# PROTECH™ BEARING ISOLATORS

EPS 5275

Parker

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If you have questions about the products contained in this catalog, or their applications, please contact:
Parker Hannifin Corporation
**Engineered Polymer Systems Division**
phone 800 233 3900
www.parker.com/eps





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# 1. INTRODUCTION

## ProTech Bearing Isolators Offer Superior Protection

Parker developed the unique ProTech design to provide unmatched two-way sealing offering both positive lubricant retention and exclusion of contaminants for the life of the bearing. This is accomplished by Parker's true non-contact labyrinth seal technology. This technology does not rely on internal sealing components, such as o-rings or lip seals, that will wear and reduce seal performance over time.

### Why upgrade to ProTech?

**Enhance the ability to improve output and productivity.**

Increasing productivity by minimizing downtime due to planned or unplanned maintenance and repair cycles is a primary driver behind the decision of companies to convert key equipment including pumps, electric motors, compressors, gear boxes, and split pillow bock bearings from a standard contact lip seal to a non-contact ProTech bearing isolator.

**Reduce total cost of ownership.**

While the initial cost of a lip seal is lower than a bearing isolator, the total cost of the sealing system over the life of the equipment should be evaluated as part of the decision-making process. Consider the following:

True non-contact isolators will never wear out as compared to contacting seals which have a typical life of 3,000 to 5,000 operating hours, thereby extending the Mean Time Between Failure (MTBF).

A non-contact design is lower torque and consumes less energy. The energy savings alone can offset the cost of the seal upgrade.

**LW**

**LN**

**LS**

Examples of common ProTech profiles

**WARNING**

The products described in this catalog can expose you to chemicals, including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.


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# Replace Radial Lip Oil Seals with ProTech™ when Performance and Reliability are Critical

## Standard, Custom and Specialty Designs

Standard designs easily retrofit common equipment. In addition to the standard profiles, sizes, and materials of construction shown in this catalog, because ProTech is machined, it can be customized with alternate features as required for a wide range of industrial applications and custom design envelopes.

Custom configurations and size ranges not shown are available in a range of alternate materials if needed.

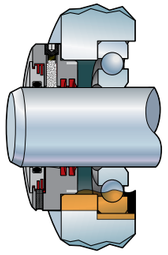
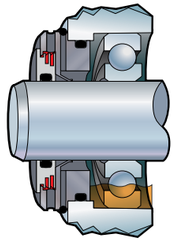
## Technical Assistance

If you need assistance, Parker's team of experienced application engineers is available to help with selection recommendations.

## Quality

ProTech is manufactured under strict quality control processes — from raw material selection to finished product. The highest quality and absolute consistency from lot-to-lot are assured by our decades of seal manufacturing experience, and:

- Use of only first-grade virgin PTFE resins
- Systematic control over sintering process
- Specialized CNC production equipment
- QS-9000 certification

| Standard Profiles | Engineered Solutions | Custom Features |
|---|---|---|
|  ProTech "LW" |  SG Profile |  Grease Purge Features |
| In addition to the LW, ProTEch is available in 8 other standard profiles providing a standard seal option for the majority of industrial applications. | The Self Grounding (SG) seal demonstrates Parker's ability to engineer unique solutions. The SG dissipates stray electrical currents to eliminate damage to the bearing. | Custom design features are available for specific applications. The above example addresses the need to handle a required grease purge system by the OEM without filling the labyringht with grease. |

## Design Innovation

Parker's ProTech design innovations include the first bearing isolator with a two-piece unitized design, complete wrap-around rotor, severe splash oil grooves and a hybrid isolator for flooded applications.





# ProTech™ Seal Design

With years of experience in the design and manufacture of sealing solutions for industrial applications, Parker is an industry leader in seal design technology and is the innovation leader when it comes to bearing isolator design.

## Design Innovation

Parker's ProTech design innovations include the first bearing isolator with a two-piece unitized design, complete wrap-around rotor, severe splash oil grooves and a hybrid isolator for flooded applications.

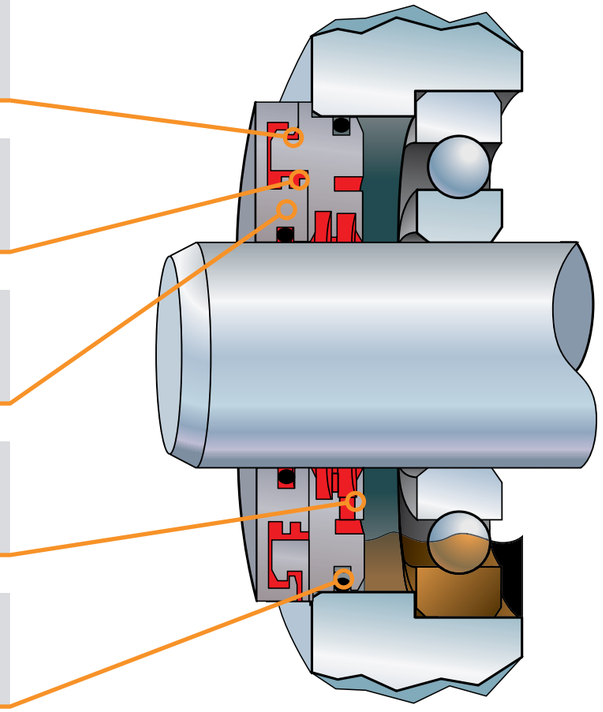
First to offer two-piece unitized construction. Patented design locks seal together and won't wear like internal O-rings, PTFE elements or other locking rings.

Contaminant exclusion relies on labyrinth technology to protect your bearings, not an internal seal or simple O-ring.

Superior chemical resistance provided by proprietary PTFE materials.

Inboard labyrinth sets the standard as most efficient design for oil retention and is far superior to a single groove concept.

External O-rings provide easy-to-install press fit at shaft and seal housing for zero wear of shaft and housing.



## ProTech Materials

ProTech is constructed of proprietary reinforced PTFE and is made to perform in high speed, high temperature and extreme chemical environments. PTFE fillers extend the range of operating conditions by delivering enhanced physical properties to meet specialized environmental conditions such as those found in pulp and paper, petrochemical and food service applications.

## Quality

ProTech is manufactured under strict quality control processes - from raw material selection to finished product. The highest quality and absolute consistency from lot-to-lot are assured by:

- Our many years of seal manufacturing experience
- Use of only first-grade virgin PTFE resins
- Sophisticated system for controlling critical sintering process
- Specialized CNC production equipment QS-9000 certification

# Applications

## Chemical Exposure Applications

- Pulp & Paper
- Chemical processing
- Juice processing
- Fertilizer processing
- Steel Processing slag removal spray

With the utilization of advanced proprietary PTFE compounds, ProTech is well suited for caustic environments from strong sulfides in pulp and paper processing to citric acids in juice processing.

ProTech's superior chemical resistance allows for a single material to be used across the plant, eliminating the need to stock duplicate sizes in expensive stainless steel, Hastelloy or other exotic materials.

## Food Processing Applications

- Coating lines
- Conveyors
- Mixers
- Pumps and electric motors

ProTech's unique design, superior performance and availability in FDA, FDA 3A and anti microbial materials is why it is a preferred solution for sealing rotating equipment used in food processing applications.

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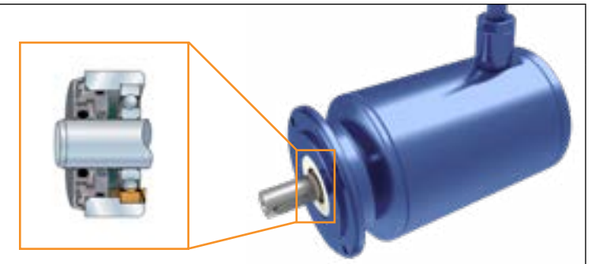
## Washdown Motors

Reduce Maintenance, Extend Run Time

The WD is an economical profile for high volume, disposable equipment such as washdown-grade motors and drives. It also greatly reduces maintenance costs and downtime in food processing applications such as picker hubs in poultry processing.



Wash down:
ProTech WD Profile

## Centrifugal Pumps

- ANSI Centrifugal pumps
- Slurry pumps
- O&G, Petrochemical, Mining, Pulp & Paper
- Water Treatment, Food Processing, Breweries

ProTech's material and performance combination is a proven winner for both OE's and end users across a wide range of pump applications.

## Electric Motors

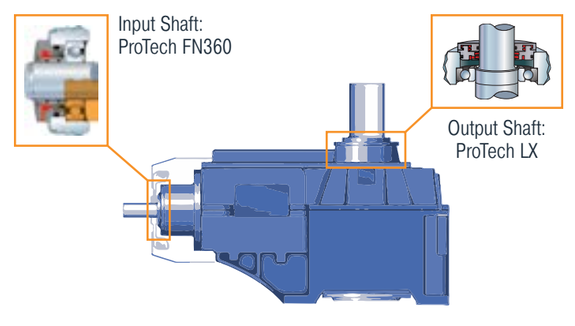
- IEEE compliant motors
- Drill rig motors
- General service, cement, mining and minerals
- NEMA Frame size 48 to 6800

For general service, IEEE, washdown to severe duty ProTech has a solution for your electric motor, generator and compressor applications.

## Cooling Tower Gearboxes

Sealed from Top to Bottom

Upgrading gearboxes that drive cooling tower fans with the ProTech 360 design on the input shaft and the ProTech LX design (similar to the LW design but without the drain port) for the vertical up location is becoming the industry standard for preventing failure due to moisture intrusion.

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# 2. ENGINEERING

## Labyrinth Seal Theory

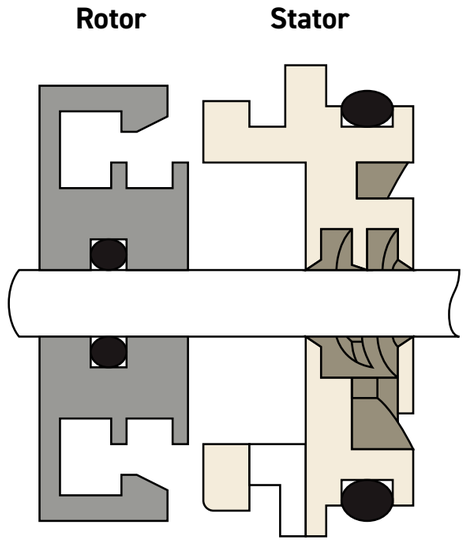
### Components

The ProTech bearing isolator consists of two components, a rotor and a stator.

### Stator

The stator is stationary and utilizes an external O-ring on the outside diameter ("OD") to maintain a press fit in the seal housing and provide a static seal for oil retention. Because this is a static seal, it will not wear out over time. The O-ring press fit allows for easy seal installation while also providing excellent bore retention. The press fit will withstand a torque of up to 500 in-ounces (36,000 g-cm) to eliminate spinning in the housing. The press fit has been tested in the vertical down position to ensure the stator will not walk out of the seal bore.

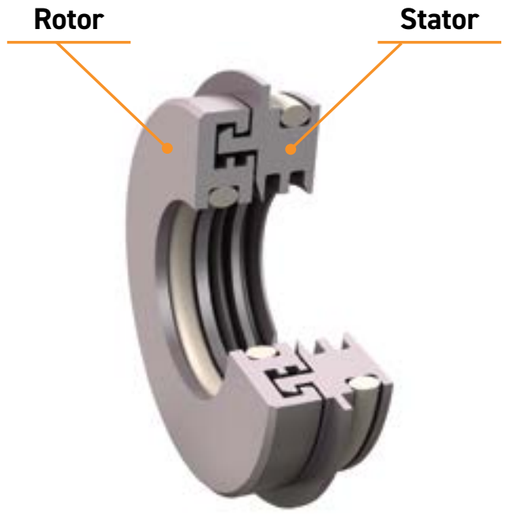
The stator has a sophisticated series of grooves to retain oil splash. Before ProTech, bearing isolators relied on a single inboard groove for oil retention. Results from independent testing by a major pump OEM showed Parker's design to be the most effective for oil retention when compared to various competitor designs.




### Rotor

The second component, the rotor, uses an external O-ring to maintain a static press fit on the shaft. Since the rotor spins with the shaft, it will not wear, groove or damage the shaft, so the costs associated with having to recondition the sealing surface of the shaft are eliminated. The wrap-around profile of the ProTech rotor provides optimal water exclusion.

The rotor and stator are assembled at the Parker factory where they are permanently unitized by means of a patented process. The unitized design allows for one-piece installation and maintains a minimal clearance between the rotor and stator interface for the life of the seal. This interface is the first line of defense against contamination. A unitized design maintains the seal's integrity by keeping high-pressure water spray, vibration or axial movement from separating or increasing the gap between the rotor and stator.




ProTech Assembled Rotor & Stator

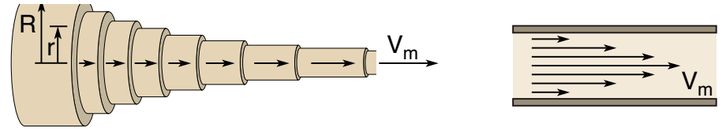




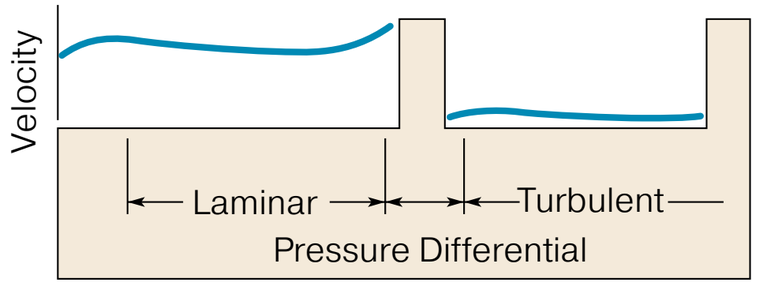
### Controlling Laminar Flow

ProTech relies on true non-contact labyrinth seal technology. When the rotor and stator are assembled at our factory, a true non-contact labyrinth is created. For successful water exclusion, the labyrinth must control the laminar flow properties of the liquid entering the seal.

Laminar is the flow of a liquid in an organized layered manner, or as the name suggests laminates. A liquid flowing through a pipe has various flow levels ranging from zero at the outer wall to a maximum along the centerline.




Typical Laminar Flow Pattern




Introduction of Turbulence Reduces the Rate of Flow

## Introduction of Turbulence

An effective seal design must introduce turbulence into the flow. Turbulence slows down the rate of flow of the liquid so that gravity alone is enough to expel the liquid through the seal drain port. The left side of Figure 2-1 depicts the faster moving laminar flow. The arrows show how the individual water molecules line up in even planes. The right side shows that while laminar flow is still present close to the seal wall, most of the fluid is a slower moving turbulent flow. The direction change, pressure differential, plus the friction of the molecules themselves, aid in slowing the rate of flow.

ProTech's effectiveness is due to the number of times turbulence is introduced to the flow through either forcing a change in direction or dropping the pressure that is pushing the fluid, by using pressure differential chambers. As fluid passes from a smaller restriction to a larger restriction, it undergoes a significant pressure drop. With a decrease in the energy pushing the fluid, the velocity of the fluid will also decrease. ProTech forces any fluid that enters the seal through 11 different directions and 4 pressure differential chambers.

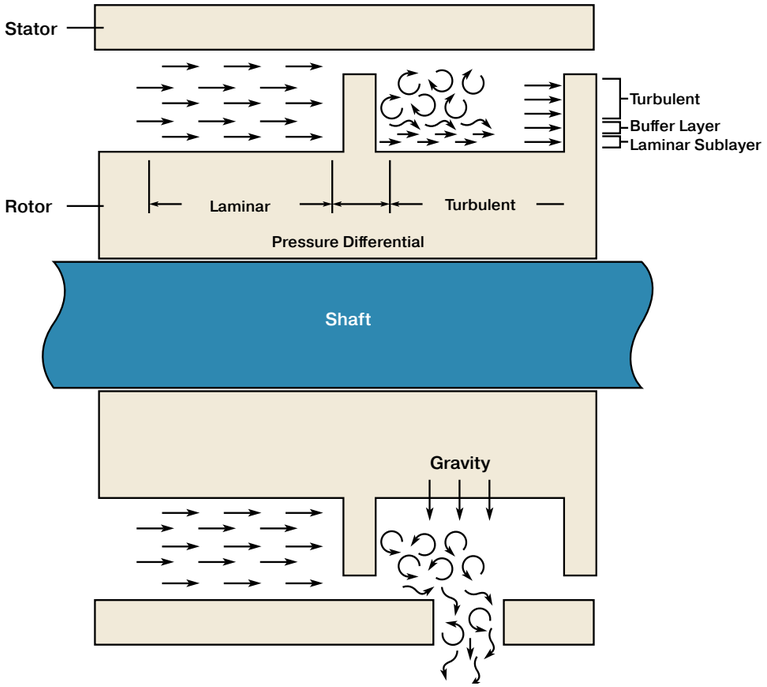
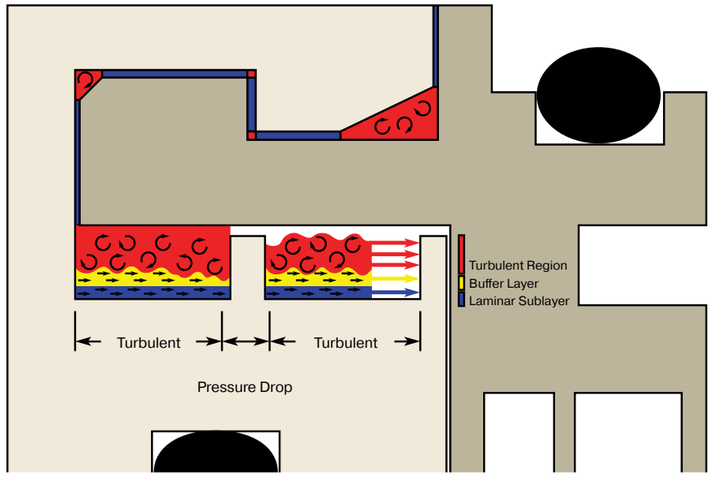



Figure 2-1. Effects of Turbulence




Pressure Drops and Turbulence





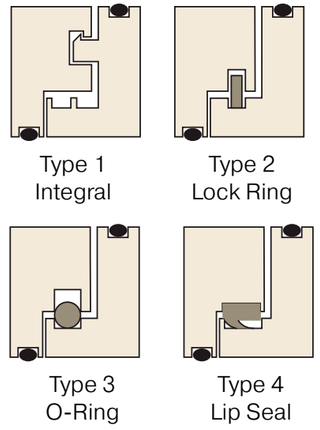
## Recognizing Designs that Negate Turbulence

Extra care must be taken during the design process to avoid introducing features that will encourage laminar flow. Designs that rely on directional changes alone and use smooth wall channels tend to take out previously introduced turbulence and convert the flow back to laminar. Such designs are easy to spot because they often incorporate an internal component for unitizing the rotor and stator, typically an o-ring.

## Unitization Methods

Depicted below are some of the common designs that are available today and they can be defined by the unitization method that is used.

**Type 1:** Parker's ProTech is modeled after the Type 1 unitization method which is integrally unitized and a true non-contact design. There are no internal components to wear or damage the seal. Because there are no internal components to wear, performance will not diminish over time.




**Type 2:** An internal locking ring is used to unitize the seal. It is typically a ring made from nylon or other plastic material.

**Type 3:** Unitized with an internal o-ring.

**Type 4:** Unitized with a PTFE lip seal.

Types 3 and 4 use internal locking rings with a dual purpose. Not only do they unitize the seal, they also provide the majority of the sealing function. Type 3 uses an internal O-ring and Type 4 uses a contact lip seal made of PTFE. If you remove these internal components, the designs will not function.

## Pitfalls of Internal Components

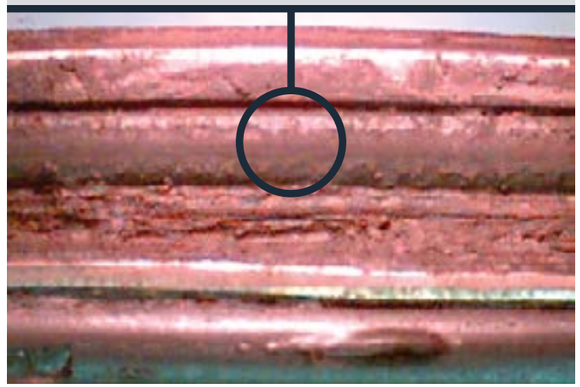
**Wear and leakage.** A brand new seal that incorporates an internal o-ring may do very well in performance testing. However, the internal seal is a contacting seal that will wear over time. Testing indicates that leakage will occur in less than 400 hours of run time. The internal seal acts as a dam that is holding back a pool of contaminants. As soon as there is a break in the contact, due to wear or the slightest axial movement, the pooled contaminants will flood into the bearing housing.

The internal seal is also very susceptible to severe wear from abrasive contaminants. Sludge deposits also make the internal seal inoperable. Designs which rely on internal seals are incapable of excluding even mild water spray if the internal seal is removed.

As these components wear, the seal performance will diminish over time. Internal seals have a limited life due to wear caused by axial shaft movement and chemical attack. Over time the operating temperature will harden the internal seal, making it less effective.

**Insufficient contaminant exclusion.** Any beneficial function of internal components can also be negated by contamination. The photo at right shows an internal O-ring that is locked into a groove by contamination, completely negating its intended purpose. Abrasive contaminants will also cause severe wearing of internal components.

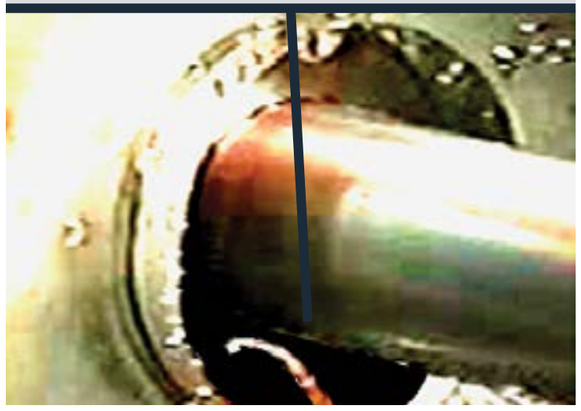
Internal Compromised O-Ring



Because internal seals are not precision balanced components, they can oscillate or wobble at speed. This can create an action that pumps contamination into the bearing housing. The photo at right shows a stream of water being pumped directly into the bearing cavity by a bearing isolator design that uses an internal O-ring as the primary seal.

Parker's ProTech line of bearing isolators feature a true non-contact design (Type 1) and do not rely on an internal O-ring as the primary seal. Additional internal seals simply are not needed with a proper labyrinth design.

## Water Being Pumped into the Bearing Cavity



## Materials

Material is also an important consideration. ProTech uses advanced proprietary PTFE compounds making it well suited for harsh environments such as citric acids found in juice processing and strong caustics such as sulfides in pulp and paper processing.

## Benefits of PTFE vs. Metals

**Chemical resistance.** ProTech's superior chemical resistance allows for the standardization of a single material within a plant, eliminating the need to stock duplicate sizes in expensive stainless steel, Hastelloy® or other exotic materials. Standard chemical compatibility charts recommend PTFE for 160 chemicals versus 11 for bronze and 30 for stainless steel.

ProTech and a leading metallic isolator were soak tested in sulfuric acid. After 30 days the metallic isolator was heavily corroded, the O-rings had disintegrated and the rotor and stator were locked together. ProTech showed zero signs of any harmful effects and could be installed in an application with no performance issues.

PTFE vs. metal after sulfuric acid soak







**Thermal capability.** The temperature range for standard material is -40°F to +250°F (-40°C to +121°C). Higher temperature applications can be handled with alternate materials.

**Initial start-up.** Another important material consideration is the result of initial seal break-in. During initial start-up, it is very common to have slight contact between the rotor and stator. This is a result of the axial shaft movement that occurs as the equipment reaches operating speed. The axial movement at operating speed can force the seal's stator and rotor into contact with each other. The contact will create a dusting of the seal material until a sufficient amount of material has been removed so that the rotor and stator are no longer wearing against each other. The primary concern is this material will find its way into the bearing cavity. With a metallic material, the bearing is contaminated with a dust that has a detrimental effect on bearing life. With ProTech, the dusting is a fine PTFE material, free of glass and other abrasive fillers, that does not have any harmful effects on bearing life or performance. It can be argued that PTFE actually enhances lubrication.

Failed seal resulting from improper fit

## Application Check List

1. Is the correct size seal being utilized?
2. Is the most suitable seal profile being utilized?
3. Are the service media and the temperature compatible with the seal material?
4. Are the equipment conditions, such as the shaft to bore misalignment, shaft finish, and bore finish within recommended limits?
5. Do any unusual equipment variables exist which might affect overall seal performance?

## Installation Check List

1. Has the seal been damaged in storage or handling?
2. Have the O-rings been properly lubricated prior to installation?
3. Have the O-rings been damaged by passing over sharp keyway, splines, threads or burrs?
4. Have the O-rings “rolled” or “twisted?”
5. Has the seal been installed perpendicular to the bore and shaft centerline?
6. Has an adequate vent been provided to relieve all internal pressure?
7. Has adequate drainage been provided to prevent excessive oil build-up over the bottom of the shaft?
8. Have you verified whether a false flooded condition exists?

Failed seal resulting from improper installation

# Table 2-1. Troubleshooting Guide

| Trouble Sign | Possible Source | Suggested Remedy |
|---|---|---|
| Seal OD Leakage | Housing bore too rough, pitted, severe corrosion, grooved, etc. | Improve finish to recommended limits. (See Page x.) |
| | Insufficient OD O-ring fit | Measure bore diameter, compare to nominal required dimensions of equipment and seal requirements. |
| | Seal OD O-ring damaged during installation | Protect O-ring from all sharp burrs at leading edge of bore. A chamfer should be used on leading edges. Lubricate O-rings prior to installation. (See Page x.) Care should also be used when storing the seal for future usage. |
| | Seal OD O-ring damaged from chemical incompatibility | Confirm compatibility. FKM is the standard ProTech O-ring material unless specified otherwise. |
| Seal ID Leakage | Shaft surface too rough — pitted, severe corrosion, grooved, etc. | Improve finish to recommended limits. (See Page x.) |
| | Insufficient ID O-ring fit | Verify shaft diameter, compare to nominal required dimensions of equipment and seal requirements. Verify nominal seal dimensions match actual shaft diameter. |
| | Seal ID O-ring damaged during installation | Protect O-ring from all sharp burrs at leading edge of shaft. A chamfer should be used on leading edges. (See Page 8-12.) Care should also be used when storing the seal. To prevent cutting, protect ID O-rings from shaft keyways, splines, etc. Use proper installation tools to prevent seal O-ring damage. |
| | Seal ID O-ring damaged from chemical incompatibility | Verify chemical compatibility. FKM is the standard ProTech O-ring material unless specified otherwise. |
| Seal Leakage from Drain Port | Internal pressure present | Vent housing if possible. If vented, verify breather or pressure limiting device is functioning correctly. Up to 5 psi, upgrade seal design to ProTech 360. |
| | ProTech 360 only, internal pressure > 5 psi | Vent housing if possible. If vented, verify breather or pressure limiting device is functioning correctly. |
| | Internal seal failure | Contact Parker Application Engineering. |
| Seal Leakage from between Rotor and Stator | Oil level too high | Lower oil level. Ensure internal oil drains are adequate. Upgrade seal design to ProTech 360. |
| | Internal pressure present | Vent housing if possible. If vented, verify breather or pressure limiting device is functioning correctly. Up to 5 psi, upgrade seal design to ProTech 360. |
| | ProTech 360 only, internal pressure > 5 psi | Vent housing if possible. If vented, verify breather or pressure limiting device is functioning correctly. |
| | Internal seal failure | Contact Parker Application Engineering. |

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# Testing and Validation

Laboratory testing has significant advantages over field testing. The lab effectively compresses time and more easily explores limits. Before ProTech saw its first field test, it was put through laboratory tests far more severe than conditions ever encountered in the field. ProTech's effectiveness is also validated by independent laboratory testing.

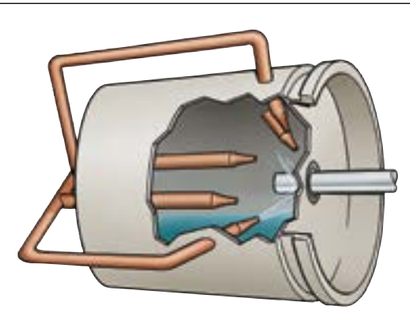
Both ProTech and competitive seals were subjected to three extreme in-house tests with ProTech clearly emerging as the seal of choice.

## Oil Leakage Test

ProTech and other seals were subjected to critical oil seal testing using a machine built to SAE J110 standards. One-hundred hour tests were conducted with severe oil splash.

## Water Exclusion Test

The test machine was modified by mounting five nozzles at various positions relative to the exterior of the seal to simulate severe external wash down. Using water at pressures of 30 to 62 psi (2.0 to 4.3 bar), these nozzles individually sprayed each seal from a distance of 3" in both a static mode and while the shaft rotated at various speeds up to 3525 RPM. The nozzles tried to force water past the seal for nearly two hours.



## Dust Exclusion Test

The test machine was modified with an enclosed chamber containing a large quantity of fine dust and sand which was vigorously agitated with the chamber attached to the outside of each seal area. The equipment operated at speeds up to 3525 RPM for a period of 70 hours in a simulated dust storm environment.

## Conclusions

ProTech was the only seal that passed all three rigorous tests. In addition to lab testing, field trials confirm ProTech's performance superiority.

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# Installation

## Standard Design Installation

The ProTech seal is unitized; any attempt to dissemble the seal will damage it. After making any adjustments to the equipment, confirm that the seal is still properly installed.

## Prior to Installation

1. **Warning!** Disconnect all system power, and follow all standard safety procedures.
2. Remove all sharp edges from the following:
   a. Lead-in chamfers
   b. Keyway
   c. Splines
   d. Snap ring grooves
3. Clean all foreign debris from bore and shaft areas.

## Installation

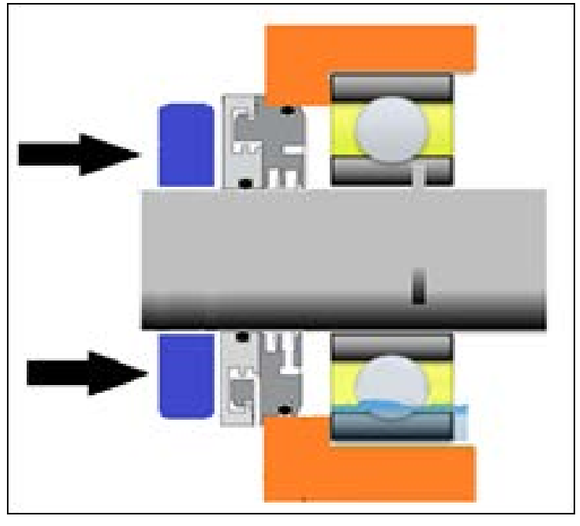
1. Lubricate bore and shaft O-rings with system-compatible lubricant.
2. Position the seal over the shaft by hand. Seal position is correct if the stator O-ring is towards the seal housing as shown.

Position the Seal

3. Slide seal down the shaft, stopping just before the seal housing of the equipment. Use hand pressure only.
4. Rotate the seal so that the drain port is centered at the six o'clock position. Press seal into bore using hand pressure only. If necessary, gently tap seal into bore using a soft- faced tool. DO NOT USE A METALLIC HAMMER OR PUNCH as this may damage the seal.

Installing the Seal

5. For larger diameter seals, housing with poor lead in Chamfer use flat tool that applies pressure to the axial face of the seal rotor.







# Installation

## Split Seal Installation

## Prior to Installation

1. **Warning!** Disconnect all system power and follow all standard safety procedures.
2. Remove sharp edges on the shaft and bore where the seal will be installed. Make sure there are proper lead-in edges.
3. Clean all foreign debris from the bore and shaft area.

## Installation

1. Pre-lubricate the O-rings with a system-compatible lubricant.
2. Position the shorter O-ring on the shaft and place the two halves of the rotor, with the flange sides facing away from the bore, over the O-ring so the O-ring fits into the groove (see Fig. 2-2). (It might help to first paste the O-ring to the shaft with a light coat of grease.) Then place the screws in the rotor halves and screw the two halves together loosely. Do not tighten the screws.

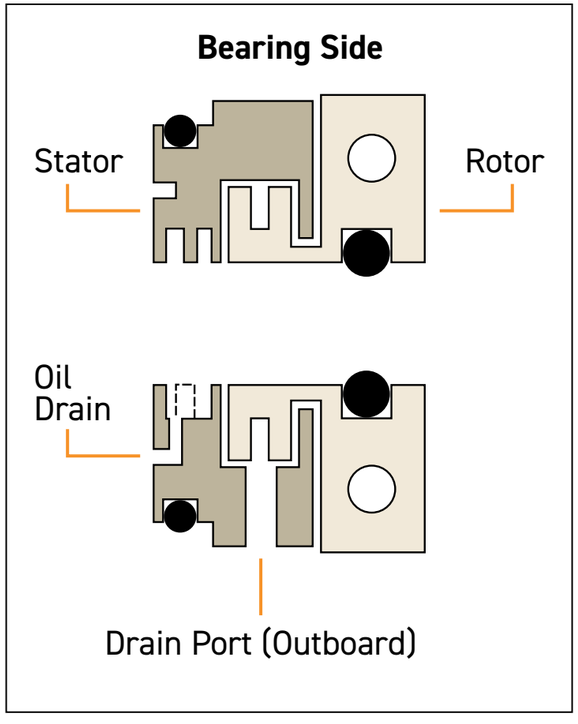



Figure 2-2. Position the Rotor Halves

3. Place the two halves of the stator over the rotor at the bore side so they interlock with the rotor. Rotate the stator until the drain port is at the six o'clock position. While holding the parts together by hand, wrap the long O-ring into the stator O-ring groove with the ends of the O-ring meeting at the 12 o'clock position. Gently slide the seal into the bore while keeping the O-ring in the groove (see Fig. 2-3).

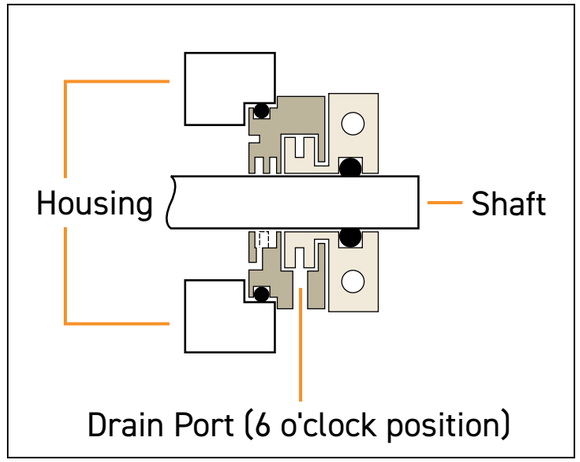



Figure 2-3. Proper Installation

4. Gently tighten the screws; stopping a few times to make sure that the shaft can turn freely. Tighten the screws so the halves of the rotor meet. Do not turn the screws more than one eighth turn beyond where the halves meet. DO NOT OVER-TIGHTEN THE SCREWS.

After making any adjustments to the equipment, confirm that the seal is still properly installed.

# Installation

## Hardware Considerations

The design of ProTech and Millennium bearing isolators use the compression of O-rings to maintain a press fit of the rotor to the shaft and the stator to the bore. This ensures there is no relative motion or wear between the seal and housing components.

Due to lack of dynamic sealing surface, finish conditions are not as critical as they would be with a rotary lip seal.

The most common material for shafts is steel. For seal bores common materials are steel, cast iron and aluminum. ProTech and Millennium may be used with a broader range of materials, such as non-ferrous metals and plastics, that meet the application needs.

## Bores

No special heat treat is required.

Surface finish of 32 µin Ra (0.81 µm Ra) is preferred but 64 µin Ra (1.6 µm Ra) in many cases can be tolerated.

Lead-in chamfer is required — 0.032 to 0.063" (0.81 to 1.6 mm) x 30° with no sharp edges.

## Shafts

No special heat treat is required.

Surface finish of 32 µin Ra (0.81 µm Ra) is preferred but 64 µin Ra (1.6 µm Ra) in many cases can be tolerated.

Shaft lead is not an issue, so ground finish is not required.

Total eccentricity including runout or whip is 0.020" (0.51 mm) T.I.R. for most standard designs. The ProTech 360 design can handle up to 0.003" (0.08 mm). Special designs can tolerate much more.

Table 2-2. Tolerances

| Shaft Tolerance | |
|---|---|
| Shaft Profile | All Diameters - Inches (mm) |
| LS, LN, LM, LW, LX, LD, LB, SL, WD, ML, MN, FS, FN, SG | ± .002 (0.05) |
| **Bore Tolerance** | |
| Cavity Bore Profile | All Diameters - Inches (mm) |
| LS, LN, LM, LW, LX, LD, LB, SL, WD, ML, MN, FS, FN, SG | ± .002 (0.05) |

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# 3. PROTECH™ BEARING ISOLATORS MATERIALS

## Seal Materials

### PTFE Materials for Unmatched Corrosion Resistance

ProTech™ is constructed of proprietary, reinforced PTFE. Seals made from PTFE are used where many other sealing materials (like elastomers, polyurethane, fabric materials, etc.) fail to meet the required temperature range, chemical resistance or friction and wear requirements.

Discovered by accident in 1928 by Dr. Roy J. Plunkett of Du Pont's Jackson laboratory in New Jersey, USA, PTFE has proved to have a unique composition with remarkable properties.

Molecular structure of PTFE ($-CF_2-CF_2$)

The molecular structure of PTFE is based on a linear chain of carbon atoms which are completely surrounded by fluorine atoms. The carbon-fluorine bonds are among the strongest occurring inorganic compounds. As a result, PTFE has:

- **Low friction/dry running capability.** Due to the strength of the carbon-fluorine and carbon-carbon single bonds, PTFE compounds have high thermal stability and self-lubricating capabilities, offering continuous dry running ability in dynamic sealing applications. The low coefficient of friction (.06) of PTFE material results from low interfacial forces between its surface and other materials that it may come in contact with.
- **Thermal stability across a wide temperature range.** PTFE's high melting point and morphological characteristics allow components made from the resin to be used continuously at service temperatures to 600°F*. For sealing cryogenic fluids down to -450 °F, special designs using PTFE and other fluoropolymers are available. *Due to the inclusion of o-rings as an integrated component of ProTech seals, thermal capability is based on the limits of the least competent material.
- **Extreme chemical resistance.** The intrapolymer chain bond strengths of PTFE compounds preclude reaction with most chemicals, thereby making them chemically inert at elevated temperatures and pressures with virtually all industrial chemicals and solvents. PTFE's superior chemical resistance allows for the standardization of a single material within a plant, eliminating the need to stock duplicate sizes in expensive stainless steel, Hastelloy or other exotic materials.
- **Temperature cycling.** Unlike most elastomers, PTFE compounds have the unique ability to resist material degradation, heat-aging and alteration in physical properties during temperature cycling.
- **Unlimited shelf life.** PTFE does not age over time and is not affected by ultraviolet light.

**PTFE fillers.** Fillers extend the range of operating conditions by delivering enhanced physical properties to meet specialized environmental conditions.

**Metallic alternatives.** Select profiles as well as custom designs are available in bronze, stainless steel grades, and carbon steel.

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# Table 3-1. Typical Physical Properties - Rotor/Stator

| Code Number (Parker Material) | Typical Applications and Description (XXX-1000-2000-X-X) | Service Temperature Range°F (°C) |
|---|---|---|
| For PTFE Seals | | |
| –1 (0301) | Standard Material<br>Proprietary Graphite-Filled PTFE<br>For profiles FN, FS, LN, LS, LW, LX & WD<br>Profiles LN and LS for shaft diameters 4" (100mm) and less | -40 to +250 (-40 to +121) |
| –2 (0127) | Optional Material<br>Food Grade Mineral Filled PTFE<br>For profiles FN, FS, LN, LS, LW, LX & WD | -40 to +250 (-40 to +121) |
| –5 (0509) | Standard Material<br>Proprietary Carbon Fiber Filled PTFE<br>Profiles LN and LS for shaft diameters over 4" (100mm) | -40 to +250 (-40 to +121) |
| –7 (0128) | Optional Material<br>Anti-Microbial PTFE<br>Meets FDA requirements for daily service<br>For profiles FN, FS, LN, LS, LW, LX & WD | -40 to +250 (-40 to +121) |
| –8 (0122) | Optional Material<br>FDA 3A Compliant PTFE<br>Meets 3A Sanitary Standards<br>For profiles FN, FS, LN, LS, LW, LX & WD | -40 to +250 (-40 to +121) |
| For Metallic Seals | | |
| –B | Standard Material<br>Bronze C93200 (SAE600)<br>For profile ML, MN, SM | -40 to +400 (-40 to +204) |
| –BA | Optional Material<br>Lead Free Bronze C95400<br>For profile ML, MN, SM | -40 to +400 (-40 to +204) |
| -BS | Optional Material<br>Bronze C93200 Rotor, 304 Stainless Steel Stator<br>For profiles ML, MN, SM | -40 to +400 (-40 to +204) |
| -S | Optional Material<br>304 Stainless Steel<br>For profile ML, MN, SM | -40 to +400 (-40 to +204) |
| -SB | Optional Material<br>304 Stainless Steel Rotor, Bronze C93200 Stator<br>For profiles ML, MN, SM | -40 to +400 (-40 to +204) |
| -K | Optional Material<br>316 Stainless Steel<br>For profile ML, MN, SM | -40 to +400 (-40 to +204) |
| (Special) | Other materials and custom compounding available.<br>Contact Parker for more information. | |

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# Table 3-2. O-ring Typical Physical Properties

| Part Numbering Material Code | Typical Applications and Description | Service Temperature Range°F (°C) |
|---|---|---|
| –1 | STANDARD MATERIAL<br>Fluorocarbon (FKM)<br>Fluorocarbon has excellent resistance to high temperatures, ozone, oxygen, mineral oil, synthetic hydraulic fluids, fuels, aromatics and many organic solvents and chemicals. Special FKM compounds exhibit an improved resistance to acids, fuels, water and steam. | -15 to +400 (-26 to +204) |
| –2 | Fluorosilicone (FVMQ)<br>FVMQ contains trifluoropropyl groups next to the methyl groups. The mechanical and physical properties are very similar to VMQ. However, VFMQ offers improved fuel and mineral oil resistance but poor hot air resistance when compared with VMQ. | -100 to +350 (-40 to +160) |
| –3 | Nitrile, Acrylonitrile-Butadiene (NBR)<br>Nitrile rubber (NBR) is the general term for acrylonitrile butadiene terpolymer. Higher acrylonite content NBR has better resistance to oil and fuel, good mechanical properties and high wear resistance. Lower acrylonite content NBR has better elasticity and resistance to compression set, weathering and ozone. | -30 to +212 (-34 to +100) |
| –4 | Tetrafluoroethylene-Propylene (TFE-P, AFLAS®)<br>This elastomer is a copolymber of tetrafluoroethylene (TFE) and propylene. Its chemical resistance is excellent across a wide range of aggressive media. (AFLAS® is a registered trademark of Asahi Glass Co) | -25 to +450 (-32 to +232) |
| –5 | Ethylene Propylene Rubber (EPR/EPDM)<br>EPR is a copolymer of ethylene and propylene. Ethylenepropylenediene rubber (EPDM) is produced using a third monomer and is particularly useful when sealing phosphate-easter hydraulic fluids and in brake systems that use fluids having a glycol base. | -70 to +302 (-57 to +150) |
| –6 | Silicone Rubber/FDA (Q, MQ, VMQ, PVMQ)<br>The term silicone covers a large group of materials in which vinyl-methyl-silicone (VMQ) is often the central ingredient. Silicone elastomers as a group have relatively low tensile strength, poor tear and wear resistance. Silicones have good heat resistance, good cold flexibility and good ozone and weather resistance as well as good insulating and physiologically neutral properties. | -65 to +400 (-54 to +204) |

For materials not listed, contact Parker for more information.

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# 4. PROTECH™ BEARING ISOLATORS PRODUCT OFFERING

## Standard Profiles

ProTech is available in 8 Standard Profiles.  These profiles historically cover 95% of application requirements.

The Standard Profile group covers a range of lubricating methods used by industrial equipment including grease, heavy oil splash and oil flooded conditions.

Exclusion of outboard contamination such as dust, dirt and liquid spray can be matched to a seal profile that will closely hit your desired level of performance from IP55 to IP69.

## Optional Features

Optional features are available for higher volume applications where a custom solution is desired.

Some of the common optional features include self-grounding of stray currents, controlled grease purge, accommodating step shafts and split seals allowing for in field replacement without having to uncouple the shaft.

These options will require and formal review by an application engineer and will have a minimum order quantity.

## Selection Guidance

One of the best places to start is to review application decision tree on the following page. For the majority of applications, the chart will lead you to one of the Standard Profiles.

