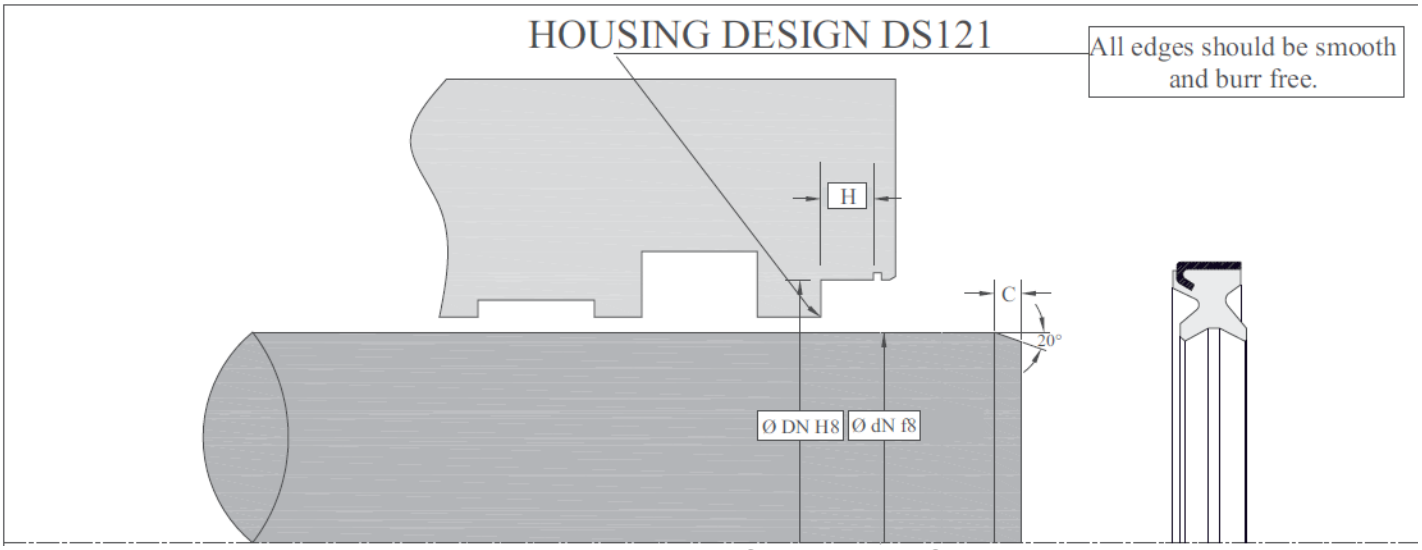
Ordering format:

Please mention PEC order code in your order.

Example: Size 1.500 X 2.250 X 0.410

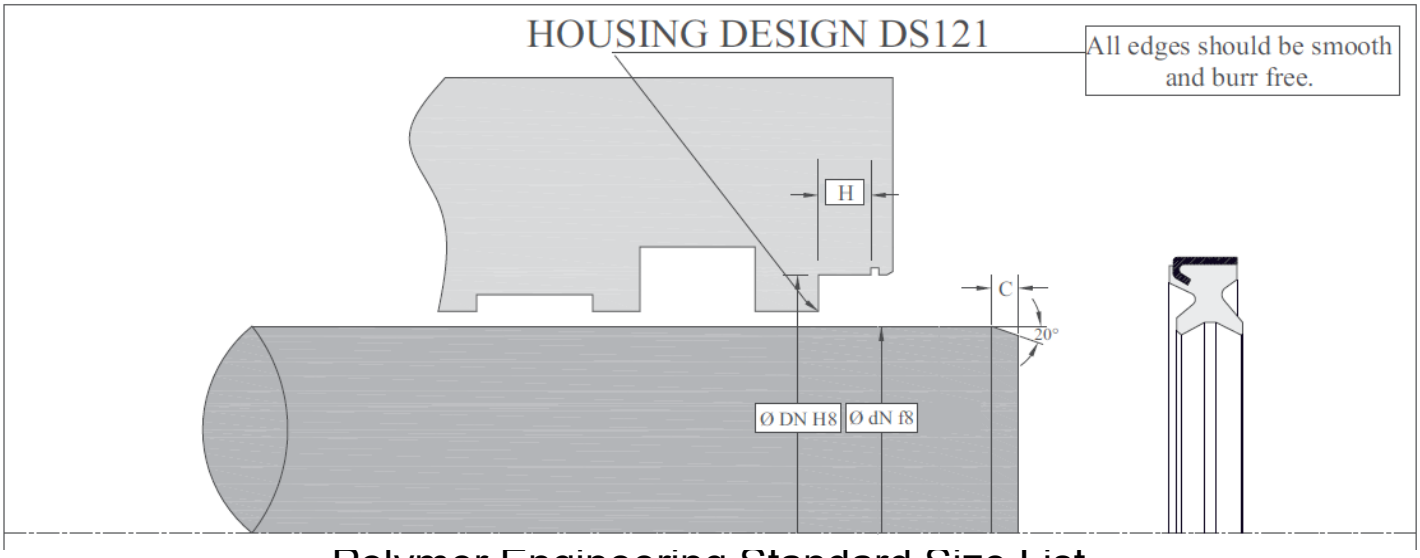
The Order code is **DS121-I-01-01.500 X 02.250 X 0.410**

Please contact PEC if your required size is not mentioned in PEC standard size list



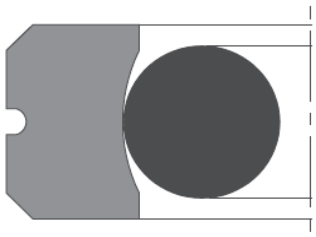
Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.008")	ORDER CODE
1.500	2.250	0.410	DS121-I-01-01.500 X 02.250 X 0.410
1.625	2.375	0.410	DS121-I-01-01.625 X 02.375 X 0.410
1.740	2.440	0.410	DS121-I-01-01.740 X 02.440 X 0.410
1.750	2.500	0.410	DS121-I-01-01.750 X 02.500 X 0.410
1.875	2.562	0.410	DS121-I-01-01.875 X 02.562 X 0.410
1.875	2.625	0.410	DS121-I-01-01.875 X 02.625 X 0.410
2.000	2.687	0.410	DS121-I-01-02.000 X 02.687 X 0.410
2.000	2.750	0.410	DS121-I-01-02.000 X 02.750 X 0.410
2.125	2.875	0.410	DS121-I-01-02.125 X 02.875 X 0.410
2.250	3.000	0.410	DS121-I-01-02.250 X 03.000 X 0.410
2.375	3.125	0.410	DS121-I-01-02.375 X 03.125 X 0.410
2.500	3.180	0.410	DS121-I-01-02.500 X 03.180 X 0.410
2.500	3.250	0.410	DS121-I-01-02.500 X 03.250 X 0.410
2.625	3.375	0.410	DS121-I-01-02.625 X 03.375 X 0.410
2.750	3.750	0.540	DS121-I-01-02.750 X 03.750 X 0.540
3.000	4.000	0.540	DS121-I-01-03.000 X 04.000 X 0.540
3.250	4.250	0.540	DS121-I-01-03.250 X 04.250 X 0.540
3.500	4.500	0.540	DS121-I-01-03.500 X 04.500 X 0.540
3.750	4.750	0.540	DS121-I-01-03.750 X 04.750 X 0.540
4.000	5.000	0.540	DS121-I-01-04.000 X 05.000 X 0.540
4.250	5.250	0.540	DS121-I-01-04.250 X 05.250 X 0.540
4.500	5.500	0.540	DS121-I-01-04.500 X 05.500 X 0.540
4.750	5.750	0.540	DS121-I-01-04.750 X 05.750 X 0.540
5.000	6.000	0.540	DS121-I-01-05.000 X 06.000 X 0.540
5.250	6.250	0.540	DS121-I-01-05.250 X 06.250 X 0.540
5.500	6.500	0.540	DS121-I-01-05.500 X 06.500 X 0.540
5.750	6.750	0.540	DS121-I-01-05.750 X 06.750 X 0.540
6.000	7.000	0.540	DS121-I-01-06.000 X 07.000 X 0.540
6.250	7.250	0.540	DS121-I-01-06.250 X 07.250 X 0.540
6.500	7.500	0.540	DS121-I-01-06.500 X 07.500 X 0.540
6.750	7.750	0.540	DS121-I-01-06.750 X 07.750 X 0.540



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.008")	ORDER CODE
7.000	8.000	0.540	DS121-I-01-07.000 X 08.000 X 0.540
7.250	8.250	0.540	DS121-I-01-07.250 X 08.250 X 0.540
7.500	8.500	0.540	DS121-I-01-07.500 X 08.500 X 0.540
7.750	8.750	0.540	DS121-I-01-07.750 X 08.750 X 0.540
8.000	9.000	0.540	DS121-I-01-08.000 X 09.000 X 0.540
8.250	9.250	0.540	DS121-I-01-08.250 X 09.250 X 0.540
8.500	9.500	0.540	DS121-I-01-08.500 X 09.500 X 0.540
8.750	9.750	0.540	DS121-I-01-08.750 X 09.750 X 0.540

ROTARY SEAL	ROP001	

Features:

Rotary piston seal profile ROP001 consists of two piece seal set for sealing bore with one seal ring and one energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
R0P001-01	PT02	NB02	-20 to 100°C	400 Bar	4 m/s
R0P001-02	PT02	VT01	-20 to 200°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Rotary joints
- Mobile Hydraulics
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using minimum OD on shaft groove and maximum tube bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
2.20	0.18	0.15	-	-
3.20	0.20	0.18	-	-
4.20	0.25	0.20	0.15	-
6.30	0.30	0.25	0.22	0.20
8.10	0.35	0.30	0.28	0.25

Installation:

ROP001 rotary piston seals can be fitted on single-piece pistons. First insert the rubber 'O' Ring into the housing carefully to avoid twisting of O Ring Chord. The PTFE ring is then carefully pushed over the shaft into place above the O Ring. An assembly tool eases installation of small, PTFE rings. The PTFE seal normally returns to its original size after installation. It is advisable to calibrate the PTFE ring by mounting it on a steel tube (duly machined and polished), having inner diameter equal to housing inner diameter. Immediately after calibration, the shaft should be installed to the housing body

Ordering format:

Please mention PEC order code in your order.

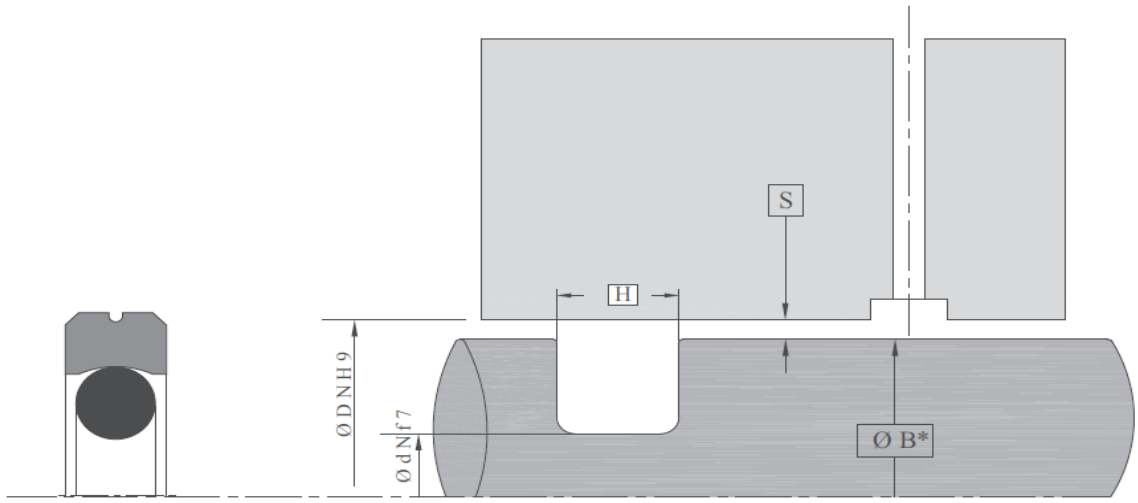
Example: Size 16.00 X 11.10 X 2.20

For Temp range: -20°C to +100°C. (O ring material is NB02) Order code is **ROP001-M-01-016.00 X 011.10 X 02.20**

For Temp range: -20°C to +100°C. (O ring material is VT01) Order code is **ROP001-M-02-016.00 X 011.10 X 02.20**

Please contact PEC if your required size is not mentioned in PEC standard size list

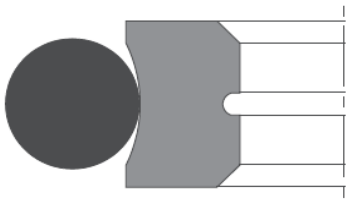
HOUSING DESIGN ROP001



* FOR Ø B Refer to Maximum permissible gap (S) table considering the eccentricity of operating condition

Polymer Engineering Standard Size List

ØDN (H9)	ØdN (f7)	H1 (+0.20)	O ring size	ORDER CODE
16.00	11.10	2.20	10.82 X 1.78	ROP001-M-01-016.00 X 011.10 X 02.20
20.00	15.10	2.20	14.00 X 1.78	ROP001-M-01-020.00 X 015.10 X 02.20
25.00	20.10	2.20	18.77 X 1.78	ROP001-M-01-025.00 X 020.10 X 02.20
32.00	24.50	3.20	23.47 X 2.62	ROP001-M-01-032.00 X 024.50 X 03.20
32.00	27.10	2.20	26.70 X 1.78	ROP001-M-01-032.00 X 027.10 X 02.20
35.00	30.10	2.20	29.87 X 1.78	ROP001-M-01-035.00 X 030.10 X 02.20
40.00	32.50	3.20	31.42 X 2.62	ROP001-M-01-040.00 X 032.50 X 03.20
45.00	34.00	4.20	32.92 X 3.53	ROP001-M-01-045.00 X 034.00 X 04.20
50.00	42.50	3.20	40.94 X 2.62	ROP001-M-01-050.00 X 042.50 X 03.20
60.00	49.00	4.20	47.22 X 3.53	ROP001-M-01-060.00 X 049.00 X 04.20
63.00	52.00	4.20	50.39 X 3.53	ROP001-M-01-063.00 X 052.00 X 04.20
63.00	55.50	3.20	55.25 X 2.62	ROP001-M-01-063.00 X 055.50 X 03.20
70.00	59.00	4.20	58.33 X 3.53	ROP001-M-01-070.00 X 059.00 X 04.20
80.00	69.00	4.20	66.27 X 3.53	ROP001-M-01-080.00 X 069.00 X 04.20
90.00	74.00	6.30	72.39 X 5.33	ROP001-M-01-090.00 X 074.00 X 06.30
90.00	79.00	4.20	78.97 X 3.53	ROP001-M-01-090.00 X 079.00 X 04.20
95.00	84.00	4.20	82.14 X 3.53	ROP001-M-01-095.00 X 084.00 X 04.20
100.00	89.00	4.20	88.49 X 3.53	ROP001-M-01-100.00 X 089.00 X 04.20
105.00	94.00	4.20	91.67 X 3.53	ROP001-M-01-105.00 X 094.00 X 04.20
115.00	104.00	4.20	101.19 X 3.53	ROP001-M-01-115.00 X 104.00 X 04.20
120.00	109.00	4.20	107.54 X 3.53	ROP001-M-01-120.00 X 109.00 X 04.20
125.00	109.50	6.30	107.32 X 5.33	ROP001-M-01-125.00 X 109.50 X 06.30
125.00	114.00	4.20	113.89 X 3.53	ROP001-M-01-125.00 X 114.00 X 04.20
130.00	119.00	4.20	117.07 X 3.53	ROP001-M-01-130.00 X 119.00 X 04.20
140.00	124.50	6.30	123.19 X 5.33	ROP001-M-01-140.00 X 124.50 X 06.30
140.00	129.00	4.20	126.59 X 3.53	ROP001-M-01-140.00 X 129.00 X 04.20
150.00	134.50	6.30	132.72 X 5.33	ROP001-M-01-150.00 X 134.50 X 06.30
160.00	144.50	6.30	142.24 X 5.33	ROP001-M-01-160.00 X 144.50 X 06.30
180.00	164.50	6.30	164.47 X 5.33	ROP001-M-01-180.00 X 164.50 X 06.30
210.00	194.50	6.30	189.87 X 5.33	ROP001-M-01-210.00 X 194.50 X 06.30

ROTARY SEAL	ROR002	

Features:

Rotary seal profile ROR002 consists of two piece seal set for sealing shaft with one seal ring and one energizer O-ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
R0R002-01	PT02	NB02	-20 to 100°C	400 Bar	4 m/s
R0R002-02	PT02	VT01	-20 to 200°C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction , free of stick slip
- High abrasion resistance.
- Wide temperature Range.
- Good thermal conductivity.
- Low wear and high extrusion resistance.
- Wide fluid application range.
- Resistance against cold flow.

