Manufacturer of.....
Standard & Custom
Seals, Gaskets,
Rings & More

MSO Seals and Gaskets

4702 Steffani Lane
Houston, Texas  77041
TEL: (713) 468-7500
FAX: (713) 468-3663
www.123seal.com
msohq@sbcglobal.net
LIST OF MATERIAL

- NBR
- HNBR
- XNBR (CARBOXILATED NITRIL)
- VITON®
- FLUORO CARBON
- NEOPRENE
- SILICONE
- EPDM
- POLYURETHANE
- UHMW
- NYLON
- PEEK
- TEFLOW®
- PTFE
- HYTREL (POLYMITE®)
- KEVLAR
- HITEMPLEON 650
And much more….

MSO The Seal Capital of the World!

MSO Seals & Gaskets. Manufactured to order Hydraulics Seals, Houston, Texas.

MSO Seals and Gaskets, based in Houston, Texas, strives to provide customers with a seals and gaskets manufacturer and supplier that they can rely on. MSO manufactures 100% of its orders in-house, in Houston, Texas. Through fair prices, timely deliveries, unparalleled customer service and superior products, we have grown to become the premier custom seals and gaskets supplier.

We cater to your company’s needs.

We’ve been creating superior seals and gaskets of all types for over a decade. O-Rings, O-Ring Cords, Hydraulic Seals, Oil Seals, Fabricated Gaskets, Machined Plastic Products and Custom Molded Rubber Seals are all within MSO’s scope of production, and we often create custom seal solutions for applications of all types. Serving oilfield, agricultural, and manufacturing businesses are our specialties. We also maintain an inventory of Non-Asbestos, Graphite, Teflon and numerous other types of Sheet Goods.
## PISTON SEALS (P)

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Hydraulic Piston Seals

Send us your application and we can recommend the right piston seals for you. MSO carries over 2 million seals in our stock ready for immediate delivery from many material.

What is your size?

We offer rings in sizes 3/8” to 32” in diameter with virtually MSO seals and gaskets can supply Better Product

Piston seals can be made from different materials with different profiles. Piston seals can be single acting or double acting seals. MSO has over 40 different profiles and materials of piston seals to serve you from:

- Teflon®
- Viton®
- REPDM Silicone
- Polyurethane
- NBR
- HNBR
- And much more!

Our Standard Joints:
- Interlock Joint
- Hook Joint
- Butt Joint
- Step Joint

From one to one million seals MSO is the way to go.
Rod Seals

Large seals, small seals, odd seals, standard seals, metric seals, special seals, prototype seals, polyurethane seals, Viton® seals, silicone seals, epdm seals, Teflon® seals any blend of Teflon® we have over 70 available peek seals, uhmw seals, nylon seals, pom seals, delrin seals, hytrel seals and many more.

We machine seals as well as we mold seals from 3mm to 2000mm and any size in between. MSO is the seal capital of the world with service like no other. Thank you for choosing MSO Seals and Gaskets, inc.

Rod Seal Importance

Rod seals are vital for almost any fluid power machinery and equipment. This is because it prevents the fluids from leaking from inside the cylinder to the outside. This helps increase productivity and keeps the equipment up to performance standards.

Whether it is a single-acting system or a double acting system, MSO has you covered with the capability of making any kind of rod seal from any dimension and material.
Seal Wipers
MSO seals and gaskets sample profile of the most used wipers available in the world.

We Can Mass Produce Wipers!
We are ready to serve you. Molded wipers, machined wipers, any quantities any material. We are the wiper capital of the world.

Types of wipers:
We stand ready to do any prototype wiper, special wiper, metric wiper standard wiper, hard to find wiper, obsolete wiper, polyurethane wiper, epdm wiper, silicone wiper, hnbr wiper, Viton® wiper, nbr wiper, peek wiper, uhmw wiper, Teflon® wiper or any other material you choose.

Wiper Function
The main use for wipers is to keep any liquids, dirt and all containments outside or away from the fluid power system.

Conditions
What ever the weather condition or of it is a vertical oriented rod, We can create a wiper for you or make any wiper according to your specifications.

From one to one million seals MSO is the way to go.
O-Rings
We can manufacture any o-ring up to 2 meters in diameter fast including NBR, HNBR, Silicone, EPDM, Viton®, Aflas, Teflon® and polyurethane.