For additional details on a profile, there are product descriptions starting on page _20__ and additional details can be found on the Profile Product Pages that begin on page _25___.

Following the Profile Page, there is a listing of the standard sizes that are available for that profile.  Select the part number that matches your hardware dimensions. If the required size is not listed you can  can complete and submit one of the Design Assistance Forms beginning on page 86 for review.

For custom designs, or if you just need more assistance, complete the Design Action Request form on page __86_ and submit it to Parker EPS engineering for review.

## FDA Compliance

FDA compliant materials (food grade PTFE with food grade silicone o-ring) are available for seal profiles LW, LS, LN and WD.  The seals are manufactured using FDA compliant materials.

The seals are not certified by the FDA. The material code/ suffix  for FDA complaint materials will be “-2-6”.





## Common IP ratings for rotary seal applications.

| IPXX | Dust Exclusion | Water Exclusion | |
|---|---|---|---|
| IP55 | Protected against dust, limited ingress, no harmful deposits | Protected against low-pressure water spray from all directions, limited ingress permitted, <5 PSI water with spray nozzel distance of 9.8 ft (3m) |  |
| IP66 | Protected from total dust ingress | Protected from high pressure water spray from any direction, limited ingress protection, 14.5 PSI with spray nozzel distance of 9.8 ft (3m) | |
| IP69K | Protected from total dust ingress | Protected from steam-jet cleaning, limited ingress protection, 1160 to 1450 psi with spray nozzel distance of 3.9 in (100mm) | |

## IP Ratings (Ingress Protection)

IP ratings have been added to help match the desired level of protection (exclusion of water spray and dust) with a ProTech seal profile that will most closely match that desired level of performance. The three ratings below are the most common ratings used for non-contact bearing isolator applications.

**IP55** – Application would be similar to excluding light to light rain, low pressure water spray and mild amounts of dust.

**IP66** – Application would be similar to excluding heavy rain/splash; pressure spray up to 15 psi and heavy amounts of dust.

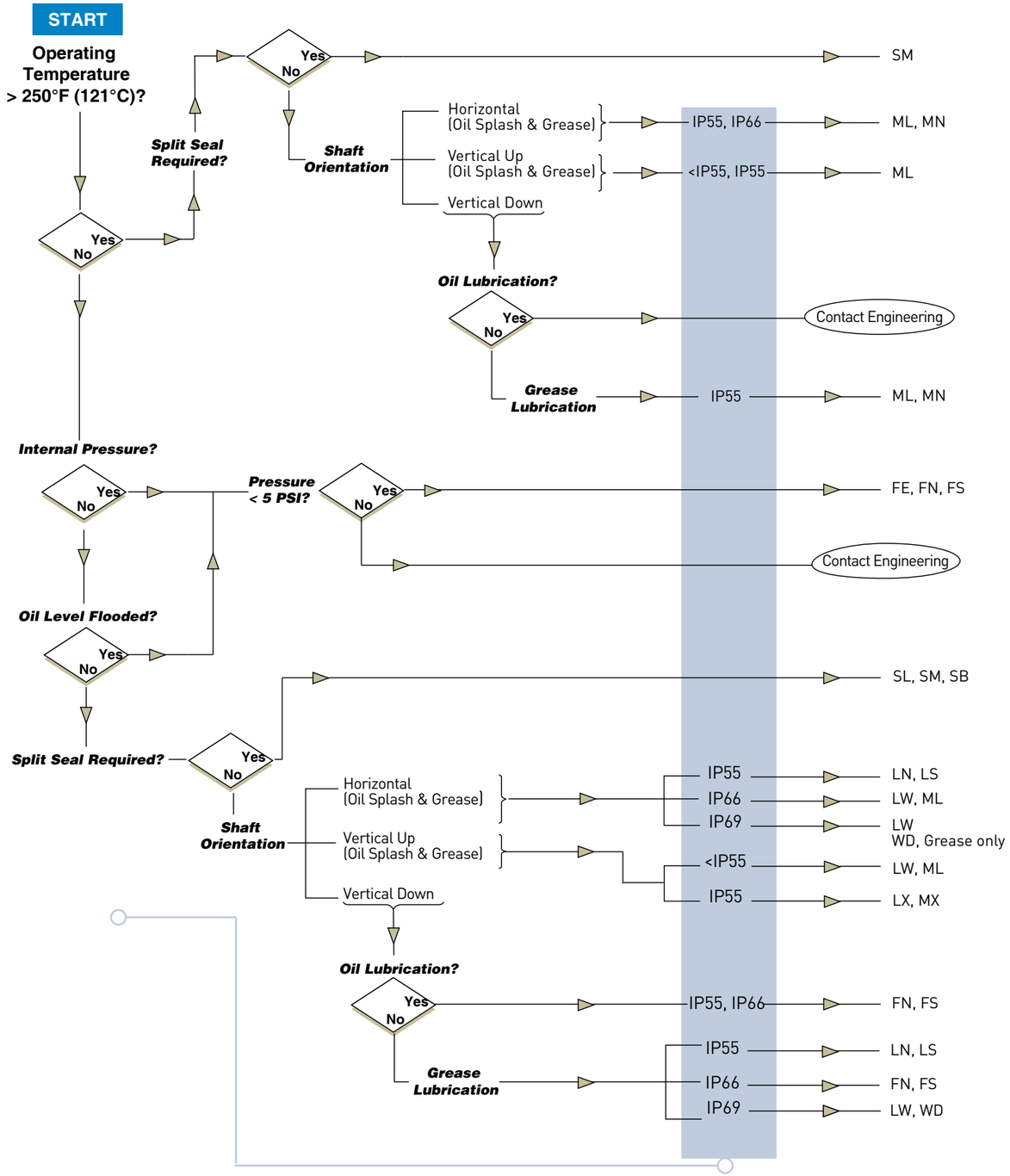
**IP69**  - Application would be similar to excluding heavy spray or wash down conditions up to 1200 PSI

The IP ratings are provided as an application reference.

The seal ratings are determined by in house testing, third-party testing and customer feedback. Actual performance will vary by equipment operating conditions (dynamic runout for example) and method used to wash down the equipment. The IP ratings when used with the product description are to help provide the best option for a given application.

*For a full description of the IP ratings, including the test conditions, please refer to IEC 60529, ANSI 60529 or DIN EN 60529*

# Table 4-1. Decision Tree

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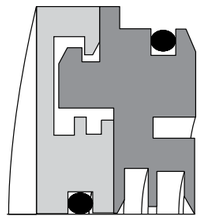
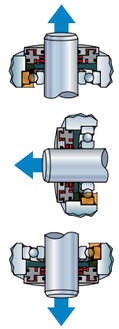
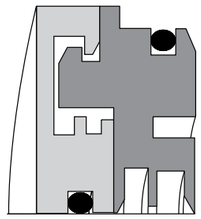
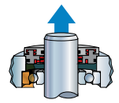
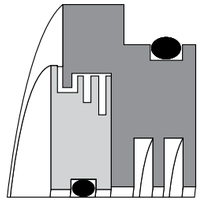
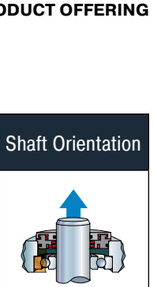
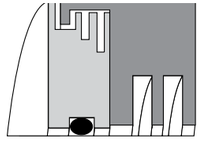
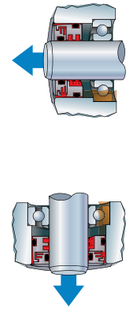
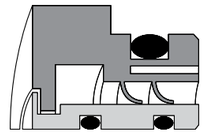
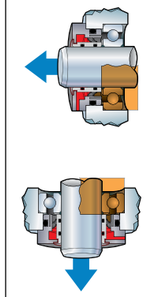
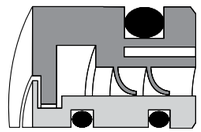
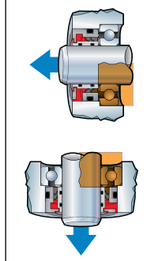
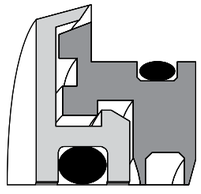
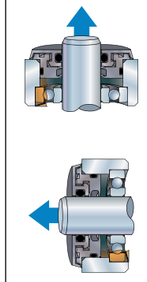
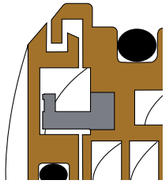
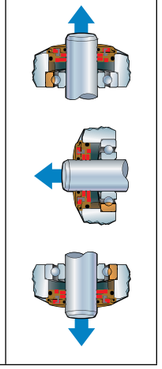
# Product Description - Standard Profiles

| Profile | Description | Dry | Grease | Oil Splash | Heavy Oil Splash | Oil Flooded | Exclusion | Shaft Orientation |
|---|---|---|---|---|---|---|---|---|
| **LW**  | The LW is used in harsh environmental conditions for protection under the most demanding plant locations. Provides superior exclusion of outboard contamination. Use where the desired level of performance is in the range of IP66. For lubricant retention, the internal oil grooves will retain heavy oil splash as well as grease. For vertical down, grease only. | + | + | + | + | × | IP66 |  |
| **LX**  | The LX profile excels in vertical up applications. Vertical up applications are known for providing poor lubrication at the seal and is why traditional lip seals provide a very short service life and then dumping contamination that has collected above the seal right into the bearing chamber as the seal fails. The LX will extend equipment service life in vertical up applications. | + | + | + | + | × | IP66 |  |
| **LS**  | The LS is a general workhorse and is widely used for both OE and MRO applications. Used in medium duty applications where the desired level of performance is in the range of IP55. This range is for applications needing exclusion of light to medium amounts of outboard contamination (water spray to 50 psi) and suitable for both grease and oil retention. The O.D. flange serves as a positioning aid during installation. For vertical down, grease only. | + | + | + | × | × | IP55 |  |
| **LN**  | The LN profile is a non-flanged version of the LS profile and used when the seal needs to be fully recessed in the seal housing. If equipment is grease lubricated, this is one of the better options for the shafts in the vertical down orientation. The compact and lightweight design will stay seated in the housing without the need for set screws or locking collars. For vertical down only, grease only. | + | + | + | × | × | IP55 |  |

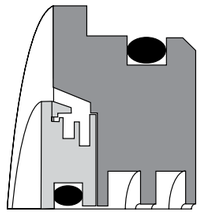
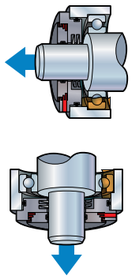
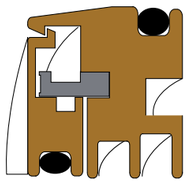
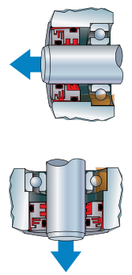
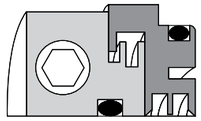
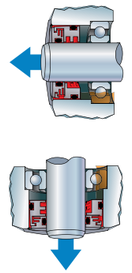
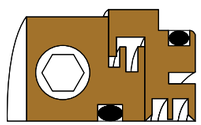
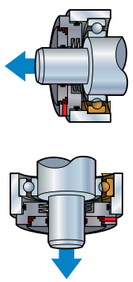




# Product Description - Standard Profiles

| Profile | Description | Dry | Grease | Oil Splash | Heavy Oil Splash | Oil Flooded | Exclusion | Shaft Orientation |
|---|---|---|---|---|---|---|---|---|
| **FS**  | The FS profile is a hybrid design with dual contacting PTFE elements that seal on an internal stainless steel sleeve. The FS provides positive lubricant retention for oil flooded applications (oil level above the shaft). The outboard labyrinth shields the sealing lips from abrasive contamination and water spray. Common applications include gear reducers and auxiliary rotating equipment where the oil level is above the shaft. | + | + | + | + | × | IP66 |  |
| **FN**  | The FN profile is non-flanged version of the FS. It shares the same features and is used when the seal needs to be recessed in the housing. | + | + | + | + | × | IP66 |  |
| **WD**  | The WD profile is a compact design intended for grease service. The seal body is only .373" to .412" (9.5 mm to 10.5 mm) in total width making it a perfect solution when the shaft landing for the seal is very narrow. The seal width outboard of the housing is only 1/8" (3.2mm). Although compact, the WD has been able to provide water exclusion to IP69 in various food processing applications. | + | + | × | × | × | IP55 |  |
| **ML**  | The ML is used when chemical resistance is not a concern, and the seal could be exposed to temperatures above 300F. Provides superior exclusion of outboard contamination. Se where the desired level of performance is in the range of IP66. For lubricant retention, the internal oil grooves will retain heavy oil splash as well as grease. For vertical down, grease only and locking collar may be required. | + | + | + | + | × | IP55 |  |

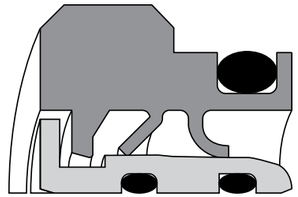
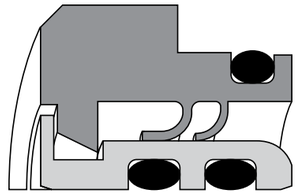
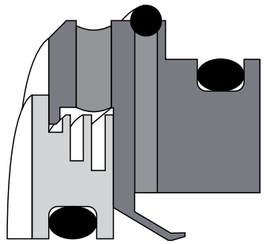
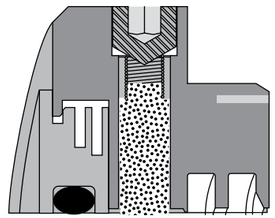
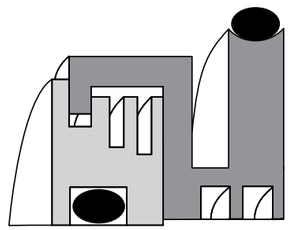
# Product Description - Standard Profiles

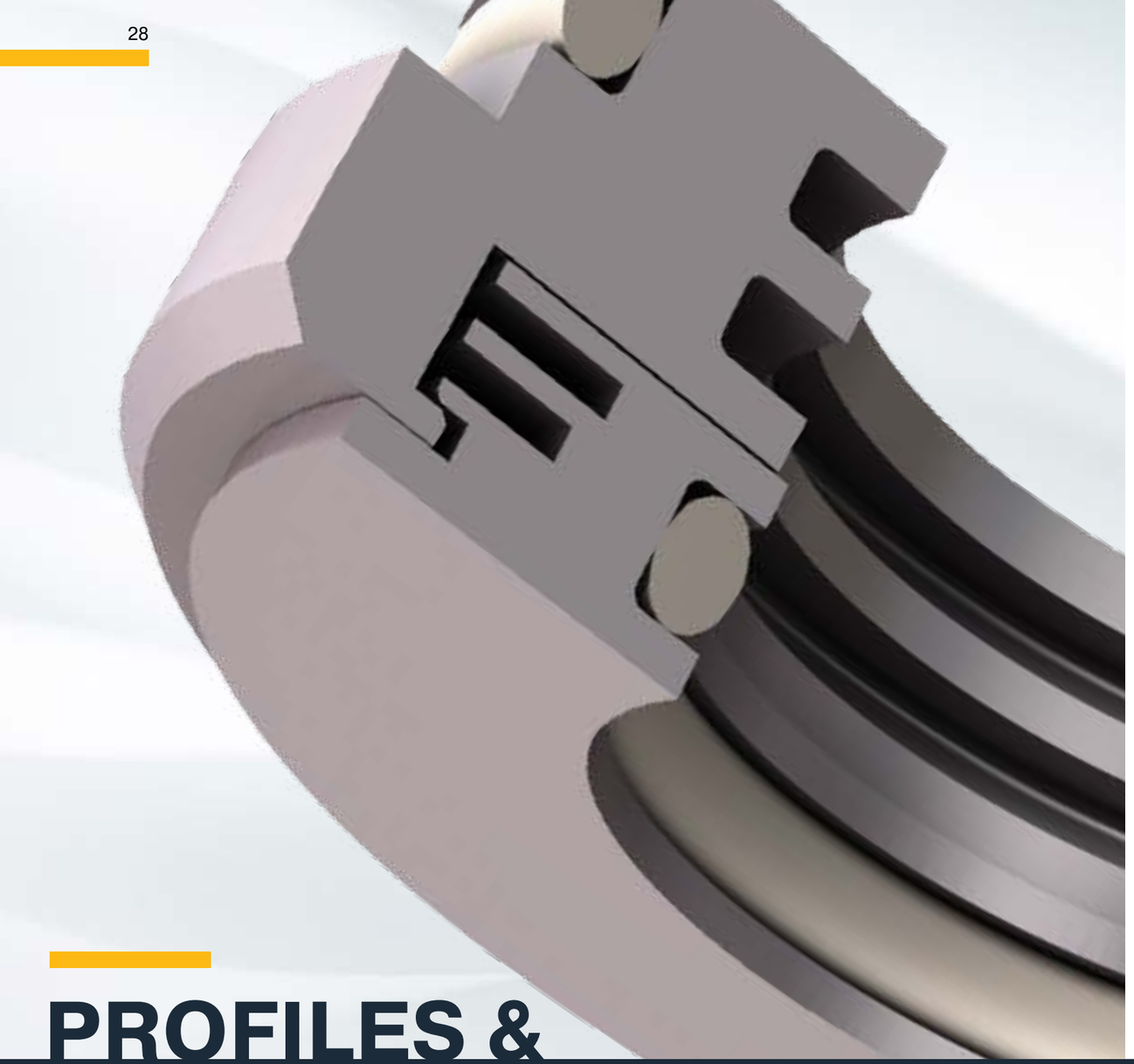
| Profile | Description | Dry | Grease | Oil Splash | Heavy Oil Splash | Oil Flooded | Exclusion | Shaft Orientation |
|---|---|---|---|---|---|---|---|---|
| **LD**  Multi-Port | For use in applications where drain port cannot be fixed at six o'clock position. PTFE material.<br>• Excludes heavy water spray and dry contaminants from the bearing cavity<br>• Retains grease and oil splash<br>• Non-flooded. Oil must be below inboard drain-back | + | + | + | × | × | IP55 |  |
| **MN**  | Specifically designed for flush mount applications. General purpose sealing in non-flanged design. Metallic material.<br>• Excludes dry contaminants from the bearing cavity<br>• Retains grease and oil splash<br>• Non-flooded. Oil must be below inboard drain-back | + | + | + | × | × | IP55 |  |
| **SL**  | Split design for field retrofits where equipment can not be uncoupled or disassembled. Requires no wear sleeves or shaft refurbishment. PTFE material.<br>• Excludes heavy water spray and dry contaminants from the bearing cavity<br>• Retains grease and oil splash<br>• Non-flooded. Oil must be below inboard drain-back | + | + | + | × | × | IP55 |  |
| **SM**  | Split design for field retrofits where equipment can not be uncoupled or disassembled. Requires no wear sleeves or shaft refurbishment. Metallic material.<br>• Excludes heavy water spray and dry contaminants from the bearing cavity<br>• Retains grease and oil splash<br>• Non-flooded. Oil must be below inboard drain-back | + | + | + | × | × | IP55 |  |





# Optional Custom Features

| Profile | Features |
|---|---|
| **FE**  | The FE profile is similar to the FS profile but has opposed contacting sealing lips to provide improved exclusion capability.<br>· PTFE stator, stainless steel rotor<br>· Intended for flooded oil applications. |
| **RS**  | The RS profile is similar to the FS profile with dual contacting sealing lips facing the outboard direction. This design is used when exclusions is the priority over oil retention.<br>· PTFE stator, stainless steel rotor<br>· Intended for flooded oil applications. |
| **GP**  | The GP profile is used when a grease purge system is desired in combination with a bearing isolator. This profile is available in PTFE. |
| **SG**  | Proprietary, electrically conductive PTFE material. Integrated (replaceable) carbon fiber brush dissipates electrical shaft voltages that cause pitting / fluting damage.<br>· Excludes water spray and dry contaminants from the bearing cavity<br>· Retains grease and oil splash<br>· Non-flooded. Oil must be below inboard drain-back |
| **LB/SB**  Pillow Block | Solid seal design for sealing split pillow block bearings. PTFE material.<br>· Excludes heavy water spray and dry contaminants from the bearing cavity<br>· Retains grease and oil splash<br>· Non-flooded. Oil must be below inboard drain-back |



# PROFILES & PART NUMBER NOMENCLATURES

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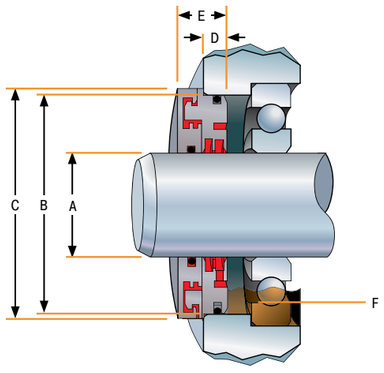
# LW PROFILE

## Severe Duty

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.010" (.25 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.020" (.51 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal "F". | Heavy water spray and dry contaminants from bearing cavity IP66. | Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

*See LX Profile for vertrical up applications

## Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | LWE | 0.492 | 1.575 | 0.394 | 1.575 | 0.236 | 0.276 | 0.630 | 0.1970 | 0.7875 |
| | LWE | 1.576 | 2.362 | 0.472 | 1.575 | 0.236 | 0.315 | 0.669 | 0.2360 | 0.7875 |
| | LWE | 2.363 | 3.150 | 0.630 | 1.575 | 0.236 | 0.354 | 0.709 | 0.3150 | 0.7875 |
| | LWE | 3.151 | 5.118 | 0.866 | 1.575 | 0.236 | 0.354 | 0.709 | 0.4330 | 0.7875 |
| | LWE | 5.119 | 10.000 | 0.945 | 1.575 | 0.236 | 0.433 | 0.787 | 0.4725 | 0.7875 |
| Metric (mm) | LWM | 12.5 | 40.0 | 10.0 | 40.0 | 6.0 | 7.0 | 16.0 | 5.0 | 20.0 |
| | LWM | 40.1 | 60.0 | 12.0 | 40.0 | 6.0 | 8.0 | 17.0 | 6.0 | 20.0 |
| | LWM | 60.1 | 80.0 | 16.0 | 40.0 | 6.0 | 9.0 | 18.0 | 8.0 | 20.0 |
| | LWM | 80.1 | 130.0 | 22.0 | 40.0 | 6.0 | 9.0 | 18.0 | 11.0 | 20.0 |
| | LWM | 130.1 | 254.0 | 24.0 | 40.0 | 6.0 | 11.0 | 20.0 | 12.0 | 20.0 |

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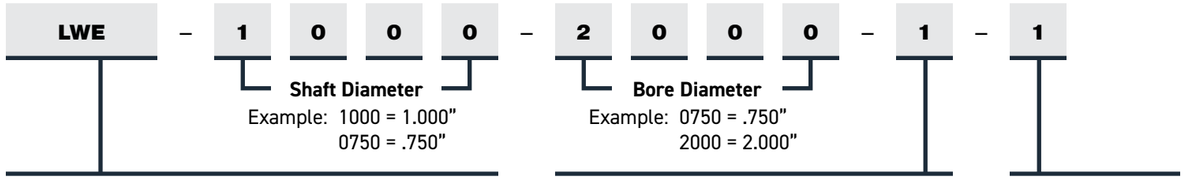
# Part Number Nomenclature — ProTech

## Imperial (Inch)




**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LW = LW Profile
E = Imperial (inch)
Three letter prefix = LWE

**Seal Material**

*Standard*
1 = PTFE Proprietary Graphite Fill

*Optional*
2 = PTFE Mineral Filled FDA Compliant

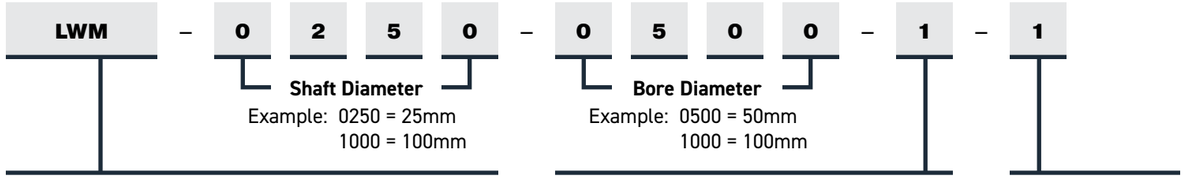
**O-Ring Material**

*Standard*
1 = FKM

*Optional*
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LWE standard sizes and part numbers can be found on page 68.**

## Metric (mm)




**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LW = LW Profile
M = Metric
Three letter prefix = LWM

**Seal Material**

*Standard*
1 = PTFE – Standard Proprietary Graphite Fill
2 = PTFE – Optional Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LWM standard sizes and part numbers can be found on page 72.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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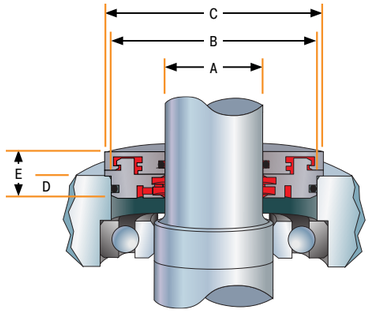
# LX PROFILE

## Vertical Up Design

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.010" (.25 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.020" (.51 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. | Heavy water spray and dry contaminants from bearing cavity. | Gearboxes, motors, pumps, mixers, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | | | | |
| Vertical Up | Y | Y | Y | Y |
| Vertical Down | | | | |

## Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | LXE | 0.492 | 1.575 | 0.394 | 1.575 | 0.236 | 0.276 | 0.630 | 0.1970 | 0.7875 |
| | LXE | 1.576 | 2.362 | 0.472 | 1.575 | 0.236 | 0.315 | 0.669 | 0.2360 | 0.7875 |
| | LXE | 2.363 | 3.150 | 0.630 | 1.575 | 0.236 | 0.354 | 0.709 | 0.3150 | 0.7875 |
| | LXE | 3.151 | 5.118 | 0.866 | 1.575 | 0.236 | 0.354 | 0.709 | 0.4330 | 0.7875 |
| | LXE | 5.119 | 10.000 | 0.945 | 1.575 | 0.236 | 0.433 | 0.787 | 0.4725 | 0.7875 |
| Metric (mm) | LXM | 12.5 | 40.0 | 10.0 | 40.0 | 6.0 | 7.0 | 16.0 | 5.0 | 20.0 |
| | LXM | 40.1 | 60.0 | 12.0 | 40.0 | 6.0 | 8.0 | 17.0 | 6.0 | 20.0 |
| | LXM | 60.1 | 80.0 | 16.0 | 40.0 | 6.0 | 9.0 | 18.0 | 8.0 | 20.0 |
| | LXM | 80.1 | 130.0 | 22.0 | 40.0 | 6.0 | 9.0 | 18.0 | 11.0 | 20.0 |
| | LXM | 130.1 | 254.0 | 24.0 | 40.0 | 6.0 | 11.0 | 20.0 | 12.0 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**LXE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"

**Bore Diameter**
Example: 2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LX = LX Profile
E = Imperial (inch)
Three letter prefix = LXE

**Seal Material**

*Standard*
1 = PTFE Proprietary Graphite Fill

*Optional*
2 = PTFE Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LXE standard sizes and part numbers can be found on page 76.**

## Metric (mm)

**LXM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25 mm

**Bore Diameter**
Example: 0500 = 50 mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LX = LX Profile
M = Metric
Three letter prefix = LXM

**Seal Material**

*Standard*
1 = PTFE – Standard Proprietary Graphite Fill
2 = PTFE – Optional Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LXM standard sizes and part numbers can be found on page 80.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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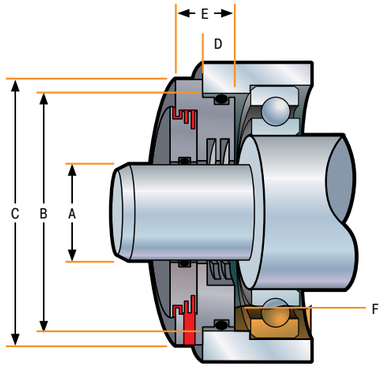
# LS PROFILE

General Purpose,
Flanged Design

## Standard Dimensions




## Standard Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.010" (.25 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal "F". | Heavy water spray and dry contaminants from bearing cavity. Best for vertical down applications. | Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

* If contaminant level is heavy, see LW Profile (page X)

### Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | LSE | 0.500 | 3.000 | 0.625 | 1.500 | 0.250 | 0.313 | 0.688 | 0.3125 | 0.7500 |
| | LSE | 3.001 | 4.000 | 0.625 | 1.500 | 0.250 | 0.375 | 0.750 | 0.3125 | 0.7500 |
| | LSE | 4.001 | 6.000 | 0.874 | 1.500 | 0.250 | 0.375 | 0.750 | 0.4370 | 0.7500 |
| | LSE | 6.001 | 10.000 | 0.874 | 1.500 | 0.250 | 0.438 | 0.815 | 0.4370 | 0.7500 |
| Metric (mm) | LSM | 12.0 | 40.0 | 10.0 | 40.0 | 6.0 | 7.0 | 16.0 | 5.0 | 20.0 |
| | LSM | 40.1 | 60.0 | 12.0 | 40.0 | 6.0 | 8.0 | 17.0 | 6.0 | 20.0 |
| | LSM | 60.1 | 80.0 | 15.0 | 40.0 | 6.0 | 9.0 | 18.0 | 7.5 | 20.0 |
| | LSM | 80.1 | 130.0 | 20.0 | 40.0 | 6.0 | 9.0 | 18.0 | 10.0 | 20.0 |
| | LSM | 130.1 | 254.0 | 24.0 | 40.0 | 6.0 | 11.0 | 20.0 | 12.0 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**LSE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"
0750 = .750"

**Bore Diameter**
Example: 0750 = .750"
2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LS = LS Profile
E = Imperial (inch)
Three letter prefix = LSE

**Seal Material**

*Standard*
1 = Proprietary PTFE Graphite Fill – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LSE standard sizes and part numbers can be found on page 84.**

## Metric (mm)

**LSM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25mm
1000 = 100mm

**Bore Diameter**
Example: 0500 = 50mm
1000 = 100mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LS = LS Profile
M = Metric
Three letter prefix = LSM

**Seal Material**

*Standard*
1 = Proprietary PTFE – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional Seal Material*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LSM standard sizes and part numbers can be found on page 98.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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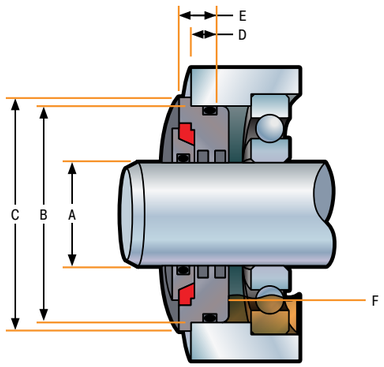
# LD PROFILE

## Rotating Bore Applications

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.010" (.25 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal "F". | Heavy water spray and dry contaminants from bearing cavity. Best for vertical down applications. | Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

* If contaminant level is heavy, see LW Profile (page X)

## Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | LDE | 0.500 | 3.000 | 0.625 | 1.500 | 0.250 | 0.313 | 0.688 | 0.3125 | 0.7500 |
| | LDE | 3.001 | 4.000 | 0.625 | 1.500 | 0.250 | 0.375 | 0.750 | 0.3125 | 0.7500 |
| | LDE | 4.001 | 6.000 | 0.874 | 1.500 | 0.250 | 0.375 | 0.750 | 0.4370 | 0.7500 |
| | LDE | 6.001 | 10.000 | 0.874 | 1.500 | 0.250 | 0.438 | 0.815 | 0.4370 | 0.7500 |
| Metric (mm) | LDM | 12.0 | 40.0 | 10.0 | 40.0 | 6.0 | 7.0 | 16.0 | 5.0 | 20.0 |
| | LDM | 40.1 | 60.0 | 12.0 | 40.0 | 6.0 | 8.0 | 17.0 | 6.0 | 20.0 |
| | LDM | 60.1 | 80.0 | 15.0 | 40.0 | 6.0 | 9.0 | 18.0 | 7.5 | 20.0 |
| | LDM | 80.1 | 130.0 | 20.0 | 40.0 | 6.0 | 9.0 | 18.0 | 10.0 | 20.0 |
| | LDM | 130.1 | 254.0 | 24.0 | 40.0 | 6.0 | 11.0 | 20.0 | 12.0 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**LDE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"

**Bore Diameter**
Example: 2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LD = LD Profile
E = Imperial (inch)
Three letter prefix = LDE

**Seal Material**

*Standard*
1 = Proprietary PTFE Graphite Fill – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

## Metric (mm)

**LDM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25 mm

**Bore Diameter**
Example: 0500 = 50 mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LD = LD Profile
M = Metric
Three letter prefix = LDM

**Seal Material**

*Standard*
1 = Proprietary PTFE – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional Seal Material*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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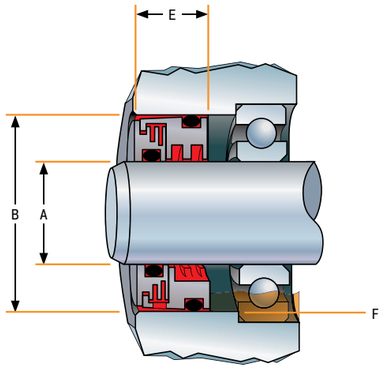
# LN PROFILE

General Purpose,
Non-Flanged Design

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.010" (.25 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal "F". | Heavy water spray and dry contaminants from bearing cavity. | Applications requiring seal to be flush mounted to equipment housing. Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | NR* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

*Not recommended (NR). If contaminant level is heavy, see LW Profile (page X)

## Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "E" In Bore Depth | Cross Section | |
|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | Min | Max |
| English (inch) | LNE | 0.500 | 4.000 | 0.750 | 1.500 | 0.562 | 0.3750 | 0.7500 |
| | LNE | 4.001 | 10.000 | 0.874 | 1.500 | 0.625 | 0.4370 | 0.7500 |
| Metric (mm) | LNM | 12.0 | 80.0 | 14.0 | 40.0 | 10.0 | 7.0 | 20.0 |
| | LNM | 80.1 | 130.0 | 16.0 | 40.0 | 12.0 | 8.0 | 20.0 |
| | LNM | 130.1 | 254.0 | 18.0 | 40.0 | 15.0 | 9.0 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**LNE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"
0750 = .750"

**Bore Diameter**
Example: 0750 = .750"
2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LN = LN Profile
E = Imperial (inch)
Three letter prefix = LNE

**Seal Material**

*Standard*
1 = Proprietary PTFE Graphite Fill – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LNE standard sizes and part numbers can be found on page 108.**

## Metric (mm)

**LNM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25mm
1000 = 100mm

**Bore Diameter**
Example: 0500 = 50mm
1000 = 100mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
LN = LN Profile
M = Metric
Three letter prefix = LNM

**Seal Material**

*Standard*
1 = Proprietary PTFE – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional Seal Material*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**LNM standard sizes and part numbers can be found on page 114.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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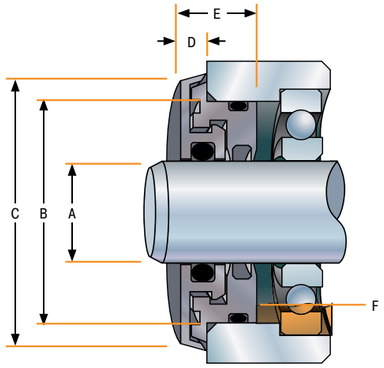
# WD PROFILE

## Wash Down Design

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51 mm) |
| Max Shaft Speed | 3,000 fpm (15 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.020" (.51 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Intended for grease retention only. | Will keep light to heavy water spray (IP55 to IP69) and dry contaminants out of the bearing cavity. | Used where space is limited but superior water exclusion is needed. Typical applications include disoposable equipment, wash down electric motors and food processing equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y | Y | N | Y |
| Vertical Down | Y | Y | N | Y |

## Size Range Table – Standard hardware requirements for shaft, bore and housing.

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | WDE | 0.492 | 1.575 | 0.551 | 1.575 | 0.269 | 0.248 | 0.373 | 0.2755 | 0.7875 |
| | WDE | 1.576 | 2.362 | 0.669 | 1.575 | 0.269 | 0.248 | 0.373 | 0.3345 | 0.7875 |
| | WDE | 2.363 | 3.150 | 0.787 | 1.575 | 0.269 | 0.287 | 0.412 | 0.3935 | 0.7875 |
| | WDE | 3.151 | 5.118 | 0.866 | 1.575 | 0.269 | 0.287 | 0.412 | 0.4330 | 0.7875 |
| Metric (mm) | WDM | 12.5 | 40.0 | 14.0 | 40.0 | 6.8 | 6.3 | 9.5 | 7.0 | 20.0 |
| | WDM | 40.1 | 60.0 | 17.0 | 40.0 | 6.8 | 6.3 | 9.5 | 8.5 | 20.0 |
| | WDM | 60.1 | 80.0 | 20.0 | 40.0 | 6.8 | 7.3 | 10.5 | 10.0 | 20.0 |
| | WDM | 80.1 | 130.0 | 20.0 | 40.0 | 6.8 | 7.3 | 10.5 | 10.0 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**WDE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"
0750 = .750"

**Bore Diameter**
Example: 0750 = .750"
2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
WD = WD Profile
E = Imperial (inch)
Three letter prefix = WDE

**Seal Material**

*Standard*
1 = Proprietary PTFE

*Optional*
2 = PTFE – Optional Mineral Filled FDA Compliant
7 = Anti-Microbial PTFE
8 = FDA 3A Sanitary Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**WDE standard sizes and part numbers can be found on page 124.**

## Metric (mm)

**WDM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25mm
1000 = 100mm

**Bore Diameter**
Example: 0500 = 50mm
1000 = 100mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
WD = WD Profile
M = Metric
Three letter prefix = WDM

**Seal Material**

*Standard*
1 = Proprietary PTFE

*Optional*
2 = PTFE – Optional Mineral Filled FDA Compliant
7 = Anti-Microbial PTFE
8 = FDA 3A Sanitary Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**WDM standard sizes and part numbers can be found on page 126.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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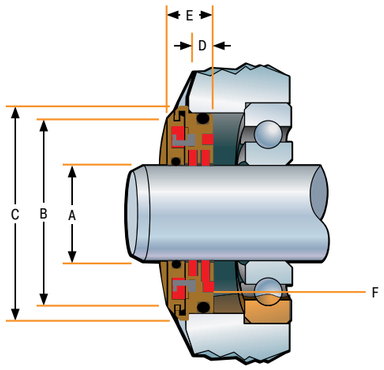
# ML PROFILE

## Severe Duty, Flanged Design

Use when high temperature is more of a concern than chemical resistance.

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (0.51 mm) |
| Max Shaft Speed | Up to 7,000 fpm (35 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to 400 F (-40 to +204 C) |
| Axial Movement | .020" (.51 mm) special designs up to .100" (2.54 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) special designs available |
| Seal Material | Standard Bronze<br>Optional: 304 SS, 316 SS, Lead-free bronze |
| O-ring Material | Standard FKM<br>Optional NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease to heavy oil splash. Operating level of oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal "F". | Prevents heavy water spray (IP66) and dry contaminants from entering bearing cavity. | Gearboxes, motors, pumps, mixers, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

*Optional "MX" design (w/o drain port) recommended

## Size Range Table – Standard hardware requirements for shaft, bore and housing

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to Bore Dia) | "D" In Bore Depth | "E" Overall Width |
|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | |
| English (inch) | MLE[1] | 0.610 | 1.575 | 0.394 | 1.575 | 0.125 | 0.276 | 0.551 |
| | MLE[1] | 1.576 | 2.362 | 0.472 | 1.575 | 0.125 | 0.315 | 0.591 |
| | MLE[1] | 2.363 | 3.150 | 0.630 | 1.575 | 0.125 | 0.354 | 0.630 |
| | MLE[1] | 3.151 | 5.118 | 0.866 | 1.575 | 0.125 | 0.354 | 0.630 |
| | MLE | 5.119 | 12.000[2] | 0.945 | 1.575 | 0.125 | 0.433 | 0.709 |
| Metric (mm) | MLM[1] | 15.5 | 40.0 | 10.0 | 40.0 | 3.2 | 7.0 | 14.0 |
| | MLM[1] | 40.1 | 60.0 | 12.0 | 40.0 | 3.2 | 8.0 | 15.0 |
| | MLM[1] | 60.1 | 80.0 | 16.0 | 40.0 | 3.2 | 9.0 | 16.0 |
| | MLM[1] | 80.1 | 130.0 | 22.0 | 40.0 | 3.2 | 9.0 | 16.0 |
| | MLM | 130.1 | 304.8[1] | 24.0 | 40.0 | 3.2 | 11.0 | 18.0 |

1 May be larger for small cross sections, consult factory for dimensions  2 Contact factory for requirements outside of standard dimensions listed above
3 Shaft diameters under 1.575" (40 mm) & cross sections under .433" (11mm) have standard inboard oil splash grooves. Note: Cross Section = (Bore – Shaft) / 2

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**MLE – 1 0 0 0 – 2 0 0 0 – B – 1**

**Shaft Diameter**
Example: 1000 = 1.000"
0750 = .750"

**Bore Diameter**
Example: 0750 = .750"
2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
ML = ML Profile
E = Imperial (inch)
Three letter prefix = MLE

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel
316 Stainless Steel,
requires custom part number

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**MLE standard sizes and part numbers can be found on page 128.**

## Metric (mm)

**MLM – 0 2 5 0 – 0 5 0 0 – B – 1**

**Shaft Diameter**
Example: 0250 = 25mm
1000 = 100mm

**Bore Diameter**
Example: 0500 = 50mm
1000 = 100mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
ML = ML Profile
M = Metric
Three letter prefix = MLM

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel Rotor & Stator
K = 316 Stainless Steel Rotor & Stator
BS = Bronze Rotor, 304 Stainless Steel Stator
SB = 304 Stainless Steel Rotor, Bronze Stator

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**MLM standard sizes and part numbers can be found on page 132.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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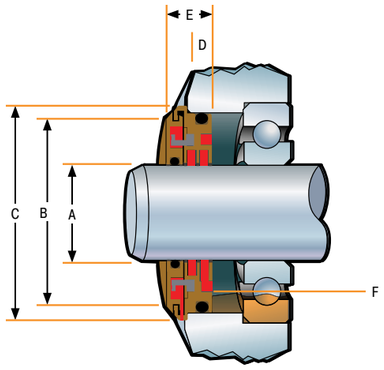
# MN PROFILE

## Flush Mount, Millennium Design

Use when high temperature is more of a concern than chemical resistance.

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (0.51 mm) |
| Max Shaft Speed | Up to 7,000 fpm (35 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to 400 F (-40 to +204 C) |
| Axial Movement | 0.020" (.51 mm) Special designs up to 0.100" (2.54 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) special designs available |
| Seal Material | Standard Bronze<br>Optional: 302 SS, 304 SS, 316 SS, Carbon Steel |
| O-ring Material | Standard FKM<br>Optional NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease and oil splash (operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal). | Heavy water spray and dry contaminants from bearing cavity. | Gearboxes, motors, pumps, mixers, turbines, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | NR* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

*Not recommended (NR). If contaminant level is heavy see ML Profile on Page XX

## Size Range Table – Standard hardware requirements for shaft, bore and housing

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "D" In Bore Depth | Cross Section | |
|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | Min | Max |
| English (inch) | MNE | 0.610 | 1.575 | 0.748 | 1.575 | 0.551 | 0.3740 | 0.7875 |
| | MNE | 1.576 | 2.362 | 0.748 | 1.575 | 0.591 | 0.3740 | 0.7875 |
| | MNE | 2.363 | 3.150 | 0.748 | 1.575 | 0.630 | 0.3740 | 0.7875 |
| | MNE | 3.151 | 5.118 | 0.866 | 1.575 | 0.630 | 0.4330 | 0.7875 |
| | MNE | 5.119 | 12.000 | 0.945 | 1.575 | 0.709 | 0.4725 | 0.7875 |
| Metric (mm) | MNM | 15.5 | 40.0 | 19.0 | 40.0 | 14.0 | 9.5 | 20.0 |
| | MNM | 40.1 | 60.0 | 19.0 | 40.0 | 15.0 | 9.5 | 20.0 |
| | MNM | 60.1 | 80.0 | 19.0 | 40.0 | 16.0 | 9.5 | 20.0 |
| | MNM | 80.1 | 130.0 | 22.0 | 40.0 | 16.0 | 11.0 | 20.0 |
| | MNM | 130.1 | 304.8 | 24.0 | 40.0 | 18.0 | 12.0 | 20.0 |

1 Shaft diameters under 1.098" (27.9 mm) or cross-sections under 0.433" (11 mm) have standard inboard oil splash grooves. Note: Cross-Section = (Bore – Shaft) / 2
2 Contact factory for requirements outside of standard dimensions listed above.