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Material Handling Equipments.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum shaft dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
2.20	0.18	0.15	-	-
3.20	0.20	0.18	-	-
4.20	0.25	0.20	0.15	-
6.30	0.30	0.25	0.22	0.20
8.10	0.35	0.30	0.28	0.25

Installation:

ROR002 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

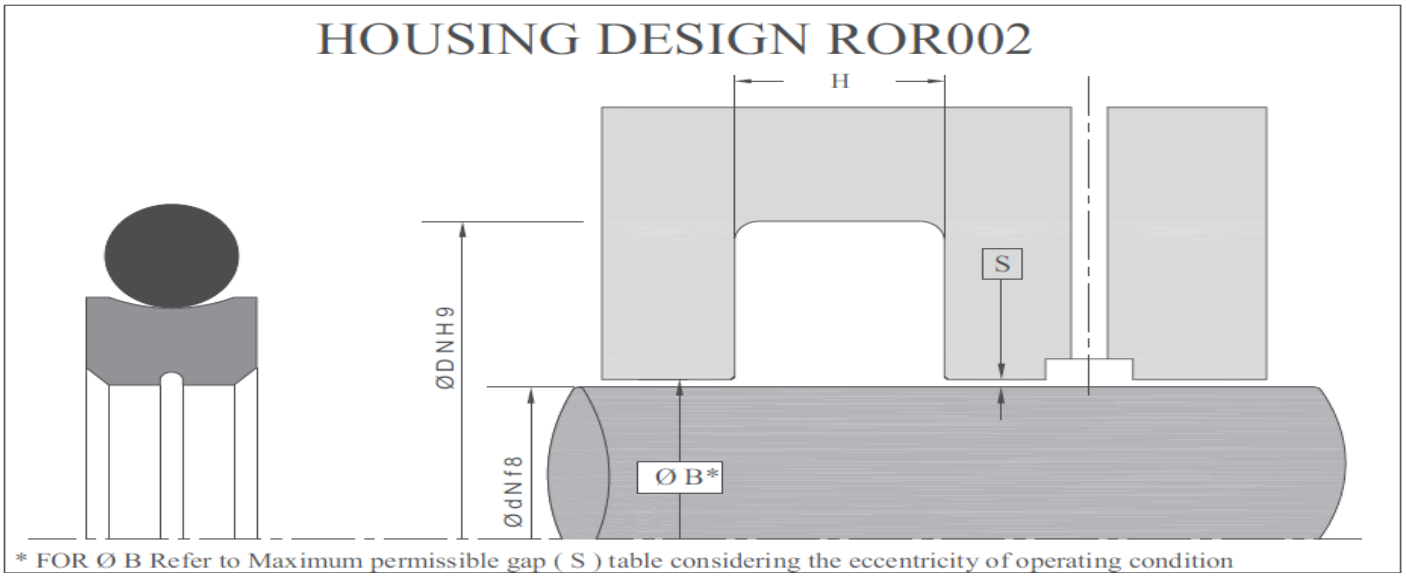
Please mention PEC order code in your order.

Example: Size 12 X 16.9 X 2.2

For Temp range: -20°C to +100°C. (O ring material is NB02) Order code is **ROR002-M-01-012.00 X 016.90 X 02.20**

For Temp range: -20°C to +200°C. (O ring material is VT01) Order code is **ROR002-M-02-012.00 X 016.90 X 02.20**

Please contact PEC if your required size is not mentioned in PEC standard size list

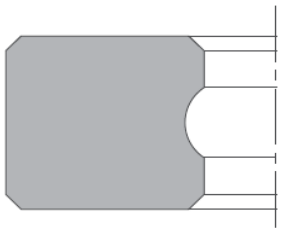


Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	O ring size	ORDER CODE
12.00	16.90	2.20	12.42 X 1.78	ROR002-M-01-012.00 X 016.90 X 02.20
14.00	18.90	2.20	15.60 X 1.78	ROR002-M-01-014.00 X 018.90 X 02.20
16.00	20.90	2.20	17.17 X 1.78	ROR002-M-01-016.00 X 020.90 X 02.20
20.00	27.50	3.20	21.89 X 2.62	ROR002-M-01-020.00 X 027.50 X 03.20
20.00	30.70	4.20	23.40 X 3.53	ROR002-M-01-020.00 X 030.70 X 04.20
25.00	27.90	2.20	25.12 X 1.78	ROR002-M-01-025.00 X 027.90 X 02.20
25.00	32.50	3.20	28.24 X 2.62	ROR002-M-01-025.00 X 032.50 X 03.20
25.00	35.70	4.20	29.75 X 3.53	ROR002-M-01-025.00 X 035.70 X 04.20
28.00	35.50	3.20	29.82 X 2.62	ROR002-M-01-028.00 X 035.50 X 03.20
30.00	37.50	3.20	32.99 X 2.62	ROR002-M-01-030.00 X 037.50 X 03.20
30.00	41.00	4.20	34.52 X 3.53	ROR002-M-01-030.00 X 041.00 X 04.20
32.00	39.50	3.20	34.59 X 2.62	ROR002-M-01-032.00 X 039.50 X 03.20
32.00	43.00	3.20	34.59 X 2.62	ROR002-M-01-032.00 X 043.00 X 03.20
35.00	42.50	3.20	37.77 X 2.62	ROR002-M-01-035.00 X 042.50 X 03.20
36.00	43.50	3.20	39.34 X 2.62	ROR002-M-01-036.00 X 043.50 X 03.20
40.00	51.00	4.20	44.04 X 3.53	ROR002-M-01-040.00 X 051.00 X 04.20
40.00	55.50	6.30	45.70 X 5.33	ROR002-M-01-040.00 X 055.50 X 06.30
42.00	57.50	6.30	46.99 X 5.33	ROR002-M-01-042.00 X 057.50 X 06.30
45.00	52.50	3.20	47.29 X 2.62	ROR002-M-01-045.00 X 052.50 X 03.20
45.00	56.00	4.20	48.70 X 3.53	ROR002-M-01-045.00 X 056.00 X 04.20
50.00	61.00	4.20	53.57 X 3.53	ROR002-M-01-050.00 X 061.00 X 04.20
50.00	65.10	6.30	56.52 X 5.33	ROR002-M-01-050.00 X 065.10 X 06.30
52.00	67.10	6.30	56.52 X 5.33	ROR002-M-01-052.00 X 067.10 X 06.30
55.00	66.00	4.20	59.92 X 3.53	ROR002-M-01-055.00 X 066.00 X 04.20
56.00	67.00	4.20	59.92 X 3.53	ROR002-M-01-056.00 X 067.00 X 04.20
60.00	71.00	4.20	63.09 X 3.53	ROR002-M-01-060.00 X 071.00 X 04.20
60.00	75.10	6.30	66.04 X 5.33	ROR002-M-01-060.00 X 075.10 X 06.30
63.00	74.00	4.20	66.27 X 3.53	ROR002-M-01-063.00 X 074.00 X 04.20
70.00	81.00	4.20	72.62 X 3.53	ROR002-M-01-070.00 X 081.00 X 04.20

Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H9)	H (+0.20)	O ring size	ORDER CODE
75.00	86.00	4.20	78.97 X 3.53	ROR002-M-01-075.00 X 086.00 X 04.20
75.00	90.10	6.30	81.92 X 5.33	ROR002-M-01-075.00 X 090.10 X 06.30
75.00	90.50	6.30	81.92 X 5.33	ROR002-M-01-075.00 X 090.50 X 06.30
80.00	91.00	4.20	85.32 X 3.53	ROR002-M-01-080.00 X 091.00 X 04.20
80.00	95.00	6.30	85.09 X 5.33	ROR002-M-01-080.00 X 095.00 X 06.30
85.00	96.00	4.20	88.49 X 3.53	ROR002-M-01-085.00 X 096.00 X 04.20
90.00	101.00	4.20	94.84 X 3.53	ROR002-M-01-090.00 X 101.00 X 04.20
90.00	105.50	6.30	94.62 X 5.33	ROR002-M-01-090.00 X 105.50 X 06.30
95.00	106.00	4.20	98.02 X 3.53	ROR002-M-01-095.00 X 106.00 X 04.20
95.00	110.10	6.30	100.97 X 5.33	ROR002-M-01-095.00 X 110.10 X 06.30
100.00	111.00	4.20	104.37 X 3.53	ROR002-M-01-100.00 X 111.00 X 04.20
100.00	115.50	6.30	104.14 X 5.33	ROR002-M-01-100.00 X 115.50 X 06.30
105.00	120.50	6.30	110.49 X 5.33	ROR002-M-01-105.00 X 120.50 X 06.30
110.00	121.00	4.20	113.89 X 3.53	ROR002-M-01-110.00 X 121.00 X 04.20
110.00	125.50	6.30	116.84 X 5.33	ROR002-M-01-110.00 X 125.50 X 06.30
120.00	131.00	4.20	123.42 X 3.53	ROR002-M-01-120.00 X 131.00 X 04.20
120.00	135.10	6.30	126.37 X 5.33	ROR002-M-01-120.00 X 135.10 X 06.30
125.00	136.00	4.20	129.77 X 3.53	ROR002-M-01-125.00 X 136.00 X 04.20
125.00	140.50	6.3	129.54 X 5.33	ROR002-M-01-125.00 X 140.50 X 06.30
130.00	141.00	4.2	132.94 X 3.53	ROR002-M-01-130.00 X 141.00 X 04.20
140.00	151.00	4.2	145.64 x 3.53	ROR002-M-01-140.00 X 151.00 X 04.20
140.00	155.50	6.3	145.42 X 5.33	ROR002-M-01-140.00 X 155.50 X 06.30
150.00	161.00	4.2	151.99 X 3.53	ROR002-M-01-150.00 X 161.00 X 04.20
160.00	171.00	4.2	164.69 X 3.53	ROR002-M-01-160.00 X 171.00 X 04.20
160.00	175.00	6.3	164.47 X 5.33	ROR002-M-01-160.00 X 175.00 X 06.30
170.00	181.00	4.2	171.04 X 3.53	ROR002-M-01-170.00 X 181.00 X 04.20
170.00	185.10	6.3	175.02 X 5.33	ROR002-M-01-170.00 X 185.10 X 06.30
180.00	191.00	4.2	183.74 X 3.53	ROR002-M-01-180.00 X 191.00 X 04.20
180.00	195.10	6.30	183.52 X 5.33	ROR002-M-01-180.00 X 195.10 X 06.30
190.00	205.50	6.30	196.22 X 5.33	ROR002-M-01-190.00 X 205.50 X 06.30
200.00	215.10	6.30	202.57 X 5.33	ROR002-M-01-200.00 X 215.10 X 06.30
220.00	235.50	6.30	221.62 X 5.33	ROR002-M-01-220.00 X 235.50 X 06.30
265.00	280.50	6.30	266.07 X 5.33	ROR002-M-01-265.00 X 280.50 X 06.30

ROTARY SEAL	ROS004	

Features:

Rotary seal profile ROS004 is a single piece seal commonly in use.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
R0S004-01	PU02	-20 to 100°C	320 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High resistance to abrasion
- Easy installation

Application:

- Mobile Hydraulics
- Rotary joints

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Extrusion Gap dimension:

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum shaft dia considering respective tolerances.

Maximum permissible gap dimension (s)			
160 bar	260 bar	320 bar	400 bar
0.25	0.20	0.18	ASK PEC

Fitting:

ROS004 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

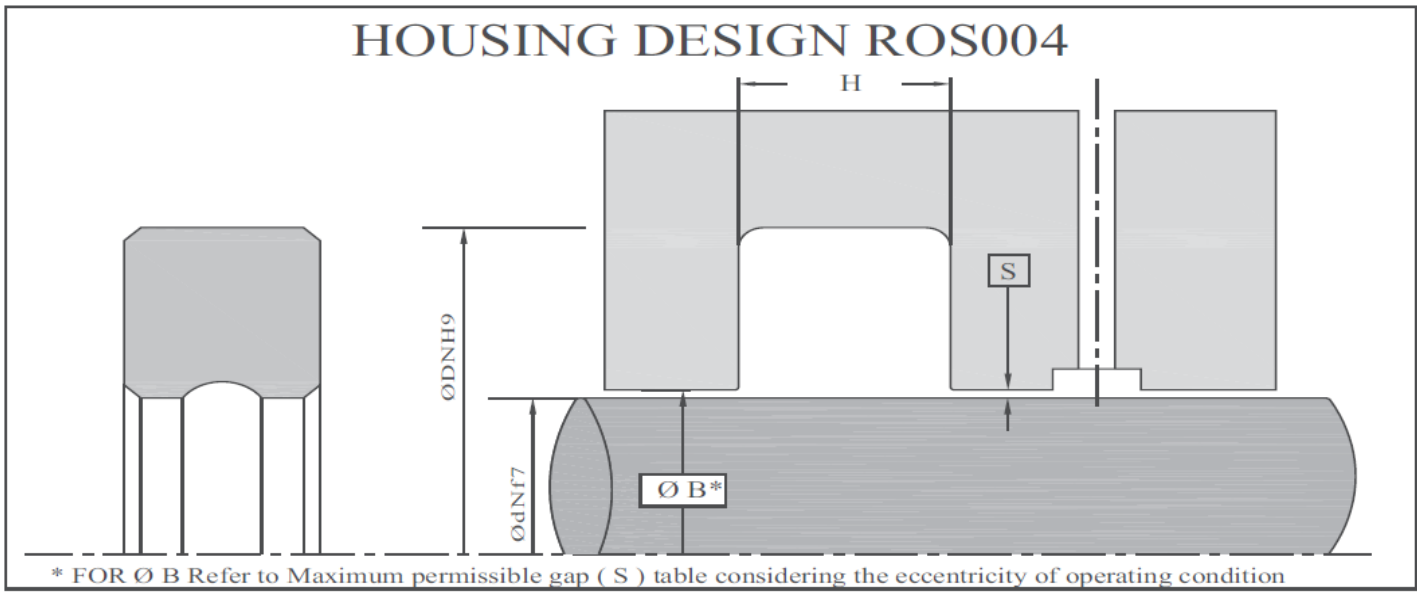
Ordering format:

Please mention PEC order code in your order.