Types of O-rings:

- American standard size o-ring (Inch Sizes)
- Metric O-rings
- O-ring cord
- O-ring kit and assortment
- Encapsulated o-rings
- Square cut ring
- Four-sided rings

Standard, Metric and Custom O-Rings

We carry any size of O-ring. We also have the capability of custom making any size and material.

Nitrile (NBR) 70: The most common elastomer used for industrial grade O-rings. Compatible with most mineral based hydraulic fluids with a working temperature range from -40°C to 110°C.

Nitrile (NBR) 90: Harder than Nitrile 70 and hence suitable for use as a high pressure O-ring or back up washer.

Viton® 75: Possessing the broadest chemical compatibility of any mainstream elastomer, its broad working temperature range of -35°C to 205°C and excellent mechanical properties make this an excellent high performance compound for use in hydraulic systems.

Silicone, EPDM, Neoprene

other specialty compounds are available in many sizes or to order.

From one to one million seals MSO is the way to go.
**Backup Rings**

The main purpose for a back up ring, is to help the seal to refrain from extruding when the seal is under a higher amount of pressure. The back up ring will “back up” the seal you have in place and help the seal to not extrude through the extrusion gap.

Back up can be made from nylon, and nylon filled material, composite, delrin, Teflon®, peek, etc.

**Guide Rings**

Guide rings are to guide the piston to be concentric and not to have metal to metal contact that give the cylinder a better and longer service life. Like back up rings, guide rings can be made from many different type of material like phenolic, Teflon®, Peek, ryton, nylon, delrin, acetal.
Oil Seals

MSO Seals and Gaskets can manufacture custom machine oil seals as well as mold any oil seal you may require in metric, standard or special sizes. Single and double case designs are standard, with single, double and triple lip configurations with or without springs available from stock. Nitrile rubber, Viton® polyacrylate and silicone compounds are utilized dependent upon your particular application.

LIP MATERIALS

R-Nitrile Buna-N 70 - durometer compound is the standard material for seals and is recommended for the majority of common applications. Nitrile lip seals work well within a range of -40°F to 250°F temperatures and are compatible with water and most common mineral oils and greases.

Polyacrylate- compounds are recommended for higher temperature applications ranging from -22°F to 300°F. They also work well with mineral oils, EP additives and greases. However, they offer poor sealing in dry running conditions and cost more than Nitrile.

V-Viton®- compounds are premium lip materials offering the widest temperature range and chemical resistance. Viton® will handle temperatures from -40° to over 400°F (-40° to over 204°C). Viton® will resist most special lubricants and chemicals that can destroy Nitrile, polyacrylates and silicones. Viton® is extremely resistant to abrasion and provides superior wear and performance. Viton® works in dry running applications, but only for intermittent periods.
Lip Seals
MSO Seals and Gaskets can custom machine lip seals as well as mold any lip seal you may require, Metric or Standard or special.

Rubber grade used include:
Nitrile Rubber - This is the most widely used elastomer in current applications.

Silicone Rubbers - It is particularly resistant to atmospheric agents, light and ozone. It has a good resistance to high-aniline content and petroleum oils; it can be also used with sulphur-containing oils.

FLUORINATED RUBBER (Viton®) - This rubber is characterized by an excellent heat resistance. In fact its elastic properties remain unaltered permanently up to 200°C

SEALING LIP MATERIALS
The sealing lips are made of a compound consisting of one or more basic elastomers and a series of ingredients such as reinforcing fillets, plasticizers, antioxidants, accelerators, etc. which provide the product with specific properties.

Compound formulations are aimed at providing the material with the following properties:
- Stability when in contact with the fluid the seal is designed for stability at operating temperatures.
- High elasticity modulus
- Wear resistance
- Low friction coefficient

From one to one million seals MSO is the way to go.
Gaskets

Here at MSO we have a wide variety of gaskets from any size. We also have the capability of custom making any type of gasket that is needed.

Types of Gaskets in inventory:

- Spiral Wound Gaskets
- Jacketed Gaskets
- Machine Phenolic
- Die Cut Gaskets
- O-Rings
- Custom Gaskets

We can make any gasket, any shape, fast from soft or hard material. Examples: Aflas, Aramid, Fibers, Buna-N, CI Rubber, Cork, Cork Rubber, Diaphragm Sheet, EMI/RFI Shielding, EPDM, EPDM NSF-61, Epoxy Laminates, Felt, Fiberfrax, Fishpaper, Flexible Graphite, Foam, Hi-Temp Compressed Sheet, JM 940 (Red Devil), Kapton, Mylar, Neoprene, Phenolic.