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**MNE – 1000 – 2000 – B – 1**

**Shaft Diameter**
Example: 1000 = 1.000"

**Bore Diameter**
Example: 2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
MN = MN Profile
E = Imperial (inch)
Three letter prefix = MNE

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel Rotor & Stator
K = 316 Stainless Steel Rotor & Stator
BS = Bronze Rotor, 304 Stainless Steel Stator
SB = 304 Stainless Steel Rotor, Bronze Stator

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**MNE standard sizes and part numbers can be found on page 136.**

## Metric (mm)

**MNM – 0250 – 0500 – B – 1**

**Shaft Diameter**
Example: 0250 = 25 mm

**Bore Diameter**
Example: 0500 = 50 mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
MN = MN Profile
M = Metric
Three letter prefix = MNM

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel Rotor & Stator
K = 316 Stainless Steel Rotor & Stator
BS = Bronze Rotor, 304 Stainless Steel Stator
SB = 304 Stainless Steel Rotor, Bronze Stator

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**MNM standard sizes and part numbers can be found on page 138.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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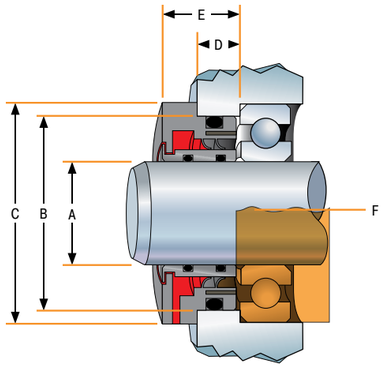
# FS PROFILE

Hybrid Design For
Flooded Oil Applications

## Standard Dimensions




## Standard Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.003" (.08 mm) |
| Max Shaft Speed | 3,000 fpm (15 m/s) |
| Max Pressure | 5 psi (.344 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.003" (.08 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease, oil splash, oil mist or oil flooded. | Heavy water spray and dry contaminants from bearing cavity. | For equipment where oil level or equipment design creates a flooded oil condition between the seal cavity and the bearing. The "FS" will provide a positive seal with added protection of an outboard labyrinth for exclusion. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | N |
| Vertical Up | Y* | Y | Y | N |
| Vertical Down | Y | Y | N | N |

*For Vertical Up, contact factory if contaminant level is high

### Size Range Table

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Seal Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | FSE | 0.500 | 3.000 | 0.750 | 1.500 | 0.250 | 0.313 | 0.688 | 0.3750 | 0.7500 |
| | FSE | 3.001 | 6.000 | 0.750 | 1.500 | 0.250 | 0.375 | 0.750 | 0.3750 | 0.7500 |
| Metric (mm) | FSM | 13.0 | 76.0 | 19.0 | 40.0 | 6.0 | 8.0 | 17.0 | 9.5 | 20.0 |
| | FSM | 76.1 | 152.0 | 19.0 | 40.0 | 6.0 | 9.0 | 18.0 | 9.5 | 20.0 |

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**FSE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"
0750 = .750"

**Bore Diameter**
Example: 0750 = .750"
2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
FS = FS Profile
E = Imperial (inch)
Three letter prefix = FSE

**Seal Material**

*Standard*
1 = PTFE – Proprietary Graphite Fill

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**FSE standard sizes and part numbers can be found on page 140.**

## Metric (mm)

**FSM – 0720 – 1100 – 1 – 1**

**Shaft Diameter**
Example: 0720 = 72mm
1000 = 100mm

**Bore Diameter**
Example: 0750 = 75mm
1000 = 100mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
FS = FS Profile
M = Metric
Three letter prefix = FSM

**Seal Material**

*Standard*
1 = PTFE – Proprietary Graphite Fill

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard)
Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**FSM standard sizes and part numbers can be found on page 144.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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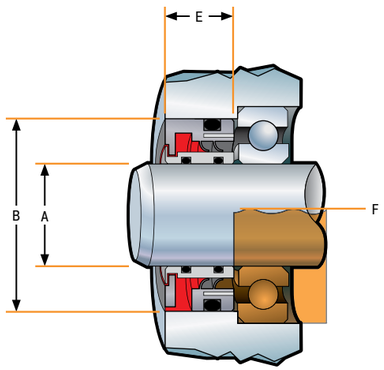
# FN PROFILE

Hybrid Design, without Flange for Flooded Oil Applications

## Standard Dimensions




## Standard Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.003" (.08 mm) |
| Max Shaft Speed | 3,000 fpm (15 m/s) |
| Max Pressure | 5 psi (.344 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.003" (.08 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| Sleeve | Standard: Stainless Steel |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease, oil splash, oil mist or oil flooded. | Heavy water spray and dry contaminants from bearing cavity. | For equipment where oil level or equipment design creates a flooded oil condition between the seal cavity and the bearing. The "FN" will provide a positive seal with added protection of an outboard labrinyth for exclusion. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | N |
| Vertical Up | Y* | Y | Y | N |
| Vertical Down | Y | Y | N | N |

*See LX Profile for vertrical up applications

### Size Range Table

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Seal Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | FNE | 0.500 | 3.000 | 0.750 | 1.500 | 0.591 | 0.375 | 0.750 | 0.3750 | 0.7500 |
| | FNE | 3.001 | 6.000 | 0.750 | 1.500 | 0.591 | 0.375 | 0.750 | 0.3750 | 0.7500 |
| Metric (mm) | FNM | 12.7 | 76.2 | 19.0 | 40.0 | 15.0 | 9.5 | 20.0 | 9.5 | 20.0 |
| | FNM | 76.3 | 152.4 | 19.0 | 40.0 | 15.0 | 9.5 | 20.0 | 9.5 | 20.0 |

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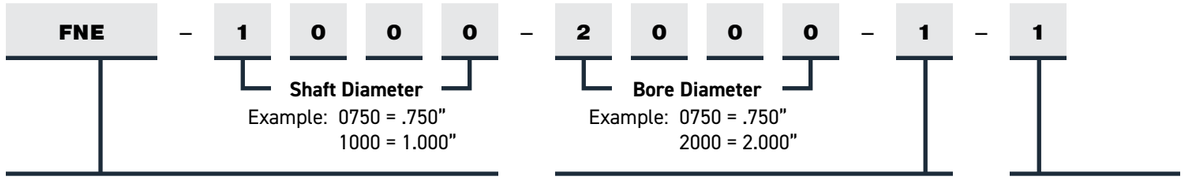
# Part Number Nomenclature — ProTech

## Imperial (Inch)




**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
FN = FN Profile
E = Imperial (inch)
Three letter prefix = FNE

**Seal Material**

*Standard*
1 = PTFE – Proprietary Graphite Fill

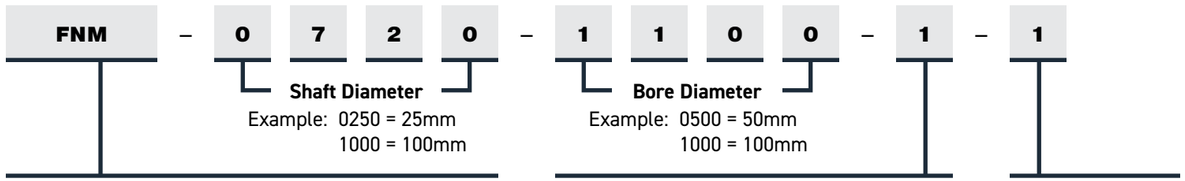
*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**FNE standard sizes and part numbers can be found on page 148.**

## Metric (mm)




**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
FN = FN Profile
M = Metric
Three letter prefix = FNM

**Seal Material**

*Standard*
1 = PTFE – Proprietary Graphite Fill

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**FNM standard sizes and part numbers can be found on page 152.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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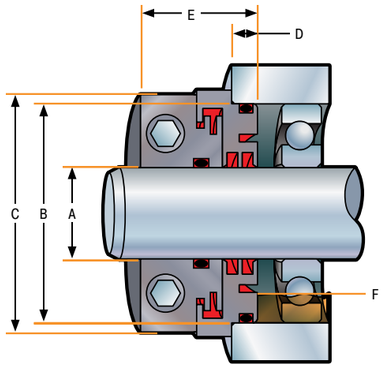
# SL PROFILE

## Split Design

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (0.51 mm) |
| Max Shaft Speed | Up to 3,000 fpm (15 m/s)[1] |
| Max Pressure | 0 psi / bar |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.020" (0.51 mm) Special designs up to 0.070" (1.78 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) Special designs available |
| Seal Material | Standard: Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| Sleeve | Standard: Stainless Steel |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash (operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal). | Heavy water spray and dry contaminants from bearing cavity. | For field retrofits where equipment cannot be uncoupled or disassembled. Requires no wear sleeves or shaft refurbishment. Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y | Y | Y | Y |
| Vertical Down | Y* | Y | N | Y |

*Locking collar may be required

## Size Range Table – Standard hardware requirements for shaft, bore and housing

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Seal Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | SLE[2] | 0.492 | 1.575 | 0.394 | 1.575 | 0.236[3] | 0.276 | 1.078 | 0.1970 | 0.7875 |
| | SLE[2] | 1.576 | 2.362 | 0.472 | 1.575 | 0.236[3] | 0.315 | 1.117 | 0.2360 | 0.7875 |
| | SLE[2] | 2.363 | 3.150 | 0.551 | 1.575 | 0.236[3] | 0.354 | 1.156 | 0.2755 | 0.7875 |
| | SLE | 3.151 | 5.118 | 0.787 | 1.575 | 0.236[3] | 0.354 | 1.257 | 0.3935 | 0.7875 |
| | SLE | 5.119 | 10.000[4] | 0.945 | 1.575 | 0.236[3] | 0.433 | 1.436 | 0.4725 | 0.7875 |
| Metric (mm) | SLM[2] | 12.5 | 40.0 | 10.0 | 40.0 | 6.0[3] | 7.0 | 27.4 | 5.0 | 20.0 |
| | SLM[2] | 40.1 | 60.0 | 12.0 | 40.0 | 6.0[3] | 8.0 | 28.4 | 6.0 | 20.0 |
| | SLM[2] | 60.1 | 80.0 | 14.0 | 40.0 | 6.0[3] | 9.0 | 29.4 | 7.0 | 20.0 |
| | SLM | 80.1 | 130.0 | 20.0 | 40.0 | 6.0[3] | 9.0 | 31.9 | 10.0 | 20.0 |
| | SLM | 130.1 | 254.0[4] | 24.0 | 40.0 | 6.0[3] | 11.0 | 36.5 | 12.0 | 20.0 |

1 Contact factory for speeds over 3,000 fpm (15 m/s).
2 Shaft diameters under 1.575" (40 mm) or cross-sections under 0.433" (11 mm) have standard inboard oil splash grooves. Note: Cross-Section = (Bore – Shaft) / 2
3 May be larger for small cross-sections. Consult factory for dimensions. 4 Contact factory for requirements outside of standard dimensions listed above

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**SLE – 1000 – 2000 – 1 – 1**

**Shaft Diameter**
Example: 1000 = 1.000"

**Bore Diameter**
Example: 2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
SL = SL Profile
E = Imperial (inch)
Three letter prefix = SLE

**Seal Material**

*Standard*
1 = Proprietary PTFE Graphite Fill – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**SLE standard sizes and part numbers can be found on page 156.**

## Metric (mm)

**SLM – 0250 – 0500 – 1 – 1**

**Shaft Diameter**
Example: 0250 = 25 mm

**Bore Diameter**
Example: 0500 = 50 mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
SL = SL Profile
M = Metric
Three letter prefix = SLM

**Seal Material**

*Standard*
1 = Proprietary PTFE Graphite Fill – 4" and under shaft diameter
5 = Proprietary PTFE – over 4" shaft diameter

*Optional*
2 = PTFE – Mineral Filled FDA Compliant

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**SLM standard sizes and part numbers can be found on page 158.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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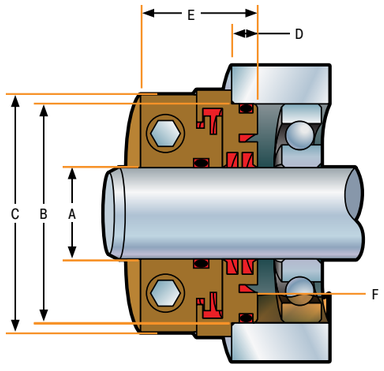
# SM PROFILE

## Split Millennium Design

## Standard Dimensions




# Standard Profile

## Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (0.51 mm) |
| Max Shaft Speed | Up to 3,000 fpm (15 m/s)[1] |
| Max Pressure | 0 psi / bar |
| Temperature Range | -40 to 400 F (-40 to +204 C) |
| Axial Movement | 0.020" (0.51 mm) Special designs up to 0.100" (2.54 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) Special designs available |
| Seal Material | Standard: Bronze<br>Optional: 302 SS, 304 SS, 316 SS, Carbon Steel |
| Sleeve | Standard: Stainless Steel |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash (operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal). | Heavy water spray and dry contaminants from bearing cavity. | For field retrofits where equipment cannot be uncoupled or disassembled. Requires no wear sleeves or shaft refurbishment. Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

## Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y | Y | Y | Y |
| Vertical Down | Y* | Y | N | Y |

*Locking collar may be required

## Size Range Table – Standard hardware requirements for shaft, bore and housing

| Type | Profile | "A" Shaft Diameter Range | | "B" Bore Diameter (add to shaft diameter) | | "C" Flange Diameter (add to bore dia) | "D" In Bore Depth | "E" Overall Seal Width | Cross Section | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | | | | Min | Max |
| English (inch) | SME[2] | 0.610 | 1.575 | 0.709 | 1.575 | 0.2363 | 0.276 | 1.078 | 0.3545 | 0.7875 |
| | SME | 1.576 | 2.362 | 0.709 | 1.575 | 0.2363 | 0.315 | 1.117 | 0.3545 | 0.7875 |
| | SME | 2.363 | 3.150 | 0.709 | 1.575 | 0.2363 | 0.354 | 1.156 | 0.3545 | 0.7875 |
| | SME | 3.151 | 5.118 | 0.787 | 1.575 | 0.2363 | 0.354 | 1.257 | 0.3935 | 0.7875 |
| | SME | 5.119 | 10.000 | 0.945 | 1.575 | 0.2363 | 0.433 | 1.436 | 0.4725 | 0.7875 |
| Metric (mm) | SMM[2] | 15.5 | 40.0 | 18.0 | 40.0 | 6.03 | 7.0 | 27.4 | 9.0 | 20.0 |
| | SMM | 40.1 | 60.0 | 18.0 | 40.0 | 6.03 | 8.0 | 28.4 | 9.0 | 20.0 |
| | SMM | 60.1 | 80.0 | 18.0 | 40.0 | 6.03 | 9.0 | 29.4 | 9.0 | 20.0 |
| | SMM | 80.1 | 130.0 | 20.0 | 40.0 | 6.03 | 9.0 | 31.9 | 10.0 | 20.0 |
| | SMM | 130.1 | 254.04 | 24.0 | 40.0 | 6.03 | 11.0 | 36.5 | 10.0 | 20.0 |

1 Contact factory for speeds over 3,000 fpm (15 m/s).
2 Shaft diameters under 1.575" (40 mm) or cross-sections under 0.433" (11 mm) have standard inboard oil splash grooves. Note: Cross-Section = (Bore – Shaft) / 2
3 May be larger for small cross-sections. Consult factory for dimensions. 4 Contact factory for requirements outside of standard dimensions listed above

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# Part Number Nomenclature — ProTech

## Imperial (Inch)

**SME – 1000 – 2000 – B – 1**

**Shaft Diameter**
Example: 1000 = 1.000"

**Bore Diameter**
Example: 2000 = 2.000"

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
SM = SM Profile
E = Imperial (inch)
Three letter prefix = SME

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel 316 Stainless Steel, requires custom part number

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**SME standard sizes and part numbers can be found on page 160.**

## Metric (mm)

**SMM – 0250 – 0500 – B – 1**

**Shaft Diameter**
Example: 0250 = 25 mm

**Bore Diameter**
Example: 0500 = 50 mm

**Three Letter Prefix**

First two letters are the profile code and third letter is unit of measure.

Example:
SM = SM Profile
M = Metric
Three letter prefix = SMM

**Seal Material**

*Standard*
B = Bronze

*Optional*
BA = Aluminum Bronze (lead free)
S = 304 Stainless Steel 316 Stainless Steel, requires custom part number

**O-Ring Material**

1 = FKM (Standard) Optional with Min Order Qty
2 = Fluorosilicone
3 = NBR
4 = Aflas
5 = EPDM
6 = Silicone – FDA Compliant

**SMM standard sizes and part numbers can be found on page 161.**

Note: All parts that are not standard size, material or profile are considered custom designs and use an alphanumeric suffix in place of the standard suffix "-1-1". For example: "AA42" versus "-1-1"

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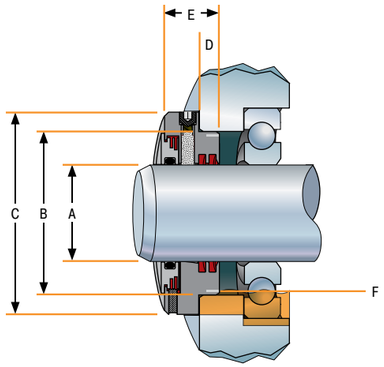
# SG PROFILE

## Self-Grounding Design

## Standard Dimensions




## Custom Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.020" (.51 mm) |
| Shaft / Bore Tolerances | ± .xxx" (±.xx mm) |
| Seal Material | Standard: Proprietary conductive PTFE<br>Optional: N/A |
| O-ring Material | Standard: FKM<br>Optional: N/A |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below in board drain-back port of seal “F”. | Water spray and dry contaminants from bearing cavity. IP55 rating. | IEEE 841 and NEMA electric motors. Any application that requires dissipation of shaft voltage. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y* | Y* | Y* |
| Vertical Down | Y | Y | N | Y |

*For Vertical Up, consult factory

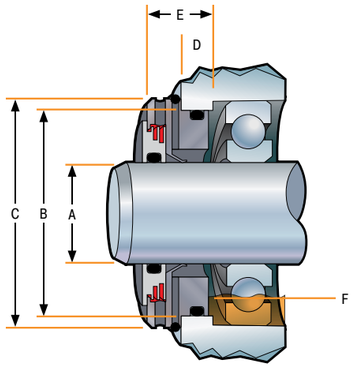




# GP PROFILE

## Grease Purge

## Standard Dimensions




## Custom Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.020" (.51 mm) |
| Max Shaft Speed | 5,000 fpm (25 m/s) |
| Max Pressure | 0 psi (0 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.010" (.25 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retains | Excludes | Equipment |
|---|---|---|
| Grease and oil splash. Operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal “F”. | Heavy water spray and dry contaminants from bearing cavity. Best for vertical down applications. | Motors, pumps, mixers, gearboxes, blowers and custom equipment. |

### Mounting / Lubrication Matrix

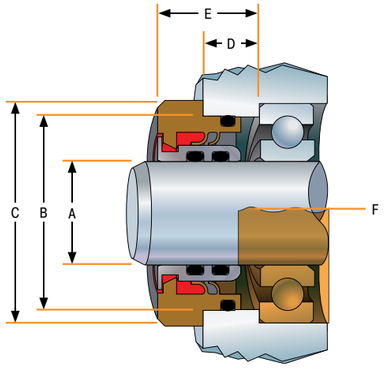
| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | Y |
| Vertical Up | Y* | Y | Y | Y |
| Vertical Down | Y | Y | N | Y |

* If contaminant level is heavy, see LW Profile (page X)

# RS PROFILE

## Reversed Sealing Lips for Exclusion

## Standard Dimensions




## Custom Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.003" (.08 mm) |
| Max Shaft Speed | 3,000 fpm (15 m/s) |
| Max Pressure | 5 psi (.344 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.003" (.08 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease, oil splash, oil mist or oil flooded. | Heavy water spray and dry contaminants from bearing cavity. | For equipment where oil level or equipment design creates a flooded oil condition between the seal cavity and the bearing. The "RS" will provide a positive seal with added protection of an outboard labyrinth for exclusion. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | N |
| Vertical Up | Y* | Y | Y | N |
| Vertical Down | Y | Y | N | N |

*For Vertical Up, contact factory if contaminant level is high

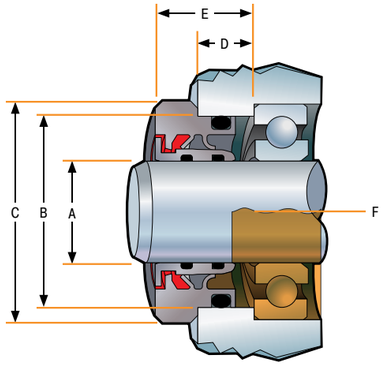




# FE PROFILE

## ProTech Flooded with Excluder Lip

## Standard Dimensions




## Custom Profile

### Standard Operating Parameters

| | |
|---|---|
| Total Eccentricity | 0.003" (.08 mm) |
| Max Shaft Speed | 3,000 fpm (15 m/s) |
| Max Pressure | 5 psi (.344 bar) |
| Temperature Range | -40 to +250 F (-40 to +121 C) |
| Axial Movement | 0.003" (.08 mm) |
| Shaft / Bore Tolerances | ± .002" (±.05 mm) |
| Seal Material | Standard: 0301 Proprietary PTFE<br>Optional: Food grade, Anti microbial, FDA 3A |
| O-ring Material | Standard: FKM<br>Optional: NBR, FDA silicone, EPDM, Aflas® |

| Retain | Excludes | Equipment |
|---|---|---|
| Grease, oil splash, oil mist or oil flooded. | Heavy water spray and dry contaminants from bearing cavity. | For equipment where oil level or equipment design creates a flooded oil condition between the seal cavity and the bearing. The "FE" will provide a positive seal with added protection of an outboard labyrinth for exclusion. |

### Mounting / Lubrication Matrix

| Mounting | | Lubrication | | |
|---|---|---|---|---|
| | Position | Grease | Oil | Dry |
| Horizontal | Y | Y | Y | N |
| Vertical Up | Y* | Y | Y | N |
| Vertical Down | Y | Y | N | N |

*For Vertical Up, contact factory if contaminant level is high

# DESIGN ASSISTANCE FORM

**Need Help?** Fill out the required information and fax to (936) 560-8998. Use the information below and other information in Parker EPS catalogs determine the dimensions needed. We will contact you to discuss your specific application and make recommendations. If you need help filling out this form, please call Applications Engineering at (800) 233-3900.

Date: _____

Company: _____

Contact: _____

Phone: _____

FAX: _____

E-mail: _____

WITH REFERENCE TO DIAGRAM BELOW, PROVIDE DIMENSIONS:

"A" Shaft Dia. _____ Shaft Dia. "B" _____

"C" Bore Dia. _____ Bore Depth "D" _____

"E" Distance to 1st Obstruction _____

"F" Distance from housing to step _____

FDA Material Required: ❑ NO ❑ YES Lubricant: ❑ Oil ❑ Grease ❑ Dry Running

SHAFT SPEED _____ RPM _____ FPM

SHAFT MOVEMENT
- ❑ Rotates
- ❑ Oscillates
- ❑ Reciprocates
- ❑ Static

SHAFT POSITION
- ❑ Horizontal
- ❑ Vertical Up
- ❑ Vertical Down

LUBRICATION SYSTEM
- ❑ Splash, oil level at/below centerline of bearing roller
- ❑ Flooded, oil level above shaft
- ❑ Oil Mist
- ❑ Grease with purge system

Media Sealed Out _____
- ❑ Dry, Moderate Dust
- ❑ Wet, Light Spray
- ❑ Dry, Heavy Dust
- ❑ Wet, Heavy Spray

Internal Pressure:
- ❑ No ❑ Yes, _____ (psi)

Minimum Temperature _____

Average Temperature _____

Maximum Temperature _____

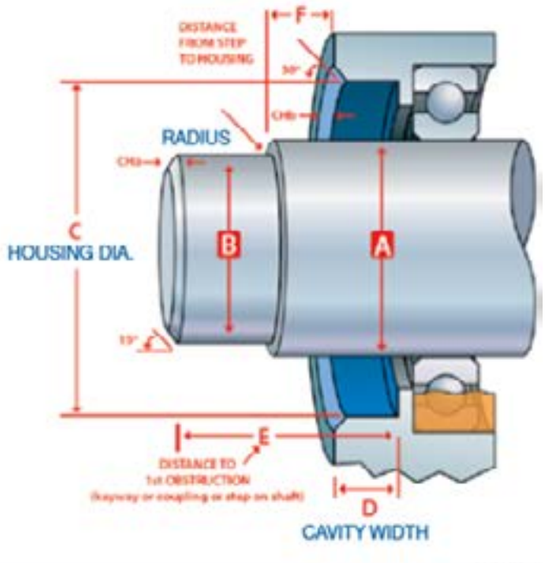
Shaft Axial Movement _____

Shaft to Bore Misalignment _____

Equipment Type _____

Manufacturer _____

Model _____



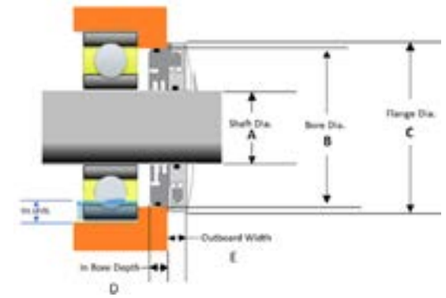

01/01/2014





## Request for Flanged Seal Profiles LW, LX, LS, WD, ML & FS

Know the ProTech FLANGED profile you want, use the form below to list the profile and the equipment dimensions.




Imperial (Inch)

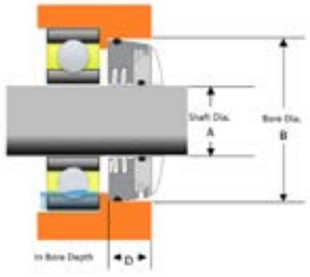
| Equipment Reference | Location | Seal Profile | "A" Shaft Diameter +/- .002" | "B" Bore Diameter +/- .002" | "C" Flange Diameter (Ref.) | "D" In Bore Depth | "E" Overall Width |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Metric (mm)

| Equipment Reference | Location | Seal Profile | "A" Shaft Diameter +/- .05mm | "B" Bore Diameter +/- .05mm | "C" Flange Diameter (Ref.) | "D" In Bore Depth | "E" Overall Width |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Request for Non-Flanged Seal Profiles LN and FN

Know the ProTech NON-FLANGED profile you want, use the form below to list the profile and the equipment dimensions.




Imperial (Inch)

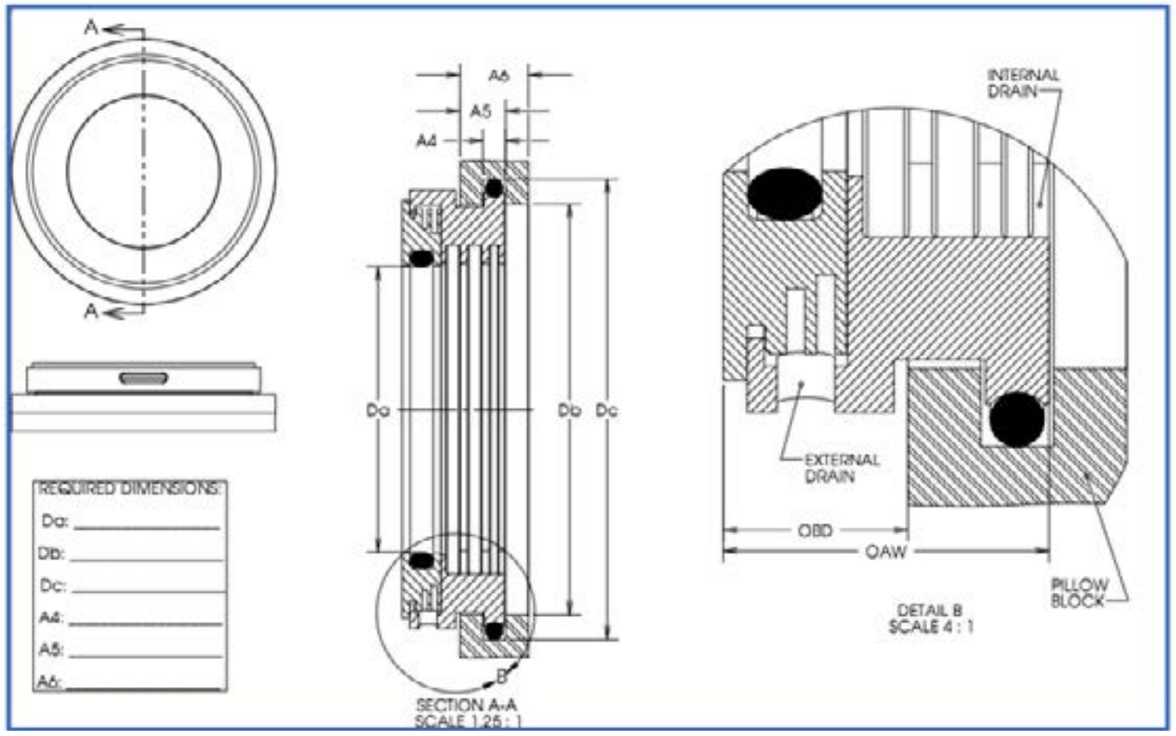
| Equipment Reference | Location | Seal Profile | "A" Shaft Diameter +/- .002" | "B" Bore Diameter +/- .002" | "D" Bore Depth |
|---|---|---|---|---|---|
| | | | | | |

Metric (mm)

| Equipment Reference | Location | Seal Profile | "A" Shaft Diameter +/- .05mm | "B" Bore Diameter +/- .05mm | "D" Bore Depth |
|---|---|---|---|---|---|
| | | | | | |

## Non-Tapered Housing

For custom design with internal flange complete the hardware dimensions below. This is a common configuration for split pillow block bearings (profile code LB or SB) and steam turbines.








# OFFER OF SALE

## ProTech™ Bearing Isolators

1. Definitions. As used herein, the following terms have the meanings indicated.

"Buyer" means any customer receiving a Quote for Products.

"Buyer's Property" means any tools, patterns, plans, drawings, designs, specifications materials, equipment, or information furnished by Buyer, or which are or become Buyer's property.

"Confidential Information" means any technical, commercial, or other proprietary information of Seller, including, without limitation, pricing, technical drawings or prints and/or part lists, which has been or will be disclosed, delivered, or made available, whether directly or indirectly, to Buyer.

"Goods" means any tangible part, system or component to be supplied by Seller.

"Intellectual Property Rights" means any patents, trademarks, copyrights, trade dress, trade secrets or similar rights.

"Products" means the Goods, Services and/or Software as described in a Quote.

"Quote" means the offer or proposal made by Seller to Buyer for the supply of Products.

"Seller" means Parker-Hannifin Corporation, including all divisions, subsidiaries and businesses selling Products under these Terms.

"Seller's IP" means patents, trademarks, copyrights, or other intellectual property rights relating to the Products, including without limitation, names, designs, images, drawings, models, software, templates, information, any improvements or creations or other intellectual property developed prior to or during the relationship contemplated herein.

"Services" means any services to be provided by Seller.

"Software" means any software related to the Goods, whether embedded or separately downloaded.

"Special Tooling" means equipment acquired by Seller or otherwise owned by Seller necessary to manufacture Goods, including but not limited to tools, jigs, and fixtures.

"Terms" means the terms and conditions of this Offer of Sale.

2. Terms. All sales of Products by Seller will be governed by, and are expressly conditioned upon Buyer's assent to, these Terms. These Terms are incorporated into any Quote provided by Seller to Buyer. Buyer's order for any Products whether communicated to Seller verbally, in writing, by electronic data interface or other electronic commerce, shall constitute acceptance of these Terms. Seller objects to any contrary or additional terms or conditions of Buyer. Reference in Seller's order acknowledgement to Buyer's purchase order or purchase order number shall in no way constitute an acceptance of any of Buyer's terms or conditions of purchase. Any Quote made by Seller to Buyer shall be considered a firm and definite offer and shall not be deemed to be otherwise despite any language on the face of the Quote. Seller reserves all rights to accept or reject any purported acceptance by Buyer to Seller's Quote if such purported acceptance attempts to vary the terms of the Quote. If Seller ships Products after Buyer issues an acceptance to the Quote, any additional or different terms proposed by Buyer will not become part of the parties' business relationship unless agreed to in a writing that is signed by an authorized representative of Seller, excluding email correspondence. If the transaction proceeds without such agreement on the part of Seller, the business relationship will be governed solely by these Terms and the specific terms in Seller's Quote.

3. Price; Payment. The Products set forth in the Quote are offered for sale at the prices indicated in the Quote. Unless otherwise specifically stated in the Quote, prices are valid for thirty (30) days and do not include any sales, use, or other taxes or duties. Seller reserves the right to modify prices for any reason and at any time by giving ten (10) days prior written notice. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2020). All sales are contingent upon credit approval and full payment for all purchases is due thirty (30) days from the date of invoice (or such date as may be specified in the Quote). Under any circumstances, Buyer may not withhold or suspend payment of any amounts due and payable as a deduction, set-off or recoupment of any amount, claim or dispute with Seller. Unpaid invoices beyond the specified payment date incur interest at the rate of 1.5% per month or the maximum allowable rate under applicable law. Seller reserves the right to require advance payment or provision of securities for first and subsequent deliveries if there is any doubt, in Seller's sole determination, regarding the Buyer's creditworthiness or for other business reasons. If the requested advance payment or securities are not provided to Seller's satisfaction, Seller reserves the right to suspend performance or reject the purchase order, in whole or in part, without prejudice to Seller's other rights or remedies, including the right to full compensation. Seller may revoke or shorten any payment periods previously granted in Seller's sole determination. The rights and remedies herein reserved to Seller are cumulative and in addition to any other or further rights and remedies available at law or in equity. No waiver by Seller of any breach by Buyer of any provision of these terms will constitute a waiver by Seller of any other breach of such provision.

4. Shipment; Delivery; Title and Risk of Loss. All delivery dates are approximate, and Seller is not responsible for damages or additional costs resulting from any delay. All deliveries are subject to our ability to procure materials from our suppliers. Regardless of the manner of shipment, delivery occurs and title and risk of loss or damage pass to Buyer, upon placement of the Products with the carrier at Seller's facility. Unless otherwise agreed prior to shipment and for domestic delivery locations only, Seller will select and arrange, at Buyer's sole expense, the carrier and means of delivery. When Seller selects and arranges

# ProTech™ Bearing Isolators (cont.)

the carrier and means of delivery, freight and insurance costs for shipment to the designated delivery location will be prepaid by Seller and added as a separate line item to the invoice. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions. Buyer shall not return or repackage any Products without the prior written authorization from Seller, and any return shall be at the sole cost and expense of Buyer.

5. Warranty. The warranty for the Products is as follows:

(i) Goods are warranted against defects in material or workmanship for a period of twelve (12) months from the date of delivery or 2,000 hours of use, whichever occurs first; (ii) Services shall be performed in accordance with generally accepted practices and using the degree of care and skill that is ordinarily exercised and customary in the field to which the Services pertain and are warranted for a period of six (6) months from the date of completion of the Services; and (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download. All prices are based upon the exclusive limited warranty stated above, and upon the following disclaimer: EXEMPTION CLAUSE; DISCLAIMER OF WARRANTY, CONDITIONS, REPRESENTATIONS: THIS WARRANTY IS THE SOLE AND ENTIRE WARRANTY, CONDITION, AND REPRESENTATION, PERTAINING TO PRODUCTS. SELLER DISCLAIMS ALL OTHER WARRANTIES, CONDITIONS, AND REPRESENTATIONS, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE RELATING TO DESIGN, NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE SOFTWARE IS ERROR-FREE OR FAULT-TOLERANT, OR THAT BUYER'S USE THEREOF WILL BE SECURE OR UNINTERRUPTED, UNLESS OTHERWISE AUTHORIZED IN WRITING BY SELLER, THE SOFTWARE SHALL NOT BE USED IN CONNECTION WITH HAZARDOUS OR HIGH-RISK ACTIVITIES OR ENVIRONMENTS. EXCEPT AS EXPRESSLY STATED HEREIN, ALL PRODUCTS ARE PROVIDED "AS IS".

6. Claims; Commencement of Actions. Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the non-conformance is or should have been discovered by Buyer. Any claim or action against Seller based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without regard to the date of discovery.

7. LIMITATION OF LIABILITY. IN THE EVENT OF A BREACH OF WARRANTY, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE THE NON-CONFORMING PRODUCTS, RE-PERFORM THE SERVICES, OR REFUND THE PURCHASE PRICE PAID WITHIN A REASONABLE PERIOD OF TIME. IN NO EVENT IS SELLER LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING ANY LOSS OF REVENUE OR PROFITS, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCTS.

8. Confidential Information. Buyer acknowledges and agrees that Confidential Information has been and will be received in confidence and will remain the property of Seller. Buyer further agrees that it will not use Seller's Confidential Information for any purpose other than for the benefit of Seller and shall return all such Confidential Information to Seller within thirty (30) days upon request.

9. Loss to Buyer's Property. Buyer's Property will be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer ordering the Products manufactured using Buyer's Property. Also, Seller shall not be responsible for any loss or damage to Buyer's Property while it is in Seller's possession or control.

10. Special Tooling. Seller may impose a tooling charge for any Special Tooling. Special Tooling shall be and remain Seller's property. In no event will Buyer acquire any interest in the Special Tooling, even if such Special Tooling has been specially converted or adapted for manufacture of Goods for Buyer and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller has the right to alter, discard or otherwise dispose of any Special Tooling or other property owned by Seller in its sole determination at any time.

11. Security Interest. To secure payment of all sums due from Buyer, Seller retains a security interest in all Products delivered to Buyer and, Buyer's acceptance of these Terms is deemed to be a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect Seller's security interest.

12. User Responsibility. Buyer, through its own analysis and testing, is solely responsible for making the final selection of the Products and assuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. Buyer must analyze all aspects of the application and follow applicable industry standards, specifications, and any technical information provided with the Quote or the Products, such as Seller's instructions, guides and specifications. If Seller provides options of or for Products based upon data or specifications provided by Buyer, Buyer is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products. In the event Buyer is not the end-user of the Products, Buyer will ensure such end-user complies with this paragraph.

13. Use of Products, Indemnity by Buyer. Buyer shall comply with all instructions, guides and specifications provided by Seller with the Quote or the Products. If Buyer uses or resells the Products in any way prohibited by Seller's instructions, guides or specifications, or Buyer otherwise fails to comply with Seller's instructions, guides and specifications, Buyer acknowledges that any such use, resale, or non-compliance is at Buyer's sole risk. Further, Buyer shall indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury, property damage, intellectual property infringement or any other claim, arising out of or in connection with: (a) improper selection, design, specification, application, or any misuse of Products; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of Buyer's Property; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller, failure to follow instructions, guides and specifications provided by Seller, use with goods not provided by Seller, or opening, modifying, deconstructing, tampering with or repackaging the Products; or (e) Buyer's failure to comply with these Terms, including any legal or administrative proceedings, collection efforts, or other actions arising from or relating to such failure to comply. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.

14. Cancellations and Changes. Buyer may not cancel or modify, including but not limited to movement of delivery dates for the Products, any order for any reason except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage and any additional expense. Seller, at any time, may change features, specifications, designs and availability of Products.

15. Assignment. Buyer may not assign its rights or obligations without the prior written consent of Seller.

16. Force Majeure. Seller is not liable for delay or failure to perform any of its obligations by reason of any events or circumstances beyond its reasonable control. Such circumstances include without limitation: accidents, labor disputes or stoppages, government acts or orders, acts of nature, pandemics, epidemics, other widespread illness, or public health emergency, cyber related disruptions, cyber-attacks, ransomware sabotage, delays or failures in delivery from carriers or suppliers, shortages of materials, sudden increases in the price of raw material or components, shutdowns or slowdowns affecting the supply of raw materials or components, or the transportation thereof, oil shortages or oil price increases, energy crisis, energy or fuel interruption, war (whether declared or not) or the serious threat of same, riots, rebellions, acts of terrorism, embargoes, fire or any reason whether similar to the foregoing or otherwise. Seller will resume performance as soon as practicable after the event of force majeure has been removed. All delivery dates affected by an event of force majeure shall be tolled for the duration of such event of force majeure and rescheduled for mutually agreed dates as soon as practicable after the event of force majeure ceases to exist. The right to allocate capacity is in the Seller's sole discretion. An event of force majeure shall not include financial distress, insolvency, bankruptcy, or other similar conditions affecting one of the parties, affiliates and/or sub¬contractors. An event of force majeure in the meaning of these Terms means any circumstances beyond Seller's control that permanently or temporarily hinders performance, even where that circumstance was already foreseen. Buyer shall not be entitled to cancel any orders following its claim of an event of force majeure.

17. Waiver and Severability. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice either party's right to enforce that provision in the future. Invalidation of any provision of these Terms shall not invalidate any other provision herein and, the remaining provisions will remain in full force and effect.

18. Duration. Unless otherwise stated in the Quote, any agreement governed by or arising from these Terms shall: (a) be for an initial duration of one (1) year; and (b) shall automatically renew for successive one-year terms unless terminated by Buyer with at least 180-days written notice to Seller or if Seller terminates the agreement pursuant to Section 19 of these Terms.

19. Termination. Seller may, without liability to Buyer, terminate any agreement governed by or arising from these Terms for any reason and at any time by giving Buyer thirty (30) days prior written notice. Seller may immediately terminate, in writing, if Buyer: (a) breaches any provision of these Terms, (b) becomes or is deemed insolvent, (c) appoints or has appointed a trustee, receiver or custodian for all or any part of Buyer's property,(d) files a petition for relief in bankruptcy on its own behalf, or one is filed against Buyer by a third party, (e) makes an assignment for the benefit of creditors; or (f) dissolves its business or liquidates all or a majority of its assets.

20. Ownership of Rights. Buyer agrees that (a) Seller (and/or its affiliates) owns or is the valid licensee of Seller's IP and (b) the furnishing of information, related documents or other materials by Seller to Buyer does not grant or transfer any ownership interest or license in or to Seller's IP to Buyer, unless expressly agreed in writing. Without limiting the foregoing, Seller retains ownership of all Software supplied to Buyer. In no event shall Buyer obtain any greater right in and to the Software than a right in a license limited to the use thereof and subject to compliance with any other terms provided with the Software. Buyer further agrees that it will not, directly or through intermediaries, reverse engineer, decompile, or disassemble any Software (including firmware) comprising or contained within a Product, except and only to the extent that such activity may be expressly permitted, either by applicable law or, in the case of open source software, the applicable open source license.

21. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any Intellectual Property Rights except as provided in this Section. Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on a third-party claim that one or more of the Products infringes the Intellectual Property Rights of a third party in the country of delivery of the Products by Seller to Buyer. Seller's obligation

# ProTech™ Bearing Isolators (cont.)

to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products is subject to such a claim, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Products, replace or modify the Products to render them non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation. Seller has no obligation or liability for any claim of infringement: (i) arising from information provided by Buyer (including Seller's use of Buyer's Property); or (ii) directed to any Products for which the designs are specified in whole or part by Buyer; or (iii) resulting from the modification, combination or use in a system of any Products. The foregoing provisions of this Section constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for claims of infringement of Intellectual Property Rights.

22. Governing Law. These Terms, the terms of any Quote, and the sale and delivery of all Products are deemed to have taken place in, and shall be governed and construed in accordance with, the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

23. Entire Agreement. These Terms, along with the terms set forth in the Quote, forms the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale and purchase. In the event of a conflict between any term set forth in the Quote and these Terms, the terms set forth in the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter shall have no effect. No modification to these Terms will be binding on Seller unless agreed to in a writing that is signed by an authorized representative of Seller, excluding email correspondence, 'clickwrap' or other purported electronic assent to different or additional terms. Sections 2-25 of these Terms shall survive termination or cancellation of any agreement governed by or arising from these Terms.

24. No 'Wrap' Agreements/No Authority to Bind.  Seller's clicking any buttons or any similar action, such as clicking "I Agree" or "Confirm," to utilize Buyer's software or webpage for the placement of orders, is NOT an agreement to Buyer's Terms and Conditions. NO EMPLOYEE, AGENT OR REPRESENTATIVE OF SELLER HAS THE AUTHORITY TO BIND SELLER BY THE ACT OF CLICKING ANY BUTTON OR SIMILAR ACTION ON BUYER'S WEBSITE OR PORTAL.

25. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry and professional standards, including those of the United States of America, and the country or countries in which Buyer may operate, including without limitation the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.S. Anti-Kickback Act ("Anti-Kickback Act"), U.S. and E.U. export control and sanctions laws ("Export Laws"), the U.S. Food Drug and Cosmetic Act ("FDCA"), and the rules and regulations promulgated by the U.S. Food and Drug Administration ("FDA"), each as currently amended. Buyer agrees to indemnify, defend, and hold harmless Seller from the consequences of any violation of such laws, regulations and standards by Buyer, its employees or agents. Buyer represents that it is familiar with all applicable provisions of the FCPA, the Anti-Kickback Act, Export Laws, the FDCA and the FDA and certifies that Buyer will adhere to the requirements thereof and not take any action that would make Seller violate such requirements. Buyer represents and agrees that Buyer will not make any payment or give anything of value, directly or indirectly, to any governmental official, foreign political party or official thereof, candidate for foreign political office, or commercial entity or person, for any improper purpose, including the purpose of influencing such person to purchase Products or otherwise benefit the business of Seller. Buyer further represents and agrees that it will not receive, use, service, transfer or ship any Products from Seller in a manner or for a purpose that violates Export Laws or would cause Seller to be in violation of Export Laws. Buyer agrees to promptly and reliably provide Seller all requested information or documents, including end-user statements and other written assurances, concerning Buyer's ongoing compliance with Export Law.