Example: Size 60.00 X 70.00 X 5.30

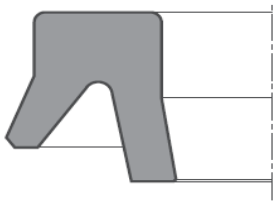
Order code is **ROS004-M-01-060.00 X 070.00 X 05.30**

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

ØdN (f8)	ØDN (H11)	H (+0.20)	ORDER CODE
60.00	70.00	5.30	ROS004-M-01-060.00 X 070.00 X 05.30
70.00	80.00	5.30	ROS004-M-01-070.00 X 080.00 X 05.30
75.00	85.00	5.30	ROS004-M-01-075.00 X 085.00 X 05.30
80.00	90.00	5.30	ROS004-M-01-080.00 X 090.00 X 05.30
85.00	95.00	5.30	ROS004-M-01-085.00 X 095.00 X 05.30
90.00	100.00	5.30	ROS004-M-01-090.00 X 100.00 X 05.30
95.00	105.00	5.30	ROS004-M-01-095.00 X 105.00 X 05.30
100.00	110.00	5.30	ROS004-M-01-100.00 X 110.00 X 05.30
105.00	115.00	5.30	ROS004-M-01-105.00 X 115.00 X 05.30
110.00	120.00	5.30	ROS004-M-01-110.00 X 120.00 X 05.30
115.00	125.00	5.30	ROS004-M-01-115.00 X 125.00 X 05.30
120.00	130.00	5.30	ROS004-M-01-120.00 X 130.00 X 05.30
125.00	135.00	5.30	ROS004-M-01-125.00 X 135.00 X 05.30
130.00	140.00	5.30	ROS004-M-01-130.00 X 140.00 X 05.30
135.00	145.00	5.30	ROS004-M-01-135.00 X 145.00 X 05.30
140.00	150.00	5.30	ROS004-M-01-140.00 X 150.00 X 05.30
145.00	155.00	5.30	ROS004-M-01-145.00 X 155.00 X 05.30
150.00	160.00	5.30	ROS004-M-01-150.00 X 160.00 X 05.30
155.00	165.00	5.30	ROS004-M-01-155.00 X 165.00 X 05.30
160.00	170.00	5.30	ROS004-M-01-160.00 X 170.00 X 05.30

PISTON / SEAL	PNPS007	

Features:

Piston seal PNPS007 is a U cup type piston seal made of highly abrasion resistant polyurethane having very thin outer contact lip suitable for low pressure pneumatic application.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PNPS007-01	PU21	-20 to 100°C	16 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction due to thin outer lip
- High resistance to abrasion
- Easy installation

Application:

- Pneumatics tools & equipments
- Standard Cylinder

Fitting:

PNPS007 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

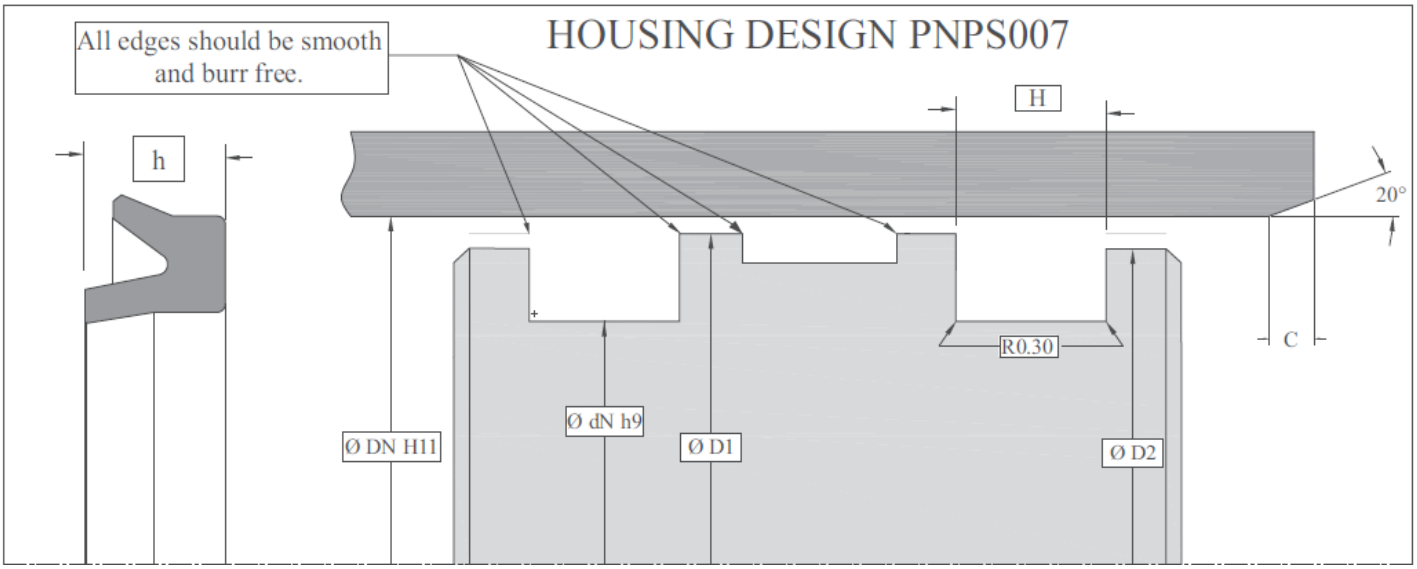
Ordering format:

Please mention PEC order code in your order.

Example: Size 25 X 17 X 6

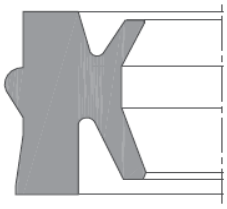
Order code is **PNPS007-M-01-025.00 X 017.00 X 05.5/06.0**

Please contact PEC if your required size is not mentioned in PEC standard size list



Polymer Engineering Standard Size List

DN	dN	D1	D2	h	H (+0.20)	ITEM CODE
25.00	17.00	24.80	24.00	5.50	6.00	PNPS007-M-01-025.00 X 017.00 X 05.5/06.0
32.00	24.00	31.70	30.50	5.50	6.00	PNPS007-M-01-032.00 X 024.00 X 05.5/06.0
40.00	30.00	39.70	38.50	7.00	7.50	PNPS007-M-01-040.00 X 030.00 X 07.0/07.5
45.00	35.00	44.60	43.50	7.00	7.50	PNPS007-M-01-045.00 X 035.00 X 07.0/07.5
50.00	40.00	49.60	48.50	7.00	7.50	PNPS007-M-01-050.00 X 040.00 X 07.0/07.5
60.00	50.00	59.60	58.50	7.00	7.50	PNPS007-M-01-060.00 X 050.00 X 07.0/07.5
63.00	53.00	62.60	61.50	7.00	7.50	PNPS007-M-01-063.00 X 053.00 X 07.0/07.5
70.00	58.00	69.60	68.50	8.50	9.50	PNPS007-M-01-070.00 X 058.00 X 08.5/09.5
75.00	63.00	74.60	73.50	8.50	9.50	PNPS007-M-01-075.00 X 063.00 X 08.5/09.5
80.00	68.00	79.60	78.50	8.50	9.50	PNPS007-M-01-080.00 X 068.00 X 08.5/09.5
90.00	78.00	89.60	88.50	8.50	9.50	PNPS007-M-01-090.00 X 078.00 X 08.5/09.5
100.00	88.00	99.50	98.00	8.50	9.50	PNPS007-M-01-100.00 X 088.00 X 08.5/09.5
125.00	110.00	124.30	123.00	10.00	11.00	PNPS007-M-01-125.00 X 110.00 X 10.0/11.0
150.00	135.00	149.30	148.00	10.00	11.00	PNPS007-M-01-150.00 X 135.00 X 10.0/11.0
160.00	145.00	159.30	158.00	10.00	11.00	PNPS007-M-01-160.00 X 145.00 X 10.0/11.0
200.00	180.00	199.00	198.00	11.00	12.00	PNPS007-M-01-200.00 X 180.00 X 11.0/12.0

ROD SEAL	PNRS010	

Features:

Rod seal PNRS010 is a U cup type rod seal made of highly abrasion resistant polyurethane having two very thin inner contact lip suitable for low pressure pneumatic application. This design is used as rod cum wiper seal for many pneumatic applications.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PNRS010-01	PU21	-20 to 100°C	16 Bar	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction due to thin outer lip
- High resistance to abrasion
- Easy installation

Application:

- Pneumatics tools & equipments
- Standard cylinders

Fitting:

PNRS010 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

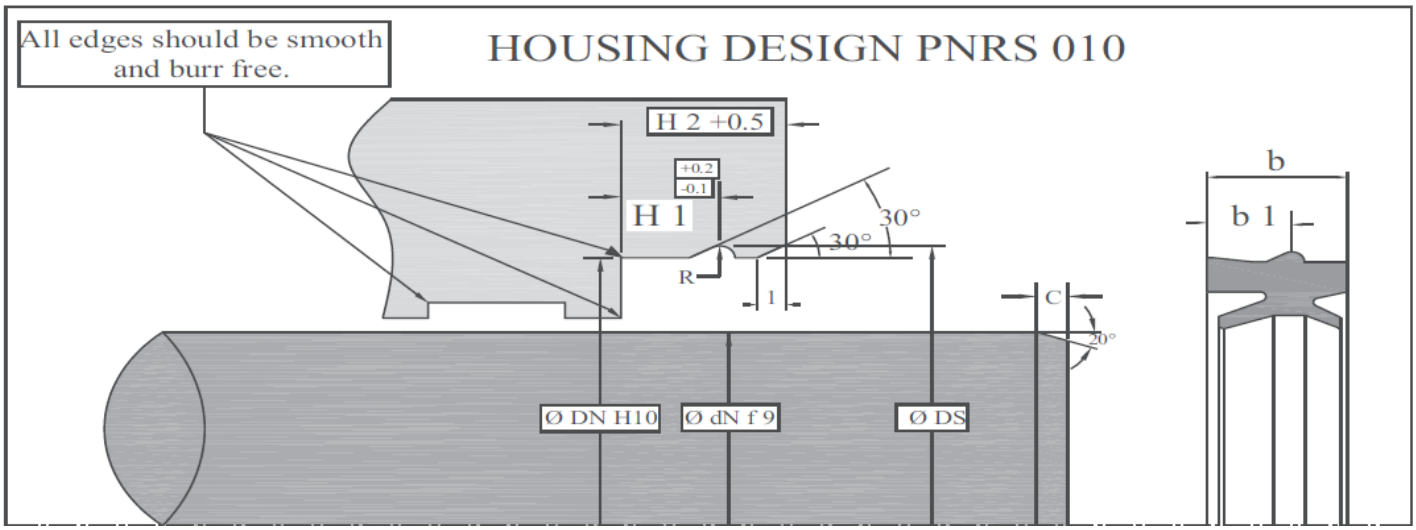
Ordering format:

Please mention PEC order code in your order.

Example: Size 12.00 X 22.00 X 7.70 X 10.50

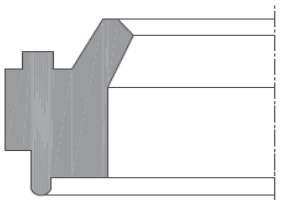
Order code is **PNRS010-M-01-012.00 X 022.00 X 07.7/10.5**

Please contact PEC if your required size is not available in PEC standard size list



Polymer Engineering Standard Size List

dN (f9)	DN (H10)	b	b1	DS	H2	H1	R	ORDER CODE
12.00	22.00	10.50	7.00	24.00	13.00	7.70	1.00	PNRS010-M-01-012.00 X 022.00 X 07.7/10.5
14.00	24.00	10.50	7.00	26.00	13.00	7.70	1.00	PNRS010-M-01-014.00 X 024.00 X 07.7/10.5
16.00	26.00	10.50	7.00	28.00	13.00	7.70	1.00	PNRS010-M-01-016.00 X 026.00 X 07.7/10.5
18.00	28.00	10.50	7.00	30.00	13.00	7.70	1.00	PNRS010-M-01-018.00 X 028.00 X 07.7/10.5
20.00	30.00	10.50	7.00	32.00	13.00	7.70	1.00	PNRS010-M-01-020.00 X 030.00 X 07.7/10.5
22.00	32.00	10.50	7.30	35.00	13.00	8.00	1.00	PNRS010-M-01-022.00 X 032.00 X 08.0/10.5
25.00	35.00	10.50	7.30	38.00	13.00	8.00	1.00	PNRS010-M-01-025.00 X 035.00 X 08.0/10.5
30.00	40.00	10.50	7.30	43.00	13.00	8.00	1.00	PNRS010-M-01-030.00 X 040.00 X 08.0/10.5
32.00	42.00	10.50	7.30	45.00	13.00	8.00	1.00	PNRS010-M-01-032.00 X 042.00 X 08.0/10.5
35.00	45.00	10.50	7.30	48.00	13.00	8.00	1.00	PNRS010-M-01-035.00 X 045.00 X 08.0/10.5
40.00	50.00	10.50	7.30	53.00	13.00	8.00	1.00	PNRS010-M-01-040.00 X 050.00 X 08.0/10.5
50.00	60.00	10.50	7.70	64.00	13.00	8.60	1.80	PNRS010-M-01-050.00 X 060.00 X 08.6/10.5

CUSHION SEAL	PNCS012	

Features:

Cushion seal PNCS012 is specially designed seal for cushioning in pneumatic cylinders made of very high abrasion resistant polyurethane.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PNCS012-01	PU21	-20 to 100°C	16 Bar	0.5m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Seal acts as a check valve
- High resistance to abrasion
- Easy installation

Application:

- Pneumatic tools & equipments

Fitting:

PNCS012 is very easy to fit. Careful fitting of the seal is a prerequisite for it's perfect functioning.

Ordering format:

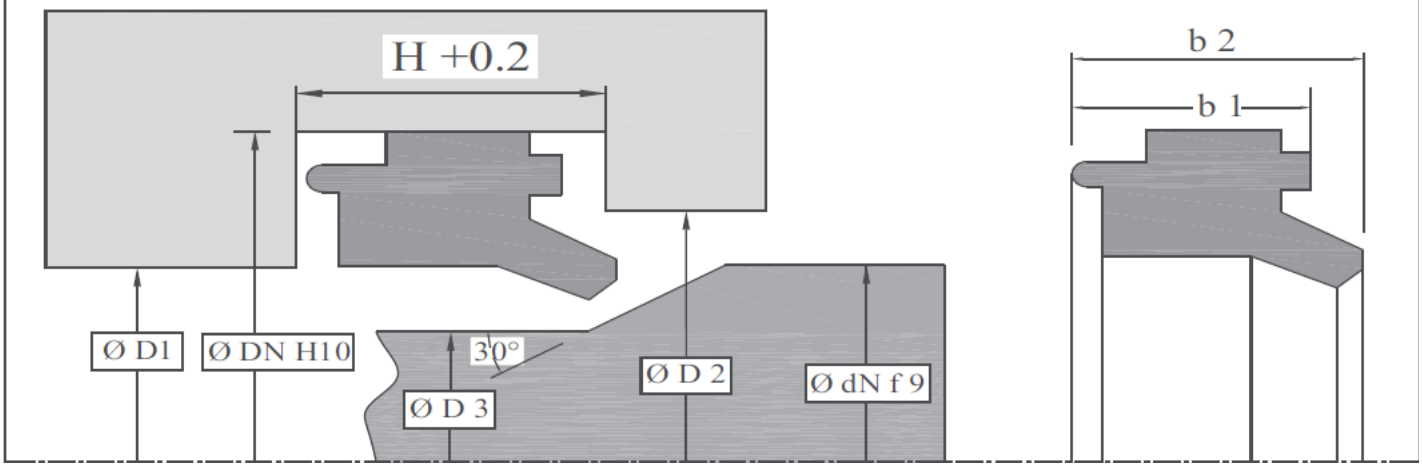
Please mention PEC order code in your order.

Example: Size 14.00 X 22.00 X 7.00

Order code is **PNCS012-M-01-014.00 X 022.00 X 7.00**

Please contact PEC if your required size is not available in PEC standard size list

HOUSING DESIGN PNCS 012

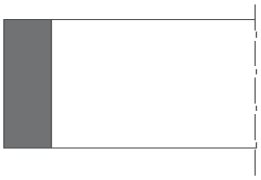


Polymer Engineering Standard Size List

dN (f9)	DN (H10)	D1	D2	D3	b1	b2	H	ORDER CODE
14.00	22.00	15.00	19.00	10.00	6.30	7.80	7.00	PNCS012-M-01-014.00 X 022.00 X 7.00
16.00	24.00	17.00	21.00	12.00	6.30	7.80	7.00	PNCS012-M-01-016.00 X 024.00 X 7.00
18.00	26.00	19.00	23.00	14.00	6.30	7.80	7.00	PNCS012-M-01-018.00 X 026.00 X 7.00
20.00	28.00	21.00	24.00	16.00	6.30	7.80	7.00	PNCS012-M-01-020.00 X 028.00 X 7.00
22.00	30.00	23.00	26.00	18.00	6.30	7.80	7.00	PNCS012-M-01-022.00 X 030.00 X 7.00
25.00	33.00	26.00	29.00	21.00	6.30	7.80	7.00	PNCS012-M-01-025.00 X 033.00 X 7.00
28.00	36.00	29.00	32.00	24.00	6.30	7.80	7.00	PNCS012-M-01-028.00 X 036.00 X 7.00
30.00	40.00	31.50	35.00	26.00	6.30	7.80	7.00	PNCS012-M-01-030.00 X 040.00 X 7.00
32.00	42.00	33.50	37.00	28.00	6.30	7.80	7.00	PNCS012-M-01-032.00 X 042.00 X 7.00
36.00	46.00	37.50	41.00	30.00	6.30	7.80	7.00	PNCS012-M-01-036.00 X 046.00 X 7.00
40.00	50.00	41.50	45.00	36.00	6.30	7.80	7.00	PNCS012-M-01-040.00 X 050.00 X 7.00
45.00	55.00	46.50	50.00	40.00	6.30	7.80	7.00	PNCS012-M-01-045.00 X 055.00 X 7.00
50.00	60.00	51.50	55.00	45.00	6.30	7.80	7.00	PNCS012-M-01-050.00 X 060.00 X 7.00

WEAR / GUIDE RING

WRPT



Features:

Guide ring WRPT is a PTFE+ Bronze strip available in long length and cut to the size.