We provide consulting in case you need us to create any seal or gasket according to your application and fluid power component. With fast shipping MSO is proud to provide the shortest lead times possible.
U-Seals
MSO Seals and Gaskets has a vast variety of polypak seals in any material and in inventory ready to be shipped on the same day you order.

Types of U-Seals:
- STANDARD
- METRIC
- QUADRING
- DEEP
- TYPE B

U-Seal Materials and Application:
U-seals provides superb resistance against abrasion and extrusion. The most common material used for U-Seals is polyurethane, but MSO will custom make any dimension U-seal out of any material you need. With a pressure tolerance of up to 15000 PSI and a heat range from –75° to +500° F the U-Seals has become a popular sealing application for hydraulic and pneumatic cylinders, piston valves and much more.

From one to one million seals MSO is the way to go.
Mud Motor Boots & MWD Seals

MSO Seals and Gaskets can mold high quality HNBR boots for oil bas applications like hot well holes. These boots can be massed produces for your company and if ordered in volume, the mold charge will be waived! We can make these boots out of NBR, HNBR, and VITON®. Our prices for these boots are very competitive and we cannot be beat. Feel free to ask for a quote.

MWD seals are made out of high quality Viton® and Teflon®. We have all these seals in our inventory and readily available. Here at MSO we will make you a custom MWD seal kit according to the specifications you need.
Frac Stack & Wellhead Sealing Solutions

MSO Seals and Gaskets now provides frac stack service companies with the seal kits they need in order to run their operations smoothly and efficiently. So far we have had little to no competition. MSO strives to provide the highest quality seals, and exceptional customer service. We have experienced engineers on call and ready to consult and help you with your sealing solution needs.

LIST OF MATERIAL

- NBR
- HNBR
- XNBR (CARBOXILATED NITRIL)
- VITON®
- FLUORO CARBON
- NEOPRENE
- SILICONE
- EPDM
- POLYURETHANE
- UHMW
- NYLON
- PEEK
- TEFLOM®
- PTFE
- HYTREL (POLYMITE®)
- KEVLAR

And much more....

Blanket order and in house inventory:

When you decide to order with MSO, we have that capability to blanket order your seals. If you order a certain amount of seals a year, but only want a few at a time, then we will price you the high volume low price rate for your seals. This means for every order of seals you make, we will price you the rate as if you were buying the amount of seals that total the year.

If you were to order a constant high volume of seals from MSO, then we will gladly keep a section in out inventory just for you. This way you will always receive your seals and gaskets on time, as well as, reduce lead time in case of an emergency.
CUSTOM SEALING
We carry high quality Teflon® over 70 different blends. Ex: carbon graphite, glass filled, bronze, molly glass and many more. As a custom seal company we can make any size seal, you can send us a drawing or schematics and we will make it for you. We carry stock of inner and outer Teflon® rings ranging from all sizes and dimensions.

Choke & Stem Packing
We can duplicate any kind of stem packing needed for Choke valves as well as provide the O-rings body bushings and the ring gaskets necessary to complete the seal kit.

Quality Molding
MSO strives to provide quality molding of all types of rubber parts. With no mold charge majority of the time, MSO focuses on building a relationship with our customers. Our philosophy for molding is, “we are making an investment in your company knowing we will have a long term relationship.”

Ring Joint Gaskets
From R11 to R105 MSO Stocks various Ring Joint Gaskets. We can make them according to your specifications and out of any material.

Spiral Wound Gaskets
Spiral Wound Gaskets can be made to your exact specification and on a timely manor, from all types of material and filler. We can deliver small to large quantities. We stock standard sizes and can manufacture all custom sizes.
Our Mission Statement

MSO Seals and Gaskets, INC. is committed to providing quality products that conform to our customer specifications, completed in a cost effective manor, with on time delivery.

Management’s goal is to educate and involve every employee in the MSO quality program and to promote continual improvement of all our systems by encouraging full participation in our overall quality efforts.

Kal Choukeir
President of MSO Seals and Gaskets