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# APPENDIX
# STANDARD SIZES & PART NUMBERS

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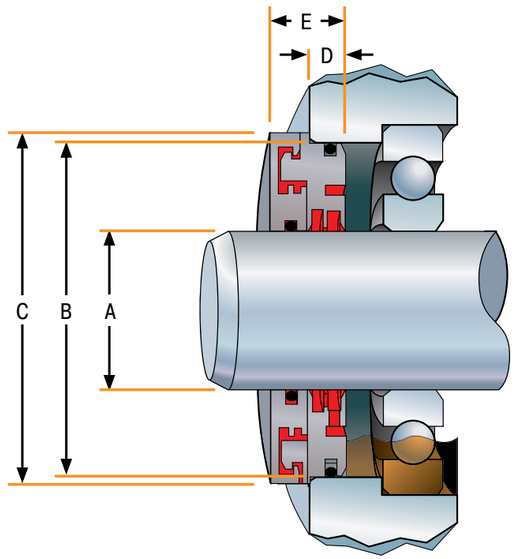
# LWE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 0.625 | 1.250 | 1.585 | 0.276 | 0.354 | PTFE | FKM | LWE-0625-1250-1-1 |
| 0.625 | 1.625 | 1.861 | 0.276 | 0.354 | PTFE | FKM | LWE-0625-1625-1-1 |
| 0.750 | 1.500 | 1.765 | 0.276 | 0.354 | PTFE | FKM | LWE-0750-1500-1-1 |
| 0.875 | 1.500 | 1.836 | 0.276 | 0.354 | PTFE | FKM | LWE-0875-1500-1-1 |
| 0.875 | 1.625 | 1.891 | 0.276 | 0.354 | PTFE | FKM | LWE-0875-1625-1-1 |
| 0.875 | 1.688 | 1.924 | 0.276 | 0.354 | PTFE | FKM | LWE-0875-1688-1-1 |
| 0.875 | 1.875 | 2.111 | 0.276 | 0.354 | PTFE | FKM | LWE-0875-1875-1-1 |
| 0.938 | 2.000 | 2.236 | 0.276 | 0.354 | PTFE | FKM | LWE-0938-2000-1-1 |
| 0.969 | 2.047 | 2.283 | 0.276 | 0.354 | PTFE | FKM | LWE-0969-2047-1-1 |
| 1.061 | 2.061 | 2.297 | 0.276 | 0.354 | PTFE | EPDM | LWE-1061-2061-1-5 |
| 1.123 | 1.875 | 2.139 | 0.276 | 0.354 | PTFE | FKM | LWE-1123-1875-1-1 |
| 1.125 | 1.875 | 2.142 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-1875-1-1 |
| 1.125 | 1.878 | 2.142 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-1878-1-1 |
| 1.125 | 2.000 | 2.236 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-2000-1-1 |
| 1.125 | 2.125 | 2.361 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-2125-1-1 |
| 1.125 | 2.375 | 2.611 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-2375-1-1 |
| 1.125 | 2.441 | 2.677 | 0.276 | 0.354 | PTFE | FKM | LWE-1125-2441-1-1 |
| 1.181 | 2.362 | 2.598 | 0.276 | 0.354 | PTFE | FKM | LWE-1181-2362-1-1 |
| 1.250 | 1.750 | 2.212 | 0.276 | 0.354 | PTFE | FKM | LWE-1250-1750-1-1 |
| 1.250 | 2.000 | 2.267 | 0.276 | 0.354 | PTFE FDA | Silicone FDA | LWE-1250-2000-2-6 |
| 1.250 | 2.375 | 2.611 | 0.276 | 0.354 | PTFE | FKM | LWE-1250-2375-1-1 |
| 1.250 | 2.500 | 2.736 | 0.276 | 0.354 | PTFE | FKM | LWE-1250-2500-1-1 |
| 1.375 | 2.125 | 2.393 | 0.276 | 0.354 | PTFE | FKM | LWE-1375-2125-1-1 |
| 1.375 | 2.375 | 2.611 | 0.276 | 0.354 | PTFE | FKM | LWE-1375-2375-1-1 |
| 1.375 | 2.822 | 3.058 | 0.276 | 0.354 | PTFE | FKM | LWE-1375-2822-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.375 | 2.835 | 3.071 | 0.276 | 0.354 | PTFE | FKM | LWE-1375-2835-1-1 |
| 1.437 | 2.250 | 2.486 | 0.276 | 0.354 | PTFE | FKM | LWE-1437-2250-1-1 |
| 1.438 | 2.125 | 2.456 | 0.276 | 0.354 | PTFE | FKM | LWE-1438-2125-1-1 |
| 1.496 | 2.992 | 3.228 | 0.276 | 0.354 | PTFE | FKM | LWE-1496-2992-1-1 |
| 1.500 | 2.125 | 2.463 | 0.276 | 0.354 | PTFE | FKM | LWE-1500-2125-1-1 |
| 1.500 | 2.250 | 2.518 | 0.276 | 0.354 | PTFE | FKM | LWE-1500-2250-1-1 |
| 1.500 | 2.500 | 2.736 | 0.276 | 0.354 | PTFE | FKM | LWE-1500-2500-1-1 |
| 1.500 | 2.500 | 2.736 | 0.276 | 0.354 | PTFE FDA | Silicone FDA | LWE-1500-2500-2-6 |
| 1.500 | 2.990 | 3.226 | 0.276 | 0.354 | PTFE | FKM | LWE-1500-2990-1-1 |
| 1.500 | 3.000 | 3.236 | 0.276 | 0.354 | PTFE | FKM | LWE-1500-3000-1-1 |
| 1.563 | 2.000 | 2.467 | 0.276 | 0.354 | PTFE | FKM | LWE-1563-2000-1-1 |
| 1.563 | 2.250 | 2.581 | 0.276 | 0.354 | PTFE | FKM | LWE-1563-2250-1-1 |
| 1.625 | 2.375 | 2.644 | 0.315 | 0.354 | PTFE | FKM | LWE-1625-2375-1-1 |
| 1.625 | 2.625 | 2.861 | 0.315 | 0.354 | PTFE | FKM | LWE-1625-2625-1-1 |
| 1.688 | 2.160 | 2.593 | 0.315 | 0.354 | PTFE | FKM | LWE-1688-2160-1-1 |
| 1.688 | 2.438 | 2.707 | 0.315 | 0.354 | PTFE FDA | Silicone FDA | LWE-1688-2438-2-6 |
| 1.688 | 2.590 | 2.826 | 0.315 | 0.354 | PTFE | FKM | LWE-1688-2590-1-1 |
| 1.688 | 2.756 | 2.992 | 0.315 | 0.354 | PTFE | FKM | LWE-1688-2756-1-1 |
| 1.750 | 2.500 | 2.769 | 0.315 | 0.354 | PTFE FDA | Silicone FDA | LWE-1750-2500-2-6 |
| 1.750 | 2.750 | 2.986 | 0.315 | 0.354 | PTFE | FKM | LWE-1750-2750-1-1 |
| 1.750 | 2.875 | 3.111 | 0.315 | 0.354 | PTFE | FKM | LWE-1750-2875-1-1 |
| 1.765 | 2.563 | 2.799 | 0.315 | 0.354 | PTFE | FKM | LWE-1765-2563-1-1 |
| 1.875 | 2.625 | 2.895 | 0.315 | 0.354 | PTFE | FKM | LWE-1875-2625-1-1 |
| 1.875 | 2.750 | 2.986 | 0.315 | 0.354 | PTFE | FKM | LWE-1875-2750-1-1 |
| 1.875 | 2.875 | 3.111 | 0.315 | 0.354 | PTFE | FKM | LWE-1875-2875-1-1 |
| 1.875 | 3.000 | 3.236 | 0.315 | 0.354 | PTFE | FKM | LWE-1875-3000-1-1 |
| 1.885 | 2.885 | 3.121 | 0.315 | 0.354 | PTFE | FKM | LWE-1885-2885-1-1 |
| 1.920 | 2.920 | 3.156 | 0.315 | 0.354 | PTFE | FKM | LWE-1920-2920-1-1 |
| 1.925 | 2.925 | 3.161 | 0.315 | 0.354 | PTFE | FKM | LWE-1925-2925-1-1 |
| 1.937 | 2.937 | 3.173 | 0.315 | 0.354 | PTFE FDA | Silicone FDA | LWE-1937-2937-2-6 |
| 1.938 | 2.750 | 2.986 | 0.315 | 0.354 | PTFE | FKM | LWE-1938-2750-1-1 |
| 1.950 | 2.950 | 3.186 | 0.315 | 0.354 | PTFE | FKM | LWE-1950-2950-1-1 |
| 1.980 | 2.750 | 3.000 | 0.315 | 0.354 | PTFE | FKM | LWE-1980-2750-1-1 |
| 1.980 | 2.980 | 3.216 | 0.315 | 0.354 | PTFE | EPDM | LWE-1980-2980-1-5 |
| 2.000 | 2.550 | 2.965 | 0.315 | 0.354 | PTFE | FKM | LWE-2000-2550-1-1 |
| 2.000 | 2.937 | 3.173 | 0.315 | 0.354 | PTFE | FKM | LWE-2000-2937-1-1 |
| 2.000 | 3.000 | 3.236 | 0.315 | 0.354 | PTFE | FKM | LWE-2000-3000-1-1 |
| 2.062 | 3.000 | 3.236 | 0.315 | 0.354 | PTFE | FKM | LWE-2062-3000-1-1 |
| 2.063 | 2.625 | 3.028 | 0.315 | 0.354 | PTFE | FKM | LWE-2063-2625-1-1 |
| 2.125 | 2.875 | 3.146 | 0.315 | 0.354 | PTFE | FKM | LWE-2125-2875-1-1 |
| 2.125 | 3.000 | 3.236 | 0.315 | 0.354 | PTFE | FKM | LWE-2125-3000-1-1 |
| 2.125 | 3.125 | 3.361 | 0.315 | 0.354 | PTFE | FKM | LWE-2125-3125-1-1 |
| 2.146 | 2.875 | 3.167 | 0.315 | 0.354 | PTFE | FKM | LWE-2146-2875-1-1 |
| 2.148 | 2.875 | 3.169 | 0.315 | 0.354 | PTFE | FKM | LWE-2148-2875-1-1 |
| 2.200 | 3.200 | 3.436 | 0.315 | 0.354 | PTFE | FKM | LWE-2200-3200-1-1 |
| 2.250 | 2.875 | 3.216 | 0.315 | 0.354 | PTFE | FKM | LWE-2250-2875-1-1 |
| 2.250 | 3.000 | 3.271 | 0.315 | 0.354 | PTFE | FKM | LWE-2250-3000-1-1 |
| 2.250 | 3.250 | 3.486 | 0.315 | 0.354 | PTFE | FKM | LWE-2250-3250-1-1 |
| 2.250 | 3.750 | 3.986 | 0.315 | 0.354 | PTFE | FKM | LWE-2250-3750-1-1 |
| 2.311 | 3.313 | 3.549 | 0.315 | 0.354 | PTFE | FKM | LWE-2311-3313-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.311 | 3.315 | 3.551 | 0.315 | 0.354 | PTFE | FKM | LWE-2311-3315-1-1 |
| 2.313 | 3.313 | 3.549 | 0.315 | 0.354 | PTFE | FKM | LWE-2313-3313-1-1 |
| 2.313 | 3.878 | 4.114 | 0.315 | 0.354 | PTFE | FKM | LWE-2313-3878-1-1 |
| 2.375 | 3.250 | 3.486 | 0.354 | 0.355 | PTFE | FKM | LWE-2375-3250-1-1 |
| 2.375 | 3.375 | 3.611 | 0.354 | 0.355 | PTFE | FKM | LWE-2375-3375-1-1 |
| 2.375 | 3.500 | 3.736 | 0.354 | 0.355 | PTFE | FKM | LWE-2375-3500-1-1 |
| 2.438 | 3.500 | 3.736 | 0.354 | 0.355 | PTFE | FKM | LWE-2438-3500-1-1 |
| 2.470 | 3.420 | 3.656 | 0.354 | 0.355 | PTFE | FKM | LWE-2470-3420-1-1 |
| 2.500 | 3.250 | 3.522 | 0.354 | 0.355 | PTFE | FKM | LWE-2500-3250-1-1 |
| 2.500 | 3.500 | 3.736 | 0.354 | 0.355 | PTFE | FKM | LWE-2500-3500-1-1 |
| 2.500 | 3.623 | 3.859 | 0.354 | 0.355 | PTFE | FKM | LWE-2500-3623-1-1 |
| 2.500 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LWE-2500-3750-1-1 |
| 2.559 | 4.134 | 4.37 | 0.354 | 0.355 | PTFE | FKM | LWE-2559-4134-1-1 |
| 2.560 | 3.547 | 3.783 | 0.354 | 0.355 | PTFE | FKM | LWE-2560-3547-1-1 |
| 2.563 | 3.563 | 3.799 | 0.354 | 0.355 | PTFE | FKM | LWE-2563-3563-1-1 |
| 2.625 | 3.627 | 3.863 | 0.354 | 0.355 | PTFE | FKM | LWE-2625-3627-1-1 |
| 2.625 | 3.675 | 3.911 | 0.354 | 0.355 | PTFE | FKM | LWE-2625-3675-1-1 |
| 2.625 | 3.865 | 4.101 | 0.354 | 0.355 | PTFE | FKM | LWE-2625-3865-1-1 |
| 2.750 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LWE-2750-3750-1-1 |
| 2.800 | 4.125 | 4.361 | 0.354 | 0.355 | PTFE | FKM | LWE-2800-4125-1-1 |
| 2.875 | 3.875 | 4.111 | 0.354 | 0.355 | PTFE | FKM | LWE-2875-3875-1-1 |
| 2.875 | 4.003 | 4.239 | 0.354 | 0.355 | PTFE | FKM | LWE-2875-4003-1-1 |
| 2.875 | 4.250 | 4.486 | 0.354 | 0.355 | PTFE | FKM | LWE-2875-4250-1-1 |
| 3.000 | 3.750 | 4.024 | 0.354 | 0.355 | PTFE | FKM | LWE-3000-3750-1-1 |
| 3.000 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LWE-3000-4000-1-1 |
| 3.125 | 4.125 | 4.361 | 0.354 | 0.355 | PTFE | FKM | LWE-3125-4125-1-1 |
| 3.250 | 4.250 | 4.486 | 0.354 | 0.355 | PTFE | FKM | LWE-3250-4250-1-1 |
| 3.345 | 4.350 | 4.586 | 0.354 | 0.355 | PTFE | FKM | LWE-3345-4350-1-1 |
| 3.375 | 4.375 | 4.611 | 0.354 | 0.355 | PTFE | FKM | LWE-3375-4375-1-1 |
| 3.375 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LWE-3375-4500-1-1 |
| 3.438 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LWE-3438-4500-1-1 |
| 3.500 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LWE-3500-4500-1-1 |
| 3.590 | 4.590 | 4.826 | 0.354 | 0.355 | PTFE | FKM | LWE-3590-4590-1-1 |
| 3.625 | 4.625 | 4.861 | 0.354 | 0.355 | PTFE | FKM | LWE-3625-4625-1-1 |
| 3.625 | 4.751 | 4.987 | 0.354 | 0.355 | PTFE | FKM | LWE-3625-4751-1-1 |
| 3.688 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LWE-3688-4750-1-1 |
| 3.750 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LWE-3750-4750-1-1 |
| 3.780 | 4.780 | 5.016 | 0.354 | 0.355 | PTFE | FKM | LWE-3780-4780-1-1 |
| 3.875 | 4.875 | 5.111 | 0.354 | 0.355 | PTFE | FKM | LWE-3875-4875-1-1 |
| 4.000 | 4.999 | 5.235 | 0.354 | 0.355 | PTFE | FKM | LWE-4000-4999-1-1 |
| 4.250 | 5.250 | 4.486 | 0.354 | 0.355 | PTFE | FKM | LWE-4250-5250-1-1 |
| 4.250 | 5.500 | 5.736 | 0.354 | 0.355 | PTFE | FKM | LWE-4250-5500-1-1 |
| 4.500 | 5.500 | 5.736 | 0.354 | 0.355 | PTFE | FKM | LWE-4500-5500-1-1 |
| 4.625 | 5.625 | 5.861 | 0.354 | 0.355 | PTFE | FKM | LWE-4625-5625-1-1 |
| 4.750 | 6.000 | 6.236 | 0.354 | 0.355 | PTFE | EPDM | LWE-4750-6000-1-5 |
| 5.000 | 6.375 | 6.611 | 0.354 | 0.355 | PTFE | FKM | LWE-5000-6375-1-1 |
| 5.250 | 6.375 | 6.611 | 0.433 | 0.355 | PTFE | FKM | LWE-5250-6375-1-1 |
| 5.250 | 6.750 | 6.986 | 0.433 | 0.355 | PTFE | FKM | LWE-5250-6750-1-1 |
| 5.500 | 6.750 | 6.986 | 0.433 | 0.355 | PTFE | FKM | LWE-5500-6750-1-1 |
| 5.750 | 6.750 | 6.986 | 0.433 | 0.355 | PTFE | FKM | LWE-5750-6750-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 6.250 | 7.750 | 7.986 | 0.433 | 0.355 | PTFE | FKM | LWE-6250-7750-1-1 |
| 6.437 | 7.500 | 7.736 | 0.433 | 0.355 | PTFE | FKM | LWE-6437-7500-1-1 |
| 6.500 | 7.500 | 7.736 | 0.433 | 0.355 | PTFE | FKM | LWE-6500-7500-1-1 |
| 6.500 | 8.000 | 8.236 | 0.433 | 0.355 | PTFE | FKM | LWE-6500-8000-1-1 |
| 6.750 | 7.875 | 8.111 | 0.433 | 0.355 | PTFE | FKM | LWE-6750-7875-1-1 |
| 6.875 | 8.375 | 8.611 | 0.433 | 0.355 | PTFE | FKM | LWE-6875-8375-1-1 |
| 7.000 | 8.500 | 8.736 | 0.433 | 0.355 | PTFE | FKM | LWE-7000-8500-1-1 |
| 8.000 | 9.000 | 9.236 | 0.433 | 0.355 | PTFE | FKM | LWE-8000-9000-1-1 |
| 8.000 | 9.250 | 9.486 | 0.433 | 0.355 | PTFE | FKM | LWE-8000-9250-1-1 |
| 9.500 | 10.625 | 10.861 | 0.433 | 0.355 | PTFE | FKM | LWE-9500-10625-1-1 |

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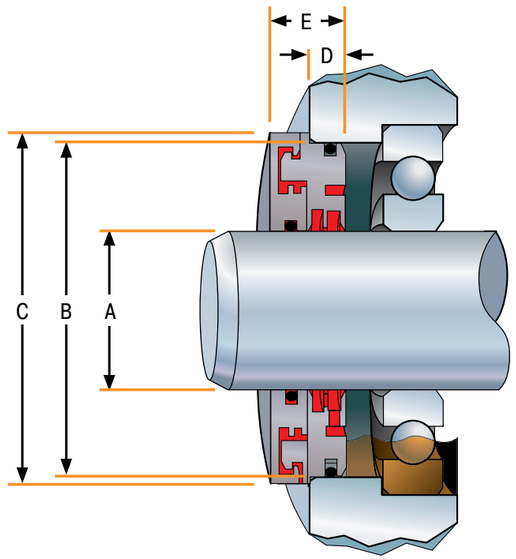
# LWM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 15 | 32 | 41 | 7 | 9 | PTFE | FKM | LWM-0150-0320-1-1 |
| 18 | 30 | 43 | 7 | 9 | PTFE | FKM | LWM-0180-0300-1-1 |
| 19 | 31.8 | 43 | 7 | 9 | PTFE | FKM | LWM-0190-0318-1-1 |
| 20 | 40 | 48 | 7 | 9 | PTFE | FKM | LWM-0220-0400-1-1 |
| 22 | 52 | 58 | 7 | 9 | PTFE | FKM | LWM-0220-0520-1-1 |
| 25 | 45 | 51 | 7 | 9 | PTFE | EPDM | LWM-0250-0450-1-5 |
| 25 | 47 | 53 | 7 | 9 | PTFE | FKM | LWM-0250-0470-1-1 |
| 25 | 52 | 58 | 7 | 9 | PTFE | FKM | LWM-0250-0520-1-1 |
| 28 | 54 | 60 | 7 | 9 | PTFE | FKM | LWM-0280-0540-1-1 |
| 28 | 68 | 74 | 7 | 9 | PTFE | FKM | LWM-0280-0680-1-1 |
| 30 | 42 | 55 | 7 | 9 | PTFE | FKM | LWM-0300-0420-1-1 |
| 30 | 46 | 56 | 7 | 9 | PTFE | FKM | LWM-0300-0460-1-1 |
| 30 | 50 | 56 | 7 | 9 | PTFE | FKM | LWM-0300-0500-1-1 |
| 30 | 50 | 56 | 7 | 9 | PTFE | EPDM | LWM-0300-0500-1-5 |
| 30 | 55 | 61 | 7 | 9 | PTFE | FKM | LWM-0300-0550-1-1 |
| 30 | 56 | 62 | 7 | 9 | PTFE | FKM | LWM-0300-0560-1-1 |
| 30 | 60 | 66 | 7 | 9 | PTFE | FKM | LWM-0300-0600-1-1 |
| 31.7 | 58 | 64 | 7 | 9 | PTFE | FKM | LWM-0317-0580-1-1 |
| 31.8 | 58 | 64 | 7 | 9 | PTFE | FKM | LWM-0318-0580-1-1 |
| 32 | 55 | 61 | 7 | 9 | PTFE | FKM | LWM-0320-0550-1-1 |
| 32 | 62 | 68 | 7 | 9 | PTFE | FKM | LWM-0320-0620-1-1 |
| 35 | 45 | 58 | 7 | 9 | PTFE | FKM | LWM-0350-0450-1-1 |
| 35 | 52 | 61 | 7 | 9 | PTFE | FKM | LWM-0350-0520-1-1 |
| 35 | 55 | 61 | 7 | 9 | PTFE | FKM | LWM-0350-0550-1-1 |
| 35 | 55 | 61 | 7 | 9 | PTFE | EPDM | LWM-0350-0550-1-5 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 35 | 61 | 67 | 7 | 9 | PTFE | FKM | LWM-0350-0610-1-1 |
| 35 | 65 | 71 | 7 | 9 | PTFE | FKM | LWM-0350-0650-1-1 |
| 35 | 68 | 74 | 7 | 9 | PTFE | FKM | LWM-0350-0680-1-1 |
| 38 | 55 | 64 | 7 | 9 | PTFE | FKM | LWM-0380-0550-1-1 |
| 38 | 62 | 68 | 7 | 9 | PTFE | FKM | LWM-0380-0620-1-1 |
| 38 | 64 | 70 | 7 | 9 | PTFE | FKM | LWM-0380-0640-1-1 |
| 40 | 50 | 63 | 7 | 9 | PTFE | FKM | LWM-0400-0500-1-1 |
| 40 | 52 | 65 | 7 | 9 | PTFE | FKM | LWM-0400-0520-1-1 |
| 40 | 55.2 | 65 | 7 | 9 | PTFE | FKM | LWM-0400-0552-1-1 |
| 40 | 60 | 66 | 7 | 9 | PTFE | FKM | LWM-0400-0600-1-1 |
| 40 | 60 | 66 | 7 | 9 | PTFE | EPDM | LWM-0400-0600-1-5 |
| 40 | 65 | 71 | 7 | 9 | PTFE | FKM | LWM-0400-0650-1-1 |
| 40 | 66 | 72 | 7 | 9 | PTFE | FKM | LWM-0400-0660-1-1 |
| 40 | 70 | 76 | 7 | 9 | PTFE | FKM | LWM-0400-0700-1-1 |
| 40 | 72 | 78 | 7 | 9 | PTFE | FKM | LWM-0400-0720-1-1 |
| 42 | 62 | 68 | 8 | 9 | PTFE | FKM | LWM-0420-0620-1-1 |
| 42 | 68 | 74 | 8 | 9 | PTFE | FKM | LWM-0420-0680-1-1 |
| 45 | 60 | 70 | 8 | 9 | PTFE | FKM | LWM-0450-0600-1-1 |
| 45 | 65 | 71 | 8 | 9 | PTFE | FKM | LWM-0450-0650-1-1 |
| 45 | 70 | 76 | 8 | 9 | PTFE | FKM | LWM-0450-0700-1-1 |
| 45 | 71 | 77 | 8 | 9 | PTFE | FKM | LWM-0450-0710-1-1 |
| 45 | 75 | 81 | 8 | 9 | PTFE | FKM | LWM-0450-0750-1-1 |
| 47 | 68 | 74 | 8 | 9 | PTFE | FKM | LWM-0470-0680-1-1 |
| 48 | 73 | 79 | 8 | 9 | PTFE | FKM | LWM-0480-0730-1-1 |
| 48 | 74 | 80 | 8 | 9 | PTFE | FKM | LWM-0480-0740-1-1 |
| 49 | 80 | 86 | 8 | 9 | PTFE | FKM | LWM-0490-0800-1-1 |
| 50 | 65 | 75 | 8 | 9 | PTFE | FKM | LWM-0500-0650-1-1 |
| 50 | 71.6 | 78 | 8 | 9 | PTFE | FKM | LWM-0500-0716-1-1 |
| 50 | 72 | 78 | 8 | 9 | PTFE | FKM | LWM-0500-0720-1-1 |
| 50 | 75 | 81 | 8 | 9 | PTFE | FKM | LWM-0500-0750-1-1 |
| 50 | 76 | 82 | 8 | 9 | PTFE | FKM | LWM-0500-0760-1-1 |
| 50 | 80 | 86 | 8 | 9 | PTFE | FKM | LWM-0500-0800-1-1 |
| 50.8 | 78 | 84 | 8 | 9 | PTFE | FKM | LWM-0508-0780-1-1 |
| 51 | 81 | 87 | 8 | 9 | PTFE | FKM | LWM-0510-0810-1-1 |
| 52.3 | 78 | 84 | 8 | 9 | PTFE | FKM | LWM-0523-0780-1-1 |
| 52.4 | 78 | 84 | 8 | 9 | PTFE | FKM | LWM-0524-0780-1-1 |
| 54 | 78 | 84 | 8 | 9 | PTFE | FKM | LWM-0540-0780-1-1 |
| 55 | 70.5 | 80 | 8 | 9 | PTFE | FKM | LWM-0550-0705-1-1 |
| 55 | 72 | 81 | 8 | 9 | PTFE | FKM | LWM-0550-0720-1-1 |
| 55 | 72.7 | 81 | 8 | 9 | PTFE | FKM | LWM-0550-0727-1-1 |
| 55 | 75 | 81 | 8 | 9 | PTFE | FKM | LWM-0550-0750-1-1 |
| 55 | 81 | 87 | 8 | 9 | PTFE | FKM | LWM-0550-0810-1-1 |
| 55 | 85 | 91 | 8 | 9 | PTFE | FKM | LWM-0550-0850-1-1 |
| 55.5 | 81 | 87 | 8 | 9 | PTFE | FKM | LWM-0555-0810-1-1 |
| 57.4 | 83 | 89 | 8 | 9 | PTFE | FKM | LWM-0574-0830-1-1 |
| 58 | 80 | 86 | 8 | 9 | PTFE | FKM | LWM-0580-0800-1-1 |
| 60 | 72 | 85 | 8 | 9 | PTFE | FKM | LWM-0600-0720-1-1 |
| 60 | 78 | 86 | 8 | 9 | PTFE | FKM | LWM-0600-0780-1-1 |
| 60 | 80 | 86 | 8 | 9 | PTFE | FKM | LWM-0600-0800-1-1 |
| 60 | 80 | 86 | 8 | 9 | PTFE | EPDM | LWM-0600-0800-1-5 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 60 | 85 | 91 | 8 | 9 | PTFE | FKM | LWM-0600-0850-1-1 |
| 60 | 86 | 92 | 8 | 9 | PTFE | FKM | LWM-0600-0860-1-1 |
| 60 | 90 | 96 | 8 | 9 | PTFE | FKM | LWM-0600-0900-1-1 |
| 61.9 | 97 | 103 | 9 | 9 | PTFE | FKM | LWM-0619-0970-1-1 |
| 62 | 92 | 98 | 9 | 9 | PTFE | FKM | LWM-0620-0920-1-1 |
| 65 | 85 | 91 | 9 | 9 | PTFE | FKM | LWM-0650-0850-1-1 |
| 65 | 90 | 96 | 9 | 9 | PTFE | FKM | LWM-0650-0900-1-1 |
| 65 | 91 | 97 | 9 | 9 | PTFE | FKM | LWM-0650-0910-1-1 |
| 65.5 | 91 | 97 | 9 | 9 | PTFE | FKM | LWM-0655-0910-1-1 |
| 66.7 | 93 | 99 | 9 | 9 | PTFE | FKM | LWM-0667-0930-1-1 |
| 66.9 | 93 | 99 | 9 | 9 | PTFE | FKM | LWM-0669-0930-1-1 |
| 68 | 88 | 94 | 9 | 9 | PTFE | FKM | LWM-0680-0880-1-1 |
| 70 | 90 | 96 | 9 | 9 | PTFE | FKM | LWM-0700-0900-1-1 |
| 70 | 95 | 101 | 9 | 9 | PTFE | FKM | LWM-0700-0950-1-1 |
| 70 | 96 | 102 | 9 | 9 | PTFE | FKM | LWM-0700-0960-1-1 |
| 70 | 100 | 106 | 9 | 9 | PTFE | FKM | LWM-0700-1000-1-1 |
| 75 | 90 | 100 | 9 | 9 | PTFE | FKM | LWM-0750-0900-1-1 |
| 75 | 100 | 106 | 9 | 9 | PTFE | FKM | LWM-0750-1000-1-1 |
| 75 | 101 | 107 | 9 | 9 | PTFE | FKM | LWM-0750-1010-1-1 |
| 75 | 105 | 111 | 9 | 9 | PTFE | FKM | LWM-0750-1050-1-1 |
| 75.5 | 95 | 102 | 9 | 9 | PTFE | FKM | LWM-0755-0950-1-1 |
| 79.4 | 112 | 118 | 9 | 9 | PTFE | FKM | LWM-0794-1120-1-1 |
| 80 | 100 | 107 | 9 | 9 | PTFE | FKM | LWM-0800-1000-1-1 |
| 80 | 106 | 112 | 9 | 9 | PTFE | FKM | LWM-0800-1060-1-1 |
| 80 | 110 | 116 | 9 | 9 | PTFE | FKM | LWM-0800-1100-1-1 |
| 80 | 120 | 126 | 9 | 9 | PTFE | FKM | LWM-0800-1200-1-1 |
| 81 | 105 | 111 | 9 | 9 | PTFE | FKM | LWM-0810-1050-1-1 |
| 85 | 110 | 116 | 9 | 9 | PTFE | FKM | LWM-0850-1100-1-1 |
| 85 | 111 | 117 | 9 | 9 | PTFE | FKM | LWM-0850-1110-1-1 |
| 85 | 115 | 121 | 9 | 9 | PTFE | FKM | LWM-0850-1150-1-1 |
| 88.9 | 115 | 121 | 9 | 9 | PTFE | FKM | LWM-0889-1150-1-1 |
| 89.2 | 116 | 122 | 9 | 9 | PTFE | FKM | LWM-0892-1160-1-1 |
| 90 | 116 | 122 | 9 | 9 | PTFE | FKM | LWM-0900-1160-1-1 |
| 95 | 120 | 126 | 9 | 9 | PTFE | FKM | LWM-0950-1200-1-1 |
| 95 | 121 | 127 | 9 | 9 | PTFE | FKM | LWM-0950-1210-1-1 |
| 95 | 122 | 128 | 9 | 9 | PTFE | FKM | LWM-0950-1220-1-1 |
| 95.2 | 120.7 | 127 | 9 | 9 | PTFE | FKM | LWM-0952-1207-1-1 |
| 96 | 125 | 131 | 9 | 9 | PTFE | FKM | LWM-0960-1250-1-1 |
| 98 | 128 | 134 | 9 | 9 | PTFE | FKM | LWM-0980-1280-1-1 |
| 100 | 125 | 131 | 9 | 9 | PTFE | FKM | LWM-1000-1250-1-1 |
| 100 | 126 | 132 | 9 | 9 | PTFE | FKM | LWM-1000-1260-1-1 |
| 100 | 130 | 136 | 9 | 9 | PTFE | FKM | LWM-1000-1300-1-1 |
| 105 | 130 | 136 | 9 | 9 | PTFE | FKM | LWM-1050-1300-1-1 |
| 105 | 131 | 137 | 9 | 9 | PTFE | FKM | LWM-1050-1310-1-1 |
| 110 | 130 | 136 | 9 | 9 | PTFE | FKM | LWM-1100-1300-1-1 |
| 110 | 136 | 142 | 9 | 9 | PTFE | FKM | LWM-1100-1360-1-1 |
| 115 | 141 | 147 | 9 | 9 | PTFE | FKM | LWM-1150-1410-1-1 |
| 116 | 141 | 147 | 9 | 9 | PTFE | FKM | LWM-1160-1410-1-1 |
| 120 | 146 | 152 | 9 | 9 | PTFE | FKM | LWM-1200-1460-1-1 |
| 120 | 150 | 156 | 9 | 9 | PTFE | FKM | LWM-1200-1500-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 125 | 150 | 156 | 9 | 9 | PTFE | FKM | LWM-1250-1500-1-1 |
| 125 | 151 | 157 | 9 | 9 | PTFE | FKM | LWM-1250-1510-1-1 |
| 125 | 160 | 166 | 9 | 9 | PTFE | FKM | LWM-1250-1600-1-1 |
| 128 | 154 | 160 | 9 | 9 | PTFE | FKM | LWM-1280-1540-1-1 |
| 128 | 158 | 164 | 9 | 9 | PTFE | FKM | LWM-1280-1580-1-1 |
| 130 | 160 | 166 | 9 | 9 | PTFE | FKM | LWM-1300-1600-1-1 |
| 138 | 168 | 174 | 11 | 9 | PTFE | FKM | LWM-1380-1680-1-1 |
| 140 | 166 | 172 | 11 | 9 | PTFE | FKM | LWM-1400-1660-1-1 |
| 155 | 180 | 186 | 11 | 9 | PTFE | FKM | LWM-1550-1800-1-1 |
| 155 | 181 | 187 | 11 | 9 | PTFE | FKM | LWM-1550-1810-1-1 |
| 155 | 185 | 191 | 11 | 9 | PTFE | FKM | LWM-1550-1850-1-1 |
| 160 | 186 | 192 | 11 | 9 | PTFE | FKM | LWM-1600-1860-1-1 |
| 160 | 190 | 196 | 11 | 9 | PTFE | FKM | LWM-1600-1900-1-1 |
| 170 | 195 | 201 | 11 | 9 | PTFE | FKM | LWM-1700-1950-1-1 |
| 170 | 200 | 206 | 11 | 9 | PTFE | FKM | LWM-1700-2000-1-1 |
| 212 | 237 | 243 | 11 | 9 | PTFE | FKM | LWM-2120-2370-1-1 |

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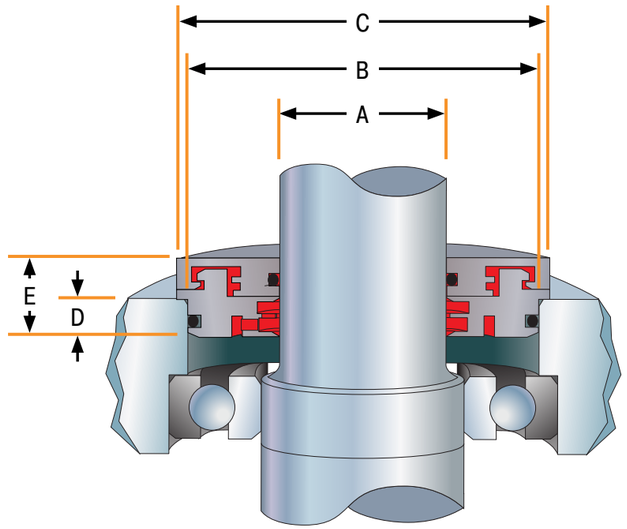
# LXE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.000 | 2.000 | 2.236 | 0.276 | 0.355 | PTFE | FKM | LXE-1000-2000-1-1 |
| 1.125 | 1.875 | 2.111 | 0.276 | 0.355 | PTFE | FKM | LXE-1125-1875-1-1 |
| 1.125 | 2.000 | 2.236 | 0.276 | 0.355 | PTFE | FKM | LXE-1125-2000-1-1 |
| 1.125 | 2.125 | 2.361 | 0.276 | 0.355 | PTFE | FKM | LXE-1125-2125-1-1 |
| 1.125 | 2.441 | 2.677 | 0.276 | 0.355 | PTFE | FKM | LXE-1125-2441-1-1 |
| 1.250 | 1.750 | 1.986 | 0.276 | 0.355 | PTFE | FKM | LXE-1250-1750-1-1 |
| 1.250 | 1.875 | 2.111 | 0.276 | 0.355 | PTFE | FKM | LXE-1250-1875-1-1 |
| 1.250 | 2.000 | 2.236 | 0.276 | 0.355 | PTFE | FKM | LXE-1250-2000-1-1 |
| 1.250 | 2.250 | 2.486 | 0.276 | 0.355 | PTFE | FKM | LXE-1250-2250-1-1 |
| 1.250 | 2.375 | 2.611 | 0.276 | 0.355 | PTFE | FKM | LXE-1250-2375-1-1 |
| 1.375 | 2.125 | 2.361 | 0.276 | 0.355 | PTFE | FKM | LXE-1375-2125-1-1 |
| 1.375 | 2.375 | 2.611 | 0.276 | 0.355 | PTFE | FKM | LXE-1375-2375-1-1 |
| 1.437 | 2.437 | 2.673 | 0.276 | 0.355 | PTFE | FKM | LXE-1437-2437-1-1 |
| 1.500 | 2.250 | 2.486 | 0.276 | 0.355 | PTFE | FKM | LXE-1500-2250-1-1 |
| 1.500 | 2.500 | 2.736 | 0.276 | 0.355 | PTFE | FKM | LXE-1500-2500-1-1 |
| 1.500 | 2.630 | 2.866 | 0.276 | 0.355 | PTFE | FKM | LXE-1500-2630-1-1 |
| 1.625 | 2.375 | 2.611 | 0.315 | 0.355 | PTFE | FKM | LXE-1625-2375-1-1 |
| 1.625 | 2.500 | 2.736 | 0.315 | 0.355 | PTFE | FKM | LXE-1625-2500-1-1 |
| 1.625 | 2.625 | 2.861 | 0.315 | 0.355 | PTFE | FKM | LXE-1625-2625-1-1 |
| 1.675 | 2.675 | 2.911 | 0.315 | 0.355 | PTFE | FKM | LXE-1675-2675-1-1 |
| 1.688 | 2.688 | 2.924 | 0.315 | 0.355 | PTFE | FKM | LXE-1688-2688-1-1 |
| 1.750 | 2.500 | 2.736 | 0.315 | 0.355 | PTFE | EPDM | LXE01750-2500-1-5 |
| 1.750 | 2.625 | 2.861 | 0.315 | 0.355 | PTFE | FKM | LXE-1750-2625-1-1 |
| 1.750 | 2.750 | 2.986 | 0.315 | 0.355 | PTFE | FKM | LXE-1750-2750-1-1 |
| 1.750 | 2.865 | 3.101 | 0.315 | 0.355 | PTFE | FKM | LXE-1750-2865-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.750 | 2.875 | 3.111 | 0.315 | 0.355 | PTFE | FKM | LXE-1750-2875-1-1 |
| 1.750 | 2.937 | 3.173 | 0.315 | 0.355 | PTFE | FKM | LXE-1750-2937-1-1 |
| 1.770 | 2.625 | 2.861 | 0.315 | 0.355 | PTFE | FKM | LXE-1770-2625-1-1 |
| 1.875 | 2.625 | 2.861 | 0.315 | 0.355 | PTFE | FKM | LXE-1875-2625-1-1 |
| 1.875 | 2.750 | 2.986 | 0.315 | 0.355 | PTFE | FKM | LXE-1875-2750-1-1 |
| 1.875 | 2.875 | 3.111 | 0.315 | 0.355 | PTFE | FKM | LXE-1875-2875-1-1 |
| 1.937 | 2.937 | 3.173 | 0.315 | 0.355 | PTFE | FKM | LXE-1937-2937-1-1 |
| 1.938 | 2.938 | 3.174 | 0.315 | 0.355 | PTFE | FKM | LXE-1938-2938-1-1 |
| 2.000 | 2.750 | 2.986 | 0.315 | 0.355 | PTFE | FKM | LXE-2000-2750-1-1 |
| 2.000 | 3.000 | 3.236 | 0.315 | 0.355 | PTFE | FKM | LXE-2000-3000-1-1 |
| 2.000 | 3.000 | 3.236 | 0.315 | 0.355 | PTFE FDA | Silicone FDA | LXE-2000-3000-2-6 |
| 2.125 | 2.875 | 3.111 | 0.315 | 0.355 | PTFE | FKM | LXE-2125-2875-1-1 |
| 2.125 | 3.125 | 3.361 | 0.315 | 0.355 | PTFE | FKM | LXE-2125-3125-1-1 |
| 2.156 | 3.156 | 3.392 | 0.315 | 0.355 | PTFE | FKM | LXE-2156-3156-1-1 |
| 2.164 | 3.188 | 3.424 | 0.315 | 0.355 | PTFE | FKM | LXE-2164-3188-1-1 |
| 2.250 | 2.350 | 2.586 | 0.315 | 0.355 | PTFE | FKM | LXE-2250-2350-1-1 |
| 2.250 | 2.750 | 2.986 | 0.315 | 0.355 | PTFE | FKM | LXE-2250-2750-1-1 |
| 2.250 | 3.147 | 3.383 | 0.315 | 0.355 | PTFE | FKM | LXE-2250-3147-1-1 |
| 2.250 | 3.250 | 3.486 | 0.315 | 0.355 | PTFE | FKM | LXE-2250-3250-1-1 |
| 2.250 | 3.375 | 3.611 | 0.315 | 0.355 | PTFE | FKM | LXE-2250-3375-1-1 |
| 2.250 | 3.500 | 3.736 | 0.315 | 0.355 | PTFE | EPDM | LXE-2250-3500-1-5 |
| 2.312 | 3.312 | 3.548 | 0.315 | 0.355 | PTFE | FKM | LXE-2312-3312-1-1 |
| 2.361 | 3.125 | 3.361 | 0.315 | 0.355 | PTFE | FKM | LXE-2361-3125-1-1 |
| 2.375 | 3.125 | 3.361 | 0.354 | 0.355 | PTFE | FKM | LXE-2375-3125-1-1 |
| 2.375 | 3.375 | 3.611 | 0.354 | 0.355 | PTFE | FKM | LXE-2375-3375-1-1 |
| 2.438 | 3.438 | 3.674 | 0.354 | 0.355 | PTFE | FKM | LXE-2438-3438-1-1 |
| 2.500 | 3.250 | 3.486 | 0.354 | 0.355 | PTFE | FKM | LXE-2500-3250-1-1 |
| 2.500 | 3.500 | 3.736 | 0.354 | 0.355 | PTFE | FKM | LXE-2500-3500-1-1 |
| 2.500 | 3.625 | 3.861 | 0.354 | 0.355 | PTFE | FKM | LXE-2500-3625-1-1 |
| 2.610 | 3.781 | 4.017 | 0.354 | 0.355 | PTFE | FKM | LXE-2610-3781-1-1 |
| 2.620 | 3.350 | 3.586 | 0.354 | 0.355 | PTFE | FKM | LXE-2620-3350-1-1 |
| 2.625 | 3.625 | 3.861 | 0.354 | 0.355 | PTFE | FKM | LXE-2625-3625-1-1 |
| 2.625 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LXE-2625-3750-1-1 |
| 2.750 | 3.500 | 3.736 | 0.354 | 0.355 | PTFE | FKM | LXE-2750-3500-1-1 |
| 2.750 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LXE-2750-3750-1-1 |
| 2.750 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE FDA | Silicone FDA | LXE-2750-3750-2-6 |
| 2.750 | 3.875 | 4.111 | 0.354 | 0.355 | PTFE | FKM | LXE-2750-3875-1-1 |
| 2.812 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-2812-4000-1-1 |
| 2.813 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LXE-2813-3750-1-1 |
| 2.820 | 3.820 | 4.056 | 0.354 | 0.355 | PTFE | FKM | LXE-2820-3820-1-1 |
| 2.875 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LXE-2875-3750-1-1 |
| 2.875 | 3.875 | 4.111 | 0.354 | 0.355 | PTFE | FKM | LXE-2875-3875-1-1 |
| 2.875 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-2875-4000-1-1 |
| 2.938 | 3.938 | 4.174 | 0.354 | 0.355 | PTFE | FKM | LXE-2938-3938-1-1 |
| 3.000 | 3.750 | 3.986 | 0.354 | 0.355 | PTFE | FKM | LXE-3000-3750-1-1 |
| 3.000 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-3000-4000-1-1 |
| 3.125 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-3125-4000-1-1 |
| 3.125 | 4.125 | 4.361 | 0.354 | 0.355 | PTFE | FKM | LXE-3125-4125-1-1 |
| 3.149 | 4.133 | 4.369 | 0.354 | 0.355 | PTFE | FKM | LXE-3149-4133-1-1 |
| 3.187 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-3187-4000-1-1 |