Composition:

SEAL COMBINATION	WEAR RING COMPOUND	COLOUR	TEMP. RANGE	SURFACE SPEED (Max.)
WRPT-01	PT07	GREEN	-55 to 200°C	4 m/s
WRPT-02	PT02	GREY BROWN	-55 to 200°C	4 m/s
WRPT-03	PT21	BROWN	-55 to 200°C	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- chamfered profile edges prevent pressing of edge in the corner radii of the housing groove

Application:

- Mobile Hydraulics
- Injection molding machines
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

General Technical Data:

Maximum speed	5 m/s
Load bearing capacity	15 N/mm² at 20 °C
	10 N/mm² at 60 °C
	5 N/mm² at 120 °C
	(permitted specific surface pressing*)

* The permissible load of the guide strip is calculated from the projected area multiplied by the permissible specific surface pressing. The non linear contact pressure distribution, produces by the load with relation to temperature and tolerances, is taken into account in the value of the permissible load.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Gap dimension:

The radial clearance S min controls the minimum metal to metal clearance between the gland and rod or bore and piston. S max control the maximum extrusion gap seen by a seal associated with the guide ring.
The radial clearance S and the given tolerances are guidelines. Use of the guide and tolerances are to be designed in accordance with the used seal. The radial clearance S given in the table of dimensions is to be seen exclusively as reference to the guide ring. The corresponding diameter of the seal housing is to be adjusted to the sealing component. The cut gap ' Z' arising after fitting of guide ring is necessary to compensate the thermal expansion of polymer

Determination of the stretched length L2 of guide strip:

The stretched length is the circumferential length of the centre line of the strip when installed.

Calculation of stretched length L2 = π X (ØDN−T) −Z

Guide strip tolerances:

Width L (mm)	Thickness T (mm)
- 0.1 to - 0.6	- 0.03 to – 0.06

Installation:

Fitting is prerequisite for perfect functioning of the guide ring.

Order format:

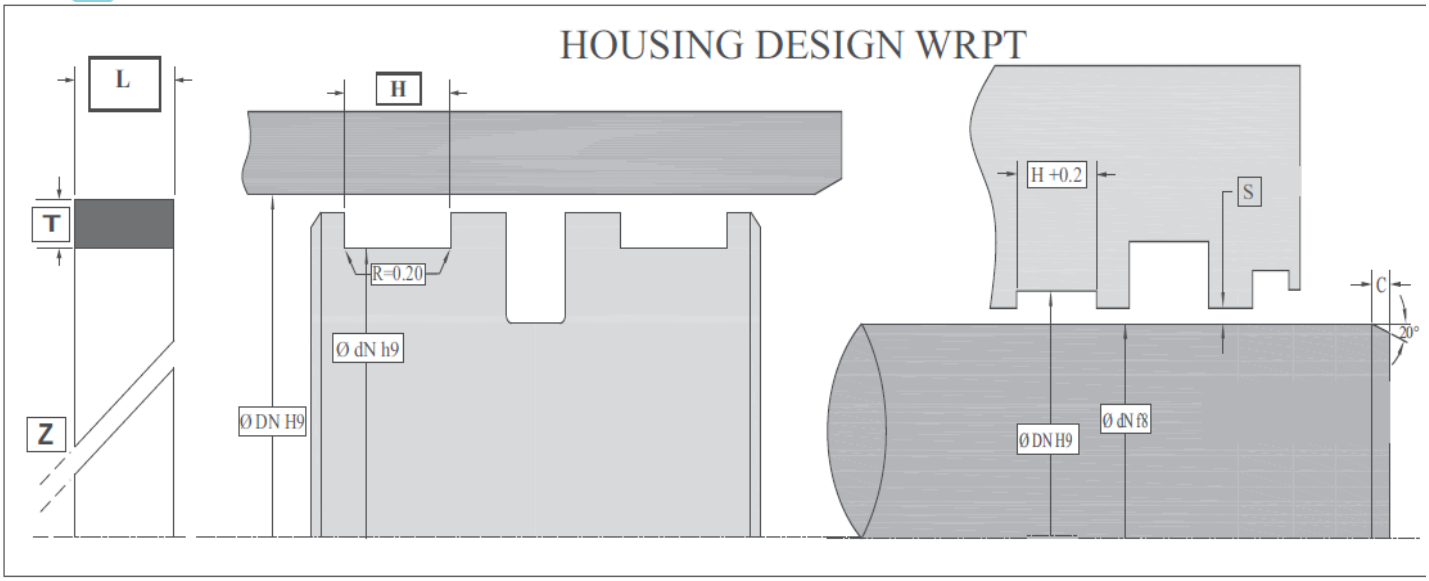
Please mention PEC order code in your order.

To order long length strip having cross section 5.60mm wide and 2.50mm thick order code is: **WRPT-M-01-L-05.60 X 02.50**

To order specific cut size wear ring for ØDN=090mm and cross section 05.60 X 2.50

Order code is **WRPT-M-01-090.00 X 085.00 X 5.60**

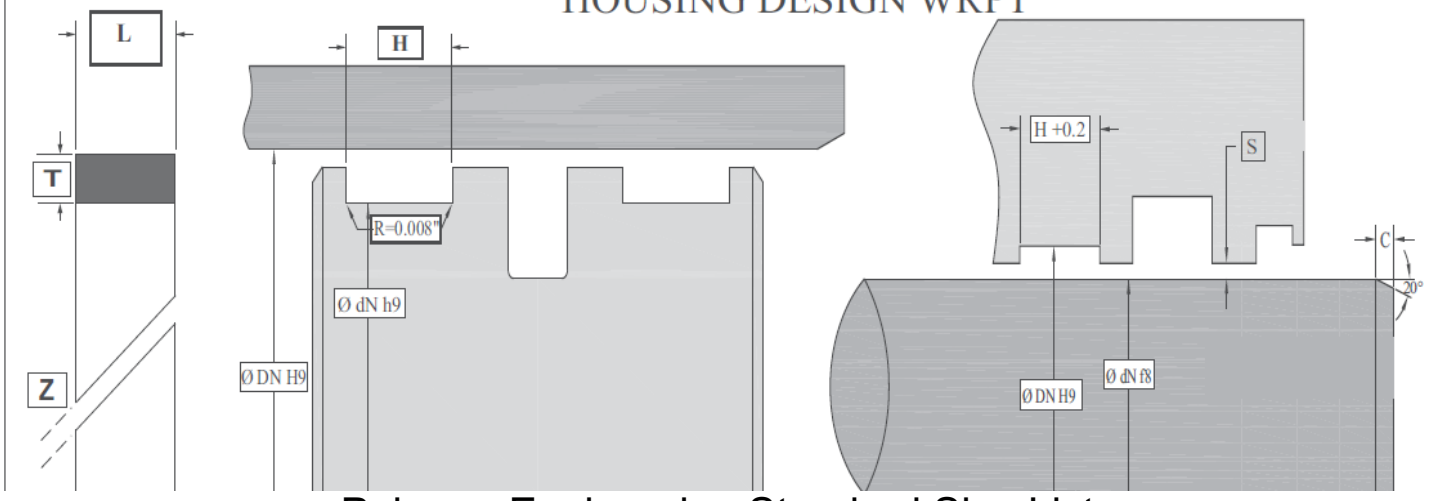
Please contact PEC if your required size is not available in PEC standard size list



Polymer Engineering Standard Size List

CROSS SECTION (H X T) (MM)	USE UP TO DIA RANGE(MM) ØDN H9	GROOVE DIA(MM) ØdN h8	GROOVE WIDTH (MM) H +0.2	S (Max.)	CUT GAP Z(min)	STD.ROLL LENGTH (MTR.)	ORDER CODE
5.00 X 1.60	10-40	ØDN-3.20	5.00	0.25	0.8-2.0	15	WRPT-M-01-05.00 X 01.60
5.60 X 2.50	20-140	ØDN-5.00	5.60	0.40	1.0-3.0	10	WRPT-M-01-05.60 X 02.50
6.00 X 2.00	20-60	ØDN-4.00	6.00	0.30	1.0-2.0	12	WRPT-M-01-06.00 X 02.00
6.00 X 2.50	25-140	ØDN-5.00	6.00	0.40	1.0-3.0	10	WRPT-M-01-06.00 X 02.50
6.00 X 4.00	70-200	ØDN-8.00	6.00	0.50	2.0-3.5	6	WRPT-M-01-06.00 X 04.00
6.00 X 4.50	100-200	ØDN-9.00	6.00	0.50	2.5-4.0	5	WRPT-M-01-06.00 X 04.50
8.00 X 2.00	25-80	ØDN-4.00	8.00	0.30	1.0-3.0	12	WRPT-M-01-08.00 X 02.00
8.00 X 2.50	30-160	ØDN-5.00	8.00	0.40	1.0-3.0	10	WRPT-M-01-08.00 X 02.50
8.00 X 4.00	100-400	ØDN-8.00	8.00	0.50	2.0-4.0	6	WRPT-M-01-08.00 X 04.00
9.50 X 4.00	120-500	ØDN-8.00	9.50	0.50	2.0-4.0	6	WRPT-M-01-09.50 X 04.00
9.70 X 2.50	40-160	ØDN-5.00	9.70	0.40	2.0-3.5	10	WRPT-M-01-09.70 X 02.50
10.00 X 2.00	40-100	ØDN-4.00	10.00	0.30	2.0-3.5	12	WRPT-M-01-10.00 X 02.00
12.50 X 2.50	50-180	ØDN-5.00	12.50	0.40	2.0-3.5	10	WRPT-M-01-12.50 X 02.50
14.80 X 2.50	60-200	ØDN-5.00	14.80	0.40	2.0-3.5	10	WRPT-M-01-14.80 X 02.50
15.00 X 2.50	60-200	ØDN-5.00	15.00	0.40	2.0-3.5	10	WRPT-M-01-15.00 X 02.50
15.00 X 4.00	160-900	ØDN-8.00	15.00	0.50	3.0-5.0	6	WRPT-M-01-15.00 X 04.00
20.00 X 2.00	50-180	ØDN-4.00	20.00	0.30	2.0-3.5	12	WRPT-M-01-20.00 X 02.00
20.00 X 2.50	80-300	ØDN-5.00	20.00	0.40	2.0-3.5	10	WRPT-M-01-20.00 X 02.50
20.00 X 3.00	100-300	ØDN-6.00	20.00	0.40	2.0-3.6	10	WRPT-M-01-20.00 X 03.00
20.00 X 3.20	100-400	ØDN-6.40	20.00	0.50	2.0-4.0	8	WRPT-M-01-20.00 X 03.20
25.00 X 2.50	100-400	ØDN-5.00	25.00	0.40	3.0-5.0	10	WRPT-M-01-25.00 X 02.50
30.00 X 2.00	100-225	ØDN-4.00	30.00	0.30	3.0-5.0	12	WRPT-M-01-30.00 X 02.00
30.00 X 2.50	100-400	ØDN-5.00	30.00	0.40	3.0-6.0	10	WRPT-M-01-30.00 X 02.50

HOUSING DESIGN WRPT

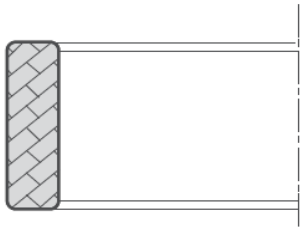


Polymer Engineering Standard Size List

IMPERIAL SIZES							
CROSS SECTION (H X T) (inch)	USE UP TO Ø RANGE(inch) ØDN H9	GROOVE DIA(inch) ØdN h8	GROOVE WIDTH (inch) H (+0.008")	S (Max.)	CUT GAP Z(min)	STD.ROLL LENGTH-FT. (Approx.)	ORDER CODE
0.250" X 0.0625"	1.0" - 3.0"	ØDN-0.125"	0.250"	0.010"	0.06" - 0.12"	50.00	WRPT-I-01-0.250 X 0.0625
0.250" X 0.0930"	1.0" - 4.0"	ØDN-0.186"	0.250"	0.016"	0.06" - 0.12"	40.00	WRPT-I-01-0.250 X 0.0930
0.250" X 0.1250"	2.0" - 6.0"	ØDN-0.250"	0.250"	0.020"	0.06" - 0.12"	32.00	WRPT-I-01-0.250 X 0.1250
0.375" X 0.0625"	1.0" - 3.0"	ØDN-0.125"	0.375"	0.010"	0.08" - 0.14"	50.00	WRPT-I-01-0.375 X 0.0625
0.375" X 0.0930"	1.5" - 5.0"	ØDN-0.186"	0.375"	0.016"	0.08" - 0.14"	40.00	WRPT-I-01-0.375 X 0.0930
0.375" X 0.1250"	2.0" - 6.0"	ØDN-0.250"	0.375"	0.020"	0.08" - 0.14"	32.00	WRPT-I-01-0.375 X 0.1250
0.500" X 0.0625"	1.0" - 3.0"	ØDN-0.125"	0.500"	0.010"	0.08" - 0.14"	50.00	WRPT-I-01-0.500 X 0.0625
0.500" X 0.0930"	1.5" - 5.0"	ØDN-0.186"	0.500"	0.016"	0.08" - 0.14"	40.00	WRPT-I-01-0.500 X 0.0930
0.500" X 0.1250"	2.0" - 6.0"	ØDN-0.250"	0.500"	0.020"	0.08" - 0.14"	32.00	WRPT-I-01-0.500 X 0.1250
0.625" X 0.0930"	3.0" - 7.0"	ØDN-0.186"	0.625"	0.016"	0.08" - 0.14"	40.00	WRPT-I-01-0.625 X 0.0930
0.625" X 0.1250"	3.0" - 9.0"	ØDN-0.250"	0.625"	0.020"	0.08" - 0.14"	32.00	WRPT-I-01-0.625 X 0.1250
0.750" X 0.0625"	2.0" - 8.0"	ØDN-0.125"	0.750"	0.010"	0.10" - 0.16"	50.00	WRPT-I-01-0.750 X 0.0625
0.750" X 0.1250"	2.0" - 6.0"	ØDN-0.250"	0.750"	0.020"	0.10" - 0.16"	32.00	WRPT-I-01-0.750 X 0.1250
1.000" X 0.0930"	4.0" - 8.0"	ØDN-0.186"	1.000"	0.016"	0.12" - 0.18"	40.00	WRPT-I-01-1.000 X 0.0930
1.000" X 0.1250"	4.0" - 12.0"	ØDN-0.250"	1.000"	0.020"	0.12" - 0.20"	32.00	WRPT-I-01-1.000 X 0.1250
1.250" X 0.1250"	4.0" - 12.0"	ØDN-0.250"	1.250"	0.020"	0.10" - 0.20"	32.00	WRPT-I-01-1.250 X 0.1250

WEAR / GUIDE RING

WRFR



Features:

Guide ring WRFR is a pre-molded ring ready to the size.

Composition:

SEAL COMBINATION	WEAR RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
WRFR01	FR01	-20 to 100°C	1.5 m/s
WRFR02	FR02	-20 to 100°C	1.5 m/s
WRFR03	FR03	-20 to 100°C	1.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High load bearing capacity.
- Low friction,free of stick slip
- High abrasion resistance.
- Low wear and high extrusion resistance.
- Resistance against cold flow .

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Standard cylinders

Guide tolerances:

Width L (mm)	Thickness T (mm)
- 0.1 to - 0.6	- 0.03 to – 0.06

Operating limit:

Ultimate compressive strength	360 N/mm²
Load bearing capacity	120 N/mm² at 20 °C
	80 N/mm² at 60 °C
	63 N/mm² at 120 °C
	(permitted specific surface pressing*)

* The permissible load of the guide strip is calculated from the projected area multiplied by the permissible specific surface pressing. The non linear contact pressure distribution, produces by the load with relation to temperature and tolerances, is taken into account in the value of the permissible load.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Gap dimension:

The radial clearance S min controls the minimum metal to metal clearance between the gland and rod or bore and piston. S max control the maximum extrusion gap seen by a seal associated with the guide ring.
The radial clearance S and the given tolerances are guidelines. Use of the guide and tolerances are to be designed in accordance with the used seal. The radial clearance S given in the table of dimensions is to be seen exclusively as reference to the guide ring. The corresponding diameter of the seal housing is to be adjusted to the sealing component. The cut gap ' Z' arising after fitting of guide ring is necessary to compensate the thermal expansion of polymer

Installation:

Careful fitting of the Guide ring is a prerequisite for it's perfect functioning.

Order format:

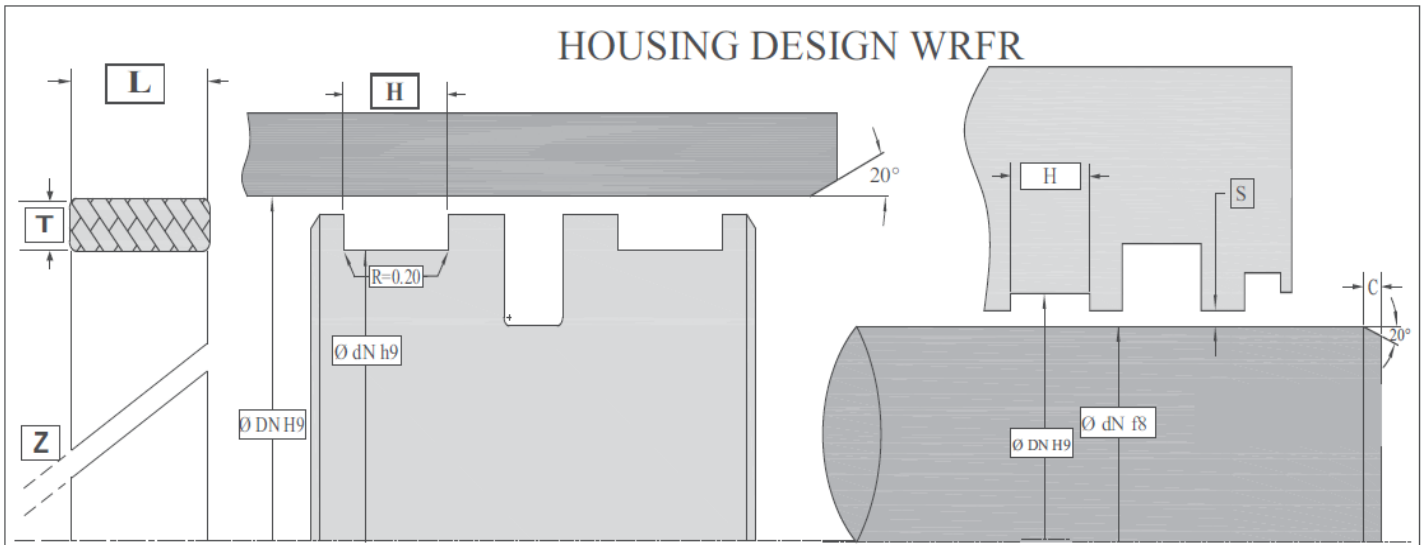
Please mention PEC order code in vour order.
Example for ØDN=090 and cross section 05.60 X 2.50

Order code is **WRFR01-M-090.00 X 085.00 X 05.60** (Standard Blue Colour)

Order code is **WRFR02-M-090.00 X 085.00 X 05.60** (Brown Colour)

Order code is **WRFR03-M-090.00 X 085.00 X 05.60** (Grey Colour)

Please contact PEC if your required size is not available in PEC standard size list



Polymer Engineering Standard Size List

CROSS SECTION (H X T)	RECOMMENDED UP TO DIA (MM) ØDN H9	GROOVE DIA(MM) ØdN h8	GROOVE WIDTH (MM) H (+0.20)	S(MAX.)	CUT GAP Z	ORDER CODE
05.60 X 2.50	20-140	ØDN-5.00	5.60	0.30	1.00-2.00	WRFR01-M-ØDN X ØdN X 5.60
06.00 X 2.00	20-60	ØDN-4.00	6.00	0.30	1.00-2.00	WRFR01-M-ØDN X ØdN X 6.00
06.00 X 2.50	25-140	ØDN-5.00	6.00	0.40	1.00-3.00	WRFR01-M-ØDN X ØdN X 6.00
06.00 X 4.00	70-200	ØDN-8.00	6.00	0.50	2.00-3.50	WRFR01-M-ØDN X ØdN X 6.00
06.00 X 4.50	100-200	ØDN-9.00	6.00	0.50	2.50-4.00	WRFR01-M-ØDN X ØdN X 6.00
08.00 X 2.00	25-80	ØDN-4.00	8.00	0.30	1.00-3.00	WRFR01-M-ØDN X ØdN X 8.00
08.00 X 2.50	30-160	ØDN-5.00	8.00	0.40	1.00-3.00	WRFR01-M-ØDN X ØdN X 8.00
08.00 X 4.00	100-300	ØDN-8.00	8.00	0.50	2.00-4.00	WRFR01-M-ØDN X ØdN X 8.00
09.50 X 4.00	120-300	ØDN-8.00	9.50	0.50	2.00-4.00	WRFR01-M-ØDN X ØdN X 9.50
09.70 X 2.50	40-160	ØDN-5.00	9.70	0.40	2.00-3.50	WRFR01-M-ØDN X ØdN X 9.70
10.00 X 2.00	40-100	ØDN-4.00	10.00	0.30	2.00-3.50	WRFR01-M-ØDN X ØdN X 10.00
12.50 X 2.50	50-180	ØDN-5.00	12.50	0.40	2.00-3.50	WRFR01-M-ØDN X ØdN X 12.50
15.00 X 2.50	60-200	ØDN-5.00	15.00	0.40	2.00-3.50	WRFR01-M-ØDN X ØdN X 15.00
15.00 X 4.00	160-300	ØDN-8.00	15.00	0.50	3.00-5.00	WRFR01-M-ØDN X ØdN X 15.00
20.00 X 2.00	50-180	ØDN-4.00	20.00	0.30	2.00-3.50	WRFR01-M-ØDN X ØdN X 20.00
20.00 X 2.50	80-300	ØDN-5.00	20.00	0.40	2.00-3.50	WRFR01-M-ØDN X ØdN X 20.00
20.00 X 3.20	100-300	ØDN-6.40	20.00	0.50	2.00-4.00	WRFR01-M-ØDN X ØdN X 20.00
25.00 X 2.50	100-300	ØDN-5.00	25.00	0.40	3.00-5.00	WRFR01-M-ØDN X ØdN X 25.00
30.00 X 2.00	100-225	ØDN-4.00	30.00	0.30	3.00-5.00	WRFR01-M-ØDN X ØdN X 30.00
30.00 X 2.50	100-300	ØDN-5.00	30.00	0.40	3.00-6.00	WRFR01-M-ØDN X ØdN X 30.00

Guide rings in pre-molded form can be provided up to Ø350 mm thickness (T) up to 10mm & height (L) up to 180mm

WEAR / GUIDE RING

WRPA

Features:

Guide ring WRPA is a pre-molded ring ready to the size.

Composition:

SEAL COMBINATION	WEAR RING COMPOUND	TEMP. RANGE	SURFACE SPEED (Max.)
WRPA-01	PA01	-30 to 120°C	1 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- High load bearing capacity.
- Low friction, free of stick slip
- High abrasion resistance.
- Low wear and high extrusion resistance.
- Resistance against cold flow.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Standard cylinders

Operating limit:

Ultimate compressive strength	180 N/mm²
Load bearing capacity	40 N/mm² at 20 °C
	30 N/mm² at 100 °C
	(Permitted specific surface pressing*)

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Guide tolerances:

Width L (mm)	Thickness T (mm)
- 0.1 to - 0.6	- 0.03 to – 0.06

Gap dimension:

The radial clearance S min controls the minimum metal to metal clearance between the gland and rod or bore and piston. S max control the maximum extrusion gap seen by a seal associated with the guide ring.
The radial clearance S and the given tolerances are guidelines. Use of the guide and tolerances are to be designed in accordance with the used seal. The radial clearance S given in the table of dimensions is to be seen exclusively as reference to the guide ring. The corresponding diameter of the seal housing is to be adjusted to the sealing component. The cut gap ' Z' arising after fitting of guide ring is necessary to compensate the thermal expansion of polymer

Installation:

Careful fitting of the Guide ring is a prerequisite for it's perfect functioning.

Order format:

Please mention PEC order code in your order.

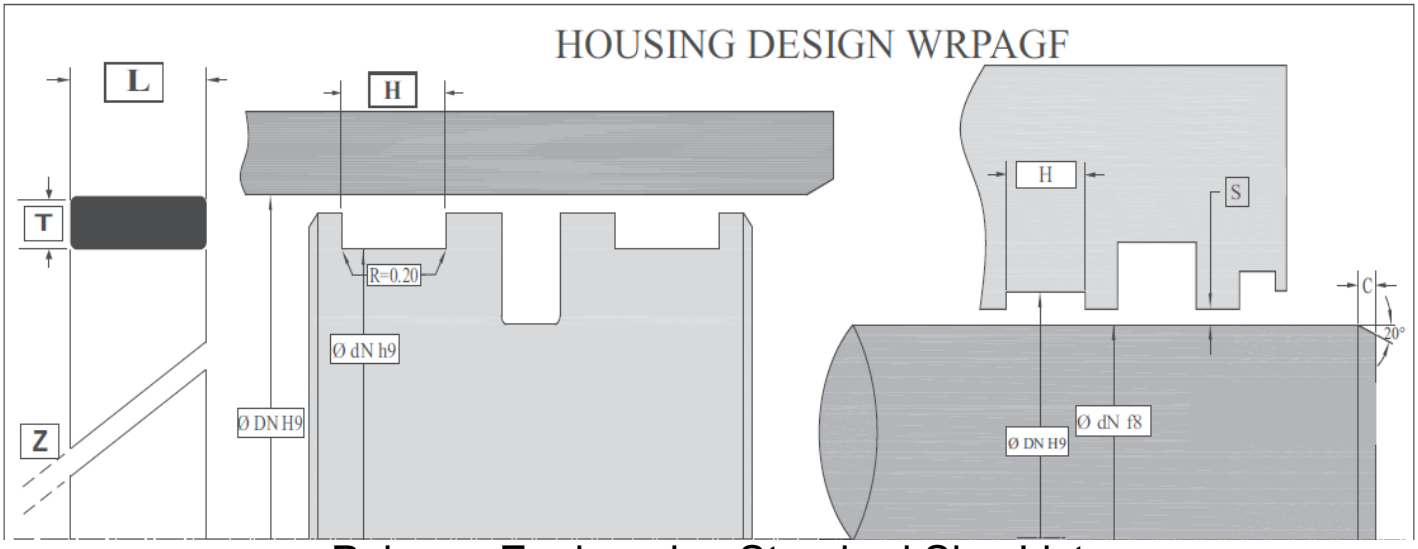
Example: for Metric Size ØDN=090 and cross section 05.60 X 2.50

Order code is **WRPA01-M-090.00 X 085.00 X 05.60**

Example: for Imperial Size ØDN= 4.000" and cross section 0.500 X 0.125

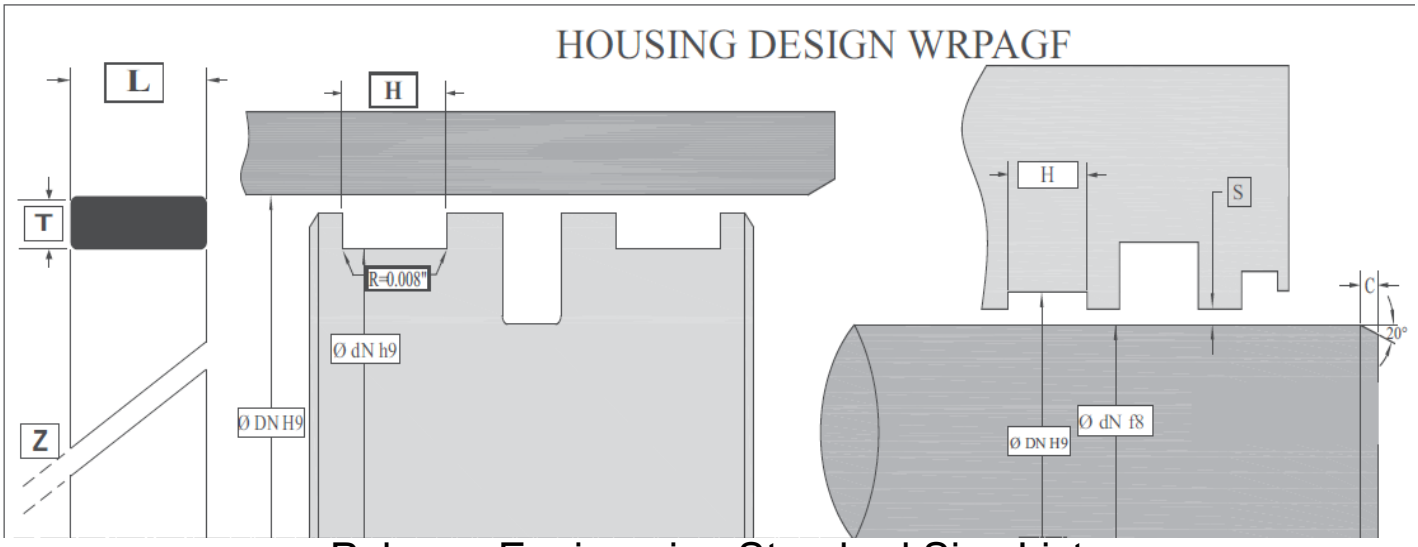
Order code is **WRPA01-I-4.000 X 3.750 X 0.500**

Please contact PEC if your required size is not available in PEC standard size list



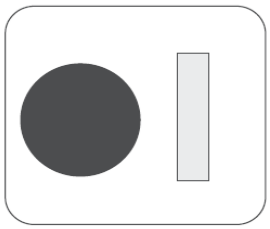
Polymer Engineering Standard Size List

CROSS SECTION (H X T)	RECOMMEDED UP TO DIA(MM) ØDN H9	GROOVE DIA(MM) ØdN h8	GROOVE WIDTH (MM) H +0.2	S(MAX.)	CUT GAP Z	ORDER CODE
05.60 X 2.50	20-140	ØDN-5.00	5.60	0.30	1.00-2.00	WRPA01-M-ØDN X ØdN X 5.60
06.00 X 2.00	20-60	ØDN-4.00	6.00	0.30	1.00-2.00	WRPA01-M-ØDN X ØdN X 6.00
06.00 X 2.50	25-140	ØDN-5.00	6.00	0.40	1.00-3.00	WRPA01-M-ØDN X ØdN X 6.00
06.00 X 4.00	70-200	ØDN-8.00	6.00	0.50	2.00-3.50	WRPA01-M-ØDN X ØdN X 6.00
06.00 X 4.50	100-200	ØDN-9.00	6.00	0.50	2.50-4.00	WRPA01-M-ØDN X ØdN X 6.00
08.00 X 2.00	25-80	ØDN-4.00	8.00	0.30	1.00-3.00	WRPA01-M-ØDN X ØdN X 8.00
08.00 X 2.50	30-160	ØDN-5.00	8.00	0.40	1.00-3.00	WRPA01-M-ØDN X ØdN X 8.00
08.00 X 4.00	100-300	ØDN-8.00	8.00	0.50	2.00-4.00	WRPA01-M-ØDN X ØdN X 8.00
09.50 X 4.00	120-300	ØDN-8.00	9.50	0.50	2.00-4.00	WRPA01-M-ØDN X ØdN X 9.50
09.70 X 2.50	40-160	ØDN-5.00	9.70	0.40	2.00-3.50	WRPA01-M-ØDN X ØdN X 9.70
10.00 X 2.00	40-100	ØDN-4.00	10.00	0.30	2.00-3.50	WRPA01-M-ØDN X ØdN X 10.00
12.50 X 2.50	50-180	ØDN-5.00	12.50	0.40	2.00-3.50	WRPA01-M-ØDN X ØdN X 12.50
15.00 X 2.50	60-200	ØDN-5.00	15.00	0.40	2.00-3.50	WRPA01-M-ØDN X ØdN X 15.00
15.00 X 4.00	160-300	ØDN-8.00	15.00	0.50	3.00-5.00	WRPA01-M-ØDN X ØdN X 15.00
20.00 X 2.00	50-180	ØDN-4.00	20.00	0.30	2.00-3.50	WRPA01-M-ØDN X ØdN X 20.00
20.00 X 2.50	80-300	ØDN-5.00	20.00	0.40	2.00-3.50	WRPA01-M-ØDN X ØdN X 20.00
20.00 X 3.20	100-300	ØDN-6.40	20.00	0.50	2.00-4.00	WRPA01-M-ØDN X ØdN X 20.00
25.00 X 2.50	100-300	ØDN-5.00	25.00	0.40	3.00-5.00	WRPA01-M-ØDN X ØdN X 25.00
30.00 X 2.00	100-225	ØDN-4.00	30.00	0.30	3.00-5.00	WRPA01-M-ØDN X ØdN X 30.00
30.00 X 2.50	100-300	ØDN-5.00	30.00	0.40	3.00-6.00	WRPA01-M-ØDN X ØdN X 30.00