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APPENDIX - LXE



| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 3.188 | 4.000 | 4.236 | 0.354 | 0.355 | PTFE | FKM | LXE-3188-4000-1-1 |
| 3.240 | 4.225 | 4.461 | 0.354 | 0.355 | PTFE | FKM | LXE-3240-4225-1-1 |
| 3.250 | 4.250 | 4.486 | 0.354 | 0.355 | PTFE | FKM | LXE-3250-4250-1-1 |
| 3.375 | 4.375 | 4.611 | 0.354 | 0.355 | PTFE | FKM | LXE-3375-4375-1-1 |
| 3.381 | 4.381 | 4.617 | 0.354 | 0.355 | PTFE | FKM | LXE-3381-4381-1-1 |
| 3.438 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LXE-3438-4500-1-1 |
| 3.500 | 4.375 | 4.611 | 0.354 | 0.355 | PTFE | FKM | LXE-3500-4375-1-1 |
| 3.500 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LXE-3500-4500-1-1 |
| 3.563 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LXE-3563-4750-1-1 |
| 3.625 | 4.625 | 4.861 | 0.354 | 0.355 | PTFE | FKM | LXE-3625-4625-1-1 |
| 3.687 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LXE-3687-4750-1-1 |
| 3.700 | 4.500 | 4.736 | 0.354 | 0.355 | PTFE | FKM | LXE-3700-4500-1-1 |
| 3.750 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LXE-3750-4750-1-1 |
| 3.750 | 5.000 | 5.236 | 0.354 | 0.355 | PTFE | FKM | LXE-3750-5000-1-1 |
| 3.813 | 4.813 | 5.049 | 0.354 | 0.355 | PTFE | FKM | LXE-3813-4813-1-1 |
| 3.875 | 4.750 | 4.986 | 0.354 | 0.355 | PTFE | FKM | LXE-3875-4750-1-1 |
| 3.875 | 4.875 | 5.111 | 0.354 | 0.355 | PTFE | FKM | LXE-3875-4875-1-1 |
| 3.875 | 5.250 | 5.486 | 0.354 | 0.355 | PTFE | FKM | LXE-3875-5250-1-1 |
| 4.000 | 4.875 | 5.111 | 0.354 | 0.355 | PTFE | FKM | LXE-4000-4875-1-1 |
| 4.000 | 5.000 | 5.236 | 0.354 | 0.355 | PTFE | FKM | LXE-4000-5000-1-1 |
| 4.000 | 5.250 | 5.486 | 0.354 | 0.355 | PTFE | FKM | LXE-4000-5250-1-1 |
| 4.103 | 5.500 | 5.736 | 0.354 | 0.355 | PTFE | FKM | LXE-4103-5500-1-1 |
| 4.125 | 5.125 | 5.361 | 0.354 | 0.355 | PTFE | FKM | LXE-4125-5125-1-1 |
| 4.250 | 5.125 | 5.361 | 0.354 | 0.355 | PTFE | FKM | LXE-4250-5125-1-1 |
| 4.250 | 5.250 | 5.486 | 0.354 | 0.355 | PTFE | FKM | LXE-4250-5250-1-1 |
| 4.312 | 5.312 | 5.548 | 0.354 | 0.355 | PTFE | FKM | LXE-4312-5312-1-1 |
| 4.375 | 5.500 | 5.736 | 0.354 | 0.355 | PTFE | FKM | LXE-4375-5500-1-1 |
| 4.588 | 5.812 | 6.048 | 0.354 | 0.355 | PTFE | FKM | LXE-4588-5812-1-1 |
| 4.625 | 5.625 | 5.861 | 0.354 | 0.355 | PTFE | FKM | LXE-4625-5625-1-1 |
| 5.000 | 6.001 | 6.237 | 0.354 | 0.355 | PTFE | FKM | LXE-5000-6001-1-1 |
| 5.500 | 6.631 | 6.867 | 0.433 | 0.355 | PTFE | FKM | LXE-5500-6631-1-1 |
| 5.500 | 6.750 | 6.986 | 0.433 | 0.355 | PTFE | FKM | LXE-5500-6750-1-1 |
| 5.875 | 7.125 | 7.361 | 0.433 | 0.355 | PTFE | EPDM | LXE-5875-7125-1-5 |
| 6.250 | 7.250 | 7.486 | 0.433 | 0.355 | PTFE | FKM | LXE-6250-7250-1-1 |
| 6.500 | 8.000 | 8.236 | 0.433 | 0.355 | PTFE | FKM | LXE-6500-8000-1-1 |
| 7.000 | 8.500 | 8.736 | 0.433 | 0.355 | PTFE | FKM | LXE-7000-8500-1-1 |
| 7.750 | 8.750 | 8.986 | 0.433 | 0.355 | PTFE | FKM | LXE-7750-8750-1-1 |
| 7.750 | 9.250 | 9.486 | 0.433 | 0.355 | PTFE | FKM | LXE-7750-9250-1-1 |
| 8.000 | 9.000 | 9.236 | 0.433 | 0.355 | PTFE | FKM | LXE-8000-9000-1-1 |
| 10.000 | 11.250 | 11.486 | 0.433 | 0.355 | PTFE | FKM | LXE-10000-11250-1-1 |

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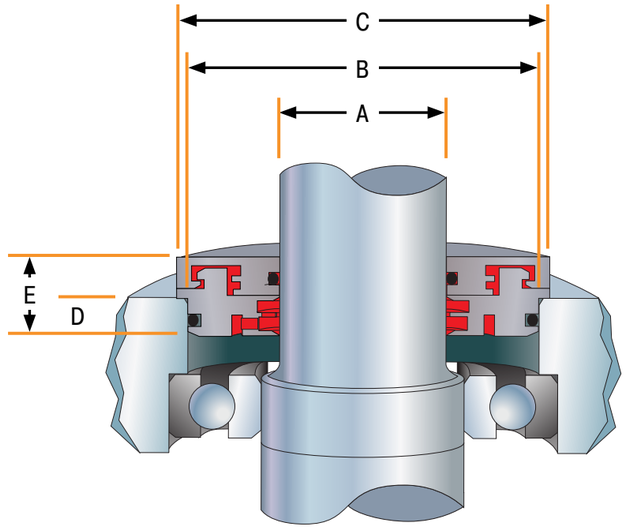
# LXM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 14 | 25 | 31 | 7 | 9 | PTFE | FKM | LXM-0140-0250-1-1 |
| 22 | 41 | 47 | 7 | 9 | PTFE | FKM | LXM-0220-0410-1-1 |
| 25 | 40 | 46 | 7 | 9 | PTFE | FKM | LXM-0250-0400-1-1 |
| 28 | 68 | 74 | 7 | 9 | PTFE | FKM | LXM-0280-0680-1-1 |
| 30 | 40 | 46 | 7 | 9 | PTFE | FKM | LXM-0300-0400-1-1 |
| 30 | 40 | 46 | 7 | 9 | PTFE FDA | FKM | LXM-0300-0400-2-1 |
| 30 | 42 | 48 | 7 | 9 | PTFE | FKM | LXM-0300-0420-1-1 |
| 30 | 55 | 61 | 7 | 9 | PTFE | FKM | LXM-0300-0550-1-1 |
| 32 | 58 | 64 | 7 | 9 | PTFE | FKM | LXM-0320-0580-1-1 |
| 32 | 60 | 66 | 7 | 9 | PTFE | FKM | LXM-0320-0600-1-1 |
| 35 | 47 | 53 | 7 | 9 | PTFE | FKM | LXM-0350-0470-1-1 |
| 35 | 55 | 61 | 7 | 9 | PTFE | FKM | LXM-0350-0550-1-1 |
| 35 | 61 | 67 | 7 | 9 | PTFE | FKM | LXM-0350-0610-1-1 |
| 35.2 | 60 | 66 | 7 | 9 | PTFE | FKM | LXM-0352-0600-1-1 |
| 38 | 62 | 68 | 7 | 9 | PTFE | FKM | LXM-0380-0620-1-1 |
| 38 | 64 | 70 | 7 | 9 | PTFE | FKM | LXM-0380-0640-1-1 |
| 40 | 60 | 66 | 7 | 9 | PTFE | FKM | LXM-0400-0600-1-1 |
| 40 | 64 | 70 | 7 | 9 | PTFE | FKM | LXM-0400-0640-1-1 |
| 42 | 68 | 74 | 8 | 9 | PTFE | FKM | LXM-0420-0680-1-1 |
| 42 | 72 | 78 | 8 | 9 | PTFE | FKM | LXM-0420-0720-1-1 |
| 45 | 70 | 76 | 8 | 9 | PTFE | FKM | LXM-0450-0700-1-1 |
| 45 | 71 | 77 | 8 | 9 | PTFE | FKM | LXM-0450-0710-1-1 |
| 48 | 68 | 74 | 8 | 9 | PTFE | FKM | LXM-0480-0680-1-1 |
| 48 | 74 | 80 | 8 | 9 | PTFE | FKM | LXM-0480-0740-1-1 |
| 50 | 62 | 68 | 8 | 9 | PTFE | FKM | LXM-0500-0620-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 50 | 65 | 71 | 8 | 9 | PTFE FDA | Silicone FDA | LXM-0500-0650-2-6 |
| 50 | 71.6 | 77.6 | 8 | 9 | PTFE | FKM | LXM-0500-0716-1-1 |
| 50 | 72 | 78 | 8 | 9 | PTFE | FKM | LXM-0500-0720-1-1 |
| 50 | 80 | 86 | 8 | 9 | PTFE | FKM | LXM-0500-0800-1-1 |
| 50 | 88 | 94 | 8 | 9 | PTFE | FKM | LXM-0500-0880-1-1 |
| 50 | 90 | 96 | 8 | 9 | PTFE | FKM | LXM-0500-0900-1-1 |
| 50.8 | 66.7 | 72.7 | 8 | 9 | PTFE | FKM | LXM-0508-0667-1-1 |
| 50.8 | 76 | 82 | 8 | 9 | PTFE | FKM | LXM-0508-0760-1-1 |
| 55 | 75 | 81 | 8 | 9 | PTFE | FKM | LXM-0550-0750-1-1 |
| 55 | 81 | 87 | 8 | 9 | PTFE | FKM | LXM-0550-0810-1-1 |
| 60 | 80 | 86 | 8 | 9 | PTFE | FKM | LXM-0600-0800-1-1 |
| 60 | 86 | 92 | 8 | 9 | PTFE | FKM | LXM-0600-0860-1-1 |
| 62 | 88 | 94 | 9 | 9 | PTFE | FKM | LXM-0620-0880-1-1 |
| 64 | 84 | 90 | 9 | 9 | PTFE | FKM | LXM-0640-0840-1-1 |
| 65 | 85 | 91 | 9 | 9 | PTFE | FKM | LXM-0650-0850-1-1 |
| 65 | 90 | 96 | 9 | 9 | PTFE | FKM | LXM-0650-0900-1-1 |
| 70 | 85 | 91 | 9 | 9 | PTFE | FKM | LXM-0700-0850-1-1 |
| 70 | 90 | 96 | 9 | 9 | PTFE | FKM | LXM-0700-0900-1-1 |
| 70 | 96 | 102 | 9 | 9 | PTFE | FKM | LXM-0700-0960-1-1 |
| 70 | 100 | 106 | 9 | 9 | PTFE | FKM | LXM-0700-1000-1-1 |
| 72 | 90 | 96 | 9 | 9 | PTFE | FKM | LXM-0720-0900-1-1 |
| 73 | 96 | 102 | 9 | 9 | PTFE | FKM | LXM-0730-0960-1-1 |
| 75 | 95 | 101 | 9 | 9 | PTFE | FKM | LXM-0750-0950-1-1 |
| 75 | 100 | 106 | 9 | 9 | PTFE | FKM | LXM-0750-1000-1-1 |
| 75 | 115 | 121 | 9 | 9 | PTFE | FKM | LXM-0750-1150-1-1 |
| 78 | 100 | 106 | 9 | 9 | PTFE | FKM | LXM-0780-1000-1-1 |
| 80 | 100 | 106 | 9 | 9 | PTFE | FKM | LXM-0800-1000-1-1 |
| 80 | 106 | 112 | 9 | 9 | PTFE | FKM | LXM-0800-1060-1-1 |
| 80 | 110 | 116 | 9 | 9 | PTFE | FKM | LXM-0800-1100-1-1 |
| 85 | 110 | 116 | 9 | 9 | PTFE | FKM | LXM-0850-1100-1-1 |
| 85 | 111 | 117 | 9 | 9 | PTFE | FKM | LXM-0850-1110-1-1 |
| 87 | 120 | 126 | 9 | 9 | PTFE | FKM | LXM-0870-1200-1-1 |
| 88 | 113 | 119 | 9 | 9 | PTFE | FKM | LXM-0880-1130-1-1 |
| 90 | 110 | 116 | 9 | 9 | PTFE | FKM | LXM-0900-1100-1-1 |
| 90 | 160 | 166 | 9 | 9 | PTFE | FKM | LXM-0900-1160-1-1 |
| 90 | 120 | 126 | 9 | 9 | PTFE | FKM | LXM-0900-1200-1-1 |
| 93 | 115 | 121 | 9 | 9 | PTFE | FKM | LXM-0930-1150-1-1 |
| 93 | 120 | 126 | 9 | 9 | PTFE | FKM | LXM-0930-1200-1-1 |
| 95 | 120 | 126 | 9 | 9 | PTFE | FKM | LXM-0950-1200-1-1 |
| 95 | 121 | 127 | 9 | 9 | PTFE | FKM | LXM-0950-1210-1-1 |
| 95 | 125 | 131 | 9 | 9 | PTFE | FKM | LXM-0950-1250-1-1 |
| 99 | 126 | 132 | 9 | 9 | PTFE | FKM | LXM-0990-1260-1-1 |
| 100 | 126 | 132 | 9 | 9 | PTFE | FKM | LXM-1000-1260-1-1 |
| 100 | 130 | 136 | 9 | 9 | PTFE | FKM | LXM-1000-1300-1-1 |
| 105 | 131 | 137 | 9 | 9 | PTFE | FKM | LXM-1050-1310-1-1 |
| 105 | 135 | 141 | 9 | 9 | PTFE | FKM | LXM-1050-1350-1-1 |
| 109.8 | 140 | 146 | 9 | 9 | PTFE | FKM | LXM-1098-1400-1-1 |
| 110 | 130 | 136 | 9 | 9 | PTFE | FKM | LXM-1100-1300-1-1 |
| 110 | 132 | 138 | 9 | 9 | PTFE | FKM | LXM-1100-1320-1-1 |
| 110 | 140 | 146 | 9 | 9 | PTFE | FKM | LXM-1100-1400-1-1 |

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APPENDIX - LXM



| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 113 | 138 | 144 | 9 | 9 | PTFE | FKM | LXM-1130-1380-1-1 |
| 115 | 145 | 151 | 9 | 9 | PTFE | FKM | LXM-1150-1450-1-1 |
| 118 | 150 | 156 | 9 | 9 | PTFE | FKM | LXM-1180-1500-1-1 |
| 120 | 140 | 146 | 9 | 9 | PTFE | FKM | LXM-1200-1400-1-1 |
| 120 | 150 | 156 | 9 | 9 | PTFE | FKM | LXM-1200-1500-1-1 |
| 120 | 155 | 161 | 9 | 9 | PTFE | FKM | LXM-1200-1550-1-1 |
| 125 | 150 | 156 | 9 | 9 | PTFE | FKM | LXM-1250-1500-1-1 |
| 127 | 152.4 | 158.4 | 9 | 9 | PTFE | FKM | LXM-1270-1524-1-1 |
| 127 | 153 | 159 | 9 | 9 | PTFE | FKM | LXM-1270-1530-1-1 |
| 130 | 160 | 166 | 9 | 9 | PTFE | FKM | LXM-1300-1600-1-1 |
| 130 | 170 | 176 | 9 | 9 | PTFE | FKM | LXM-1300-1700-1-1 |
| 136 | 166 | 172 | 11 | 9 | PTFE | FKM | LXM-1360-1660-1-1 |
| 140 | 160 | 166 | 11 | 9 | PTFE | FKM | LXM-1400-1600-1-1 |
| 140 | 166 | 172 | 11 | 9 | PTFE | FKM | LXM-1400-1660-1-1 |
| 140 | 170 | 176 | 11 | 9 | PTFE | FKM | LXM-1400-1700-1-1 |
| 140 | 180 | 186 | 11 | 9 | PTFE | FKM | LXM-1400-1800-1-1 |
| 150 | 180 | 186 | 11 | 9 | PTFE | FKM | LXM-1500-1800-1-1 |
| 155 | 180 | 186 | 11 | 9 | PTFE | FKM | LXM-1550-1800-1-1 |
| 155 | 181 | 187 | 11 | 9 | PTFE | FKM | LXM-1550-1810-1-1 |
| 160 | 190 | 196 | 11 | 9 | PTFE | FKM | LXM-1600-1900-1-1 |
| 170 | 200 | 206 | 11 | 9 | PTFE | FKM | LXM-1700-2000-1-1 |
| 180 | 210 | 216 | 11 | 9 | PTFE | FKM | LXM-1800-2100-1-1 |
| 190 | 216 | 222 | 11 | 9 | PTFE | FKM | LXM-1900-2160-1-1 |
| 190 | 220 | 226 | 11 | 9 | PTFE | FKM | LXM-1900-2200-1-1 |
| 190 | 230 | 236 | 11 | 9 | PTFE | FKM | LXM-1900-2300-1-1 |
| 220 | 250 | 256 | 11 | 9 | PTFE | FKM | LXM-2200-2500-1-1 |

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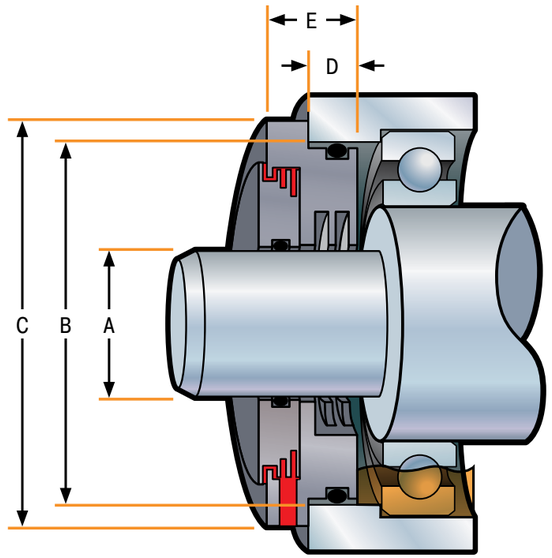
# LSE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 0.500 | 1.188 | 1.438 | 0.313 | 0.375 | PTFE | FKM | LSE-0500-1188-1-1 |
| 0.625 | 1.250 | 1.500 | 0.313 | 0.375 | PTFE | FKM | LSE-0625-1250-1-1 |
| 0.625 | 1.500 | 1.750 | 0.313 | 0.375 | PTFE | FKM | LSE-0625-1500-1-1 |
| 0.625 | 1.575 | 1.825 | 0.313 | 0.375 | PTFE | FKM | LSE-0625-1575-1-1 |
| 0.625 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-0625-2000-1-1 |
| 0.669 | 1.600 | 1.850 | 0.313 | 0.375 | PTFE | FKM | LSE-0669-1600-1-1 |
| 0.750 | 1.375 | 1.625 | 0.313 | 0.375 | PTFE | FKM | LSE-0750-1375-1-1 |
| 0.750 | 1.750 | 2.000 | 0.313 | 0.375 | PTFE | FKM | LSE-0750-1750-1-1 |
| 0.787 | 1.725 | 1.975 | 0.313 | 0.375 | PTFE | FKM | LSE-0787-1725-1-1 |
| 0.850 | 1.100 | 1.350 | 0.313 | 0.375 | PTFE | FKM | LSE-0850-1100-1-1 |
| 0.866 | 2.360 | 2.610 | 0.313 | 0.375 | PTFE | FKM | LSE-0866-2360-1-1 |
| 0.875 | 1.500 | 1.750 | 0.313 | 0.375 | PTFE | FKM | LSE-0875-1500-1-1 |
| 0.875 | 1.625 | 1.875 | 0.313 | 0.375 | PTFE | FKM | LSE-0875-1625-1-1 |
| 0.875 | 1.750 | 2.000 | 0.313 | 0.375 | PTFE | FKM | LSE-0875-1750-1-1 |
| 0.875 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-0875-1875-1-1 |
| 0.875 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-0875-2000-1-1 |
| 0.937 | 1.563 | 1.813 | 0.313 | 0.375 | PTFE | FKM | LSE-0937-1563-1-1 |
| 0.937 | 1.750 | 2.000 | 0.313 | 0.375 | PTFE | FKM | LSE-0937-1750-1-1 |
| 0.937 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-0937-2000-1-1 |
| 0.938 | 1.938 | 2.188 | 0.313 | 0.375 | PTFE | FKM | LSE-0938-1938-1-1 |
| 0.938 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-0938-2000-1-1 |
| 0.984 | 1.968 | 2.218 | 0.313 | 0.375 | PTFE | FKM | LSE-0984-1968-1-1 |
| 1.000 | 1.625 | 1.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1000-1625-1-1 |
| 1.000 | 1.750 | 2.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1000-1750-1-1 |
| 1.000 | 1.828 | 2.078 | 0.313 | 0.375 | PTFE | FKM | LSE-1000-1828-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.000 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1000-2000-1-1 |
| 1.000 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1000-2500-1-1 |
| 1.062 | 1.688 | 1.938 | 0.313 | 0.375 | PTFE | FKM | LSE-1062-1688-1-1 |
| 1.063 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1063-2000-1-1 |
| 1.063 | 2.063 | 2.313 | 0.313 | 0.375 | PTFE | FKM | LSE-1063-2063-1-1 |
| 1.125 | 1.750 | 2.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-1750-1-1 |
| 1.125 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-1875-1-1 |
| 1.125 | 1.938 | 2.188 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-1938-1-1 |
| 1.125 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1125-2000-1-1 |
| 1.125 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2000-2-6 |
| 1.125 | 2.001 | 2.251 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2001-1-1 |
| 1.125 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2125-1-1 |
| 1.125 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2250-1-1 |
| 1.125 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2375-1-1 |
| 1.125 | 2.437 | 2.687 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2437-1-1 |
| 1.125 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2438-1-1 |
| 1.125 | 2.441 | 2.691 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2441-1-1 |
| 1.125 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1125-2500-1-1 |
| 1.128 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1128-2125-1-1 |
| 1.130 | 1.755 | 2.005 | 0.313 | 0.375 | PTFE | FKM | LSE-1130-1755-1-1 |
| 1.156 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1156-1875-1-1 |
| 1.162 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1162-2438-1-1 |
| 1.175 | 2.450 | 2.700 | 0.313 | 0.375 | PTFE | FKM | LSE-1175-2450-1-1 |
| 1.179 | 2.437 | 2.687 | 0.313 | 0.375 | PTFE | FKM | LSE-1179-2437-1-1 |
| 1.181 | 2.179 | 2.429 | 0.313 | 0.375 | PTFE | FKM | LSE-1181-2179-1-1 |
| 1.185 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1185-2438-1-1 |
| 1.185 | 2.442 | 2.692 | 0.313 | 0.375 | PTFE | FKM | LSE-1185-2442-1-1 |
| 1.187 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1187-1875-1-1 |
| 1.187 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1187-2125-1-1 |
| 1.188 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1188-1875-1-1 |
| 1.188 | 1.879 | 2.129 | 0.313 | 0.375 | PTFE | FKM | LSE-1188-1879-1-1 |
| 1.188 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1188-2000-1-1 |
| 1.188 | 2.188 | 2.438 | 0.313 | 0.375 | PTFE | FKM | LSE-1188-2188-1-1 |
| 1.250 | 1.875 | 2.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-1875-1-1 |
| 1.250 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2000-1-1 |
| 1.250 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1250-2000-2-6 |
| 1.250 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2125-1-1 |
| 1.250 | 2.187 | 2.437 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2187-1-1 |
| 1.250 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2250-1-1 |
| 1.250 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2375-1-1 |
| 1.250 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2500-1-1 |
| 1.250 | 2.685 | 2.935 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2685-1-1 |
| 1.250 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2750-1-1 |
| 1.250 | 2.835 | 3.085 | 0.313 | 0.375 | PTFE | FKM | LSE-1250-2835-1-1 |
| 1.312 | 2.312 | 2.562 | 0.313 | 0.375 | PTFE | FKM | LSE-1312-2312-1-1 |
| 1.313 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1313-2000-1-1 |
| 1.313 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1313-2125-1-1 |
| 1.338 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1338-2438-1-1 |
| 1.370 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1370-2000-1-1 |
| 1.370 | 2.120 | 2.370 | 0.313 | 0.375 | PTFE | FKM | LSE-1370-2120-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.375 | 2.000 | 2.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2000-1-1 |
| 1.375 | 2.054 | 2.304 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2054-1-1 |
| 1.375 | 2.063 | 2.313 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2063-1-1 |
| 1.375 | 2.100 | 2.350 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2100-1-1 |
| 1.375 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2125-1-1 |
| 1.375 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2250-1-1 |
| 1.375 | 2.291 | 2.541 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2291-1-1 |
| 1.375 | 2.312 | 2.562 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2312-1-1 |
| 1.375 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2375-1-1 |
| 1.375 | 2.437 | 2.687 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2437-1-1 |
| 1.375 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2438-1-1 |
| 1.375 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2500-1-1 |
| 1.375 | 2.535 | 2.785 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2535-1-1 |
| 1.375 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2625-1-1 |
| 1.375 | 2.828 | 3.078 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2828-1-1 |
| 1.375 | 2.832 | 3.082 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2832-1-1 |
| 1.375 | 2.835 | 3.085 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2835-1-1 |
| 1.375 | 2.872 | 3.122 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2872-1-1 |
| 1.375 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1375-2875-1-1 |
| 1.376 | 2.205 | 2.455 | 0.313 | 0.375 | PTFE | FKM | LSE-1376-2205-1-1 |
| 1.377 | 2.377 | 2.627 | 0.313 | 0.375 | PTFE | FKM | LSE-1377-2377-1-1 |
| 1.378 | 2.165 | 2.415 | 0.313 | 0.375 | PTFE | FKM | LSE-1378-2165-1-1 |
| 1.380 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1380-2125-1-1 |
| 1.400 | 2.120 | 2.370 | 0.313 | 0.375 | PTFE | FKM | LSE-1400-2120-1-1 |
| 1.406 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1406-2125-1-1 |
| 1.436 | 2.436 | 2.686 | 0.313 | 0.375 | PTFE | FKM | LSE-1436-2436-1-1 |
| 1.437 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1437-2250-1-1 |
| 1.437 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1437-2375-1-1 |
| 1.437 | 2.378 | 2.628 | 0.313 | 0.375 | PTFE | FKM | LSE-1437-2378-1-1 |
| 1.437 | 2.437 | 2.687 | 0.313 | 0.375 | PTFE | FKM | LSE-1437-2437-1-1 |
| 1.437 | 2.737 | 2.987 | 0.313 | 0.375 | PTFE | FKM | LSE-1437-2737-1-1 |
| 1.438 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1438-2125-1-1 |
| 1.438 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1438-2250-1-1 |
| 1.438 | 2.285 | 2.535 | 0.313 | 0.375 | PTFE | FKM | LSE-1438-2285-1-1 |
| 1.438 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1438-2438-1-1 |
| 1.468 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1468-2125-1-1 |
| 1.468 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1468-2375-1-1 |
| 1.469 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1469-2250-1-1 |
| 1.500 | 2.125 | 2.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2125-1-1 |
| 1.500 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2250-1-1 |
| 1.500 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2375-1-1 |
| 1.500 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2438-1-1 |
| 1.500 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2500-1-1 |
| 1.500 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1500-2500-2-6 |
| 1.500 | 2.502 | 2.752 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2502-1-1 |
| 1.500 | 2.600 | 2.850 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2600-1-1 |
| 1.500 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2625-1-1 |
| 1.500 | 2.800 | 3.050 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2800-1-1 |
| 1.500 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2875-1-1 |
| 1.500 | 2.950 | 3.200 | 0.313 | 0.375 | PTFE | FKM | LSE-1500-2950-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.530 | 2.281 | 2.531 | 0.313 | 0.375 | PTFE | FKM | LSE-1530-2281-1-1 |
| 1.562 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1562-2375-1-1 |
| 1.562 | 2.406 | 2.656 | 0.313 | 0.375 | PTFE | FKM | LSE-1562-2406-1-1 |
| 1.562 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1562-2500-1-1 |
| 1.562 | 2.562 | 2.812 | 0.313 | 0.375 | PTFE | FKM | LSE-1562-2562-1-1 |
| 1.562 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1562-2875-1-1 |
| 1.563 | 2.188 | 2.438 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2188-1-1 |
| 1.563 | 2.310 | 2.560 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2310-1-1 |
| 1.563 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2375-1-1 |
| 1.563 | 2.406 | 2.656 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2406-1-1 |
| 1.563 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2438-1-1 |
| 1.563 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2500-1-1 |
| 1.563 | 2.563 | 2.813 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2563-1-1 |
| 1.563 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2750-1-1 |
| 1.563 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1563-2875-1-1 |
| 1.564 | 2.566 | 2.816 | 0.313 | 0.375 | PTFE | FKM | LSE-1564-2566-1-1 |
| 1.565 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1565-2250-1-1 |
| 1.565 | 2.565 | 2.815 | 0.313 | 0.375 | PTFE | FKM | LSE-1565-2565-1-1 |
| 1.565 | 2.600 | 2.850 | 0.313 | 0.375 | PTFE | FKM | LSE-1565-2600-1-1 |
| 1.575 | 2.200 | 2.450 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2200-1-1 |
| 1.575 | 2.283 | 2.533 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2283-1-1 |
| 1.575 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2375-1-1 |
| 1.575 | 2.441 | 2.691 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2441-1-1 |
| 1.575 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2500-1-1 |
| 1.575 | 2.508 | 2.758 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2508-1-1 |
| 1.575 | 2.575 | 2.825 | 0.313 | 0.375 | PTFE | FKM | LSE-1575-2575-1-1 |
| 1.584 | 2.562 | 2.812 | 0.313 | 0.375 | PTFE | FKM | LSE-1584-2562-1-1 |
| 1.594 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1594-2375-1-1 |
| 1.625 | 2.250 | 2.500 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2250-1-1 |
| 1.625 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2375-1-1 |
| 1.625 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2500-1-1 |
| 1.625 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2625-1-1 |
| 1.625 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1625-2625-2-6 |
| 1.625 | 2.627 | 2.877 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2627-1-1 |
| 1.625 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2750-1-1 |
| 1.625 | 2.995 | 3.245 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-2995-1-1 |
| 1.625 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1625-3000-1-1 |
| 1.650 | 2.398 | 2.648 | 0.313 | 0.375 | PTFE | FKM | LSE-1650-2398-1-1 |
| 1.685 | 2.685 | 2.935 | 0.313 | 0.375 | PTFE | FKM | LSE-1685-2685-1-1 |
| 1.687 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1687-2375-1-1 |
| 1.687 | 2.437 | 2.687 | 0.313 | 0.375 | PTFE | FKM | LSE-1687-2437-1-1 |
| 1.687 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1687-2500-1-1 |
| 1.687 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1687-2750-1-1 |
| 1.687 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1687-3000-1-1 |
| 1.688 | 2.313 | 2.563 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2313-1-1 |
| 1.688 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2375-1-1 |
| 1.688 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2500-1-1 |
| 1.688 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2625-1-1 |
| 1.688 | 2.688 | 2.938 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2688-1-1 |
| 1.688 | 2.756 | 3.006 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2756-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.688 | 2.995 | 3.245 | 0.313 | 0.375 | PTFE | FKM | LSE-1688-2995-1-1 |
| 1.690 | 2.440 | 2.690 | 0.313 | 0.375 | PTFE | FKM | LSE-1690-2440-1-1 |
| 1.730 | 2.800 | 3.050 | 0.313 | 0.375 | PTFE | FKM | LSE-1730-2800-1-1 |
| 1.747 | 2.751 | 3.001 | 0.313 | 0.375 | PTFE | FKM | LSE-1747-2751-1-1 |
| 1.750 | 2.375 | 2.625 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2375-1-1 |
| 1.750 | 2.438 | 2.688 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2438-1-1 |
| 1.750 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2500-1-1 |
| 1.750 | 2.556 | 2.806 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2556-1-1 |
| 1.750 | 2.585 | 2.835 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2585-1-1 |
| 1.750 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2625-1-1 |
| 1.750 | 2.688 | 2.938 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2688-1-1 |
| 1.750 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2750-1-1 |
| 1.750 | 2.752 | 3.002 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2752-1-1 |
| 1.750 | 2.812 | 3.062 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2812-1-1 |
| 1.750 | 2.835 | 3.085 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2835-1-1 |
| 1.750 | 2.850 | 3.100 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2850-1-1 |
| 1.750 | 2.870 | 3.120 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2870-1-1 |
| 1.750 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2875-1-1 |
| 1.750 | 2.992 | 3.242 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-2992-1-1 |
| 1.750 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-3000-1-1 |
| 1.750 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1750-3125-1-1 |
| 1.752 | 2.752 | 3.002 | 0.313 | 0.375 | PTFE | FKM | LSE-1752-2752-1-1 |
| 1.752 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1752-2875-1-1 |
| 1.765 | 2.560 | 2.810 | 0.313 | 0.375 | PTFE | FKM | LSE-1765-2560-1-1 |
| 1.765 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1765-2875-1-1 |
| 1.766 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1766-2750-1-1 |
| 1.770 | 2.770 | 3.020 | 0.313 | 0.375 | PTFE | FKM | LSE-1770-2770-1-1 |
| 1.770 | 2.850 | 3.100 | 0.313 | 0.375 | PTFE | FKM | LSE-1770-2850-1-1 |
| 1.771 | 2.560 | 2.810 | 0.313 | 0.375 | PTFE | FKM | LSE-1771-2560-1-1 |
| 1.771 | 2.561 | 2.811 | 0.313 | 0.375 | PTFE | FKM | LSE-1771-2561-1-1 |
| 1.772 | 2.559 | 2.809 | 0.313 | 0.375 | PTFE | FKM | LSE-1772-2559-1-1 |
| 1.772 | 2.795 | 3.045 | 0.313 | 0.375 | PTFE | FKM | LSE-1772-2795-1-1 |
| 1.776 | 2.789 | 3.039 | 0.313 | 0.375 | PTFE | FKM | LSE-1776-2789-1-1 |
| 1.781 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1781-2500-1-1 |
| 1.781 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1781-2625-1-1 |
| 1.790 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1790-2875-1-1 |
| 1.800 | 2.800 | 3.050 | 0.313 | 0.375 | PTFE | FKM | LSE-1800-2800-1-1 |
| 1.813 | 2.813 | 3.063 | 0.313 | 0.375 | PTFE | FKM | LSE-1813-2813-1-1 |
| 1.875 | 2.500 | 2.750 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2500-1-1 |
| 1.875 | 2.563 | 2.813 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2563-1-1 |
| 1.875 | 2.610 | 2.860 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2610-1-1 |
| 1.875 | 2.623 | 2.873 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2623-1-1 |
| 1.875 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2625-1-1 |
| 1.875 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | NBR | LSE-1875-2625-1-3 |
| 1.875 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1875-2625-2-6 |
| 1.875 | 2.688 | 2.938 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2688-1-1 |
| 1.875 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2750-1-1 |
| 1.875 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | NBR | LSE-1875-2750-1-3 |
| 1.875 | 2.825 | 3.075 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2825-1-1 |
| 1.875 | 2.870 | 3.120 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2870-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.875 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2875-1-1 |
| 1.875 | 2.937 | 3.187 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-2937-1-1 |
| 1.875 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-3000-1-1 |
| 1.875 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1875-3125-1-1 |
| 1.876 | 2.502 | 2.752 | 0.313 | 0.375 | PTFE | FKM | LSE-1876-2502-1-1 |
| 1.885 | 2.885 | 3.135 | 0.313 | 0.375 | PTFE | FKM | LSE-1885-2885-1-1 |
| 1.888 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1888-2750-1-1 |
| 1.891 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1891-2750-1-1 |
| 1.891 | 2.874 | 3.124 | 0.313 | 0.375 | PTFE | FKM | LSE-1891-2874-1-1 |
| 1.937 | 2.745 | 2.995 | 0.313 | 0.375 | PTFE | FKM | LSE-1937-2745-1-1 |
| 1.937 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1937-2750-1-1 |
| 1.937 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1937-2875-1-1 |
| 1.937 | 2.937 | 3.187 | 0.313 | 0.375 | PTFE | FKM | LSE-1937-2937-1-1 |
| 1.937 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1937-3000-1-1 |
| 1.938 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-2625-1-1 |
| 1.938 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-2750-1-1 |
| 1.938 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-2875-1-1 |
| 1.938 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | NBR | LSE-1938-2875-1-3 |
| 1.938 | 2.938 | 3.188 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-2938-1-1 |
| 1.938 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-3000-1-1 |
| 1.938 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-1938-3125-1-1 |
| 1.950 | 2.565 | 2.815 | 0.313 | 0.375 | PTFE | FKM | LSE-1950-2565-1-1 |
| 1.967 | 2.967 | 3.217 | 0.313 | 0.375 | PTFE | FKM | LSE-1967-2967-1-1 |
| 1.968 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE FDA | Silicone FDA | LSE-1968-2875-2-6 |
| 1.968 | 2.992 | 3.242 | 0.313 | 0.375 | PTFE | FKM | LSE-1968-2992-1-1 |
| 1.969 | 2.594 | 2.844 | 0.313 | 0.375 | PTFE | FKM | LSE-1969-2594-1-1 |
| 1.970 | 2.895 | 3.145 | 0.313 | 0.375 | PTFE | FKM | LSE-1970-2895-1-1 |
| 1.975 | 2.715 | 2.965 | 0.313 | 0.375 | PTFE | FKM | LSE-1975-2715-1-1 |
| 2.000 | 2.625 | 2.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-2625-1-1 |
| 2.000 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-2750-1-1 |
| 2.000 | 2.751 | 3.001 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-2751-1-1 |
| 2.000 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-2875-1-1 |
| 2.000 | 2.938 | 3.188 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-2938-1-1 |
| 2.000 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3000-1-1 |
| 2.000 | 3.015 | 3.265 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3015-1-1 |
| 2.000 | 3.062 | 3.312 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3062-1-1 |
| 2.000 | 3.105 | 3.355 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3105-1-1 |
| 2.000 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3125-1-1 |
| 2.000 | 3.175 | 3.425 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3175-1-1 |
| 2.000 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3250-1-1 |
| 2.000 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2000-3500-1-1 |
| 2.031 | 3.188 | 3.438 | 0.313 | 0.375 | PTFE | FKM | LSE-2031-3188-1-1 |
| 2.061 | 2.805 | 3.055 | 0.313 | 0.375 | PTFE | FKM | LSE-2061-2805-1-1 |
| 2.061 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2061-3125-1-1 |
| 2.062 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2062-3000-1-1 |
| 2.062 | 3.062 | 3.312 | 0.313 | 0.375 | PTFE | FKM | LSE-2062-3062-1-1 |
| 2.062 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2062-3125-1-1 |
| 2.062 | 3.313 | 3.563 | 0.313 | 0.375 | PTFE | FKM | LSE-2062-3313-1-1 |
| 2.063 | 2.850 | 3.100 | 0.313 | 0.375 | PTFE | FKM | LSE-2063-2850-1-1 |
| 2.063 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2063-3000-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.063 | 3.063 | 3.313 | 0.313 | 0.375 | PTFE | FKM | LSE-2063-3063-1-1 |
| 2.063 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2063-3125-1-1 |
| 2.063 | 3.313 | 3.563 | 0.313 | 0.375 | PTFE | FKM | LSE-2063-3313-1-1 |
| 2.100 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2100-3125-1-1 |
| 2.115 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2115-3125-1-1 |
| 2.120 | 2.870 | 3.120 | 0.313 | 0.375 | PTFE | FKM | LSE-2120-2870-1-1 |
| 2.125 | 2.750 | 3.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-2750-1-1 |
| 2.125 | 2.756 | 3.006 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-2756-1-1 |
| 2.125 | 2.850 | 3.100 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-2850-1-1 |
| 2.125 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-2875-1-1 |
| 2.125 | 2.937 | 3.187 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-2937-1-1 |
| 2.125 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3000-1-1 |
| 2.125 | 3.062 | 3.312 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3062-1-1 |
| 2.125 | 3.063 | 3.313 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3063-1-1 |
| 2.125 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3125-1-1 |
| 2.125 | 3.187 | 3.437 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3187-1-1 |
| 2.125 | 3.226 | 3.476 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3226-1-1 |
| 2.125 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3250-1-1 |
| 2.125 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3375-1-1 |
| 2.125 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3500-1-1 |
| 2.125 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2125-3625-1-1 |
| 2.132 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2132-2875-1-1 |
| 2.135 | 2.850 | 3.100 | 0.313 | 0.375 | PTFE | FKM | LSE-2135-2850-1-1 |
| 2.148 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2148-2875-1-1 |
| 2.149 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2149-2875-1-1 |
| 2.150 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2150-2875-1-1 |
| 2.155 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2155-2875-1-1 |
| 2.156 | 3.156 | 3.406 | 0.313 | 0.375 | PTFE | FKM | LSE-2156-3156-1-1 |
| 2.156 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2156-3250-1-1 |
| 2.160 | 3.160 | 3.410 | 0.313 | 0.375 | PTFE | FKM | LSE-2160-3160-1-1 |
| 2.161 | 3.159 | 3.409 | 0.313 | 0.375 | PTFE | FKM | LSE-2161-3159-1-1 |
| 2.163 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2163-2875-5-1 |
| 2.163 | 2.900 | 3.150 | 0.313 | 0.375 | PTFE | FKM | LSE-2163-2900-1-1 |
| 2.163 | 3.150 | 3.400 | 0.313 | 0.375 | PTFE | FKM | LSE-2163-3150-1-1 |
| 2.165 | 3.150 | 3.400 | 0.313 | 0.375 | PTFE | FKM | LSE-2165-3150-1-1 |
| 2.165 | 3.165 | 3.415 | 0.313 | 0.375 | PTFE | FKM | LSE-2165-3165-1-1 |
| 2.165 | 3.189 | 3.439 | 0.313 | 0.375 | PTFE | FKM | LSE-2165-3189-1-1 |
| 2.166 | 2.825 | 3.075 | 0.313 | 0.375 | PTFE | FKM | LSE-2166-2825-1-1 |
| 2.166 | 3.189 | 3.439 | 0.313 | 0.375 | PTFE | FKM | LSE-2166-3189-1-1 |
| 2.167 | 3.150 | 3.400 | 0.313 | 0.375 | PTFE | FKM | LSE-2167-3150-1-1 |
| 2.177 | 3.129 | 3.379 | 0.313 | 0.375 | PTFE | FKM | LSE-2177-3129-1-1 |
| 2.184 | 3.187 | 3.437 | 0.313 | 0.375 | PTFE | FKM | LSE-2184-3187-1-1 |
| 2.185 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2185-3000-1-1 |
| 2.185 | 3.312 | 3.562 | 0.313 | 0.375 | PTFE | FKM | LSE-2185-3312-1-1 |
| 2.186 | 3.186 | 3.436 | 0.313 | 0.375 | PTFE | FKM | LSE-2186-3186-1-1 |
| 2.187 | 2.937 | 3.187 | 0.313 | 0.375 | PTFE | FKM | LSE-2187-2937-1-1 |
| 2.187 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2187-3000-1-1 |
| 2.188 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2188-3000-1-1 |
| 2.188 | 3.188 | 3.438 | 0.313 | 0.375 | PTFE | FKM | LSE-2188-3188-1-1 |
| 2.188 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2188-3375-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.188 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2188-3625-1-1 |
| 2.199 | 2.999 | 3.249 | 0.313 | 0.375 | PTFE | FKM | LSE-2199-2999-1-1 |
| 2.250 | 2.875 | 3.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-2875-1-1 |
| 2.250 | 2.995 | 3.245 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-2995-1-1 |
| 2.250 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3000-1-1 |
| 2.250 | 3.005 | 3.255 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3005-1-1 |
| 2.250 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3125-1-1 |
| 2.250 | 3.150 | 3.400 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3150-1-1 |
| 2.250 | 3.187 | 3.437 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3187-1-1 |
| 2.250 | 3.188 | 3.438 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3188-1-1 |
| 2.250 | 3.194 | 3.444 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3194-1-1 |
| 2.250 | 3.195 | 3.445 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3195-1-1 |
| 2.250 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3250-1-1 |
| 2.250 | 3.265 | 3.515 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3265-1-1 |
| 2.250 | 3.370 | 3.620 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3370-1-1 |
| 2.250 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3375-1-1 |
| 2.250 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3500-1-1 |
| 2.250 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3625-1-1 |
| 2.250 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2250-3750-1-1 |
| 2.278 | 3.312 | 3.562 | 0.313 | 0.375 | PTFE | FKM | LSE-2278-3312-1-1 |
| 2.280 | 3.280 | 3.530 | 0.313 | 0.375 | PTFE | FKM | LSE-2280-3280-1-1 |
| 2.281 | 3.281 | 3.531 | 0.313 | 0.375 | PTFE | FKM | LSE-2281-3281-1-1 |
| 2.281 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2281-3375-1-1 |
| 2.283 | 3.280 | 3.530 | 0.313 | 0.375 | PTFE | FKM | LSE-2283-3280-1-1 |
| 2.307 | 3.350 | 3.600 | 0.313 | 0.375 | PTFE | FKM | LSE-2307-3350-1-1 |
| 2.309 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2309-3125-1-1 |
| 2.309 | 3.312 | 3.562 | 0.313 | 0.375 | PTFE | FKM | LSE-2309-3312-1-1 |
| 2.310 | 3.060 | 3.310 | 0.313 | 0.375 | PTFE | FKM | LSE-2310-3060-1-1 |
| 2.310 | 3.076 | 3.326 | 0.313 | 0.375 | PTFE | FKM | LSE-2310-3076-1-1 |
| 2.310 | 3.310 | 3.560 | 0.313 | 0.375 | PTFE | FKM | LSE-2310-3310-1-1 |
| 2.310 | 3.550 | 3.800 | 0.313 | 0.375 | PTFE | FKM | LSE-2310-3550-1-1 |
| 2.312 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2312-3000-1-1 |
| 2.312 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2312-3125-1-1 |
| 2.312 | 3.312 | 3.562 | 0.313 | 0.375 | PTFE | FKM | LSE-2312-3312-1-1 |
| 2.312 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2312-3500-1-1 |
| 2.313 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2313-3000-1-1 |
| 2.313 | 3.030 | 3.280 | 0.313 | 0.375 | PTFE | FKM | LSE-2313-3030-1-1 |
| 2.313 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2313-3125-1-1 |
| 2.313 | 3.313 | 3.563 | 0.313 | 0.375 | PTFE | FKM | LSE-2313-3313-1-1 |
| 2.313 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2313-3500-1-1 |
| 2.330 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2330-3000-1-1 |
| 2.375 | 3.000 | 3.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3000-1-1 |
| 2.375 | 3.062 | 3.312 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3062-1-1 |
| 2.375 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3125-1-1 |
| 2.375 | 3.188 | 3.438 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3188-1-1 |
| 2.375 | 3.240 | 3.490 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3240-1-1 |
| 2.375 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3250-1-1 |
| 2.375 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | NBR | LSE-2375-3250-1-3 |
| 2.375 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | AFLAS | LSE-2375-3250-1-4 |
| 2.375 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3250-5-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.375 | 3.312 | 3.562 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3312-1-1 |
| 2.375 | 3.350 | 3.600 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3350-1-1 |
| 2.375 | 3.355 | 3.605 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3355-1-1 |
| 2.375 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3375-1-1 |
| 2.375 | 3.437 | 3.687 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3437-1-1 |
| 2.375 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3500-1-1 |
| 2.375 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3625-1-1 |
| 2.375 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3750-1-1 |
| 2.375 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2375-3875-1-1 |
| 2.438 | 3.063 | 3.313 | 0.313 | 0.375 | PTFE | FKM | LSE-2438-3063-1-1 |
| 2.438 | 3.350 | 3.600 | 0.313 | 0.375 | PTFE | FKM | LSE-2438-3350-1-1 |
| 2.438 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2438-3375-1-1 |
| 2.438 | 3.438 | 3.688 | 0.313 | 0.375 | PTFE | FKM | LSE-2438-3438-1-1 |
| 2.438 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2438-3500-1-1 |
| 2.500 | 3.125 | 3.375 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3125-1-1 |
| 2.500 | 3.188 | 3.438 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3188-1-1 |
| 2.500 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3250-1-1 |
| 2.500 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | NBR | LSE-2500-3250-1-3 |
| 2.500 | 3.252 | 3.502 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3252-1-1 |
| 2.500 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3375-1-1 |
| 2.500 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3500-1-1 |
| 2.500 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | NBR | LSE-2500-3500-1-3 |
| 2.500 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3625-1-1 |
| 2.500 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3750-1-1 |
| 2.500 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-3875-1-1 |
| 2.500 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2500-4000-1-1 |
| 2.625 | 3.250 | 3.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3250-1-1 |
| 2.625 | 3.359 | 3.609 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3359-1-1 |
| 2.625 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3375-1-1 |
| 2.625 | 3.489 | 3.739 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3489-1-1 |
| 2.625 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3500-1-1 |
| 2.625 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3625-1-1 |
| 2.625 | 3.675 | 3.925 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3675-1-1 |
| 2.625 | 3.681 | 3.931 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3681-1-1 |
| 2.625 | 3.688 | 3.938 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3688-1-1 |
| 2.625 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3750-1-1 |
| 2.625 | 3.751 | 4.001 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3751-1-1 |
| 2.625 | 3.772 | 4.022 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3772-1-1 |
| 2.625 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2625-3875-1-1 |
| 2.688 | 3.688 | 3.938 | 0.313 | 0.375 | PTFE | FKM | LSE-2688-3688-1-1 |
| 2.688 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2688-4000-1-1 |
| 2.750 | 3.375 | 3.625 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-3375-1-1 |
| 2.750 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-3500-1-1 |
| 2.750 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-3625-1-1 |
| 2.750 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-3750-1-1 |
| 2.750 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-3875-1-1 |
| 2.750 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2750-4000-1-1 |
| 2.813 | 3.438 | 3.688 | 0.313 | 0.375 | PTFE | FKM | LSE-2813-3438-1-1 |
| 2.813 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2813-3500-1-1 |
| 2.813 | 3.813 | 4.063 | 0.313 | 0.375 | PTFE | FKM | LSE-2813-3813-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.813 | 4.250 | 4.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2813-4250-1-1 |
| 2.875 | 3.500 | 3.750 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-3500-1-1 |
| 2.875 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-3625-1-1 |
| 2.875 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-3750-1-1 |
| 2.875 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-3875-1-1 |
| 2.875 | 3.938 | 4.188 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-3938-1-1 |
| 2.875 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-4000-1-1 |
| 2.875 | 4.003 | 4.253 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-4003-1-1 |
| 2.875 | 4.250 | 4.500 | 0.313 | 0.375 | PTFE | FKM | LSE-2875-4250-1-1 |
| 2.938 | 3.625 | 3.875 | 0.313 | 0.375 | PTFE | FKM | LSE-2938-3625-1-1 |
| 2.938 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-2938-3750-1-1 |
| 2.938 | 3.938 | 4.188 | 0.313 | 0.375 | PTFE | FKM | LSE-2938-3938-1-1 |
| 2.938 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-2938-4000-1-1 |
| 3.000 | 3.750 | 4.000 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-3750-1-1 |
| 3.000 | 3.787 | 4.037 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-3787-1-1 |
| 3.000 | 3.875 | 4.125 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-3875-1-1 |
| 3.000 | 4.000 | 4.250 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4000-1-1 |
| 3.000 | 4.003 | 4.253 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4003-1-1 |
| 3.000 | 4.125 | 4.375 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4125-1-1 |
| 3.000 | 4.250 | 4.500 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4250-1-1 |
| 3.000 | 4.375 | 4.625 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4375-1-1 |
| 3.000 | 4.500 | 4.750 | 0.313 | 0.375 | PTFE | FKM | LSE-3000-4500-1-1 |
| 3.125 | 3.750 | 4.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-3750-1-1 |
| 3.125 | 3.937 | 4.187 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-3937-1-1 |
| 3.125 | 4.000 | 4.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4000-1-1 |
| 3.125 | 4.062 | 4.312 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4062-1-1 |
| 3.125 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4125-1-1 |
| 3.125 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4125-5-1 |
| 3.125 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4250-1-1 |
| 3.125 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3125-4375-1-1 |
| 3.187 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3187-4125-1-1 |
| 3.187 | 4.187 | 4.437 | 0.375 | 0.375 | PTFE | FKM | LSE-3187-4187-1-1 |
| 3.187 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3187-4250-1-1 |
| 3.187 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3187-4500-1-1 |
| 3.188 | 4.000 | 4.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4000-1-1 |
| 3.188 | 4.062 | 4.312 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4062-1-1 |
| 3.188 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4125-1-1 |
| 3.188 | 4.188 | 4.438 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4188-1-1 |
| 3.188 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4250-1-1 |
| 3.188 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3188-4375-1-1 |
| 3.250 | 3.875 | 4.125 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-3875-1-1 |
| 3.250 | 4.000 | 4.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4000-1-1 |
| 3.250 | 4.123 | 4.373 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4123-1-1 |
| 3.250 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4125-1-1 |
| 3.250 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4250-1-1 |
| 3.250 | 4.350 | 4.600 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4350-1-1 |
| 3.250 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4375-1-1 |
| 3.250 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3250-4500-1-1 |
| 3.313 | 4.000 | 4.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4000-1-1 |
| 3.313 | 4.125 | 4.375 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4125-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 3.313 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4250-1-1 |
| 3.313 | 4.313 | 4.563 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4313-1-1 |
| 3.313 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4375-1-1 |
| 3.313 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3313-4500-1-1 |
| 3.375 | 4.000 | 4.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3375-4000-1-1 |
| 3.375 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3375-4250-1-1 |
| 3.375 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3375-4375-1-1 |
| 3.375 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3375-4500-1-1 |
| 3.375 | 4.750 | 5.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3375-4750-1-1 |
| 3.437 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3437-4250-1-1 |
| 3.437 | 4.437 | 4.687 | 0.375 | 0.375 | PTFE | FKM | LSE-3437-4437-1-1 |
| 3.437 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3437-4500-1-1 |
| 3.438 | 4.625 | 4.875 | 0.375 | 0.375 | PTFE | FKM | LSE-3438-4625-1-1 |
| 3.438 | 4.875 | 5.125 | 0.375 | 0.375 | PTFE | FKM | LSE-3438-4875-1-1 |
| 3.500 | 4.250 | 4.500 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-4250-1-1 |
| 3.500 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-4375-1-1 |
| 3.500 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-4500-1-1 |
| 3.500 | 4.625 | 4.875 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-4625-1-1 |
| 3.500 | 4.750 | 5.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-4750-1-1 |
| 3.500 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3500-5000-1-1 |
| 3.562 | 4.562 | 4.812 | 0.375 | 0.375 | PTFE | FKM | LSE-3562-4562-1-1 |
| 3.562 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3562-5000-1-1 |
| 3.625 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3625-4375-1-1 |
| 3.625 | 4.376 | 4.626 | 0.375 | 0.375 | PTFE | FKM | LSE-3625-4376-1-1 |
| 3.625 | 4.413 | 4.663 | 0.375 | 0.375 | PTFE | FKM | LSE-3625-4413-1-1 |
| 3.625 | 4.625 | 4.875 | 0.375 | 0.375 | PTFE | FKM | LSE-3625-4625-1-1 |
| 3.625 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3625-5000-1-1 |
| 3.688 | 4.688 | 4.938 | 0.375 | 0.375 | PTFE | FKM | LSE-3688-4688-1-1 |
| 3.750 | 4.375 | 4.625 | 0.375 | 0.375 | PTFE | FKM | LSE-3750-4375-5-1 |
| 3.750 | 4.500 | 4.750 | 0.375 | 0.375 | PTFE | FKM | LSE-3750-4500-1-1 |
| 3.750 | 4.625 | 4.875 | 0.375 | 0.375 | PTFE | FKM | LSE-3750-4625-1-1 |
| 3.750 | 4.750 | 5.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3750-4750-1-1 |
| 3.750 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3750-5000-1-1 |
| 3.813 | 4.750 | 5.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3813-4750-1-1 |
| 3.813 | 4.813 | 5.063 | 0.375 | 0.375 | PTFE | FKM | LSE-3813-4813-1-1 |
| 3.813 | 4.937 | 5.187 | 0.375 | 0.375 | PTFE | FKM | LSE-3813-4937-1-1 |
| 3.875 | 4.750 | 5.000 | 0.375 | 0.375 | PTFE | FKM | LSE-3875-4750-1-1 |
| 3.875 | 4.875 | 5.125 | 0.375 | 0.375 | PTFE | FKM | LSE-3875-4875-1-1 |
| 3.875 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3875-5000-1-1 |
| 3.938 | 4.938 | 5.188 | 0.375 | 0.375 | PTFE | FKM | LSE-3938-4938-1-1 |
| 3.938 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-3938-5000-1-1 |
| 4.000 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-4000-5000-5-1 |
| 4.000 | 5.250 | 5.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4000-5250-1-1 |
| 4.000 | 5.375 | 5.625 | 0.375 | 0.375 | PTFE | FKM | LSE-4000-5375-1-1 |
| 4.062 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-4062-5000-5-1 |
| 4.125 | 5.000 | 5.250 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5000-5-1 |
| 4.125 | 5.125 | 5.375 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5125-5-1 |
| 4.125 | 5.250 | 5.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5250-1-1 |
| 4.125 | 5.250 | 5.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5250-5-1 |
| 4.125 | 5.252 | 5.502 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5252-5-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 4.125 | 5.400 | 5.650 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5400-5-1 |
| 4.125 | 5.500 | 5.750 | 0.375 | 0.375 | PTFE | FKM | LSE-4125-5500-5-1 |
| 4.150 | 5.150 | 5.400 | 0.375 | 0.375 | PTFE | FKM | LSE-4150-5150-5-1 |
| 4.188 | 5.188 | 5.438 | 0.375 | 0.375 | PTFE | FKM | LSE-4188-5188-5-1 |
| 4.188 | 5.250 | 5.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4188-5250-5-1 |
| 4.188 | 5.375 | 5.625 | 0.375 | 0.375 | PTFE | FKM | LSE-4188-5375-5-1 |
| 4.250 | 5.250 | 5.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4250-5250-5-1 |
| 4.250 | 5.254 | 5.504 | 0.375 | 0.375 | PTFE | FKM | LSE-4250-5254-5-1 |
| 4.313 | 5.313 | 5.563 | 0.375 | 0.375 | PTFE | FKM | LSE-4313-5313-5-1 |
| 4.313 | 5.375 | 5.625 | 0.375 | 0.375 | PTFE | FKM | LSE-4313-5375-5-1 |
| 4.313 | 5.500 | 5.750 | 0.375 | 0.375 | PTFE | FKM | LSE-4313-5500-5-1 |
| 4.313 | 5.550 | 5.800 | 0.375 | 0.375 | PTFE | FKM | LSE-4313-5550-1-1 |
| 4.375 | 5.375 | 5.625 | 0.375 | 0.375 | PTFE | FKM | LSE-4375-5375-5-1 |
| 4.375 | 5.500 | 5.750 | 0.375 | 0.375 | PTFE | FKM | LSE-4375-5500-5-1 |
| 4.438 | 5.438 | 5.688 | 0.375 | 0.375 | PTFE | FKM | LSE-4438-5438-5-1 |
| 4.500 | 5.500 | 5.750 | 0.375 | 0.375 | PTFE | FKM | LSE-4500-5500-5-1 |
| 4.500 | 5.750 | 6.000 | 0.375 | 0.375 | PTFE | FKM | LSE-4500-5750-5-1 |
| 4.500 | 5.875 | 6.125 | 0.375 | 0.375 | PTFE | FKM | LSE-4500-5875-5-1 |
| 4.562 | 5.562 | 5.812 | 0.375 | 0.375 | PTFE | FKM | LSE-4562-5562-5-1 |
| 4.562 | 5.750 | 6.000 | 0.375 | 0.375 | PTFE | FKM | LSE-4562-5750-5-1 |
| 4.562 | 6.062 | 6.312 | 0.375 | 0.375 | PTFE | FKM | LSE-4562-6062-5-1 |
| 4.625 | 5.625 | 5.875 | 0.375 | 0.375 | PTFE | FKM | LSE-4625-5625-5-1 |
| 4.750 | 5.750 | 6.000 | 0.375 | 0.375 | PTFE | FKM | LSE-4750-5750-5-1 |
| 4.750 | 6.125 | 6.375 | 0.375 | 0.375 | PTFE | FKM | LSE-4750-6125-5-1 |
| 4.750 | 6.250 | 6.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4750-6250-5-1 |
| 4.875 | 5.875 | 6.125 | 0.375 | 0.375 | PTFE | FKM | LSE-4875-5875-5-1 |
| 4.875 | 6.250 | 6.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4875-6250-5-1 |
| 4.938 | 5.938 | 6.188 | 0.375 | 0.375 | PTFE | FKM | LSE-4938-5938-5-1 |
| 4.938 | 6.000 | 6.250 | 0.375 | 0.375 | PTFE | FKM | LSE-4938-6000-5-1 |
| 4.938 | 6.250 | 6.500 | 0.375 | 0.375 | PTFE | FKM | LSE-4938-6250-5-1 |
| 5.000 | 5.875 | 6.125 | 0.375 | 0.375 | PTFE | FKM | LSE-5000-5875-5-1 |
| 5.000 | 6.000 | 6.250 | 0.375 | 0.375 | PTFE | FKM | LSE-5000-6000-5-1 |
| 5.000 | 6.125 | 6.375 | 0.375 | 0.375 | PTFE | FKM | LSE-5000-6125-5-1 |
| 5.000 | 6.250 | 6.500 | 0.375 | 0.375 | PTFE | FKM | LSE-5000-6250-5-1 |
| 5.000 | 6.500 | 6.750 | 0.375 | 0.375 | PTFE | FKM | LSE-5000-6500-5-1 |
| 5.063 | 6.063 | 6.313 | 0.375 | 0.375 | PTFE | FKM | LSE-5063-6063-5-1 |
| 5.125 | 6.125 | 6.375 | 0.375 | 0.375 | PTFE | FKM | LSE-5125-6125-5-1 |
| 5.125 | 6.375 | 6.625 | 0.375 | 0.375 | PTFE | FKM | LSE-5125-6375-5-1 |
| 5.250 | 6.125 | 6.375 | 0.375 | 0.375 | PTFE | FKM | LSE-5250-6125-5-1 |
| 5.250 | 6.250 | 6.500 | 0.375 | 0.375 | PTFE | FKM | LSE-5250-6250-5-1 |
| 5.250 | 6.500 | 6.750 | 0.375 | 0.375 | PTFE | FKM | LSE-5250-6500-5-1 |
| 5.250 | 6.625 | 6.875 | 0.375 | 0.375 | PTFE | FKM | LSE-5250-6625-5-1 |
| 5.375 | 6.375 | 6.625 | 0.375 | 0.375 | PTFE | FKM | LSE-5375-6375-5-1 |
| 5.500 | 6.500 | 6.750 | 0.375 | 0.375 | PTFE | FKM | LSE-5500-6500-5-1 |
| 5.500 | 6.693 | 6.943 | 0.375 | 0.375 | PTFE | FKM | LSE-5500-6693-5-1 |
| 5.500 | 6.700 | 6.950 | 0.375 | 0.375 | PTFE | FKM | LSE-5500-6700-5-1 |
| 5.625 | 6.625 | 6.875 | 0.375 | 0.375 | PTFE | FKM | LSE-5625-6625-5-1 |
| 5.625 | 6.750 | 7.000 | 0.375 | 0.375 | PTFE | FKM | LSE-5625-6750-5-1 |
| 5.750 | 6.750 | 7.000 | 0.375 | 0.375 | PTFE | FKM | LSE-5750-6750-5-1 |
| 5.750 | 6.860 | 7.110 | 0.375 | 0.375 | PTFE | FKM | LSE-5750-6860-5-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 5.750 | 7.000 | 7.250 | 0.375 | 0.375 | PTFE | FKM | LSE-5750-7000-5-1 |
| 5.750 | 7.125 | 7.375 | 0.375 | 0.375 | PTFE | FKM | LSE-5750-7125-5-1 |
| 5.875 | 6.750 | 7.000 | 0.375 | 0.375 | PTFE | FKM | LSE-5875-6750-5-1 |
| 5.875 | 6.813 | 7.063 | 0.375 | 0.375 | PTFE | FKM | LSE-5875-6813-5-1 |
| 5.875 | 6.875 | 7.125 | 0.375 | 0.375 | PTFE | FKM | LSE-5875-6875-5-1 |
| 5.875 | 7.125 | 7.375 | 0.375 | 0.375 | PTFE | FKM | LSE-5875-7125-5-1 |
| 6.000 | 7.000 | 7.250 | 0.375 | 0.375 | PTFE | FKM | LSE-6000-7000-5-1 |
| 6.000 | 7.250 | 7.500 | 0.375 | 0.375 | PTFE | FKM | LSE-6000-7250-5-1 |
| 6.000 | 7.375 | 7.625 | 0.375 | 0.375 | PTFE | FKM | LSE-6000-7375-5-1 |
| 6.000 | 7.500 | 7.750 | 0.375 | 0.375 | PTFE | FKM | LSE-6000-7500-5-1 |
| 6.125 | 7.375 | 7.625 | 0.438 | 0.377 | PTFE | FKM | LSE-6125-7375-5-1 |
| 6.178 | 7.250 | 7.500 | 0.438 | 0.377 | PTFE | FKM | LSE-6178-7250-5-1 |
| 6.249 | 7.500 | 7.750 | 0.438 | 0.377 | PTFE | FKM | LSE-6249-7500-5-1 |
| 6.250 | 7.250 | 7.500 | 0.438 | 0.377 | PTFE | FKM | LSE-6250-7250-5-1 |
| 6.250 | 7.500 | 7.750 | 0.438 | 0.377 | PTFE | FKM | LSE-6250-7500-5-1 |
| 6.250 | 7.750 | 8.000 | 0.438 | 0.377 | PTFE | FKM | LSE-6250-7750-5-1 |
| 6.375 | 7.375 | 7.625 | 0.438 | 0.377 | PTFE | FKM | LSE-6375-7375-5-1 |
| 6.500 | 7.500 | 7.750 | 0.438 | 0.377 | PTFE | FKM | LSE-6500-7500-5-1 |
| 6.500 | 7.750 | 8.000 | 0.438 | 0.377 | PTFE | FKM | LSE-6500-7750-5-1 |
| 6.625 | 7.625 | 7.875 | 0.438 | 0.377 | PTFE | FKM | LSE-6625-7625-5-1 |
| 6.750 | 8.000 | 8.250 | 0.438 | 0.377 | PTFE | FKM | LSE-6750-8000-5-1 |
| 6.750 | 8.250 | 8.500 | 0.438 | 0.377 | PTFE | FKM | LSE-6750-8250-5-1 |
| 6.875 | 8.125 | 8.375 | 0.438 | 0.377 | PTFE | FKM | LSE-6875-8125-5-1 |
| 7.000 | 8.000 | 8.250 | 0.438 | 0.377 | PTFE | FKM | LSE-7000-8000-5-1 |
| 7.000 | 8.500 | 8.750 | 0.438 | 0.377 | PTFE | FKM | LSE-7000-8500-5-1 |
| 7.125 | 8.125 | 8.375 | 0.438 | 0.377 | PTFE | FKM | LSE-7125-8125-5-1 |
| 7.250 | 8.250 | 8.500 | 0.438 | 0.377 | PTFE | FKM | LSE-7250-8250-5-1 |
| 7.250 | 8.750 | 9.000 | 0.438 | 0.377 | PTFE | FKM | LSE-7250-8750-5-1 |
| 7.375 | 8.875 | 9.125 | 0.438 | 0.377 | PTFE | FKM | LSE-7375-8875-5-1 |
| 7.500 | 8.500 | 8.750 | 0.438 | 0.377 | PTFE | FKM | LSE-7500-8500-5-1 |
| 7.500 | 9.000 | 9.250 | 0.438 | 0.377 | PTFE | FKM | LSE-7500-9000-5-1 |
| 7.625 | 8.625 | 8.875 | 0.438 | 0.377 | PTFE | FKM | LSE-7625-8625-5-1 |
| 8.000 | 9.000 | 9.250 | 0.438 | 0.377 | PTFE | FKM | LSE-8000-9000-5-1 |
| 8.000 | 9.250 | 9.500 | 0.438 | 0.377 | PTFE | FKM | LSE-8000-9250-5-1 |
| 8.250 | 9.250 | 9.500 | 0.438 | 0.377 | PTFE | FKM | LSE-8250-9250-5-1 |
| 8.250 | 9.750 | 10.000 | 0.438 | 0.377 | PTFE | FKM | LSE-8250-9750-5-1 |
| 8.375 | 9.875 | 10.125 | 0.438 | 0.377 | PTFE | FKM | LSE-8375-9875-5-1 |
| 8.750 | 10.000 | 10.250 | 0.438 | 0.377 | PTFE | FKM | LSE-8750-10000-5-1 |
| 10.000 | 11.250 | 11.500 | 0.438 | 0.377 | PTFE | FKM | LSE-10000-11250-5-1 |