Polymer Engineering Standard Size List

IMPERIAL SIZES						
CROSS SECTION (H X T)	RECOMMEDED UP TO DIA(inch) ØDN H9	GROOVE DIA(inch) ØdN h8	GROOVE WIDTH (inch) H (+0.008")	S(MAX.)	CUT GAP Z	ORDER CODE
0.115 X 0.062	1.000" - 2.000"	ØDN - 0.125	0.115	0.012	0.040" - 0.060"	WRPA01-I-ØDN X ØdN X 0.115
0.250 X 0.062	1.000" - 2.000"	ØDN - 0.125	0.250	0.012	0.040" - 0.060"	WRPA01-I-ØDN X ØdN X 0.250
0.375 X 0.062	1.000" - 3.000"	ØDN - 0.125	0.375	0.012	0.040" - 0.060"	WRPA01-I-ØDN X ØdN X 0.375
0.500 X 0.062	1.000" - 3.000"	ØDN - 0.125	0.500	0.012	0.040" - 0.080"	WRPA01-I-ØDN X ØdN X 0.500
0.750 X 0.062	1.000" - 4.000"	ØDN - 0.125	0.750	0.012	0.040" - 0.080"	WRPA01-I-ØDN X ØdN X 0.750
1.000 X 0.062	1.000" - 4.000"	ØDN - 0.125	1.000	0.016	0.080" - 0.140"	WRPA01-I-ØDN X ØdN X 1.000
0.165 X 0.125	1.000" - 4.000"	ØDN - 0.250	0.165	0.016	0.040" - 0.080"	WRPA01-I-ØDN X ØdN X 0.165
0.187 X 0.125	1.000" - 4.000"	ØDN - 0.250	0.187	0.016	0.040" - 0.080"	WRPA01-I-ØDN X ØdN X 0.187
0.250 X 0.125	1.000" - 6.000"	ØDN - 0.250	0.250	0.016	0.040" - 0.120"	WRPA01-I-ØDN X ØdN X 0.250
0.312 X 0.125	1.000" - 8.000"	ØDN - 0.250	0.312	0.016	0.040" - 0.120"	WRPA01-I-ØDN X ØdN X 0.312
0.375 X 0.125	2.000" - 12.000"	ØDN - 0.250	0.375	0.016	0.080" - 0.140"	WRPA01-I-ØDN X ØdN X 0.375
0.500 X 0.125	2.000" - 8.000"	ØDN - 0.250	0.500	0.020	0.080" - 0.140"	WRPA01-I-ØDN X ØdN X 0.500
0.625 X 0.125	2.000" - 10.000"	ØDN - 0.250	0.625	0.020	0.080" - 0.160"	WRPA01-I-ØDN X ØdN X 0.625
0.750 X 0.125	3.000" - 12.000"	ØDN - 0.250	0.750	0.020	0.080" - 0.160"	WRPA01-I-ØDN X ØdN X 0.750
0.875 X 0.125	3.000" - 12.000"	ØDN - 0.250	0.875	0.020	0.080" - 0.160"	WRPA01-I-ØDN X ØdN X 0.875
1.000 X 0.125	4.000" - 12.000"	ØDN - 0.250	1.000	0.020	0.120" - 0.200"	WRPA01-I-ØDN X ØdN X 1.000
1.250 X 0.125	4.000" - 13.000"	ØDN - 0.250	1.250	0.020	0.120" - 0.200"	WRPA01-I-ØDN X ØdN X 1.250
1.500 X 0.125	4.000" - 13.000"	ØDN - 0.250	1.500	0.020	0.120" - 0.200"	WRPA01-I-ØDN X ØdN X 1.500

O RING AND BACK UP RING	OR & BRT	

O-RING

Features:

O-Rings are ring shaped seals of circular cross section. They are mainly used to seal machined components-in static situations - against fluid and gaseous media. In certain conditions, they can be used as a dynamic sealing element for axial, rotating and oscillating movement.

Composition:

SEAL COMBINATION	SEAL COMPOSITION	TEMPERATURE RANGE	WORKING PRESSURE (Max.)		SURFACE SPEED
			WITHOUT BACK-UP	WITH BACK-UP	
OR7N	NB02	-20 to +100°C	110 Bar	250 Bar	0.5 m/s
OR9N	NB01	-20 to +100°C	160 Bar	400 Bar	0.5 m/s
OR8F	VT01	-20 to +200°C	160 Bar	400 Bar	0.5 m/s
ORPU	PU19	-20 to +100°C	320 Bar	-	0.5 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Properties:

- O ring can be used for both static and dynamic sealing application
- Wide temperature range
- Easy installation

Application:

- All short of hydraulic and pneumatic sealing system

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:

Careful fitting of the seal is a prerequisite for it's perfect functioning.

BACKUP RING

Features:

Standard backup element with rectangular cross section.

Composition:

SEAL COMBINATION	SEAL COMPOSITION	TEMPERATURE RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED
BRT	PT01	-20 to +200˚C	400 Bar	4 m/s
BRH	HY02	-20 to +110˚C	320 Bar	0.5 m/s
BRN	NB01	-20 to +100˚C	250 Bar	0.5 m/s
BRBT	PT02	-20 to +200˚C	400 Bar	4 m/s

For compound detail please refer to PEC seal compounds. (Section - III)

Application:

Backup element to prevent gap extrusion of radially sealing O-Rings and Rod seals in dynamic sealing.

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 µm	0.05-0.3 µm
Bottom of groove	≤ 6.3 µm	≤ 1.6 µm
Side of groove	≤ 15 µm	≤ 3µm

Fitting:

Careful fitting is prerequisite for perfect functioning of the backup ring.

Ordering format:

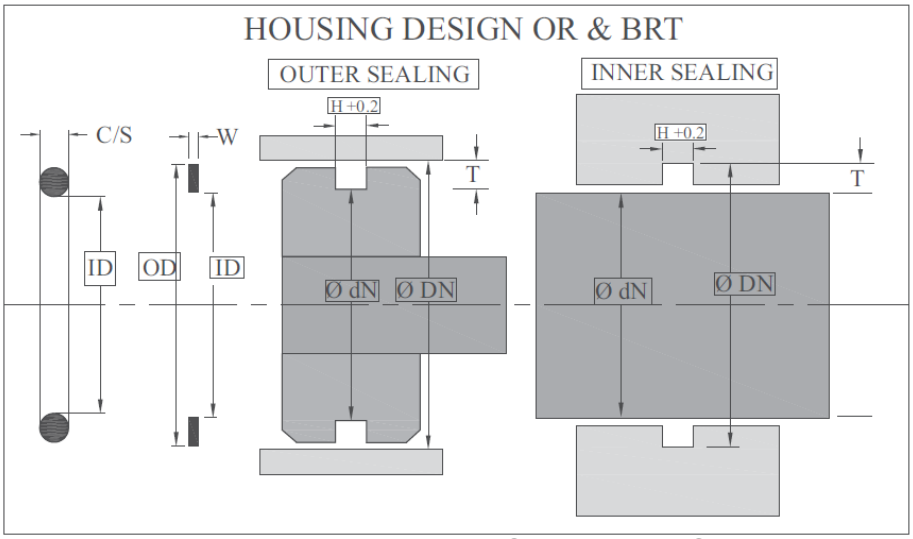
Please mention PEC order code in your order.

Example: Size 25 X 30 X 1.3

Order code for BRT (Pure PTFE) is **BRT-G-025**

Order code for BRH (Hytrel) is **BRH-G-025**

Please contact PEC if your required size is not available in PEC standard size list



Polymer Engineering Standard Size List

CROSS SECTION		GLAND DEPTH(MM) T				H+0.2(MM)			BACKUP RING W (-0.10)
C/S	TOL.	HYD.	TOL.	PNEU.	TOL.	NO BACK UP	ONE BACK UP	TWO BACK UP	THICKNESS
1.78	±0.08	1.45	±0.02	1.55	±0.02	2.40	3.80	5.20	1.40
1.90	±0.08	1.50	±0.02	1.65	±0.02	2.60	4.00	5.40	1.40
2.40	±0.09	2.00	±0.02	2.10	±0.02	3.20	4.60	6.00	1.40
2.62	±0.09	2.25	±0.02	2.35	±0.02	3.60	5.00	6.40	1.40
3.10	±0.10	2.50	±0.02	2.80	±0.02	4.10	5.50	6.90	1.40
3.50	±0.10	3.00	±0.05	3.20	±0.05	4.60	6.00	7.40	1.40
3.53	±0.10	3.10	±0.05	3.20	±0.05	4.80	6.20	7.60	1.40
5.33	±0.13	4.70	±0.05	4.90	±0.05	7.10	9.10	11.10	2.00
5.70	±0.13	5.00	±0.05	5.30	±0.05	7.20	9.20	11.20	2.00
6.99	±0.15	6.00	±0.05	6.55	±0.05	9.50	12.00	14.50	2.50
8.40	±0.18	7.50	±0.05	8.00	±0.05	10.00	12.50	15.00	2.50

O RING INSIDE DIAMETER TOLERANCES

I.D. (mm)	2.80 to 6.30	6.31 to 11.20	11.21 to 21.20	21.21 to 40.00	41.20 to 80.00	80.01 to 160	165 to 300	300 to 650
TOL.(mm)	±0.13 mm	±0.16 mm	±0.19 mm	±0.95%	±0.86%	±0.78%	±0.74%	±0.67%
				of corresponding inside diameter				

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
		CROSS SECTION 1.9 mm	
2.8	1.90	OR-N/F-P-003	BRT-P-003
3.8	1.90	OR-N/F-P-004	BRT-P-004
4.8	1.90	OR-N/F-P-005	BRT-P-005
5.8	1.90	OR-N/F-P-006	BRT-P-006
6.8	1.90	OR-N/F-P-007	BRT-P-007
7.8	1.90	OR-N/F-P-008	BRT-P-008
8.8	1.90	OR-N/F-P-009	BRT-P-009
9.8	1.90	OR-N/F-P-010	BRT-P-010
		CROSS SECTION 2.4 mm	
9.8	2.40	OR-N/F-P-010A	BRT-P-010A
10.8	2.40	OR-N/F-P-011	BRT-P-011
11	2.40	OR-N/F-P-011.2	BRT-P-011.2
11.8	2.40	OR-N/F-P-012	BRT-P-012
12.3	2.40	OR-N/F-P-012.5	BRT-P-012.5
13.8	2.40	OR-N/F-P-014	BRT-P-014
14.8	2.40	OR-N/F-P-015	BRT-P-015
15.8	2.40	OR-N/F-P-016	BRT-P-016
17.8	2.40	OR-N/F-P-018	BRT-P-018
19.8	2.40	OR-N/F-P-020	BRT-P-020
20.8	2.40	OR-N/F-P-021	BRT-P-021
21.8	2.40	OR-N/F-P-022	BRT-P-022
		CROSS SECTION 3.1 mm	
24.4	3.10	OR-N/F-G-025	BRT-G-025
29.4	3.10	OR-N/F-G-030	BRT-G-030
34.4	3.10	OR-N/F-G-035	BRT-G-035
39.4	3.10	OR-N/F-G-040	BRT-G-040
44.4	3.10	OR-N/F-G-045	BRT-G-045
49.4	3.10	OR-N/F-G-050	BRT-G-050
54.4	3.10	OR-N/F-G-055	BRT-G-055
59.4	3.10	OR-N/F-G-060	BRT-G-060
64.4	3.10	OR-N/F-G-065	BRT-G-065
69.4	3.10	OR-N/F-G-070	BRT-G-070
74.4	3.10	OR-N/F-G-075	BRT-G-075
79.4	3.10	OR-N/F-G-080	BRT-G-080
84.4	3.10	OR-N/F-G-085	BRT-G-085
89.4	3.10	OR-N/F-G-090	BRT-G-090
94.4	3.10	OR-N/F-G-095	BRT-G-095
99.4	3.10	OR-N/F-G-100	BRT-G-100
104.4	3.10	OR-N/F-G-105	BRT-G-105
109.4	3.10	OR-N/F-G-110	BRT-G-110
114.4	3.10	OR-N/F-G-115	BRT-G-115
119.4	3.10	OR-N/F-G-120	BRT-G-120

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
124.4	3.10	OR-N/F-G-125	BRT-G-125
129.4	3.10	OR-N/F-G-130	BRT-G-130
134.4	3.10	OR-N/F-G-135	BRT-G-135
139.4	3.10	OR-N/F-G-140	BRT-G-140
144.4	3.10	OR-N/F-G-145	BRT-G-145
CROSS SECTION 3.50 mm			
21.7	3.5	OR-N/F-P-022A	BRT-P-022A
22.1	3.5	OR-N/F-P-022.4	BRT-P-022.4
23.7	3.5	OR-N/F-P-024	BRT-P-024
24.7	3.5	OR-N/F-P-025	BRT-P-025
25.2	3.5	OR-N/F-P-025.5	BRT-P-025.5
25.7	3.5	OR-N/F-P-026	BRT-P-026
27.7	3.5	OR-N/F-P-028	BRT-P-028
28.7	3.5	OR-N/F-P-029	BRT-P-029
29.2	3.5	OR-N/F-P-029.5	BRT-P-029.5
29.7	3.5	OR-N/F-P-030	BRT-P-030
30.7	3.5	OR-N/F-P-031	BRT-P-031
31.2	3.5	OR-N/F-P-031.5	BRT-P-031.5
31.7	3.5	OR-N/F-P-032	BRT-P-032
33.7	3.5	OR-N/F-P-034	BRT-P-034
34.7	3.5	OR-N/F-P-035	BRT-P-035
35.2	3.5	OR-N/F-P-035.5	BRT-P-035.5
35.7	3.5	OR-N/F-P-036	BRT-P-036
37.7	3.5	OR-N/F-P-038	BRT-P-038
38.7	3.5	OR-N/F-P-039	BRT-P-039
39.7	3.5	OR-N/F-P-040	BRT-P-040
40.7	3.5	OR-N/F-P-041	BRT-P-041
41.7	3.5	OR-N/F-P-042	BRT-P-042
43.7	3.5	OR-N/F-P-044	BRT-P-044
44.7	3.5	OR-N/F-P-045	BRT-P-045
45.7	3.5	OR-N/F-P-046	BRT-P-046
47.7	3.5	OR-N/F-P-048	BRT-P-048
48.7	3.5	OR-N/F-P-049	BRT-P-049
49.7	3.5	OR-N/F-P-050	BRT-P-050
CROSS SECTION 5.70 mm			
47.6	5.7	OR-N/F-P-048A	BRT-P-048A
49.6	5.7	OR-N/F-P-050A	BRT-P-050A
51.6	5.7	OR-N/F-P-052	BRT-P-052
52.6	5.7	OR-N/F-P-053	BRT-P-053
54.6	5.7	OR-N/F-P-055	BRT-P-055
55.6	5.7	OR-N/F-P-056	BRT-P-056
57.6	5.7	OR-N/F-P-058	BRT-P-058
59.6	5.7	OR-N/F-P-060	BRT-P-060
61.6	5.7	OR-N/F-P-062	BRT-P-062
62.6	5.7	OR-N/F-P-063	BRT-P-063

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
64.6	5.7	OR-N/F-P-065	BRT-P-065
66.6	5.7	OR-N/F-P-067	BRT-P-067
69.6	5.7	OR-N/F-P-070	BRT-P-070
70.6	5.7	OR-N/F-P-071	BRT-P-071
74.6	5.7	OR-N/F-P-075	BRT-P-075
79.6	5.7	OR-N/F-P-080	BRT-P-080
84.6	5.7	OR-N/F-P-085	BRT-P-085
89.6	5.7	OR-N/F-P-090	BRT-P-090
94.6	5.7	OR-N/F-P-095	BRT-P-095
99.6	5.7	OR-N/F-P-100	BRT-P-100
101.6	5.7	OR-N/F-P-102	BRT-P-102
104.6	5.7	OR-N/F-P-105	BRT-P-105
109.6	5.7	OR-N/F-P-110	BRT-P-110
111.6	5.7	OR-N/F-P-112	BRT-P-112
114.6	5.7	OR-N/F-P-115	BRT-P-115
119.6	5.7	OR-N/F-P-120	BRT-P-120
124.6	5.7	OR-N/F-P-125	BRT-P-125
129.6	5.7	OR-N/F-P-130	BRT-P-130
131.6	5.7	OR-N/F-P-132	BRT-P-132
134.6	5.7	OR-N/F-P-135	BRT-P-135
139.6	5.7	OR-N/F-P-140	BRT-P-140
144.6	5.7	OR-N/F-P-145	BRT-P-145
149.6	5.7	OR-N/F-P-150	BRT-P-150
149.3	5.7	OR-N/F-G-150	BRT-G-150
154.3	5.7	OR-N/F-G-155	BRT-G-155
159.3	5.7	OR-N/F-G-160	BRT-G-160
164.3	5.7	OR-N/F-G-165	BRT-G-165
169.3	5.7	OR-N/F-G-170	BRT-G-170
174.3	5.7	OR-N/F-G-175	BRT-G-175
179.3	5.7	OR-N/F-G-180	BRT-G-180
184.3	5.7	OR-N/F-G-185	BRT-G-185
189.3	5.7	OR-N/F-G-190	BRT-G-190
194.3	5.7	OR-N/F-G-195	BRT-G-195
199.3	5.7	OR-N/F-G-200	BRT-G-200
204.3	5.7	OR-N/F-G-205	BRT-G-205
209.3	5.7	OR-N/F-G-210	BRT-G-210
214.3	5.7	OR-N/F-G-215	BRT-G-215
219.3	5.7	OR-N/F-G-220	BRT-G-220
224.3	5.7	OR-N/F-G-225	BRT-G-225
229.3	5.7	OR-N/F-G-230	BRT-G-230
234.3	5.7	OR-N/F-G-235	BRT-G-235
239.3	5.7	OR-N/F-G-240	BRT-G-240
244.3	5.7	OR-N/F-G-245	BRT-G-245
249.3	5.7	OR-N/F-G-250	BRT-G-250
254.3	5.7	OR-N/F-G-255	BRT-G-255
259.3	5.7	OR-N/F-G-260	BRT-G-260

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
264.3	5.7	OR-N/F-G-265	BRT-G-265
269.3	5.7	OR-N/F-G-270	BRT-G-270
274.3	5.7	OR-N/F-G-275	BRT-G-275
279.3	5.7	OR-N/F-G-280	BRT-G-280
284.3	5.7	OR-N/F-G-285	BRT-G-285
289.3	5.7	OR-N/F-G-290	BRT-G-290
294.3	5.7	OR-N/F-G-295	BRT-G-295
299.3	5.7	OR-N/F-G-300	BRT-G-300
304.3	5.7	OR-N/F-G-305	
309.3	5.7	OR-N/F-G-310	
314.3	5.7	OR-N/F-G-315	
319.3	5.7	OR-N/F-G-320	
324.3	5.7	OR-N/F-G-325	
329.3	5.7	OR-N/F-G-330	
334.3	5.7	OR-N/F-G-335	
339.3	5.7	OR-N/F-G-340	
344.3	5.7	OR-N/F-G-345	
349.3	5.7	OR-N/F-G-350	
354.3	5.7	OR-N/F-G-355	
359.3	5.7	OR-N/F-G-360	
364.3	5.7	OR-N/F-G-365	
369.3	5.7	OR-N/F-G-370	
374.3	5.7	OR-N/F-G-375	
379.3	5.7	OR-N/F-G-380	
384.3	5.7	OR-N/F-G-385	
389.3	5.7	OR-N/F-G-390	
394.3	5.7	OR-N/F-G-395	
399.3	5.7	OR-N/F-G-400	
		CROSS SECTION 8.40 mm	
149.5	8.4	OR-N/F-P-150A	BRT-P-150A
154.5	8.4	OR-N/F-P-155	BRT-P-155
159.5	8.4	OR-N/F-P-160	BRT-P-160
164.5	8.4	OR-N/F-P-165	BRT-P-165
169.5	8.4	OR-N/F-P-170	BRT-P-170
174.5	8.4	OR-N/F-P-175	BRT-P-175
179.5	8.4	OR-N/F-P-180	BRT-P-180
184.5	8.4	OR-N/F-P-185	BRT-P-185
189.5	8.4	OR-N/F-P-190	BRT-P-190
194.5	8.4	OR-N/F-P-195	BRT-P-195
199.5	8.4	OR-N/F-P-200	BRT-P-200
204.5	8.4	OR-N/F-P-205	BRT-P-205
208.5	8.4	OR-N/F-P-209	BRT-P-209
209.5	8.4	OR-N/F-P-210	BRT-P-210

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
214.5	8.4	OR-N/F-P-215	BRT-P-215
219.5	8.4	OR-N/F-P-220	BRT-P-220
224.5	8.4	OR-N/F-P-225	BRT-P-225
229.5	8.4	OR-N/F-P-230	BRT-P-230
234.5	8.4	OR-N/F-P-235	BRT-P-235
239.5	8.4	OR-N/F-P-240	BRT-P-240
244.5	8.4	OR-N/F-P-245	BRT-P-245
249.5	8.4	OR-N/F-P-250	BRT-P-250
254.5	8.4	OR-N/F-P-255	BRT-P-255
259.5	8.4	OR-N/F-P-260	BRT-P-260
264.5	8.4	OR-N/F-P-265	BRT-P-265
269.5	8.4	OR-N/F-P-270	BRT-P-270
274.5	8.4	OR-N/F-P-275	BRT-P-275
279.5	8.4	OR-N/F-P-280	BRT-P-280
284.5	8.4	OR-N/F-P-285	BRT-P-285
289.5	8.4	OR-N/F-P-290	BRT-P-290
294.5	8.4	OR-N/F-P-295	BRT-P-295
299.5	8.4	OR-N/F-P-300	
314.5	8.4	OR-N/F-P-315	
319.5	8.4	OR-N/F-P-320	
334.5	8.4	OR-N/F-P-335	
339.5	8.4	OR-N/F-P-340	
354.5	8.4	OR-N/F-P-355	
359.5	8.4	OR-N/F-P-360	
374.5	8.4	OR-N/F-P-375	
384.5	8.4	OR-N/F-P-385	
399.5	8.4	OR-N/F-P-400	
CROSS SECTION 1.78 mm			
2.90	1.78	OR-N/F-D-006	
3.68	1.78	OR-N/F-D-007	
4.47	1.78	OR-N/F-D-008	
5.28	1.78	OR-N/F-D-009	
6.07	1.78	OR-N/F-D-010	
7.65	1.78	OR-N/F-D-011	
9.25	1.78	OR-N/F-D-012	
10.82	1.78	OR-N/F-D-013	
12.42	1.78	OR-N/F-D-014	
14.00	1.78	OR-N/F-D-015	
15.60	1.78	OR-N/F-D-016	
17.17	1.78	OR-N/F-D-017	
18.77	1.78	OR-N/F-D-018	
20.35	1.78	OR-N/F-D-019	
21.95	1.78	OR-N/F-D-020	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
23.52	1.78	OR-N/F-D-021	
25.12	1.78	OR-N/F-D-022	
26.70	1.78	OR-N/F-D-023	
28.30	1.78	OR-N/F-D-024	
29.87	1.78	OR-N/F-D-025	
31.47	1.78	OR-N/F-D-026	
33.05	1.78	OR-N/F-D-027	
34.65	1.78	OR-N/F-D-028	
37.82	1.78	OR-N/F-D-029	
41.00	1.78	OR-N/F-D-030	
44.17	1.78	OR-N/F-D-031	
47.35	1.78	OR-N/F-D-032	
50.52	1.78	OR-N/F-D-033	
53.70	1.78	OR-N/F-D-034	
56.87	1.78	OR-N/F-D-035	
60.05	1.78	OR-N/F-D-036	
63.22	1.78	OR-N/F-D-037	
66.40	1.78	OR-N/F-D-038	
69.57	1.78	OR-N/F-D-039	
72.75	1.78	OR-N/F-D-040	
75.92	1.78	OR-N/F-D-041	
82.27	1.78	OR-N/F-D-042	
88.62	1.78	OR-N/F-D-043	
94.97	1.78	OR-N/F-D-044	
101.32	1.78	OR-N/F-D-045	
107.67	1.78	OR-N/F-D-046	
114.02	1.78	OR-N/F-D-047	
120.37	1.78	OR-N/F-D-048	
126.72	1.78	OR-N/F-D-049	
133.07	1.78	OR-N/F-D-050	
CROSS SECTION 2.62 mm			
4.42	2.62	OR-N/F-D-106	
5.23	2.62	OR-N/F-D-107	
6.02	2.62	OR-N/F-D-108	
7.59	2.62	OR-N/F-D-109	
9.19	2.62	OR-N/F-D-110	
10.77	2.62	OR-N/F-D-111	
12.37	2.62	OR-N/F-D-112	
13.94	2.62	OR-N/F-D-113	
15.54	2.62	OR-N/F-D-114	
17.12	2.62	OR-N/F-D-115	
18.72	2.62	OR-N/F-D-116	
20.29	2.62	OR-N/F-D-117	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
21.89	2.62	OR-N/F-D-118	
23.47	2.62	OR-N/F-D-119	
25.07	2.62	OR-N/F-D-120	
26.64	2.62	OR-N/F-D-121	
28.24	2.62	OR-N/F-D-122	
29.82	2.62	OR-N/F-D-123	
31.42	2.62	OR-N/F-D-124	
32.99	2.62	OR-N/F-D-125	
34.59	2.62	OR-N/F-D-126	
36.17	2.62	OR-N/F-D-127	
37.77	2.62	OR-N/F-D-128	
39.34	2.62	OR-N/F-D-129	
40.94	2.62	OR-N/F-D-130	
42.52	2.62	OR-N/F-D-131	
44.12	2.62	OR-N/F-D-132	
45.69	2.62	OR-N/F-D-133	
47.29	2.62	OR-N/F-D-134	
48.90	2.62	OR-N/F-D-135	
50.47	2.62	OR-N/F-D-136	
52.07	2.62	OR-N/F-D-137	
53.64	2.62	OR-N/F-D-138	
55.25	2.62	OR-N/F-D-139	
56.82	2.62	OR-N/F-D-140	
58.42	2.62	OR-N/F-D-141	
59.99	2.62	OR-N/F-D-142	
61.60	2.62	OR-N/F-D-143	
63.17	2.62	OR-N/F-D-144	
64.77	2.62	OR-N/F-D-145	
66.34	2.62	OR-N/F-D-146	
67.95	2.62	OR-N/F-D-147	
69.52	2.62	OR-N/F-D-148	
71.12	2.62	OR-N/F-D-149	
72.69	2.62	OR-N/F-D-150	
75.87	2.62	OR-N/F-D-151	
82.22	2.62	OR-N/F-D-152	
88.57	2.62	OR-N/F-D-153	
94.92	2.62	OR-N/F-D-154	
101.27	2.62	OR-N/F-D-155	
107.62	2.62	OR-N/F-D-156	
113.97	2.62	OR-N/F-D-157	
120.32	2.62	OR-N/F-D-158	
126.67	2.62	OR-N/F-D-159	
133.02	2.62	OR-N/F-D-160	
139.37	2.62	OR-N/F-D-161	
145.72	2.62	OR-N/F-D-162	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
152.07	2.62	OR-N/F-D-163	
158.42	2.62	OR-N/F-D-164	
164.77	2.62	OR-N/F-D-165	
171.12	2.62	OR-N/F-D-166	
177.47	2.62	OR-N/F-D-167	
183.82	2.62	OR-N/F-D-168	
190.17	2.62	OR-N/F-D-169	
196.52	2.62	OR-N/F-D-170	
202.87	2.62	OR-N/F-D-171	
209.22	2.62	OR-N/F-D-172	
215.57	2.62	OR-N/F-D-173	
221.92	2.62	OR-N/F-D-174	
228.27	2.62	OR-N/F-D-175	
234.62	2.62	OR-N/F-D-176	
240.97	2.62	OR-N/F-D-177	
247.32	2.62	OR-N/F-D-178	
CROSS SECTION 3.53 mm			
9.12	3.53	OR-N/F-D-204	
10.69	3.53	OR-N/F-D-205	
12.29	3.53	OR-N/F-D-206	
13.87	3.53	OR-N/F-D-207	
15.47	3.53	OR-N/F-D-208	
17.04	3.53	OR-N/F-D-209	
18.64	3.53	OR-N/F-D-210	
20.22	3.53	OR-N/F-D-211	
21.82	3.53	OR-N/F-D-212	
23.39	3.53	OR-N/F-D-213	
24.99	3.53	OR-N/F-D-214	
26.57	3.53	OR-N/F-D-215	
28.17	3.53	OR-N/F-D-216	
29.74	3.53	OR-N/F-D-217	
31.34	3.53	OR-N/F-D-218	
32.92	3.53	OR-N/F-D-219	
34.52	3.53	OR-N/F-D-220	
36.09	3.53	OR-N/F-D-221	
37.69	3.53	OR-N/F-D-222	
40.87	3.53	OR-N/F-D-223	
44.04	3.53	OR-N/F-D-224	
47.22	3.53	OR-N/F-D-225	
50.39	3.53	OR-N/F-D-226	
53.57	3.53	OR-N/F-D-227	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
56.74	3.53	OR-N/F-D-228	
59.92	3.53	OR-N/F-D-229	
63.09	3.53	OR-N/F-D-230	
66.27	3.53	OR-N/F-D-231	
69.44	3.53	OR-N/F-D-232	
72.62	3.53	OR-N/F-D-233	
75.79	3.53	OR-N/F-D-234	
78.97	3.53	OR-N/F-D-235	
82.14	3.53	OR-N/F-D-236	
85.32	3.53	OR-N/F-D-237	
88.49	3.53	OR-N/F-D-238	
91.67	3.53	OR-N/F-D-239	
94.84	3.53	OR-N/F-D-240	
98.02	3.53	OR-N/F-D-241	
101.19	3.53	OR-N/F-D-242	
104.37	3.53	OR-N/F-D-243	
107.54	3.53	OR-N/F-D-244	
110.72	3.53	OR-N/F-D-245	
113.89	3.53	OR-N/F-D-246	
117.07	3.53	OR-N/F-D-247	
120.24	3.53	OR-N/F-D-248	
123.42	3.53	OR-N/F-D-249	
126.59	3.53	OR-N/F-D-250	
129.77	3.53	OR-N/F-D-251	
132.94	3.53	OR-N/F-D-252	
136.12	3.53	OR-N/F-D-253	
139.29	3.53	OR-N/F-D-254	
142.47	3.53	OR-N/F-D-255	
145.64	3.53	OR-N/F-D-256	
148.82	3.53	OR-N/F-D-257	
151.99	3.53	OR-N/F-D-258	
158.34	3.53	OR-N/F-D-259	
164.69	3.53	OR-N/F-D-260	
171.04	3.53	OR-N/F-D-261	
177.39	3.53	OR-N/F-D-262	
183.74	3.53	OR-N/F-D-263	
190.09	3.53	OR-N/F-D-264	
196.44	3.53	OR-N/F-D-265	
202.79	3.53	OR-N/F-D-266	
209.14	3.53	OR-N/F-D-267	
215.49	3.53	OR-N/F-D-268	
221.84	3.53	OR-N/F-D-269	
228.19	3.53	OR-N/F-D-270	
234.54	3.53	OR-N/F-D-271	
240.89	3.53	OR-N/F-D-272	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
247.24	3.53	OR-N/F-D-273	
253.59	3.53	OR-N/F-D-274	
266.29	3.53	OR-N/F-D-275	
278.99	3.53	OR-N/F-D-276	
291.69	3.53	OR-N/F-D-277	
304.39	3.53	OR-N/F-D-278	
329.79	3.53	OR-N/F-D-279	
355.19	3.53	OR-N/F-D-280	
380.59	3.53	OR-N/F-D-281	
405.26	3.53	OR-N/F-D-282	
430.66	3.53	OR-N/F-D-283	
456.06	3.53	OR-N/F-D-284	
		CROSS SECTION 5.33 mm	
10.46	5.33	OR-N/F-D-309	
12.07	5.33	OR-N/F-D-310	
13.64	5.33	OR-N/F-D-311	
15.24	5.33	OR-N/F-D-312	
16.81	5.33	OR-N/F-D-313	
18.42	5.33	OR-N/F-D-314	
19.99	5.33	OR-N/F-D-315	
21.59	5.33	OR-N/F-D-316	
23.16	5.33	OR-N/F-D-317	
24.77	5.33	OR-N/F-D-318	
26.34	5.33	OR-N/F-D-319	
27.94	5.33	OR-N/F-D-320	
29.51	5.33	OR-N/F-D-321	
31.12	5.33	OR-N/F-D-323	
32.69	5.33	OR-N/F-D-323	
34.29	5.33	OR-N/F-D-324	
37.47	5.33	OR-N/F-D-325	
40.64	5.33	OR-N/F-D-326	
43.82	5.33	OR-N/F-D-327	
46.99	5.33	OR-N/F-D-328	
50.17	5.33	OR-N/F-D-329	
53.34	5.33	OR-N/F-D-330	
56.52	5.33	OR-N/F-D-331	
59.69	5.33	OR-N/F-D-332	
62.87	5.33	OR-N/F-D-333	
66.04	5.33	OR-N/F-D-334	
69.22	5.33	OR-N/F-D-335	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
72.39	5.33	OR-N/F-D-336	
75.57	5.33	OR-N/F-D-337	
78.74	5.33	OR-N/F-D-338	
81.91	5.33	OR-N/F-D-339	
85.09	5.33	OR-N/F-D-340	
88.27	5.33	OR-N/F-D-341	
91.44	5.33	OR-N/F-D-342	
94.62	5.33	OR-N/F-D-343	
97.79	5.33	OR-N/F-D-344	
100.97	5.33	OR-N/F-D-345	
104.14	5.33	OR-N/F-D-346	
107.32	5.33	OR-N/F-D-347	
110.49	5.33	OR-N/F-D-348	
113.67	5.33	OR-N/F-D-349	
116.84	5.33	OR-N/F-D-350	
120.02	5.33	OR-N/F-D-351	
123.19	5.33	OR-N/F-D-352	
126.37	5.33	OR-N/F-D-353	
129.54	5.33	OR-N/F-D-354	
132.72	5.33	OR-N/F-D-355	
135.89	5.33	OR-N/F-D-356	
139.07	5.33	OR-N/F-D-357	
142.24	5.33	OR-N/F-D-358	
145.42	5.33	OR-N/F-D-359	
148.59	5.33	OR-N/F-D-360	
151.77	5.33	OR-N/F-D-361	
158.12	5.33	OR-N/F-D-362	
164.47	5.33	OR-N/F-D-363	
170.82	5.33	OR-N/F-D-364	
177.17	5.33	OR-N/F-D-365	
183.52	5.33	OR-N/F-D-366	
189.87	5.33	OR-N/F-D-367	
196.22	5.33	OR-N/F-D-368	
202.57	5.33	OR-N/F-D-369	
208.97	5.33	OR-N/F-D-370	
215.27	5.33	OR-N/F-D-371	
221.62	5.33	OR-N/F-D-372	
227.97	5.33	OR-N/F-D-373	
234.32	5.33	OR-N/F-D-374	
240.67	5.33	OR-N/F-D-375	
247.02	5.33	OR-N/F-D-376	
253.37	5.33	OR-N/F-D-377	
266.07	5.33	OR-N/F-D-378	
278.77	5.33	OR-N/F-D-379	
291.47	5.33	OR-N/F-D-380	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
304.17	5.33	OR-N/F-D-381	
329.57	5.33	OR-N/F-D-382	
354.97	5.33	OR-N/F-D-383	
380.37	5.33	OR-N/F-D-384	
405.26	5.33	OR-N/F-D-385	
430.66	5.33	OR-N/F-D-386	
CROSS SECTION 6.99 mm			
113.67	6.99	OR-N/F-D-425	
116.84	6.99	OR-N/F-D-426	
120.02	6.99	OR-N/F-D-427	
123.19	6.99	OR-N/F-D-428	
126.37	6.99	OR-N/F-D-429	
129.54	6.99	OR-N/F-D-430	
132.72	6.99	OR-N/F-D-431	
135.89	6.99	OR-N/F-D-432	
139.07	6.99	OR-N/F-D-434	
142.24	6.99	OR-N/F-D-434	
145.42	6.99	OR-N/F-D-435	
148.59	6.99	OR-N/F-D-436	
151.77	6.99	OR-N/F-D-437	
158.12	6.99	OR-N/F-D-438	
164.47	6.99	OR-N/F-D-439	
170.82	6.99	OR-N/F-D-440	
177.17	6.99	OR-N/F-D-441	
183.52	6.99	OR-N/F-D-442	
189.87	6.99	OR-N/F-D-443	
196.22	6.99	OR-N/F-D-444	
202.57	6.99	OR-N/F-D-445	
215.27	6.99	OR-N/F-D-446	
227.97	6.99	OR-N/F-D-447	
240.67	6.99	OR-N/F-D-448	
253.37	6.99	OR-N/F-D-449	
266.07	6.99	OR-N/F-D-450	
278.77	6.99	OR-N/F-D-451	
291.47	6.99	OR-N/F-D-452	
304.17	6.99	OR-N/F-D-453	
316.87	6.99	OR-N/F-D-454	
329.57	6.99	OR-N/F-D-455	
342.27	6.99	OR-N/F-D-456	
354.97	6.99	OR-N/F-D-457	
367.67	6.99	OR-N/F-D-458	
380.37	6.99	OR-N/F-D-459	