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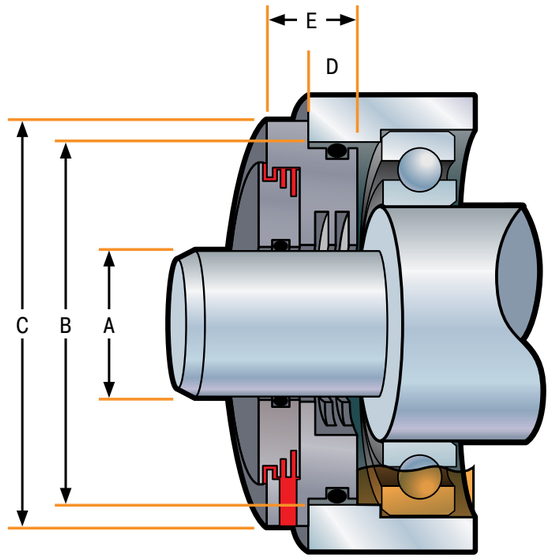
# LSM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 15.0 | 26.0 | 32.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0150-0260-1-1 |
| 17.0 | 30.0 | 36.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0170-0300-1-1 |
| 20.0 | 30.0 | 36.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0200-0300-1-1 |
| 20.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0200-0470-1-1 |
| 22.0 | 32.0 | 38.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0220-0320-1-1 |
| 22.0 | 35.0 | 41.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0220-0350-1-1 |
| 22.0 | 40.0 | 46.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0220-0400-1-1 |
| 22.0 | 60.0 | 66.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0220-0600-1-1 |
| 22.2 | 35.0 | 41.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0222-0350-1-1 |
| 24.0 | 34.0 | 40.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0240-0340-1-1 |
| 24.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0240-0500-1-1 |
| 25.0 | 35.0 | 41.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0350-1-1 |
| 25.0 | 38.0 | 44.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0380-1-1 |
| 25.0 | 40.0 | 46.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0400-1-1 |
| 25.0 | 42.0 | 48.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0420-1-1 |
| 25.0 | 45.0 | 51.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0450-1-1 |
| 25.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0470-1-1 |
| 25.0 | 48.0 | 54.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0480-1-1 |
| 25.0 | 49.0 | 55.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0490-1-1 |
| 25.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0500-1-1 |
| 25.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE FDA | Silicone FDA | LSM-0250-0500-2-6 |
| 25.0 | 51.0 | 57.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0510-1-1 |
| 25.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0520-1-1 |
| 25.0 | 60.5 | 66.5 | 7.0 | 16.0 | PTFE | FKM | LSM-0250-0605-1-1 |
| 27.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0270-0470-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 28.0 | 44.0 | 50.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0440-1-1 |
| 28.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0470-1-1 |
| 28.0 | 48.0 | 54.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0480-1-1 |
| 28.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0520-1-1 |
| 28.0 | 54.0 | 60.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0540-1-1 |
| 28.0 | 68.0 | 74.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0280-0680-1-1 |
| 28.5 | 50.9 | 56.9 | 7.0 | 16.0 | PTFE | FKM | LSM-0285-0509-1-1 |
| 30.0 | 40.0 | 46.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0400-1-1 |
| 30.0 | 42.0 | 48.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0420-1-1 |
| 30.0 | 44.0 | 50.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0440-1-1 |
| 30.0 | 45.0 | 51.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0450-1-1 |
| 30.0 | 46.0 | 52.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0460-1-1 |
| 30.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0470-1-1 |
| 30.0 | 48.0 | 54.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0480-1-1 |
| 30.0 | 49.0 | 55.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0490-1-1 |
| 30.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0500-1-1 |
| 30.0 | 55.0 | 61.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0550-1-1 |
| 30.0 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0560-1-1 |
| 30.0 | 57.0 | 63.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0570-1-1 |
| 30.0 | 60.0 | 66.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0600-1-1 |
| 30.0 | 62.0 | 68.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0620-1-1 |
| 30.0 | 70.0 | 76.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0300-0700-1-1 |
| 32.0 | 42.0 | 48.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0420-1-1 |
| 32.0 | 45.0 | 51.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0450-1-1 |
| 32.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0470-1-1 |
| 32.0 | 48.0 | 54.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0480-1-1 |
| 32.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0500-1-1 |
| 32.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0520-1-1 |
| 32.0 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0560-1-1 |
| 32.0 | 58.0 | 64.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0580-1-1 |
| 32.0 | 68.0 | 74.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0680-1-1 |
| 32.0 | 70.0 | 76.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0320-0700-1-1 |
| 33.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0330-0500-1-1 |
| 33.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0330-0520-1-1 |
| 33.0 | 55.0 | 61.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0330-0550-1-1 |
| 34.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0340-0520-1-1 |
| 34.5 | 54.0 | 60.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0345-0540-1-1 |
| 35.0 | 47.0 | 53.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0470-1-1 |
| 35.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0500-1-1 |
| 35.0 | 51.0 | 57.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0510-1-1 |
| 35.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0520-1-1 |
| 35.0 | 54.0 | 60.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0540-1-1 |
| 35.0 | 55.0 | 61.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0550-1-1 |
| 35.0 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0560-1-1 |
| 35.0 | 60.0 | 66.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0600-1-1 |
| 35.0 | 61.0 | 67.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0610-1-1 |
| 35.0 | 62.0 | 68.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0620-1-1 |
| 35.0 | 65.0 | 71.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0650-1-1 |
| 35.0 | 68.0 | 74.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0680-1-1 |
| 35.0 | 72.0 | 78.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0350-0720-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 36.0 | 50.0 | 56.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0360-0500-1-1 |
| 36.0 | 62.0 | 68.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0360-0620-1-1 |
| 36.8 | 67.0 | 73.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0368-0670-1-1 |
| 38.0 | 48.0 | 54.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0480-1-1 |
| 38.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0520-1-1 |
| 38.0 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0560-1-1 |
| 38.0 | 57.0 | 63.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0570-1-1 |
| 38.0 | 58.0 | 64.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0580-1-1 |
| 38.0 | 62.0 | 68.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0620-1-1 |
| 38.0 | 63.0 | 69.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0630-1-1 |
| 38.0 | 64.0 | 70.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0380-0640-1-1 |
| 39.7 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0397-0560-1-1 |
| 40.0 | 52.0 | 58.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0520-1-1 |
| 40.0 | 55.0 | 61.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0550-1-1 |
| 40.0 | 56.0 | 62.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0560-1-1 |
| 40.0 | 58.0 | 64.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0580-1-1 |
| 40.0 | 59.0 | 65.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0590-1-1 |
| 40.0 | 60.0 | 66.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0600-1-1 |
| 40.0 | 62.0 | 68.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0620-1-1 |
| 40.0 | 65.0 | 71.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0650-1-1 |
| 40.0 | 66.0 | 72.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0660-1-1 |
| 40.0 | 70.0 | 76.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0700-1-1 |
| 40.0 | 75.0 | 81.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0750-1-1 |
| 40.0 | 80.0 | 86.0 | 7.0 | 16.0 | PTFE | FKM | LSM-0400-0800-1-1 |
| 41.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0410-0600-1-1 |
| 41.0 | 67.0 | 73.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0410-0670-1-1 |
| 42.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0600-1-1 |
| 42.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0620-1-1 |
| 42.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0650-1-1 |
| 42.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0680-1-1 |
| 42.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0700-1-1 |
| 42.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0420-0800-1-1 |
| 43.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0430-0600-1-1 |
| 43.0 | 77.0 | 83.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0430-0770-1-1 |
| 44.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0440-0600-1-1 |
| 44.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0440-0650-5-1 |
| 44.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0440-0700-1-1 |
| 44.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0440-0750-1-1 |
| 45.0 | 57.0 | 63.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0570-1-1 |
| 45.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0600-1-1 |
| 45.0 | 61.0 | 67.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0610-1-1 |
| 45.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0620-1-1 |
| 45.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0650-1-1 |
| 45.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0680-1-1 |
| 45.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0700-1-1 |
| 45.0 | 71.0 | 77.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0710-1-1 |
| 45.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0720-1-1 |
| 45.0 | 73.0 | 79.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0730-1-1 |
| 45.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0800-1-1 |
| 45.0 | 81.0 | 87.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0810-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 45.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0450-0850-1-1 |
| 47.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0470-0620-1-1 |
| 47.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0470-0650-1-1 |
| 47.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0470-0680-1-1 |
| 47.5 | 66.8 | 72.8 | 8.0 | 17.0 | PTFE | FKM | LSM-0475-0668-1-1 |
| 47.6 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0476-0650-1-1 |
| 48.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0600-1-1 |
| 48.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0620-1-1 |
| 48.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0650-1-1 |
| 48.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0680-1-1 |
| 48.0 | 68.7 | 74.7 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0687-1-1 |
| 48.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0700-1-1 |
| 48.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | NBR | LSM-0480-0700-1-3 |
| 48.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0720-1-1 |
| 48.0 | 73.0 | 79.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0730-1-1 |
| 48.0 | 74.0 | 80.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0740-1-1 |
| 48.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0750-1-1 |
| 48.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0480-0800-1-1 |
| 50.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0650-1-1 |
| 50.0 | 66.0 | 72.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0660-1-1 |
| 50.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0680-1-1 |
| 50.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0700-1-1 |
| 50.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0720-1-1 |
| 50.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0750-1-1 |
| 50.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0760-1-1 |
| 50.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0780-1-1 |
| 50.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0800-1-1 |
| 50.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0850-1-1 |
| 50.0 | 87.0 | 93.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0870-1-1 |
| 50.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0500-0900-1-1 |
| 51.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0510-0760-1-1 |
| 52.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0520-0720-1-1 |
| 52.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0520-0780-1-1 |
| 52.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0520-0800-1-1 |
| 53.0 | 73.0 | 79.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0530-0730-1-1 |
| 53.0 | 79.0 | 85.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0530-0790-1-1 |
| 54.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0700-1-1 |
| 54.0 | 71.0 | 77.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0710-1-1 |
| 54.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0720-1-1 |
| 54.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0750-1-1 |
| 54.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0800-1-1 |
| 54.0 | 82.0 | 88.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0820-1-1 |
| 54.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0540-0900-1-1 |
| 55.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0680-1-1 |
| 55.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0700-1-1 |
| 55.0 | 71.0 | 77.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0710-1-1 |
| 55.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0720-1-1 |
| 55.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0750-1-1 |
| 55.0 | 77.0 | 83.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0770-1-1 |
| 55.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0780-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 55.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0780-5-1 |
| 55.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0800-1-1 |
| 55.0 | 81.0 | 87.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0810-1-1 |
| 55.0 | 82.0 | 88.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0820-1-1 |
| 55.0 | 84.0 | 90.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0840-1-1 |
| 55.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0850-1-1 |
| 55.0 | 88.0 | 94.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0880-1-1 |
| 55.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0900-1-1 |
| 55.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0550-0950-1-1 |
| 56.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0560-0720-1-1 |
| 56.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0560-0750-1-1 |
| 57.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0570-0750-1-1 |
| 57.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0570-0800-1-1 |
| 57.0 | 82.0 | 88.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0570-0820-1-1 |
| 57.0 | 83.0 | 89.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0570-0830-1-1 |
| 58.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0720-1-1 |
| 58.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0800-1-1 |
| 58.0 | 84.0 | 90.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0840-1-1 |
| 58.0 | 86.0 | 92.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0860-1-1 |
| 58.0 | 88.0 | 94.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0880-1-1 |
| 58.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0580-0900-1-1 |
| 59.0 | 77.0 | 83.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0590-0770-1-1 |
| 59.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0590-0800-1-1 |
| 59.0 | 87.0 | 93.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0590-0870-1-1 |
| 60.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0720-1-1 |
| 60.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0750-1-1 |
| 60.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0760-1-1 |
| 60.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0780-1-1 |
| 60.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0800-1-1 |
| 60.0 | 82.0 | 88.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0820-1-1 |
| 60.0 | 84.0 | 90.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0840-1-1 |
| 60.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0850-1-1 |
| 60.0 | 86.0 | 92.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0860-1-1 |
| 60.0 | 87.0 | 93.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0870-1-1 |
| 60.0 | 88.0 | 94.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0880-1-1 |
| 60.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0900-1-1 |
| 60.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-0950-1-1 |
| 60.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE | FKM | LSM-0600-1000-1-1 |
| 61.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0610-1000-1-1 |
| 62.0 | 78.0 | 84.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0780-1-1 |
| 62.0 | 80.0 | 86.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0800-1-1 |
| 62.0 | 85.0 | 91.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0850-1-1 |
| 62.0 | 87.0 | 93.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0870-1-1 |
| 62.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0900-1-1 |
| 62.0 | 91.0 | 97.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0620-0910-1-1 |
| 63.0 | 82.0 | 88.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0630-0820-1-1 |
| 63.0 | 88.0 | 94.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0630-0880-1-1 |
| 63.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0630-0900-1-1 |
| 64.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0640-0900-1-1 |
| 64.8 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0648-1000-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 65.0 | 80.0 | 86.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0800-1-1 |
| 65.0 | 81.0 | 87.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0810-1-1 |
| 65.0 | 82.0 | 88.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0820-1-1 |
| 65.0 | 83.0 | 89.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0830-1-1 |
| 65.0 | 85.0 | 91.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0850-1-1 |
| 65.0 | 86.0 | 92.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0860-1-1 |
| 65.0 | 88.0 | 94.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0880-1-1 |
| 65.0 | 89.0 | 95.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0890-1-1 |
| 65.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0900-1-1 |
| 65.0 | 91.0 | 97.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0910-1-1 |
| 65.0 | 92.0 | 98.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0920-1-1 |
| 65.0 | 93.0 | 99.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0930-1-1 |
| 65.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-0950-1-1 |
| 65.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-1000-1-1 |
| 65.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0650-1050-1-1 |
| 66.0 | 92.0 | 98.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0660-0920-1-1 |
| 66.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0660-1000-1-1 |
| 68.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0680-0900-1-1 |
| 68.0 | 94.0 | 100.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0680-0940-1-1 |
| 68.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0680-0950-1-1 |
| 69.0 | 89.0 | 95.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0690-0890-1-1 |
| 70.0 | 85.0 | 91.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0850-1-1 |
| 70.0 | 86.0 | 92.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0860-1-1 |
| 70.0 | 89.0 | 95.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0890-1-1 |
| 70.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0900-1-1 |
| 70.0 | 92.0 | 98.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0920-1-1 |
| 70.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0950-1-1 |
| 70.0 | 96.0 | 102.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0960-1-1 |
| 70.0 | 98.0 | 104.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-0980-1-1 |
| 70.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-1000-1-1 |
| 70.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0700-1050-1-1 |
| 70.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | Silicone FDA | LSM-0700-1100-1-6 |
| 72.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0720-0900-1-1 |
| 72.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0720-0950-1-1 |
| 72.0 | 98.0 | 104.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0720-0980-1-1 |
| 72.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0720-1000-1-1 |
| 73.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-0900-1-1 |
| 73.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-0950-1-1 |
| 73.0 | 97.0 | 103.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-0970-1-1 |
| 73.0 | 99.0 | 105.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-0990-1-1 |
| 73.0 | 108.0 | 114.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-1080-1-1 |
| 73.0 | 111.0 | 117.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0730-1110-1-1 |
| 74.0 | 94.0 | 100.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0740-0940-1-1 |
| 74.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0740-1100-1-1 |
| 74.8 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0748-1000-1-1 |
| 75.0 | 90.0 | 96.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-0900-1-1 |
| 75.0 | 92.0 | 98.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-0920-1-1 |
| 75.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-0950-1-1 |
| 75.0 | 97.0 | 103.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-0970-1-1 |
| 75.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1000-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 75.0 | 101.0 | 107.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1010-1-1 |
| 75.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1050-1-1 |
| 75.0 | 106.0 | 112.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1060-1-1 |
| 75.0 | 108.0 | 114.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1080-1-1 |
| 75.0 | 109.0 | 115.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1090-1-1 |
| 75.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0750-1100-1-1 |
| 76.0 | 92.0 | 98.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0760-0920-1-1 |
| 76.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0760-1000-1-1 |
| 76.0 | 116.0 | 122.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0760-1160-1-1 |
| 77.0 | 98.0 | 104.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0770-0980-1-1 |
| 77.0 | 103.0 | 109.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0770-1030-1-1 |
| 78.0 | 95.0 | 101.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0780-0950-1-1 |
| 78.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0780-1000-1-1 |
| 78.0 | 101.0 | 107.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0780-1010-1-1 |
| 78.0 | 104.0 | 110.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0780-1040-1-1 |
| 79.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0790-1000-1-1 |
| 79.0 | 103.0 | 109.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0790-1030-1-1 |
| 79.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0790-1050-1-1 |
| 80.0 | 98.0 | 104.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-0980-1-1 |
| 80.0 | 99.0 | 105.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-0990-1-1 |
| 80.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1000-1-1 |
| 80.0 | 101.0 | 107.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1010-1-1 |
| 80.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1050-1-1 |
| 80.0 | 106.0 | 112.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1060-1-1 |
| 80.0 | 108.0 | 114.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1080-1-1 |
| 80.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1100-1-1 |
| 80.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0800-1150-1-1 |
| 81.0 | 101.0 | 107.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0810-1010-1-1 |
| 81.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0810-1100-1-1 |
| 82.0 | 107.0 | 113.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0820-1070-1-1 |
| 82.0 | 108.0 | 114.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0820-1080-1-1 |
| 82.0 | 122.0 | 128.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0820-1220-1-1 |
| 84.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0840-1100-1-1 |
| 84.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0840-1150-1-1 |
| 85.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1050-1-1 |
| 85.0 | 107.0 | 113.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1070-1-1 |
| 85.0 | 108.0 | 114.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1080-1-1 |
| 85.0 | 109.0 | 115.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1090-1-1 |
| 85.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1100-1-1 |
| 85.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1100-5-1 |
| 85.0 | 111.0 | 117.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1110-1-1 |
| 85.0 | 112.0 | 118.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1120-1-1 |
| 85.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1150-1-1 |
| 85.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1200-1-1 |
| 85.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0850-1250-1-1 |
| 86.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0860-1100-1-1 |
| 86.0 | 111.0 | 117.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0860-1110-1-1 |
| 86.0 | 116.0 | 122.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0860-1160-1-1 |
| 87.0 | 111.0 | 117.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0870-1110-1-1 |
| 88.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0880-1100-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 88.5 | 114.7 | 120.7 | 9.0 | 18.0 | PTFE | FKM | LSM-0885-1147-1-1 |
| 89.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0890-1150-1-1 |
| 89.1 | 112.0 | 118.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0891-1120-1-1 |
| 90.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1100-1-1 |
| 90.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1150-1-1 |
| 90.0 | 116.0 | 122.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1160-1-1 |
| 90.0 | 118.0 | 124.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1180-1-1 |
| 90.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1200-1-1 |
| 90.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0900-1250-1-1 |
| 93.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0930-1150-1-1 |
| 93.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0930-1200-1-1 |
| 95.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0950-1150-1-1 |
| 95.0 | 118.0 | 124.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0950-1180-1-1 |
| 95.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0950-1200-1-1 |
| 95.0 | 121.0 | 127.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0950-1210-1-1 |
| 95.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0950-1250-1-1 |
| 96.0 | 121.0 | 127.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0960-1210-1-1 |
| 96.0 | 135.0 | 141.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0960-1350-1-1 |
| 97.0 | 118.0 | 124.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0970-1180-1-1 |
| 97.0 | 123.0 | 129.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0970-1230-1-1 |
| 97.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-0970-1250-1-1 |
| 100.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1200-1-1 |
| 100.0 | 121.0 | 127.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1210-1-1 |
| 100.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1250-1-1 |
| 100.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1250-5-1 |
| 100.0 | 126.0 | 132.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1260-1-1 |
| 100.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1300-1-1 |
| 100.0 | 132.0 | 138.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1320-1-1 |
| 100.0 | 135.0 | 141.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1350-1-1 |
| 100.0 | 136.0 | 142.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1360-1-1 |
| 100.0 | 137.0 | 143.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1000-1370-1-1 |
| 101.6 | 127.0 | 133.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1016-1270-1-1 |
| 101.6 | 127.0 | 133.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1016-1270-5-1 |
| 102.0 | 136.0 | 142.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1020-1360-5-1 |
| 105.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1250-5-1 |
| 105.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1300-5-1 |
| 105.0 | 131.0 | 137.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1310-5-1 |
| 105.0 | 135.0 | 141.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1350-5-1 |
| 105.0 | 136.0 | 142.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1360-5-1 |
| 105.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1400-5-1 |
| 105.0 | 145.0 | 151.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1050-1450-5-1 |
| 107.0 | 132.0 | 138.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1070-1320-5-1 |
| 110.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1300-5-1 |
| 110.0 | 135.0 | 141.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1350-5-1 |
| 110.0 | 136.0 | 142.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1360-5-1 |
| 110.0 | 138.6 | 144.6 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1386-5-1 |
| 110.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1400-5-1 |
| 110.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1100-1500-5-1 |
| 112.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1120-1500-5-1 |
| 113.0 | 145.0 | 151.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1130-1450-5-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 113.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1130-1500-5-1 |
| 115.0 | 135.0 | 141.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1350-5-1 |
| 115.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1400-5-1 |
| 115.0 | 141.0 | 147.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1410-5-1 |
| 115.0 | 145.0 | 151.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1450-5-1 |
| 115.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1500-5-1 |
| 115.0 | 155.0 | 161.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1150-1550-5-1 |
| 116.0 | 138.0 | 144.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1160-1380-5-1 |
| 117.0 | 145.0 | 151.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1170-1450-5-1 |
| 118.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1180-1500-5-1 |
| 120.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1200-1400-5-1 |
| 120.0 | 146.0 | 152.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1200-1460-5-1 |
| 120.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1200-1500-5-1 |
| 120.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1200-1600-5-1 |
| 122.0 | 148.0 | 154.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1220-1480-5-1 |
| 124.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1240-1600-5-1 |
| 125.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1250-1500-5-1 |
| 125.0 | 151.0 | 157.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1250-1510-5-1 |
| 125.0 | 152.0 | 158.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1250-1520-5-1 |
| 125.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1250-1600-5-1 |
| 126.0 | 155.0 | 161.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1260-1550-5-1 |
| 127.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1270-1500-5-1 |
| 127.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1270-1600-5-1 |
| 129.0 | 152.0 | 158.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1290-1520-5-1 |
| 130.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1500-5-1 |
| 130.0 | 154.0 | 160.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1540-5-1 |
| 130.0 | 155.0 | 161.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1550-5-1 |
| 130.0 | 156.0 | 162.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1560-5-1 |
| 130.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1600-5-1 |
| 130.0 | 161.0 | 167.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1610-5-1 |
| 130.0 | 170.0 | 176.0 | 9.0 | 18.0 | PTFE | FKM | LSM-1300-1700-5-1 |
| 132.0 | 160.0 | 166.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1320-1600-5-1 |
| 134.0 | 170.0 | 176.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1340-1700-5-1 |
| 135.0 | 160.0 | 166.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1350-1600-5-1 |
| 135.0 | 165.0 | 171.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1350-1650-5-1 |
| 135.0 | 170.0 | 176.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1350-1700-5-1 |
| 135.0 | 175.0 | 181.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1350-1750-5-1 |
| 136.0 | 166.0 | 172.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1360-1660-1-1 |
| 138.0 | 162.0 | 168.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1380-1620-1-1 |
| 138.0 | 170.0 | 176.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1380-1700-5-1 |
| 139.0 | 165.0 | 171.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1390-1650-5-1 |
| 140.0 | 165.0 | 171.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1400-1650-5-1 |
| 140.0 | 166.0 | 172.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1400-1660-5-1 |
| 140.0 | 170.0 | 176.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1400-1700-5-1 |
| 140.0 | 171.0 | 177.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1400-1710-1-1 |
| 140.0 | 180.0 | 186.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1400-1800-5-1 |
| 144.0 | 174.0 | 180.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1440-1740-1-1 |
| 145.0 | 169.0 | 175.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1450-1690-1-1 |
| 145.0 | 170.0 | 176.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1450-1700-5-1 |
| 145.0 | 171.0 | 177.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1450-1710-5-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 145.0 | 180.0 | 186.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1450-1800-5-1 |
| 145.0 | 185.0 | 191.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1450-1850-5-1 |
| 147.0 | 180.0 | 186.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1470-1800-5-1 |
| 148.0 | 175.0 | 181.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1480-1750-5-1 |
| 150.0 | 180.0 | 186.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1500-1800-5-1 |
| 155.0 | 181.0 | 187.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1550-1810-5-1 |
| 157.0 | 182.0 | 188.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1570-1820-5-1 |
| 160.0 | 186.0 | 192.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1600-1860-5-1 |
| 160.0 | 190.0 | 196.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1600-1900-5-1 |
| 160.0 | 200.0 | 206.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1600-2000-5-1 |
| 165.0 | 191.0 | 197.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1650-1910-5-1 |
| 165.0 | 201.0 | 207.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1650-2010-1-1 |
| 170.0 | 200.0 | 206.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1700-2000-5-1 |
| 170.0 | 208.0 | 214.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1700-2080-5-1 |
| 175.0 | 200.0 | 206.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1750-2000-5-1 |
| 175.0 | 205.0 | 211.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1750-2050-5-1 |
| 180.0 | 210.0 | 216.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1800-2100-5-1 |
| 180.0 | 220.0 | 226.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1800-2200-5-1 |
| 185.0 | 210.0 | 216.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1850-2100-5-1 |
| 185.0 | 215.0 | 221.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1850-2150-5-1 |
| 185.0 | 224.0 | 230.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1850-2240-5-1 |
| 190.0 | 220.0 | 226.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1900-2200-1-1 |
| 190.0 | 230.0 | 236.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1900-2300-5-1 |
| 195.0 | 220.0 | 226.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1950-2200-5-1 |
| 195.0 | 235.0 | 241.0 | 11.0 | 20.0 | PTFE | FKM | LSM-1950-2350-5-1 |
| 200.0 | 225.0 | 231.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2000-2250-5-1 |
| 200.0 | 230.0 | 236.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2000-2300-5-1 |
| 200.0 | 240.0 | 246.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2000-2400-5-1 |
| 205.0 | 230.0 | 236.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2050-2300-1-1 |
| 210.0 | 234.0 | 240.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2100-2340-1-1 |
| 210.0 | 240.0 | 246.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2100-2400-5-1 |
| 210.0 | 250.0 | 256.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2100-2500-5-1 |
| 215.0 | 240.0 | 246.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2150-2400-5-1 |
| 220.0 | 250.0 | 256.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2200-2500-5-1 |
| 225.0 | 249.0 | 255.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2250-2490-5-1 |
| 225.0 | 251.0 | 257.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2250-2510-5-1 |
| 240.0 | 270.0 | 276.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2400-2700-5-1 |
| 240.0 | 280.0 | 286.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2400-2800-5-1 |
| 250.0 | 280.0 | 286.0 | 11.0 | 20.0 | PTFE | FKM | LSM-2500-2800-5-1 |

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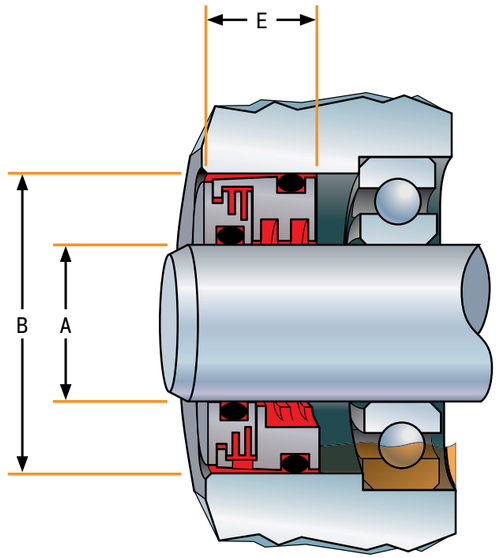
# LNE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 0.625 | 1.375 | 0.562 | PTFE | FKM | LNE-0625-1375-1-1 |
| 0.625 | 1.562 | 0.562 | PTFE | FKM | LNE-0625-1562-1-1 |
| 0.750 | 1.500 | 0.562 | PTFE | FKM | LNE-0750-1500-1-1 |
| 0.875 | 1.625 | 0.562 | PTFE | FKM | LNE-0875-1625-1-1 |
| 1.000 | 1.750 | 0.562 | PTFE | FKM | LNE-1000-1750-1-1 |
| 1.000 | 2.000 | 0.562 | PTFE | FKM | LNE-1000-2000-1-1 |
| 1.063 | 1.875 | 0.562 | PTFE | FKM | LNE-1063-1875-1-1 |
| 1.125 | 2.000 | 0.562 | PTFE | FKM | LNE-1125-2000-1-1 |
| 1.125 | 2.125 | 0.562 | PTFE | FKM | LNE-1125-2125-1-1 |
| 1.125 | 2.437 | 0.562 | PTFE | FKM | LNE-1125-2437-1-1 |
| 1.175 | 2.175 | 0.562 | PTFE | FKM | LNE-1175-2175-1-1 |
| 1.175 | 2.441 | 0.562 | PTFE | FKM | LNE-1175-2441-1-1 |
| 1.179 | 2.441 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1179-2441-2-6 |
| 1.181 | 2.000 | 0.562 | PTFE | FKM | LNE-1181-2000-1-1 |
| 1.181 | 2.166 | 0.562 | PTFE | FKM | LNE-1181-2166-1-1 |
| 1.188 | 2.250 | 0.562 | PTFE | FKM | LNE-1188-2250-1-1 |
| 1.250 | 2.000 | 0.562 | PTFE | FKM | LNE-1250-2000-1-1 |
| 1.250 | 2.000 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1250-2000-2-6 |
| 1.250 | 2.250 | 0.562 | PTFE | FKM | LNE-1250-2250-1-1 |
| 1.250 | 2.500 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1250-2500-2-6 |
| 1.375 | 2.125 | 0.562 | PTFE | FKM | LNE-1375-2125-1-1 |
| 1.375 | 2.375 | 0.562 | PTFE | FKM | LNE-1375-2375-1-1 |
| 1.375 | 2.813 | 0.562 | PTFE | FKM | LNE-1375-2813-1-1 |
| 1.375 | 2.835 | 0.562 | PTFE | FKM | LNE-1375-2835-1-1 |
| 1.375 | 2.875 | 0.562 | PTFE | FKM | LNE-1375-2875-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 1.500 | 2.250 | 0.562 | PTFE | FKM | LNE-1500-2250-1-1 |
| 1.500 | 2.250 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1500-2250-2-6 |
| 1.500 | 2.375 | 0.562 | PTFE | FKM | LNE-1500-2375-1-1 |
| 1.500 | 2.437 | 0.562 | PTFE | FKM | LNE-1500-2437-1-1 |
| 1.500 | 2.500 | 0.562 | PTFE | FKM | LNE-1500-2500-1-1 |
| 1.500 | 2.500 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1500-2500-2-6 |
| 1.500 | 2.556 | 0.562 | PTFE | FKM | LNE-1500-2556-1-1 |
| 1.500 | 2.750 | 0.562 | PTFE | FKM | LNE-1500-2750-1-1 |
| 1.563 | 2.563 | 0.562 | PTFE | FKM | LNE-1563-2563-1-1 |
| 1.625 | 2.375 | 0.562 | PTFE | FKM | LNE-1625-2375-1-1 |
| 1.625 | 2.500 | 0.562 | PTFE | FKM | LNE-1625-2500-1-1 |
| 1.625 | 2.625 | 0.562 | PTFE | FKM | LNE-1625-2625-1-1 |
| 1.625 | 2.750 | 0.562 | PTFE | FKM | LNE-1625-2750-1-1 |
| 1.625 | 2.875 | 0.562 | PTFE FDA | SILICONE FDA | LNE-1625-2875-2-6 |
| 1.750 | 2.500 | 0.562 | PTFE | FKM | LNE-1750-2500-1-1 |
| 1.750 | 2.625 | 0.562 | PTFE | FKM | LNE-1750-2625-1-1 |
| 1.750 | 2.750 | 0.562 | PTFE | FKM | LNE-1750-2750-1-1 |
| 1.750 | 2.875 | 0.562 | PTFE | FKM | LNE-1750-2875-1-1 |
| 1.750 | 2.992 | 0.562 | PTFE | FKM | LNE-1750-2992-1-1 |
| 1.750 | 3.250 | 0.562 | PTFE | FKM | LNE-1750-3250-1-1 |
| 1.875 | 2.500 | 0.562 | PTFE | FKM | LNE-1875-2500-1-1 |
| 1.875 | 2.625 | 0.562 | PTFE | FKM | LNE-1875-2625-1-1 |
| 1.875 | 2.750 | 0.562 | PTFE | FKM | LNE-1875-2750-1-1 |
| 1.875 | 2.875 | 0.562 | PTFE | FKM | LNE-1875-2875-1-1 |
| 1.875 | 2.980 | 0.562 | PTFE | FKM | LNE-1875-2980-1-1 |
| 1.875 | 3.000 | 0.562 | PTFE | FKM | LNE-1875-3000-1-1 |
| 1.938 | 2.875 | 0.562 | PTFE | FKM | LNE-1938-2875-1-1 |
| 1.938 | 2.938 | 0.562 | PTFE | FKM | LNE-1938-2938-1-1 |
| 1.938 | 3.000 | 0.562 | PTFE | FKM | LNE-1938-3000-1-1 |
| 1.996 | 3.000 | 0.562 | PTFE | FKM | LNE-1996-3000-1-1 |
| 2.000 | 2.688 | 0.562 | PTFE | FKM | LNE-2000-2688-1-1 |
| 2.000 | 2.750 | 0.562 | PTFE | FKM | LNE-2000-2750-1-1 |
| 2.000 | 2.751 | 0.562 | PTFE | FKM | LNE-2000-2751-1-1 |
| 2.000 | 3.000 | 0.562 | PTFE | FKM | LNE-2000-3000-1-1 |
| 2.000 | 3.062 | 0.562 | PTFE | FKM | LNE-2000-3062-1-1 |
| 2.000 | 3.500 | 0.562 | PTFE | FKM | LNE-2000-3500-1-1 |
| 2.063 | 3.000 | 0.562 | PTFE | FKM | LNE-2063-3000-1-1 |
| 2.063 | 3.063 | 0.562 | PTFE | FKM | LNE-2063-3063-1-1 |
| 2.125 | 2.875 | 0.562 | PTFE | FKM | LNE-2125-2875-1-1 |
| 2.125 | 3.125 | 0.562 | PTFE | FKM | LNE-2125-3125-1-1 |
| 2.125 | 3.250 | 0.562 | PTFE | FKM | LNE-2125-3250-1-1 |
| 2.165 | 3.188 | 0.562 | PTFE | FKM | LNE-2165-3188-1-1 |
| 2.187 | 3.187 | 0.562 | PTFE | FKM | LNE-2187-3187-1-1 |
| 2.188 | 3.000 | 0.562 | PTFE | FKM | LNE-2188-3000-1-1 |
| 2.250 | 3.000 | 0.562 | PTFE | FKM | LNE-2250-3000-1-1 |
| 2.250 | 3.250 | 0.562 | PTFE | FKM | LNE-2250-3250-1-1 |
| 2.250 | 3.371 | 0.562 | PTFE | FKM | LNE-2250-3371-1-1 |
| 2.250 | 3.375 | 0.562 | PTFE | FKM | LNE-2250-3375-1-1 |
| 2.250 | 3.750 | 0.562 | PTFE | FKM | LNE-2250-3750-1-1 |
| 2.272 | 3.272 | 0.562 | PTFE FDA | SILICONE FDA | LNE-2272-3272-2-6 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 2.312 | 3.375 | 0.562 | PTFE | FKM | LNE-2312-3375-1-1 |
| 2.313 | 3.313 | 0.562 | PTFE | FKM | LNE-2313-3313-1-1 |
| 2.362 | 3.362 | 0.562 | PTFE | FKM | LNE-2362-3362-1-1 |
| 2.363 | 3.386 | 0.562 | PTFE | FKM | LNE-2363-3386-1-1 |
| 2.375 | 3.000 | 0.562 | PTFE | FKM | LNE-2375-3000-1-1 |
| 2.375 | 3.125 | 0.562 | PTFE | FKM | LNE-2375-3125-1-1 |
| 2.375 | 3.250 | 0.562 | PTFE | FKM | LNE-2375-3250-1-1 |
| 2.375 | 3.251 | 0.562 | PTFE | FKM | LNE-2375-3251-1-1 |
| 2.375 | 3.313 | 0.562 | PTFE | FKM | LNE-2375-3313-1-1 |
| 2.375 | 3.375 | 0.562 | PTFE | FKM | LNE-2375-3375-1-1 |
| 2.375 | 3.500 | 0.562 | PTFE | FKM | LNE-2375-3500-1-1 |
| 2.375 | 3.625 | 0.562 | PTFE | FKM | LNE-2375-3625-1-1 |
| 2.375 | 3.750 | 0.562 | PTFE | FKM | LNE-2375-3750-1-1 |
| 2.438 | 3.438 | 0.562 | PTFE | FKM | LNE-2438-3438-1-1 |
| 2.438 | 3.500 | 0.562 | PTFE | FKM | LNE-2438-3500-1-1 |
| 2.442 | 3.583 | 0.562 | PTFE | FKM | LNE-2442-3583-1-1 |
| 2.496 | 3.500 | 0.562 | PTFE | FKM | LNE-2496-3500-1-1 |
| 2.500 | 3.250 | 0.562 | PTFE | FKM | LNE-2500-3250-1-1 |
| 2.500 | 3.251 | 0.562 | PTFE | FKM | LNE-2500-3251-1-1 |
| 2.500 | 3.375 | 0.562 | PTFE | FKM | LNE-2500-3375-1-1 |
| 2.500 | 3.438 | 0.562 | PTFE | FKM | LNE-2500-3438-1-1 |
| 2.500 | 3.500 | 0.562 | PTFE | FKM | LNE-2500-3500-1-1 |
| 2.560 | 3.583 | 0.562 | PTFE | FKM | LNE-2560-3583-1-1 |
| 2.560 | 3.583 | 0.562 | PTFE | SILICONE FDA | LNE-2560-3583-5-6 |
| 2.560 | 3.583 | 0.562 | PTFE | FKM | LNE-2560-3583-1-1 |
| 2.560 | 3.583 | 0.562 | PTFE | SILICONE FDA | LNE-2560-3583-5-6 |
| 2.562 | 3.500 | 0.562 | PTFE | FKM | LNE-2562-3500-1-1 |
| 2.562 | 3.562 | 0.562 | PTFE | FKM | LNE-2562-3562-1-1 |
| 2.625 | 3.375 | 0.562 | PTFE | FKM | LNE-2625-3375-1-1 |
| 2.625 | 3.625 | 0.562 | PTFE | FKM | LNE-2625-3625-1-1 |
| 2.625 | 3.675 | 0.562 | PTFE | FKM | LNE-2625-3675-1-1 |
| 2.625 | 3.688 | 0.562 | PTFE | FKM | LNE-2625-3688-1-1 |
| 2.625 | 3.750 | 0.562 | PTFE | FKM | LNE-2625-3750-1-1 |
| 2.625 | 3.780 | 0.562 | PTFE | FKM | LNE-2625-3780-1-1 |
| 2.625 | 3.875 | 0.562 | PTFE | FKM | LNE-2625-3875-1-1 |
| 2.625 | 4.000 | 0.562 | PTFE | FKM | LNE-2625-4000-1-1 |
| 2.625 | 4.125 | 0.562 | PTFE | FKM | LNE-2625-4125-1-1 |
| 2.635 | 3.755 | 0.562 | PTFE | FKM | LNE-2635-3755-1-1 |
| 2.750 | 3.500 | 0.562 | PTFE | FKM | LNE-2750-3500-1-1 |
| 2.750 | 3.688 | 0.562 | PTFE | FKM | LNE-2750-3688-1-1 |
| 2.750 | 3.750 | 0.562 | PTFE | FKM | LNE-2750-3750-1-1 |
| 2.813 | 3.813 | 0.562 | PTFE | FKM | LNE-2813-3813-1-1 |
| 2.813 | 4.125 | 0.562 | PTFE | FKM | LNE-2813-4125-1-1 |
| 2.820 | 3.743 | 0.562 | PTFE | FKM | LNE-2820-3743-1-1 |
| 2.820 | 3.843 | 0.562 | PTFE | FKM | LNE-2820-3843-1-1 |
| 2.875 | 3.875 | 0.562 | PTFE | FKM | LNE-2875-3875-1-1 |
| 2.875 | 4.188 | 0.562 | PTFE | FKM | LNE-2875-4188-1-1 |
| 2.897 | 3.897 | 0.562 | PTFE FDA | SILICONE FDA | LNE-2897-3897-2-6 |
| 2.937 | 3.937 | 0.562 | PTFE | FKM | LNE-2937-3937-1-1 |
| 2.938 | 3.688 | 0.562 | PTFE | FKM | LNE-2938-3688-1-1 |
| 2.938 | 3.750 | 0.562 | PTFE | FKM | LNE-2938-3750-1-1 |
| 3.000 | 3.750 | 0.562 | PTFE | FKM | LNE-3000-3750-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 3.000 | 3.875 | 0.562 | PTFE | FKM | LNE-3000-3875-1-1 |
| 3.000 | 4.000 | 0.562 | PTFE | FKM | LNE-3000-4000-1-1 |
| 3.000 | 4.250 | 0.562 | PTFE | FKM | LNE-3000-4250-1-1 |
| 3.125 | 4.125 | 0.562 | PTFE | FKM | LNE-3125-4125-1-1 |
| 3.125 | 4.375 | 0.562 | PTFE | FKM | LNE-3125-4375-1-1 |
| 3.150 | 4.173 | 0.562 | PTFE | FKM | LNE-3150-4173-1-1 |
| 3.150 | 4.173 | 0.562 | PTFE | SILICONE FDA | LNE-3150-4173-5-6 |
| 3.150 | 4.250 | 0.562 | PTFE | FKM | LNE-3150-4250-1-1 |
| 3.188 | 4.250 | 0.562 | PTFE | FKM | LNE-3188-4250-1-1 |
| 3.250 | 4.000 | 0.562 | PTFE | FKM | LNE-3250-4000-1-1 |
| 3.250 | 4.250 | 0.562 | PTFE | FKM | LNE-3250-4250-1-1 |
| 3.250 | 4.500 | 0.562 | PTFE | FKM | LNE-3250-4500-1-1 |
| 3.250 | 4.750 | 0.562 | PTFE | FKM | LNE-3250-4750-1-1 |
| 3.313 | 4.125 | 0.562 | PTFE | FKM | LNE-3313-4125-1-1 |
| 3.313 | 4.313 | 0.562 | PTFE | FKM | LNE-3313-4313-1-1 |
| 3.375 | 4.125 | 0.562 | PTFE | FKM | LNE-3375-4125-1-1 |
| 3.375 | 4.375 | 0.562 | PTFE | FKM | LNE-3375-4375-1-1 |
| 3.375 | 4.500 | 0.562 | PTFE | FKM | LNE-3375-4500-1-1 |
| 3.437 | 4.250 | 0.562 | PTFE FDA | SILICONE FDA | LNE-3437-4250-2-6 |
| 3.438 | 4.250 | 0.562 | PTFE | FKM | LNE-3438-4250-1-1 |
| 3.438 | 4.438 | 0.562 | PTFE | FKM | LNE-3438-4438-1-1 |
| 3.438 | 4.500 | 0.562 | PTFE | FKM | LNE-3438-4500-1-1 |
| 3.438 | 4.750 | 0.562 | PTFE | FKM | LNE-3438-4750-1-1 |
| 3.500 | 4.250 | 0.562 | PTFE | FKM | LNE-3500-4250-1-1 |
| 3.500 | 4.375 | 0.562 | PTFE | FKM | LNE-3500-4375-1-1 |
| 3.500 | 4.500 | 0.562 | PTFE | FKM | LNE-3500-4500-1-1 |
| 3.500 | 4.750 | 0.562 | PTFE | FKM | LNE-3500-4750-1-1 |
| 3.500 | 5.000 | 0.562 | PTFE | FKM | LNE-3500-5000-1-1 |
| 3.544 | 4.567 | 0.562 | PTFE | FKM | LNE-3544-4567-1-1 |
| 3.750 | 4.500 | 0.562 | PTFE | FKM | LNE-3750-4500-1-1 |
| 3.750 | 4.750 | 0.562 | PTFE | FKM | LNE-3750-4750-1-1 |
| 3.875 | 4.625 | 0.562 | PTFE | FKM | LNE-3875-4625-1-1 |
| 3.938 | 5.000 | 0.562 | PTFE | FKM | LNE-3938-5000-1-1 |
| 3.938 | 5.125 | 0.562 | PTFE | FKM | LNE-3938-5125-1-1 |
| 4.000 | 4.750 | 0.562 | PTFE | FKM | LNE-4000-4750-5-1 |
| 4.000 | 5.000 | 0.562 | PTFE | FKM | LNE-4000-5000-5-1 |
| 4.125 | 5.250 | 0.625 | PTFE | FKM | LNE-4125-5250-5-1 |
| 4.250 | 5.250 | 0.625 | PTFE | FKM | LNE-4250-5250-5-1 |
| 4.313 | 5.500 | 0.625 | PTFE | FKM | LNE-4313-5500-5-1 |
| 4.332 | 5.354 | 0.625 | PTFE | FKM | LNE-4332-5354-5-1 |
| 4.332 | 5.354 | 0.625 | PTFE | EPDM | LNE-4332-5354-5-5 |
| 4.438 | 5.500 | 0.625 | PTFE | FKM | LNE-4438-5500-5-1 |
| 4.500 | 5.500 | 0.625 | PTFE | FKM | LNE-4500-5500-5-1 |
| 4.500 | 5.625 | 0.625 | PTFE | FKM | LNE-4500-5625-1-1 |
| 4.500 | 6.000 | 0.625 | PTFE | FKM | LNE-4500-6000-5-1 |
| 4.750 | 5.750 | 0.625 | PTFE | FKM | LNE-4750-5750-5-1 |
| 4.750 | 6.250 | 0.625 | PTFE | FKM | LNE-4750-6250-5-1 |
| 4.937 | 6.000 | 0.625 | PTFE | FKM | LNE-4937-6000-5-1 |
| 4.937 | 6.250 | 0.625 | PTFE | FKM | LNE-4937-6250-5-1 |
| 5.000 | 6.000 | 0.625 | PTFE | FKM | LNE-5000-6000-5-1 |

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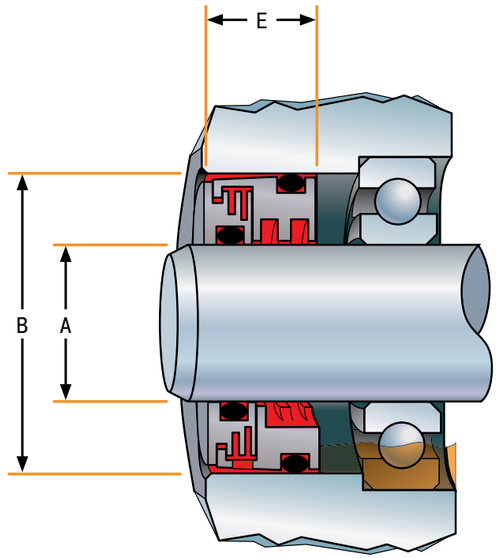
| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 5.000 | 6.500 | 0.625 | PTFE | FKM | LNE-5000-6500-5-1 |
| 5.250 | 6.250 | 0.625 | PTFE | FKM | LNE-5250-6250-5-1 |
| 5.375 | 6.625 | 0.625 | PTFE | FKM | LNE-5375-6625-5-1 |
| 5.500 | 6.750 | 0.625 | PTFE | FKM | LNE-5500-6750-5-1 |
| 5.625 | 6.875 | 0.625 | PTFE | FKM | LNE-5625-6875-5-1 |
| 5.875 | 7.125 | 0.625 | PTFE | FKM | LNE-5875-7125-5-1 |
| 6.000 | 7.000 | 0.625 | PTFE | FKM | LNE-6000-7000-5-1 |
| 6.000 | 7.250 | 0.625 | PTFE | FKM | LNE-6000-7250-5-1 |
| 6.250 | 7.250 | 0.625 | PTFE | FKM | LNE-6250-7250-5-1 |
| 6.500 | 7.500 | 0.625 | PTFE | FKM | LNE-6500-7500-5-1 |
| 7.000 | 8.000 | 0.625 | PTFE | FKM | LNE-7000-8000-5-1 |
| 7.000 | 8.500 | 0.625 | PTFE | FKM | LNE-7000-8500-5-1 |
| 7.500 | 8.500 | 0.625 | PTFE | FKM | LNE-7500-8500-5-1 |
| 7.625 | 9.125 | 0.625 | PTFE | FKM | LNE-7625-9125-5-1 |
| 7.750 | 8.750 | 0.625 | PTFE | FKM | LNE-7750-8750-5-1 |
| 8.000 | 9.000 | 0.625 | PTFE | FKM | LNE-8000-9000-5-1 |
| 8.125 | 9.125 | 0.625 | PTFE | FKM | LNE-8125-9125-5-1 |
| 8.375 | 9.250 | 0.625 | PTFE | FKM | LNE-8375-9250-5-1 |
| 8.375 | 9.875 | 0.625 | PTFE | FKM | LNE-8375-9875-5-1 |