Polymer Engineering Standard Size List

I.D.	C/S	O RING (N=NBR, F=FPM) ORDER CODE	BACKUP RING ORDER CODE
393.07	6.99	OR-N/F-D-460	
405.26	6.99	OR-N/F-D-461	
417.96	6.99	OR-N/F-D-462	
430.66	6.99	OR-N/F-D-463	
443.36	6.99	OR-N/F-D-464	
456.06	6.99	OR-N/F-D-465	
468.76	6.99	OR-N/F-D-466	
481.46	6.99	OR-N/F-D-467	
494.16	6.99	OR-N/F-D-468	
506.86	6.99	OR-N/F-D-469	
532.26	6.99	OR-N/F-D-470	
557.66	6.99	OR-N/F-D-471	
582.68	6.99	OR-N/F-D-472	
608.08	6.99	OR-N/F-D-473	
633.48	6.99	OR-N/F-D-474	
658.88	6.99	OR-N/F-D-475	

NOTES

Tolerance Chart in Metric size (mm)

Nominal sizes		Shaft (outside diameter)						Bore (inside diameter)			
mm		Units 0.001 mm						Units 0.001mm			
over	to	f8	f9	h8	h9	h10	h11	H8	H9	H10	H11
1.6	3	-6	-6	0	0	0	0	14	25	40	60
		-20	-31	-14	-25	-40	-60	0	0	0	0
3	6	-10	-10	0	0	0	0	18	30	48	75
		-28	-40	-18	-30	-48	-75	0	0	0	0
6	10	-13	-13	0	0	0	0	22	36	58	90
		-35	-49	-22	-36	-58	-90	0	0	0	0
10	18	-16	-16	0	0	0	0	27	43	70	110
		-43	-59	-27	-43	-70	-110	0	0	0	0
18	30	-20	-20	0	0	0	0	33	52	84	130
		-53	-72	-33	-52	-84	-130	0	0	0	0
30	50	-25	-25	0	0	0	0	39	62	100	160
		-64	-87	-39	-62	-100	-160	0	0	0	0
50	80	-30	-30	0	0	0	0	46	74	120	190
		-76	-104	-46	-74	-120	-190	0	0	0	0
80	120	-36	-36	0	0	0	0	54	87	140	220
		-90	-123	-54	-87	-140	-220	0	0	0	0
120	180	-43	-43	0	0	0	0	63	100	160	250
		-106	-143	-63	-100	-160	-250	0	0	0	0
180	250	-50	-50	0	0	0	0	72	115	185	290
		-122	-165	-72	-115	-185	-290	0	0	0	0
250	315	-56	-56	0	0	0	0	81	130	210	320
		-137	-186	-81	-130	-210	-320	0	0	0	0
315	400	-62	-62	0	0	0	0	89	140	230	360
		-151	-202	-89	-140	-230	-360	0	0	0	0
400	500	-68	-68	0	0	0	0	97	155	250	400
		-165	-223	-97	-155	-250	-400	0	0	0	0
500	630	-76	-76	0	0	0	0	110	175	280	440
		-186	-251	-110	-175	-280	-440	0	0	0	0
630	800	-80	-80	0	0	0	0	125	200	320	500
		-205	-280	-125	-200	-320	-500	0	0	0	0

NOTES

Tolerance Chart in Imperial size (inch)

Nominal sizes		Shaft (outside diameter)						Bore (inside diameter)			
inch		Units 0.001 inch						Units 0.001			
over	to	f8	f9	h8	h9	h10	h11	H8	H9	H10	H11
0.063	0.118	-0.2	-0.2	0	0	0	0	0.6	1	1.6	2.4
		-0.8	-1.2	-0.6	-1	-1.6	-2.4	0	0	0	0
0.118	0.236	-0.4	-0.4	0	0	0	0	0.7	1.2	1.9	3
		-1.1	-1.6	-0.7	-1.2	-1.9	-3	0	0	0	0
0.236	0.394	-0.5	-0.5	0	0	0	0	0.9	1.4	2.3	3.5
		-1.4	-1.9	-0.9	-1.4	-2.3	-3.5	0	0	0	0
0.394	0.709	-0.6	-0.6	0	0	0	0	1.1	1.7	2.8	4.3
		-1.7	-2.3	-1.1	-1.7	-2.8	-4.3	0	0	0	0
0.709	1.181	-0.8	-0.8	0	0	0	0	1.3	2	3.3	5.1
		-2.1	-2.8	-1.3	-2	-3.3	-5.1	0	0	0	0
1.181	1.969	-1	-1	0	0	0	0	1.5	2.4	3.9	6.3
		-2.5	-3.4	-1.5	-2.4	-3.9	-6.3	0	0	0	0
1.969	3.15	-1.2	-1.2	0	0	0	0	1.8	2.9	4.7	7.5
		-3	-4.1	-1.8	-2.9	-4.7	-7.5	0	0	0	0
3.15	4.724	-1.4	-1.4	0	0	0	0	2.1	3.4	5.5	8.7
		-3.5	-4.8	-2.1	-3.4	-5.5	-8.7	0	0	0	0
4.724	7.087	-1.7	-1.7	0	0	0	0	2.5	3.9	6.3	9.8
		-4.2	-5.6	-2.5	-3.9	-6.3	-9.8	0	0	0	0
7.087	9.843	-2	-2	0	0	0	0	2.8	4.5	7.3	11.4
		-4.8	-6.5	-2.8	-4.5	-7.3	-11.4	0	0	0	0
9.843	12.402	-2.2	-2.2	0	0	0	0	3.2	5.1	8.3	12.6
		-5.4	-7.3	-3.2	-5.1	-8.3	-12.6	0	0	0	0
12.402	15.748	-2.4	-2.4	0	0	0	0	3.5	5.5	9.1	14.2
		-5.9	-8	-3.5	-5.5	-9.1	-14.2	0	0	0	0
15.748	19.685	-2.7	-2.7	0	0	0	0	3.8	6.1	9.8	15.7
		-6.5	-8.8	-3.8	-6.1	-9.8	-15.7	0	0	0	0
19.685	24.803	-3	-3	0	0	0	0	4.3	6.9	11	17.3
		-7.3	-9.9	-4.3	-6.9	-11	-17.3	0	0	0	0
24.803	31.496	-3.1	-3.1	0	0	0	0	4.9	7.9	12.6	19.7
		-8.1	-11	-4.9	-7.9	-12.6	-19.7	0	0	0	0

Section - V
STORAGE & FITTING

Storage

When storing PEC seals, please check the following points:

1) Do not open the packing unnecessarily. Dust may stick to the seal or scratch it.
2) Avoid exposure to direct sunlight and store in a cool place. Ultraviolet light and humidity may sometimes promote deterioration and dimensional change of rubber and resin materials.
3) When storing products already unpacked, be careful that foreign materials do not stick or become embedded. Store them in their original condition, in tightly sealed poly to prevent dimensional change resulting from humidity.
4) Do not place seals near any heat source such as a boiler, stove, oven etc. Heat may deteriorate the material.
5) Do not place seals near electric motors or equipments generating ozone.
6) Avoid hanging seals with a nail, wire or suspending them with a string as this may cause deformation and scratches on the top end of the lip.
7) Sometimes, colour changes or white powder appears on the surface of seals (blooming phenomenon). This will not affect the function of seal.
8) PTFE rings of combination seals may be easily scratched if dropped or impacted by an external force. Be careful when handling.
9) The store room should be cool, dry and dust-free; it should have moderate ventilation.
10) The seals should never be exposed to any ozone or ionizing radiation.

Check points before installation of seals :-

PEC quality control methods for material and manufacturing processes ensure that all seals going into application field are in a condition capable of giving a long and reliable service life. Sealing performance of a seal is greatly influence by the method of assembling of a cylinder. On the basis of many years experience, to avoid premature seal failure the following recommendations should be considered at the design and manufacturing stage of the cylinder:

1) Specify piston and gland bearings which are adequately proportioned to support the cylinder loads. As a result of mounting misalignment and / or the working action of the cylinder, piston and gland bearings will be subjected to side loading, causing damage to the rod or the tube surface and hence the seal, if the bearings are inadequate.
2) Check that the seal housing is free from damage likely to harm the seal. Remove all sharp edges and burrs from metal parts, paying particular attention to ports, grooves and threads over or through which the seal passes during assembly.
3) Clean all seal housing areas, ensuring that all metallic particles and other contaminants have been removed. Check that other surfaces adjacent to the passage of the seal on fitting are also free of dirt or other contaminants. Check that both static and dynamic housing surface finishes meet specifications.
4) Where the difference between a thread diameter over which the seal must pass and the seal diameter is small, use some form of protection over the thread, such as a fitting sleeve made of hard plastic.
5) Lubricate all seals and metal components liberally with clean operating fluid or a compatible grease prior to assembly. Note that silicone grease should not be used in normal hydraulic applications.
6) Where seals fitted to sub-assemblies, such as pistons, are awaiting further fitting operations, ensure that the seals are not subjected to any misaligned or localized loading which will cause local deformation. Ensure that sub-assemblies remain clean.
7) The use of metal levers is not recommended but should they be used it is imperative that they are completely smooth and free from nicks and burrs. When using them ensure that the metal surfaces adjacent to the seal are not damaged.
8) Make sure that hydraulic cylinder & system is free from dust, any burr or steel particle.