# LNM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 15.0 | 30.0 | 10.0 | PTFE | FKM | LNM-0150-0300-1-1 |
| 15.0 | 31.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0150-0310-2-6 |
| 15.0 | 32.0 | 10.0 | PTFE | FKM | LNM-0150-0320-1-1 |
| 15.0 | 35.0 | 10.0 | PTFE | FKM | LNM-0150-0350-1-1 |
| 17.0 | 35.0 | 10.0 | PTFE | FKM | LNM-0170-0350-1-1 |
| 17.0 | 40.0 | 10.0 | PTFE | FKM | LNM-0170-0400-1-1 |
| 19.0 | 33.0 | 10.0 | PTFE FDA | FKM | LNM-0190-0330-2-1 |
| 20.0 | 34.0 | 10.0 | PTFE | FKM | LNM-0200-0340-1-1 |
| 20.0 | 35.0 | 10.0 | PTFE | FKM | LNM-0200-0350-1-1 |
| 20.0 | 40.0 | 10.0 | PTFE | FKM | LNM-0200-0400-1-1 |
| 20.0 | 42.0 | 10.0 | PTFE | FKM | LNM-0200-0420-1-1 |
| 20.0 | 47.0 | 10.0 | PTFE | FKM | LNM-0200-0470-1-1 |
| 20.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0200-0520-1-1 |
| 22.0 | 42.0 | 10.0 | PTFE | FKM | LNM-0220-0420-1-1 |
| 22.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0220-0500-1-1 |
| 23.0 | 40.0 | 10.0 | PTFE | FKM | LNM-0230-0400-1-1 |
| 24.0 | 40.0 | 10.0 | PTFE | FKM | LNM-0240-0400-1-1 |
| 25.0 | 39.0 | 10.0 | PTFE | FKM | LNM-0250-0390-1-1 |
| 25.0 | 39.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0250-0390-2-6 |
| 25.0 | 40.0 | 10.0 | PTFE | FKM | LNM-0250-0400-1-1 |
| 25.0 | 42.0 | 10.0 | PTFE | FKM | LNM-0250-0420-1-1 |
| 25.0 | 42.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0250-0420-2-6 |
| 25.0 | 45.0 | 10.0 | PTFE | FKM | LNM-0250-0450-1-1 |
| 25.0 | 47.0 | 10.0 | PTFE | FKM | LNM-0250-0470-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 25.0 | 48.0 | 10.0 | PTFE | FKM | LNM-0250-0480-1-1 |
| 25.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0250-0500-1-1 |
| 25.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0250-0520-1-1 |
| 25.0 | 54.0 | 10.0 | PTFE | FKM | LNM-0250-0540-1-1 |
| 26.0 | 42.0 | 10.0 | PTFE | FKM | LNM-0260-0420-1-1 |
| 27.0 | 44.0 | 10.0 | PTFE | FKM | LNM-0270-0440-1-1 |
| 28.0 | 42.0 | 10.0 | PTFE | FKM | LNM-0280-0420-1-1 |
| 28.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0280-0680-1-1 |
| 30.0 | 44.0 | 10.0 | PTFE | FKM | LNM-0300-0440-1-1 |
| 30.0 | 45.0 | 10.0 | PTFE | FKM | LNM-0300-0450-1-1 |
| 30.0 | 46.0 | 10.0 | PTFE | FKM | LNM-0300-0460-1-1 |
| 30.0 | 47.0 | 10.0 | PTFE | FKM | LNM-0300-0470-1-1 |
| 30.0 | 48.0 | 10.0 | PTFE | FKM | LNM-0300-0480-1-1 |
| 30.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0300-0500-1-1 |
| 30.0 | 50.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0300-0500-2-6 |
| 30.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0300-0520-1-1 |
| 30.0 | 55.0 | 10.0 | PTFE | FKM | LNM-0300-0550-1-1 |
| 30.0 | 56.0 | 10.0 | PTFE | FKM | LNM-0300-0560-1-1 |
| 30.0 | 57.0 | 10.0 | PTFE | FKM | LNM-0300-0570-1-1 |
| 30.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0300-0600-1-1 |
| 30.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0300-0620-1-1 |
| 30.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0300-0650-1-1 |
| 32.0 | 47.0 | 10.0 | PTFE | FKM | LNM-0320-0470-1-1 |
| 32.0 | 48.0 | 10.0 | PTFE | FKM | LNM-0320-0480-1-1 |
| 32.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0320-0500-1-1 |
| 32.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0320-0520-1-1 |
| 32.0 | 54.0 | 10.0 | PTFE | FKM | LNM-0320-0540-1-1 |
| 32.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0320-0720-1-1 |
| 33.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0330-0500-1-1 |
| 33.0 | 51.0 | 10.0 | PTFE | FKM | LNM-0330-0510-1-1 |
| 35.0 | 49.0 | 10.0 | PTFE | FKM | LNM-0350-0490-1-1 |
| 35.0 | 50.0 | 10.0 | PTFE | FKM | LNM-0350-0500-1-1 |
| 35.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0350-0520-1-1 |
| 35.0 | 54.0 | 10.0 | PTFE | FKM | LNM-0350-0540-1-1 |
| 35.0 | 55.0 | 10.0 | PTFE | FKM | LNM-0350-0550-1-1 |
| 35.0 | 56.0 | 10.0 | PTFE | FKM | LNM-0350-0560-1-1 |
| 35.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0350-0600-1-1 |
| 35.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0350-0620-1-1 |
| 35.0 | 64.0 | 10.0 | PTFE | FKM | LNM-0350-0640-1-1 |
| 35.0 | 71.0 | 10.0 | PTFE | FKM | LNM-0350-0710-1-1 |
| 35.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0350-0720-1-1 |
| 35.0 | 72.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0350-0720-2-6 |
| 36.0 | 52.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0360-0520-2-6 |
| 36.5 | 57.0 | 10.0 | PTFE | FKM | LNM-0365-0570-1-1 |
| 37.5 | 60.0 | 10.0 | PTFE | FKM | LNM-0375-0600-1-1 |
| 38.0 | 52.0 | 10.0 | PTFE | FKM | LNM-0380-0520-1-1 |
| 38.0 | 52.0 | 10.0 | PTFE | NBR | LNM-0380-0520-1-3 |
| 38.0 | 55.0 | 10.0 | PTFE | FKM | LNM-0380-0550-1-1 |
| 38.0 | 56.0 | 10.0 | PTFE | FKM | LNM-0380-0560-1-1 |
| 38.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0380-0600-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 38.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0380-0620-1-1 |
| 38.0 | 66.0 | 10.0 | PTFE | FKM | LNM-0380-0660-1-1 |
| 38.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0380-0700-1-1 |
| 38.0 | 70.0 | 10.0 | PTFE FDA | FKM | LNM-0380-0700-2-1 |
| 38.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0380-0720-1-1 |
| 38.1 | 66.7 | 10.0 | PTFE | FKM | LNM-0381-0667-1-1 |
| 39.0 | 55.0 | 10.0 | PTFE | FKM | LNM-0390-0550-1-1 |
| 39.9 | 60.0 | 10.0 | PTFE | FKM | LNM-0399-0600-1-1 |
| 40.0 | 54.0 | 10.0 | PTFE | FKM | LNM-0400-0540-1-1 |
| 40.0 | 55.0 | 10.0 | PTFE | FKM | LNM-0400-0550-1-1 |
| 40.0 | 56.0 | 10.0 | PTFE | FKM | LNM-0400-0560-1-1 |
| 40.0 | 58.0 | 10.0 | PTFE | FKM | LNM-0400-0580-1-1 |
| 40.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0400-0600-1-1 |
| 40.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0400-0620-1-1 |
| 40.0 | 64.0 | 10.0 | PTFE | FKM | LNM-0400-0640-1-1 |
| 40.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0400-0650-1-1 |
| 40.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0400-0680-1-1 |
| 40.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0400-0700-1-1 |
| 40.0 | 70.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0400-0700-2-6 |
| 40.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0400-0720-1-1 |
| 40.0 | 80.0 | 10.0 | PTFE ANTI MICRO-BIAL | FKM | LNM-0400-0800-7-1 |
| 42.0 | 56.0 | 10.0 | PTFE | FKM | LNM-0420-0560-1-1 |
| 42.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0420-0600-1-1 |
| 42.0 | 61.0 | 10.0 | PTFE | FKM | LNM-0420-0610-1-1 |
| 42.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0420-0620-1-1 |
| 42.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0420-0650-1-1 |
| 42.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0420-0720-1-1 |
| 43.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0430-0600-1-1 |
| 43.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0430-0620-1-1 |
| 43.0 | 63.0 | 10.0 | PTFE | FKM | LNM-0430-0630-1-1 |
| 43.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0430-0720-1-1 |
| 43.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0430-0800-1-1 |
| 44.0 | 58.0 | 10.0 | PTFE | FKM | LNM-0440-0580-1-1 |
| 44.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0440-0620-1-1 |
| 45.0 | 60.0 | 10.0 | PTFE | FKM | LNM-0450-0600-1-1 |
| 45.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0450-0620-1-1 |
| 45.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0450-0650-1-1 |
| 45.0 | 67.0 | 10.0 | PTFE | FKM | LNM-0450-0670-1-1 |
| 45.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0450-0680-1-1 |
| 45.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0450-0700-1-1 |
| 45.0 | 71.0 | 10.0 | PTFE | FKM | LNM-0450-0710-1-1 |
| 45.0 | 73.0 | 10.0 | PTFE | FKM | LNM-0450-0730-1-1 |
| 45.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0450-0750-1-1 |
| 45.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0450-0800-1-1 |
| 45.0 | 82.0 | 10.0 | PTFE | FKM | LNM-0450-0820-1-1 |
| 45.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0450-0850-1-1 |
| 45.5 | 70.0 | 10.0 | PTFE | FKM | LNM-0455-0700-1-1 |
| 45.5 | 76.0 | 10.0 | PTFE | FKM | LNM-0455-0760-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 46.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0460-0700-1-1 |
| 47.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0470-0850-1-1 |
| 48.0 | 62.0 | 10.0 | PTFE | FKM | LNM-0480-0620-1-1 |
| 48.0 | 62.0 | 10.0 | PTFE | NBR | LNM-0480-0620-1-3 |
| 48.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0480-0650-1-1 |
| 48.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0480-0680-1-1 |
| 48.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0480-0700-1-1 |
| 48.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0480-0720-1-1 |
| 48.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0480-0800-1-1 |
| 49.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0490-0700-1-1 |
| 49.2 | 70.0 | 10.0 | PTFE | FKM | LNM-0492-0700-1-1 |
| 49.9 | 70.0 | 10.0 | PTFE | FKM | LNM-0499-0700-1-1 |
| 50.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0500-0650-1-1 |
| 50.0 | 66.0 | 10.0 | PTFE | FKM | LNM-0500-0660-1-1 |
| 50.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0500-0680-1-1 |
| 50.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0500-0700-1-1 |
| 50.0 | 70.0 | 10.0 | PTFE | EPDM | LNM-0500-0700-1-5 |
| 50.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0500-0720-1-1 |
| 50.0 | 72.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0500-0720-2-6 |
| 50.0 | 72.5 | 10.0 | PTFE | FKM | LNM-0500-0725-1-1 |
| 50.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0500-0750-1-1 |
| 50.0 | 76.0 | 10.0 | PTFE | FKM | LNM-0500-0760-1-1 |
| 50.0 | 78.0 | 10.0 | PTFE | FKM | LNM-0500-0780-1-1 |
| 50.0 | 79.5 | 10.0 | PTFE | FKM | LNM-0500-0795-1-1 |
| 50.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0500-0800-1-1 |
| 50.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0500-0850-1-1 |
| 50.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0500-0900-1-1 |
| 51.0 | 65.0 | 10.0 | PTFE | FKM | LNM-0510-0650-1-1 |
| 51.0 | 71.0 | 10.0 | PTFE | FKM | LNM-0510-0710-1-1 |
| 51.1 | 74.7 | 10.0 | PTFE | FKM | LNM-0511-0747-1-1 |
| 51.8 | 70.0 | 10.0 | PTFE | FKM | LNM-0518-0700-1-1 |
| 52.0 | 68.0 | 10.0 | PTFE | FKM | LNM-0520-0680-1-1 |
| 52.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0520-0720-1-1 |
| 52.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0520-0750-1-1 |
| 52.0 | 78.0 | 10.0 | PTFE | FKM | LNM-0520-0780-1-1 |
| 54.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0540-0720-1-1 |
| 54.0 | 78.0 | 10.0 | PTFE | FKM | LNM-0540-0780-1-1 |
| 54.0 | 94.0 | 10.0 | PTFE | FKM | LNM-0540-0940-1-1 |
| 55.0 | 69.0 | 10.0 | PTFE | FKM | LNM-0550-0690-1-1 |
| 55.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0550-0700-1-1 |
| 55.0 | 70.0 | 10.0 | PTFE | NBR | LNM-0550-0700-1-3 |
| 55.0 | 70.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0550-0700-2-6 |
| 55.0 | 71.0 | 10.0 | PTFE | FKM | LNM-0550-0710-1-1 |
| 55.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0550-0720-1-1 |
| 55.0 | 73.0 | 10.0 | PTFE | FKM | LNM-0550-0730-1-1 |
| 55.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0550-0750-1-1 |
| 55.0 | 75.0 | 10.0 | PTFE | EPDM | LNM-0550-0750-1-5 |
| 55.0 | 78.0 | 10.0 | PTFE | FKM | LNM-0550-0780-1-1 |
| 55.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0550-0800-1-1 |
| 55.0 | 80.0 | 10.0 | PTFE | EPDM | LNM-0550-0800-1-5 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 55.0 | 82.0 | 10.0 | PTFE | FKM | LNM-0550-0820-1-1 |
| 55.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0550-0850-1-1 |
| 55.0 | 85.5 | 10.0 | PTFE | FKM | LNM-0550-0855-1-1 |
| 55.0 | 88.0 | 10.0 | PTFE | FKM | LNM-0550-0880-5-1 |
| 55.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0550-0900-1-1 |
| 55.6 | 79.6 | 10.0 | PTFE | FKM | LNM-0556-0796-1-1 |
| 56.0 | 70.0 | 10.0 | PTFE | FKM | LNM-0560-0700-1-1 |
| 56.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0560-0800-1-1 |
| 56.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0560-0850-1-1 |
| 56.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0560-0900-1-1 |
| 57.0 | 71.0 | 10.0 | PTFE | FKM | LNM-0570-0710-1-1 |
| 57.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0570-0720-1-1 |
| 57.0 | 81.0 | 10.0 | PTFE | FKM | LNM-0570-0810-1-1 |
| 57.0 | 82.0 | 10.0 | PTFE | FKM | LNM-0570-0820-1-1 |
| 57.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0570-0850-1-1 |
| 57.0 | 97.0 | 10.0 | PTFE | FKM | LNM-0570-0970-1-1 |
| 58.0 | 72.0 | 10.0 | PTFE | FKM | LNM-0580-0720-1-1 |
| 58.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0580-0750-1-1 |
| 58.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0580-0800-1-1 |
| 58.0 | 87.0 | 10.0 | PTFE | FKM | LNM-0580-0870-1-1 |
| 58.0 | 89.0 | 10.0 | PTFE | FKM | LNM-0580-0890-1-1 |
| 58.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0580-0900-1-1 |
| 58.7 | 76.2 | 10.0 | PTFE | FKM | LNM-0587-0762-1-1 |
| 60.0 | 74.0 | 10.0 | PTFE | FKM | LNM-0600-0740-1-1 |
| 60.0 | 75.0 | 10.0 | PTFE | FKM | LNM-0600-0750-1-1 |
| 60.0 | 79.0 | 10.0 | PTFE | FKM | LNM-0600-0790-1-1 |
| 60.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0600-0800-1-1 |
| 60.0 | 81.0 | 10.0 | PTFE | FKM | LNM-0600-0810-1-1 |
| 60.0 | 82.0 | 10.0 | PTFE | FKM | LNM-0600-0820-1-1 |
| 60.0 | 84.0 | 10.0 | PTFE | FKM | LNM-0600-0840-1-1 |
| 60.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0600-0850-1-1 |
| 60.0 | 86.0 | 10.0 | PTFE | FKM | LNM-0600-0860-1-1 |
| 60.0 | 88.0 | 10.0 | PTFE | FKM | LNM-0600-0880-1-1 |
| 60.0 | 89.0 | 10.0 | PTFE | FKM | LNM-0600-0890-1-1 |
| 60.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0600-0900-1-1 |
| 60.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0600-0950-1-1 |
| 60.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0600-1000-1-1 |
| 61.9 | 89.0 | 10.0 | PTFE | FKM | LNM-0619-0890-1-1 |
| 62.0 | 76.0 | 10.0 | PTFE | FKM | LNM-0620-0760-1-1 |
| 62.0 | 81.0 | 10.0 | PTFE | FKM | LNM-0620-0810-1-1 |
| 62.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0620-0850-1-1 |
| 62.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0620-0900-1-1 |
| 63.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0630-0800-1-1 |
| 63.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0630-0900-1-1 |
| 63.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0630-1000-1-1 |
| 63.5 | 88.9 | 10.0 | PTFE | FKM | LNM-0635-0889-1-1 |
| 64.0 | 84.0 | 10.0 | PTFE | FKM | LNM-0640-0840-1-1 |
| 65.0 | 80.0 | 10.0 | PTFE | FKM | LNM-0650-0800-1-1 |
| 65.0 | 81.0 | 10.0 | PTFE | FKM | LNM-0650-0810-1-1 |
| 65.0 | 83.0 | 10.0 | PTFE | FKM | LNM-0650-0830-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 65.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0650-0850-1-1 |
| 65.0 | 85.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0650-0850-2-6 |
| 65.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0650-0900-1-1 |
| 65.0 | 92.0 | 10.0 | PTFE | FKM | LNM-0650-0920-1-1 |
| 65.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0650-0950-1-1 |
| 65.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0650-1000-1-1 |
| 65.0 | 105.0 | 10.0 | PTFE | FKM | LNM-0650-1050-1-1 |
| 68.0 | 82.0 | 10.0 | PTFE | FKM | LNM-0680-0820-1-1 |
| 68.0 | 86.0 | 10.0 | PTFE | FKM | LNM-0680-0860-1-1 |
| 68.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0680-0900-1-1 |
| 68.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0680-1000-1-1 |
| 69.9 | 91.6 | 10.0 | PTFE | FKM | LNM-0699-0916-1-1 |
| 69.9 | 93.9 | 10.0 | PTFE | FKM | LNM-0699-0939-1-1 |
| 70.0 | 85.0 | 10.0 | PTFE | FKM | LNM-0700-0850-1-1 |
| 70.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0700-0900-1-1 |
| 70.0 | 91.0 | 10.0 | PTFE | FKM | LNM-0700-0910-1-1 |
| 70.0 | 92.0 | 10.0 | PTFE | FKM | LNM-0700-0920-1-1 |
| 70.0 | 94.0 | 10.0 | PTFE | FKM | LNM-0700-0940-1-1 |
| 70.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0700-0950-1-1 |
| 70.0 | 98.5 | 10.0 | PTFE | FKM | LNM-0700-0985-1-1 |
| 70.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0700-1000-1-1 |
| 70.0 | 108.0 | 10.0 | PTFE | FKM | LNM-0700-1080-1-1 |
| 70.0 | 110.0 | 10.0 | PTFE | FKM | LNM-0700-1100-1-1 |
| 70.0 | 110.0 | 10.0 | PTFE FDA | SILICONE FDA | LNM-0700-1100-2-6 |
| 72.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0720-0950-1-1 |
| 74.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0740-1000-1-1 |
| 74.0 | 102.0 | 10.0 | PTFE | FKM | LNM-0740-1020-1-1 |
| 75.0 | 90.0 | 10.0 | PTFE | FKM | LNM-0750-0900-1-1 |
| 75.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0750-0950-1-1 |
| 75.0 | 96.0 | 10.0 | PTFE | FKM | LNM-0750-0960-1-1 |
| 75.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0750-1000-1-1 |
| 75.0 | 101.0 | 10.0 | PTFE | FKM | LNM-0750-1010-1-1 |
| 75.0 | 108.0 | 10.0 | PTFE | FKM | LNM-0750-1080-1-1 |
| 75.0 | 110.0 | 10.0 | PTFE | FKM | LNM-0750-1100-1-1 |
| 75.0 | 115.0 | 10.0 | PTFE | FKM | LNM-0750-1150-1-1 |
| 76.0 | 96.0 | 10.0 | PTFE | FKM | LNM-0760-0960-1-1 |
| 76.0 | 98.0 | 10.0 | PTFE | FKM | LNM-0760-0980-1-1 |
| 78.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0780-1000-1-1 |
| 79.0 | 99.0 | 10.0 | PTFE | FKM | LNM-0790-0990-1-1 |
| 79.0 | 110.0 | 10.0 | PTFE | FKM | LNM-0790-1100-1-1 |
| 79.0 | 119.0 | 10.0 | PTFE | FKM | LNM-0790-1190-1-1 |
| 80.0 | 95.0 | 10.0 | PTFE | FKM | LNM-0800-0950-1-1 |
| 80.0 | 98.0 | 10.0 | PTFE | FKM | LNM-0800-0980-1-1 |
| 80.0 | 100.0 | 10.0 | PTFE | FKM | LNM-0800-1000-1-1 |
| 80.0 | 105.0 | 10.0 | PTFE | FKM | LNM-0800-1050-1-1 |
| 80.0 | 108.0 | 10.0 | PTFE | FKM | LNM-0800-1080-5-1 |
| 80.0 | 110.0 | 10.0 | PTFE | FKM | LNM-0800-1100-1-1 |
| 80.0 | 111.1 | 10.0 | PTFE | FKM | LNM-0800-1111-1-1 |
| 80.0 | 120.0 | 10.0 | PTFE | FKM | LNM-0800-1200-1-1 |
| 82.0 | 100.5 | 12.0 | PTFE | FKM | LNM-0820-1005-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 85.0 | 105.0 | 12.0 | PTFE | FKM | LNM-0850-1050-1-1 |
| 85.0 | 108.0 | 12.0 | PTFE | FKM | LNM-0850-1080-1-1 |
| 85.0 | 110.0 | 12.0 | PTFE | FKM | LNM-0850-1100-1-1 |
| 85.0 | 110.0 | 12.0 | PTFE | EPDM | LNM-0850-1100-1-5 |
| 85.0 | 110.0 | 12.0 | PTFE | FKM | LNM-0850-1100-5-1 |
| 85.0 | 120.0 | 12.0 | PTFE | FKM | LNM-0850-1200-1-1 |
| 85.0 | 122.0 | 12.0 | PTFE | FKM | LNM-0850-1220-1-1 |
| 85.0 | 125.0 | 12.0 | PTFE | FKM | LNM-0850-1250-1-1 |
| 87.0 | 110.0 | 12.0 | PTFE | FKM | LNM-0870-1100-1-1 |
| 88.0 | 106.0 | 12.0 | PTFE | FKM | LNM-0880-1060-1-1 |
| 88.0 | 110.0 | 12.0 | PTFE | FKM | LNM-0880-1100-1-1 |
| 88.0 | 120.0 | 12.0 | PTFE | FKM | LNM-0880-1200-1-1 |
| 90.0 | 110.0 | 12.0 | PTFE | FKM | LNM-0900-1100-1-1 |
| 90.0 | 115.0 | 12.0 | PTFE | FKM | LNM-0900-1150-1-1 |
| 90.0 | 116.0 | 12.0 | PTFE | FKM | LNM-0900-1160-1-1 |
| 90.0 | 120.0 | 12.0 | PTFE | FKM | LNM-0900-1200-1-1 |
| 91.0 | 113.0 | 12.0 | PTFE | FKM | LNM-0910-1130-1-1 |
| 92.0 | 112.0 | 12.0 | PTFE | FKM | LNM-0920-1120-1-1 |
| 94.0 | 114.0 | 12.0 | PTFE | FKM | LNM-0940-1140-1-1 |
| 95.0 | 115.0 | 12.0 | PTFE | FKM | LNM-0950-1150-1-1 |
| 95.0 | 120.0 | 12.0 | PTFE | FKM | LNM-0950-1200-1-1 |
| 95.0 | 121.0 | 12.0 | PTFE | FKM | LNM-0950-1210-1-1 |
| 95.0 | 122.0 | 12.0 | PTFE | FKM | LNM-0950-1220-1-1 |
| 95.0 | 125.0 | 12.0 | PTFE | FKM | LNM-0950-1250-1-1 |
| 95.0 | 126.0 | 12.0 | PTFE | FKM | LNM-0950-1260-1-1 |
| 95.0 | 130.0 | 12.0 | PTFE | FKM | LNM-0950-1300-1-1 |
| 97.0 | 125.0 | 12.0 | PTFE | FKM | LNM-0970-1250-1-1 |
| 100.0 | 120.0 | 12.0 | PTFE | FKM | LNM-1000-1200-1-1 |
| 100.0 | 125.0 | 12.0 | PTFE | FKM | LNM-1000-1250-1-1 |
| 100.0 | 126.0 | 12.0 | PTFE | FKM | LNM-1000-1260-1-1 |
| 100.0 | 127.0 | 12.0 | PTFE | FKM | LNM-1000-1270-5-1 |
| 100.0 | 127.5 | 12.0 | PTFE | FKM | LNM-1000-1275-5-1 |
| 100.0 | 130.0 | 12.0 | PTFE | FKM | LNM-1000-1300-1-1 |
| 100.0 | 135.0 | 12.0 | PTFE | FKM | LNM-1000-1350-1-1 |
| 100.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1000-1400-1-1 |
| 104.0 | 125.0 | 12.0 | PTFE | FKM | LNM-1040-1250-5-1 |
| 105.0 | 121.0 | 12.0 | PTFE | FKM | LNM-1050-1210-5-1 |
| 105.0 | 125.0 | 12.0 | PTFE | FKM | LNM-1050-1250-5-1 |
| 105.0 | 130.0 | 12.0 | PTFE | FKM | LNM-1050-1300-5-1 |
| 105.0 | 131.0 | 12.0 | PTFE | FKM | LNM-1050-1310-5-1 |
| 107.0 | 130.0 | 12.0 | PTFE | FKM | LNM-1070-1300-5-1 |
| 108.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1080-1400-5-1 |
| 110.0 | 130.0 | 12.0 | PTFE | FKM | LNM-1100-1300-5-1 |
| 110.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1100-1400-5-1 |
| 110.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1100-1500-5-1 |
| 111.0 | 138.0 | 12.0 | PTFE | FKM | LNM-1110-1380-5-1 |
| 114.0 | 139.0 | 12.0 | PTFE | FKM | LNM-1140-1390-5-1 |
| 114.3 | 139.9 | 12.0 | PTFE | FKM | LNM-1143-1399-5-1 |
| 115.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1150-1400-5-1 |
| 115.0 | 145.0 | 12.0 | PTFE | FKM | LNM-1150-1450-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 115.0 | 149.2 | 12.0 | PTFE | FKM | LNM-1150-1492-5-1 |
| 117.0 | 149.4 | 12.0 | PTFE | FKM | LNM-1170-1494-5-1 |
| 117.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1170-1500-5-1 |
| 118.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1180-1400-5-1 |
| 118.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1180-1500-5-1 |
| 120.0 | 140.0 | 12.0 | PTFE | FKM | LNM-1200-1400-5-1 |
| 120.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1200-1500-5-1 |
| 120.0 | 152.4 | 12.0 | PTFE | FKM | LNM-1200-1524-5-1 |
| 120.0 | 160.0 | 12.0 | PTFE | FKM | LNM-1200-1600-5-1 |
| 120.5 | 140.0 | 12.0 | PTFE | FKM | LNM-1205-1400-5-1 |
| 120.6 | 158.8 | 12.0 | PTFE | FKM | LNM-1206-1588-5-1 |
| 125.0 | 145.0 | 12.0 | PTFE | FKM | LNM-1250-1450-5-1 |
| 125.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1250-1500-5-1 |
| 130.0 | 150.0 | 12.0 | PTFE | FKM | LNM-1300-1500-5-1 |
| 130.0 | 160.0 | 12.0 | PTFE | FKM | LNM-1300-1600-5-1 |
| 130.0 | 170.0 | 12.0 | PTFE | FKM | LNM-1300-1700-5-1 |
| 133.0 | 158.0 | 15.0 | PTFE | FKM | LNM-1330-1580-5-1 |
| 135.0 | 160.0 | 15.0 | PTFE | FKM | LNM-1350-1600-5-1 |
| 135.0 | 170.0 | 15.0 | PTFE | FKM | LNM-1350-1700-5-1 |
| 135.0 | 175.0 | 15.0 | PTFE | FKM | LNM-1350-1750-5-1 |
| 135.7 | 168.0 | 15.0 | PTFE | FKM | LNM-1357-1680-5-1 |
| 140.0 | 160.0 | 15.0 | PTFE | FKM | LNM-1400-1600-5-1 |
| 140.0 | 170.0 | 15.0 | PTFE | FKM | LNM-1400-1700-5-1 |
| 145.0 | 165.0 | 15.0 | PTFE | FKM | LNM-1450-1650-1-1 |
| 145.0 | 180.0 | 15.0 | PTFE | FKM | LNM-1450-1800-5-1 |
| 150.0 | 170.0 | 15.0 | PTFE | FKM | LNM-1500-1700-5-1 |
| 150.0 | 180.0 | 15.0 | PTFE | FKM | LNM-1500-1800-5-1 |
| 155.0 | 180.0 | 15.0 | PTFE | FKM | LNM-1550-1800-5-1 |
| 155.0 | 192.0 | 15.0 | PTFE | FKM | LNM-1550-1920-5-1 |
| 160.0 | 190.0 | 15.0 | PTFE | FKM | LNM-1600-1900-5-1 |
| 162.0 | 192.0 | 15.0 | PTFE | FKM | LNM-1620-1920-5-1 |
| 163.5 | 189.0 | 15.0 | PTFE | FKM | LNM-1635-1890-5-1 |
| 165.0 | 190.0 | 15.0 | PTFE | FKM | LNM-1650-1900-5-1 |
| 165.0 | 200.0 | 15.0 | PTFE | FKM | LNM-1650-2000-5-1 |
| 167.0 | 195.0 | 15.0 | PTFE | FKM | LNM-1670-1950-5-1 |
| 167.0 | 197.0 | 15.0 | PTFE | FKM | LNM-1670-1970-5-1 |
| 170.0 | 192.0 | 15.0 | PTFE | FKM | LNM-1700-1920-5-1 |
| 170.0 | 200.0 | 15.0 | PTFE | FKM | LNM-1700-2000-5-1 |
| 170.0 | 207.0 | 15.0 | PTFE | FKM | LNM-1700-2070-5-1 |
| 177.8 | 203.2 | 15.0 | PTFE | FKM | LNM-1778-2032-5-1 |
| 180.0 | 215.0 | 15.0 | PTFE | FKM | LNM-1800-2150-5-1 |
| 180.0 | 220.0 | 15.0 | PTFE | FKM | LNM-1800-2200-5-1 |
| 190.0 | 220.0 | 15.0 | PTFE | FKM | LNM-1900-2200-5-1 |
| 191.0 | 223.0 | 15.0 | PTFE | FKM | LNM-1910-2230-5-1 |
| 192.0 | 220.0 | 15.0 | PTFE | FKM | LNM-1920-2200-5-1 |
| 192.0 | 222.0 | 15.0 | PTFE | FKM | LNM-1920-2220-5-1 |
| 195.0 | 235.0 | 15.0 | PTFE | FKM | LNM-1950-2350-5-1 |
| 200.0 | 230.0 | 15.0 | PTFE | FKM | LNM-2000-2300-5-1 |
| 200.0 | 236.0 | 15.0 | PTFE | FKM | LNM-2000-2360-5-1 |
| 210.0 | 240.0 | 15.0 | PTFE | FKM | LNM-2100-2400-5-1 |

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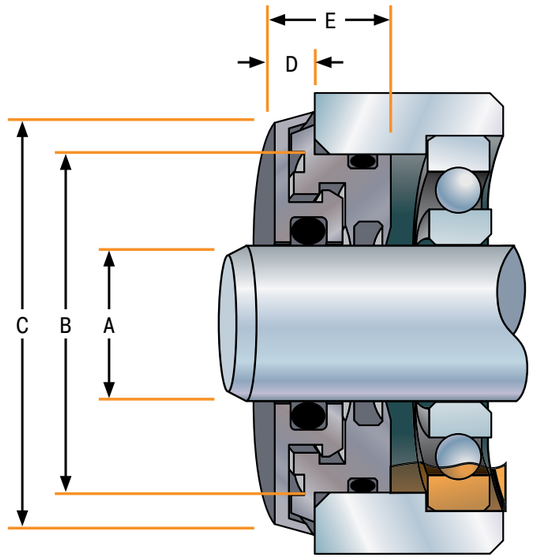
| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 215.0 | 255.0 | 15.0 | PTFE | FKM | LNM-2150-2550-5-1 |
| 220.0 | 244.0 | 15.0 | PTFE | FKM | LNM-2200-2440-5-1 |
| 220.0 | 250.0 | 15.0 | PTFE | FKM | LNM-2200-2500-5-1 |
| 220.0 | 260.0 | 15.0 | PTFE | FKM | LNM-2200-2600-5-1 |
| 235.0 | 275.0 | 15.0 | PTFE | FKM | LNM-2350-2750-5-1 |
| 240.0 | 275.0 | 15.0 | PTFE | FKM | LNM-2400-2750-5-1 |
| 240.0 | 280.0 | 15.0 | PTFE | FKM | LNM-2400-2800-5-1 |
| 250.0 | 280.0 | 15.0 | PTFE | FKM | LNM-2500-2800-5-1 |

# WDE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 0.500 | 1.315 | 1.584 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-0500-1315-2-6 |
| 0.625 | 1.375 | 1.644 | 0.248 | 0.373 | PTFE FDA | FKM | WDE-0625-1375-2-1 |
| 0.658 | 1.662 | 1.931 | 0.248 | 0.373 | PTFE | FKM | WDE-0658-1662-1-1 |
| 0.750 | 1.500 | 1.769 | 0.248 | 0.373 | PTFE | FKM | WDE-0750-1500-1-1 |
| 0.750 | 1.625 | 1.894 | 0.248 | 0.373 | PTFE | FKM | WDE-0750-1625-1-1 |
| 0.875 | 1.625 | 1.894 | 0.248 | 0.373 | PTFE | FKM | WDE-0875-1625-1-1 |
| 0.875 | 2.000 | 2.269 | 0.248 | 0.373 | PTFE | FKM | WDE-0875-2000-1-1 |
| 0.938 | 1.500 | 1.769 | 0.248 | 0.373 | PTFE | FKM | WDE-0938-1500-1-1 |
| 0.938 | 1.624 | 1.893 | 0.248 | 0.373 | PTFE | FKM | WDE-0938-1624-1-1 |
| 0.968 | 1.750 | 2.019 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-0968-1750-2-6 |
| 0.982 | 2.500 | 2.769 | 0.248 | 0.373 | PTFE | FKM | WDE-0982-2500-1-1 |
| 0.984 | 2.047 | 2.316 | 0.248 | 0.373 | PTFE | FKM | WDE-0984-2047-1-1 |
| 1.000 | 2.000 | 2.269 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-1000-2000-2-6 |
| 1.125 | 2.000 | 2.269 | 0.248 | 0.373 | PTFE | FKM | WDE-1125-2000-1-1 |
| 1.125 | 2.441 | 2.71 | 0.248 | 0.373 | PTFE | FKM | WDE-1125-2441-1-1 |
| 1.250 | 2.000 | 2.269 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-1250-2000-2-6 |
| 1.250 | 2.250 | 2.519 | 0.248 | 0.373 | PTFE | FKM | WDE-1250-2250-1-1 |
| 1.339 | 2.350 | 2.619 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-1339-2350-2-6 |
| 1.375 | 2.125 | 2.394 | 0.248 | 0.373 | PTFE | FKM | WDE-1375-2125-1-1 |
| 1.375 | 2.500 | 2.769 | 0.248 | 0.373 | PTFE | FKM | WDE-1375-2500-1-1 |
| 1.375 | 2.625 | 2.894 | 0.248 | 0.373 | PTFE | FKM | WDE-1375-2625-1-1 |
| 1.417 | 2.047 | 2.316 | 0.248 | 0.373 | PTFE | FKM | WDE-1417-2047-1-1 |
| 1.438 | 2.250 | 2.519 | 0.248 | 0.373 | PTFE FDA | Silicone FDA | WDE-1438-2250-2-6 |
| 1.500 | 2.500 | 2.769 | 0.248 | 0.373 | PTFE | FKM | WDE-1500-2500-1-1 |
| 1.575 | 2.750 | 3.019 | 0.248 | 0.373 | PTFE | FKM | WDE-1575-2750-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.625 | 2.375 | 2.644 | 0.248 | 0.375 | PTFE | FKM | WDE-1625-2375-1-1 |
| 1.750 | 2.500 | 2.769 | 0.248 | 0.375 | PTFE | FKM | WDE-1750-2500-1-1 |
| 1.750 | 3.250 | 3.519 | 0.248 | 0.375 | PTFE | Silicone FDA | WDE-1750-3250-1-6 |
| 1.750 | 3.312 | 3.581 | 0.248 | 0.375 | PTFE | FKM | WDE-1750-3312-1-1 |
| 1.875 | 2.750 | 3.019 | 0.248 | 0.375 | PTFE | FKM | WDE-1875-2750-1-1 |
| 1.875 | 2.875 | 3.144 | 0.248 | 0.375 | PTFE | FKM | WDE-1875-2875-1-1 |
| 1.968 | 2.952 | 3.221 | 0.248 | 0.375 | PTFE | FKM | WDE-1968-2952-1-1 |
| 2.000 | 2.750 | 3.019 | 0.248 | 0.375 | PTFE | FKM | WDE-2000-2750-1-1 |
| 2.000 | 3.000 | 3.269 | 0.248 | 0.375 | PTFE | FKM | WDE-2000-3000-1-1 |
| 2.000 | 3.000 | 3.269 | 0.248 | 0.375 | PTFE FDA | Silicone FDA | WDE-2000-3000-2-6 |
| 2.000 | 3.250 | 3.519 | 0.248 | 0.375 | PTFE | Silicone FDA | WDE-2000-3250-1-6 |
| 2.250 | 3.750 | 4.019 | 0.248 | 0.375 | PTFE | Silicone FDA | WDE-2250-3750-1-6 |
| 2.251 | 3.063 | 3.332 | 0.248 | 0.375 | PTFE FDA | FKM | WDE-2251-3063-2-1 |
| 2.438 | 3.750 | 4.019 | 0.287 | 0.412 | PTFE | Silicone FDA | WDE-2438-3750-1-6 |
| 2.500 | 3.313 | 3.582 | 0.287 | 0.412 | PTFE | FKM | WDE-2500-3313-1-1 |
| 2.500 | 3.500 | 3.769 | 0.287 | 0.412 | PTFE | FKM | WDE-2500-3500-1-1 |
| 2.500 | 3.543 | 3.812 | 0.287 | 0.412 | PTFE FDA | EPDM | WDE-2500-3543-2-5 |
| 2.560 | 3.600 | 3.869 | 0.287 | 0.412 | PTFE | FKM | WDE-2560-3600-1-1 |
| 2.625 | 3.500 | 3.769 | 0.287 | 0.412 | PTFE | FKM | WDE-2625-3500-1-1 |
| 2.625 | 3.752 | 4.021 | 0.287 | 0.412 | PTFE | FKM | WDE-2625-3752-1-1 |
| 3.000 | 4.000 | 4.269 | 0.287 | 0.412 | PTFE | FKM | WDE-3000-4000-1-1 |
| 3.500 | 4.500 | 4.769 | 0.287 | 0.412 | PTFE | FKM | WDE-3500-4500-1-1 |
| 3.750 | 4.750 | 5.019 | 0.287 | 0.412 | PTFE | FKM | WDE-3750-4750-1-1 |
| 3.875 | 5.251 | 5.52 | 0.287 | 0.412 | PTFE | FKM | WDE-3875-5251-1-1 |
| 3.938 | 5.000 | 5.269 | 0.287 | 0.412 | PTFE | FKM | WDE-3938-5000-1-1 |
| 4.000 | 5.000 | 5.269 | 0.287 | 0.412 | PTFE FDA | FKM | WDE-4000-5000-2-1 |

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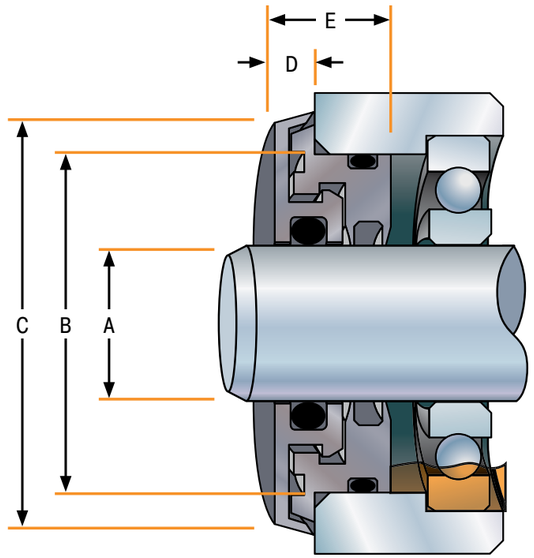
# WDM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 12.5 | 26.5 | 33.3 | 6.3 | 9.5 | PTFE | FKM | WDM-0125-0265-1-1 |
| 12.5 | 26.5 | 33.3 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0125-0265-2-6 |
| 12.5 | 33.0 | 39.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0125-0330-1-1 |
| 12.7 | 28.6 | 35.4 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0127-0286-8-6 |
| 15.0 | 29.0 | 35.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0150-0290-8-6 |
| 15.0 | 35.0 | 41.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0150-0350-8-6 |
| 15.0 | 36.0 | 42.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0150-0360-8-6 |
| 15.0 | 39.4 | 46.2 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0150-0394-8-6 |
| 16.0 | 34.0 | 40.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0160-0340-1-1 |
| 17.0 | 32.0 | 38.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0170-0320-8-6 |
| 17.0 | 48.0 | 54.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0170-0480-1-1 |
| 20.0 | 34.0 | 40.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0200-0340-1-1 |
| 20.0 | 34.0 | 40.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0200-0340-8-6 |
| 20.0 | 36.0 | 42.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0200-0360-8-6 |
| 20.0 | 39.4 | 46.2 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0200-0394-8-6 |
| 20.0 | 47.0 | 53.8 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0200-0470-8-6 |
| 24.0 | 48.0 | 54.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0240-0480-2-6 |
| 24.0 | 52.0 | 58.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0240-0520-2-6 |
| 25.0 | 47.0 | 53.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0250-0470-1-1 |
| 25.0 | 52.0 | 58.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0250-0520-2-6 |
| 25.4 | 39.4 | 46.2 | 6.3 | 9.5 | PTFE FDA 3A | SILICONE FDA | WDM-0254-0394-8-6 |
| 30.0 | 44.0 | 50.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0300-0440-1-1 |
| 30.0 | 50.0 | 56.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0300-0500-1-1 |
| 30.0 | 50.0 | 56.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0300-0500-2-6 |
| 30.0 | 56.0 | 62.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0300-0560-2-6 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 34.0 | 72.0 | 78.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0340-0720-2-6 |
| 35.0 | 52.0 | 58.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0350-0520-2-6 |
| 35.0 | 61.0 | 67.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0350-0610-1-1 |
| 40.0 | 55.0 | 61.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0400-0550-2-6 |
| 40.0 | 62.0 | 68.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0400-0620-1-1 |
| 40.0 | 68.0 | 74.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0400-0680-2-6 |
| 40.0 | 80.0 | 86.8 | 6.3 | 9.5 | PTFE FDA | SILICONE FDA | WDM-0400-0800-2-6 |
| 45.0 | 65.0 | 71.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0450-0650-1-1 |
| 50.0 | 67.0 | 73.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0500-0670-1-1 |
| 50.0 | 76.2 | 83.0 | 6.3 | 9.5 | PTFE | FKM | WDM-0500-0762-1-1 |
| 50.0 | 85.0 | 91.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0500-0850-1-1 |
| 52.0 | 75.0 | 81.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0520-0750-1-1 |
| 55.0 | 75.0 | 81.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0550-0750-1-1 |
| 55.0 | 80.0 | 86.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0550-0800-1-1 |
| 60.0 | 80.0 | 86.8 | 6.3 | 9.5 | PTFE | FKM | WDM-0600-0800-1-1 |
| 65.0 | 90.0 | 96.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0650-0900-1-1 |
| 69.0 | 90.0 | 96.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0690-0900-1-1 |
| 70.0 | 95.0 | 101.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0700-0950-1-1 |
| 70.0 | 110.0 | 116.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0700-1100-1-1 |
| 80.0 | 105.0 | 111.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0800-1050-1-1 |
| 95.0 | 120.0 | 126.8 | 7.3 | 10.5 | PTFE | FKM | WDM-0950-1200-1-1 |
| 100.0 | 125.0 | 131.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1000-1250-1-1 |
| 105.0 | 130.0 | 136.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1050-1300-1-1 |
| 105.0 | 135.0 | 141.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1050-1350-1-1 |
| 110.0 | 140.0 | 146.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1100-1400-1-1 |
| 114.0 | 140.0 | 146.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1140-1400-5-1 |
| 120.0 | 150.0 | 156.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1200-1500-5-1 |
| 130.0 | 160.0 | 166.8 | 7.3 | 10.5 | PTFE FDA | SILICONE FDA | WDM-1300-1600-2-6 |
| 130.0 | 160.0 | 166.8 | 7.3 | 10.5 | PTFE | FKM | WDM-1300-1600-5-1 |

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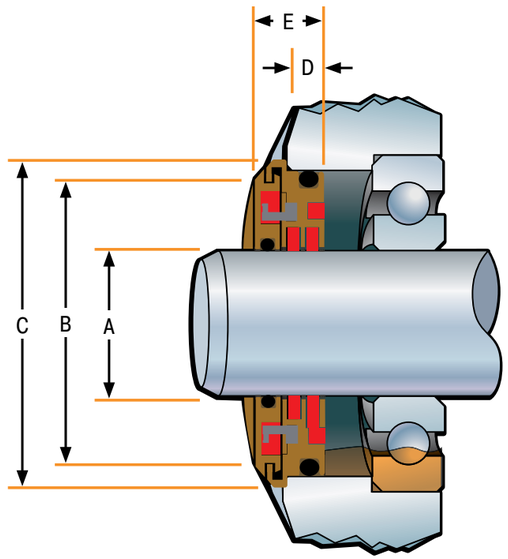
# MLE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 0.825 | 1.220 | 1.345 | 0.276 | 0.551 | BRONZE | EPDM | MLE-0825-1220-B-5 |
| 0.875 | 1.625 | 1.750 | 0.276 | 0.551 | Bronze | FKM | MLE-0875-1625-B-1 |
| 0.984 | 1.969 | 2.094 | 0.276 | 0.551 | Bronze | FKM | MLE-0984-1969-B-1 |
| 1.125 | 1.875 | 2.000 | 0.276 | 0.551 | Bronze | FKM | MLE-1125-1875-B-1 |
| 1.125 | 2.000 | 2.125 | 0.276 | 0.551 | Bronze | FKM | MLE-1125-2000-B-1 |
| 1.125 | 2.441 | 2.566 | 0.276 | 0.551 | Bronze | FKM | MLE-1125-2441-B-1 |
| 1.250 | 2.000 | 2.125 | 0.276 | 0.551 | Bronze | FKM | MLE-1250-2000-B-1 |
| 1.250 | 2.000 | 2.125 | 0.276 | 0.551 | 304 SS | FKM | MLE-1250-2000-S-1 |
| 1.250 | 2.375 | 2.500 | 0.276 | 0.551 | Bronze | FKM | MLE-1250-2375-B-1 |
| 1.250 | 2.685 | 2.810 | 0.276 | 0.551 | Bronze | FKM | MLE-1250-2685-B-1 |
| 1.372 | 2.062 | 2.187 | 0.276 | 0.551 | Bronze | FKM | MLE-1372-2062-B-1 |
| 1.375 | 2.125 | 2.250 | 0.276 | 0.551 | Bronze | FKM | MLE-1375-2125-B-1 |
| 1.375 | 2.835 | 2.960 | 0.276 | 0.551 | Bronze | FKM | MLE-1375-2835-B-1 |
| 1.375 | 2.845 | 2.970 | 0.276 | 0.551 | Bronze | FKM | MLE-1375-2845-B-1 |
| 1.378 | 2.441 | 2.566 | 0.276 | 0.551 | Bronze | FKM | MLE-1378-2441-B-1 |
| 1.500 | 2.250 | 2.375 | 0.276 | 0.551 | Bronze | FKM | MLE-1500-2250-B-1 |
| 1.500 | 2.500 | 2.625 | 0.276 | 0.551 | Bronze | FKM | MLE-1500-2500-B-1 |
| 1.500 | 2.625 | 2.750 | 0.276 | 0.551 | Bronze | FKM | MLE-1500-2625-B-1 |
| 1.500 | 2.750 | 2.875 | 0.276 | 0.551 | Bronze | FKM | MLE-1500-2750-B-1 |
| 1.500 | 3.000 | 3.125 | 0.276 | 0.551 | Bronze | FKM | MLE-1500-3000-B-1 |
| 1.571 | 2.575 | 2.700 | 0.276 | 0.551 | Bronze | FKM | MLE-1571-2575-B-1 |
| 1.575 | 2.375 | 2.500 | 0.276 | 0.551 | Bronze | FKM | MLE-1575-2375-B-1 |
| 1.575 | 2.441 | 2.566 | 0.276 | 0.551 | Bronze | FKM | MLE-1575-2441-B-1 |
| 1.625 | 2.375 | 2.500 | 0.315 | 0.591 | Bronze | FKM | MLE-1625-2375-B-1 |
| 1.625 | 3.002 | 3.127 | 0.315 | 0.591 | Bronze | FKM | MLE-1625-3002-B-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.750 | 2.500 | 2.625 | 0.315 | 0.591 | Bronze | FKM | MLE-1750-2500-B-1 |
| 1.750 | 2.750 | 2.875 | 0.315 | 0.591 | Bronze | FKM | MLE-1750-2750-B-1 |
| 1.750 | 2.850 | 2.975 | 0.315 | 0.591 | Bronze | FKM | MLE-1750-2850-B-1 |
| 1.750 | 2.875 | 3.000 | 0.315 | 0.591 | Bronze | FKM | MLE-1750-2875-B-1 |
| 1.772 | 2.677 | 2.802 | 0.315 | 0.591 | Bronze | FKM | MLE-1772-2677-B-1 |
| 1.875 | 2.625 | 2.750 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-2625-B-1 |
| 1.875 | 2.688 | 2.813 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-2688-B-1 |
| 1.875 | 2.750 | 2.875 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-2750-B-1 |
| 1.875 | 2.875 | 3.000 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-2875-B-1 |
| 1.875 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-3000-B-1 |
| 1.875 | 3.375 | 3.500 | 0.315 | 0.591 | Bronze | FKM | MLE-1875-3375-B-1 |
| 1.937 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-1937-3000-B-1 |
| 1.938 | 2.438 | 2.563 | 0.315 | 0.591 | Bronze | FKM | MLE-1938-2438-B-1 |
| 1.938 | 2.875 | 3.000 | 0.315 | 0.591 | Bronze | FKM | MLE-1938-2875-B-1 |
| 2.000 | 2.750 | 2.875 | 0.315 | 0.591 | Bronze | FKM | MLE-2000-2750-B-1 |
| 2.000 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-2000-3000-B-1 |
| 2.000 | 3.125 | 3.250 | 0.315 | 0.591 | Bronze | FKM | MLE-2000-3125-B-1 |
| 2.062 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-2062-3000-B-1 |
| 2.063 | 3.063 | 3.188 | 0.315 | 0.591 | Bronze | FKM | MLE-2063-3063-B-1 |
| 2.125 | 2.625 | 2.750 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-2625-B-1 |
| 2.125 | 2.750 | 2.875 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-2750-B-1 |
| 2.125 | 2.875 | 3.000 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-2875-B-1 |
| 2.125 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-3000-B-1 |
| 2.125 | 3.150 | 3.275 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-3150-B-1 |
| 2.125 | 3.250 | 3.375 | 0.315 | 0.591 | Bronze | FKM | MLE-2125-3250-B-1 |
| 2.156 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-2156-3000-B-1 |
| 2.250 | 3.000 | 3.125 | 0.315 | 0.591 | Bronze | FKM | MLE-2250-3000-B-1 |
| 2.250 | 3.250 | 3.375 | 0.315 | 0.591 | Bronze | FKM | MLE-2250-3250-B-1 |
| 2.250 | 3.375 | 3.500 | 0.315 | 0.591 | Bronze | FKM | MLE-2250-3375-B-1 |
| 2.313 | 3.250 | 3.375 | 0.315 | 0.591 | Bronze | FKM | MLE-2313-3250-B-1 |
| 2.313 | 3.313 | 3.438 | 0.315 | 0.591 | Bronze | FKM | MLE-2313-3313-B-1 |
| 2.375 | 3.125 | 3.250 | 0.354 | 0.63 | Bronze | FKM | MLE-2375-3125-B-1 |
| 2.375 | 3.250 | 3.375 | 0.354 | 0.63 | Bronze | FKM | MLE-2375-3250-B-1 |
| 2.375 | 3.375 | 3.500 | 0.354 | 0.63 | Bronze | FKM | MLE-2375-3375-B-1 |
| 2.375 | 3.500 | 3.625 | 0.354 | 0.63 | Bronze | FKM | MLE-2375-3500-B-1 |
| 2.437 | 3.125 | 3.250 | 0.354 | 0.63 | Bronze | FKM | MLE-2437-3125-B-1 |
| 2.500 | 3.250 | 3.375 | 0.354 | 0.63 | Bronze | FKM | MLE-2500-3250-B-1 |
| 2.500 | 3.500 | 3.625 | 0.354 | 0.63 | Bronze | FKM | MLE-2500-3500-B-1 |
| 2.500 | 3.623 | 3.748 | 0.354 | 0.63 | Bronze | FKM | MLE-2500-3623-B-1 |
| 2.555 | 3.925 | 4.050 | 0.354 | 0.63 | Bronze | FKM | MLE-2555-3925-B-1 |
| 2.559 | 3.346 | 3.471 | 0.354 | 0.63 | Bronze | FKM | MLE-2559-3346-B-1 |
| 2.559 | 3.543 | 3.668 | 0.354 | 0.63 | Bronze | FKM | MLE-2559-3543-B-1 |
| 2.559 | 4.134 | 4.259 | 0.354 | 0.63 | Bronze | FKM | MLE-2559-4134-B-1 |
| 2.563 | 3.563 | 3.688 | 0.354 | 0.63 | Bronze | FKM | MLE-2563-3563-B-1 |
| 2.625 | 3.375 | 3.500 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3375-B-1 |
| 2.625 | 3.500 | 3.625 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3500-B-1 |
| 2.625 | 3.625 | 3.750 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3625-B-1 |
| 2.625 | 3.628 | 3.753 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3628-B-1 |
| 2.625 | 3.630 | 3.755 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3630-B-1 |
| 2.625 | 3.675 | 3.800 | 0.354 | 0.63 | Bronze | FKM | MLE-2625-3675-B-1 |

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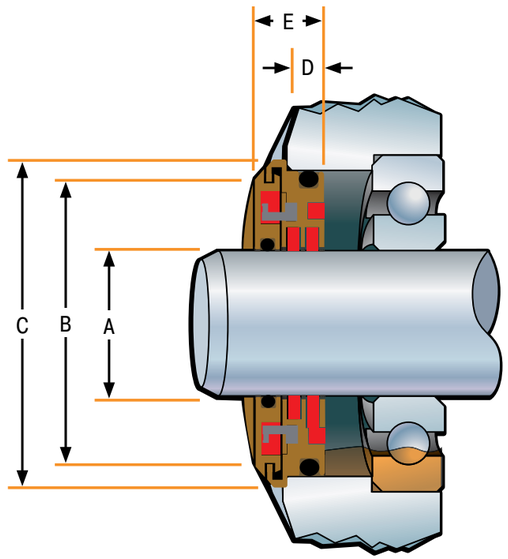
| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.688 | 3.688 | 3.813 | 0.354 | 0.63 | Bronze | FKM | MLE-2688-3688-B-1 |
| 2.750 | 3.500 | 3.625 | 0.354 | 0.63 | Bronze | FKM | MLE-2750-3500-B-1 |
| 2.750 | 3.625 | 3.750 | 0.354 | 0.63 | Bronze | FKM | MLE-2750-3625-B-1 |
| 2.750 | 3.750 | 3.875 | 0.354 | 0.63 | Bronze | FKM | MLE-2750-3750-B-1 |
| 2.800 | 3.800 | 3.925 | 0.354 | 0.63 | Bronze | FKM | MLE-2800-3800-B-1 |
| 2.875 | 3.875 | 4.000 | 0.354 | 0.63 | Bronze | FKM | MLE-2875-3875-B-1 |
| 2.937 | 3.750 | 3.875 | 0.354 | 0.63 | Bronze | FKM | MLE-2937-3750-B-1 |
| 2.953 | 3.937 | 4.062 | 0.354 | 0.63 | Bronze | FKM | MLE-2953-3937-B-1 |
| 3.000 | 3.750 | 3.875 | 0.354 | 0.63 | Bronze | FKM | MLE-3000-3750-B-1 |
| 3.000 | 4.000 | 4.125 | 0.354 | 0.63 | Bronze | FKM | MLE-3000-4000-B-1 |
| 3.000 | 4.500 | 4.625 | 0.354 | 0.63 | Bronze | FKM | MLE-3000-4500-B-1 |
| 3.125 | 3.875 | 4.000 | 0.354 | 0.63 | Bronze | FKM | MLE-3125-3875-B-1 |
| 3.125 | 4.125 | 4.250 | 0.354 | 0.63 | Bronze | FKM | MLE-3125-4125-B-1 |
| 3.125 | 4.375 | 4.500 | 0.354 | 0.63 | Bronze | FKM | MLE-3125-4375-B-1 |
| 3.150 | 3.937 | 4.062 | 0.354 | 0.63 | Bronze | FKM | MLE-3150-3937-B-1 |
| 3.161 | 4.169 | 4.294 | 0.354 | 0.63 | Bronze | FKM | MLE-3161-4169-B-1 |
| 3.187 | 4.187 | 4.312 | 0.354 | 0.63 | Bronze | FKM | MLE-3187-4187-B-1 |
| 3.187 | 4.250 | 4.375 | 0.354 | 0.63 | Bronze | FKM | MLE-3187-4250-B-1 |
| 3.250 | 4.250 | 4.375 | 0.354 | 0.63 | Bronze | FKM | MLE-3250-4250-B-1 |
| 3.250 | 4.500 | 4.625 | 0.354 | 0.63 | Bronze | FKM | MLE-3250-4500-B-1 |
| 3.358 | 4.335 | 4.460 | 0.354 | 0.63 | Bronze | FKM | MLE-3358-4335-B-1 |
| 3.438 | 4.438 | 4.563 | 0.354 | 0.63 | Bronze | FKM | MLE-3438-4438-B-1 |
| 3.438 | 4.500 | 4.625 | 0.354 | 0.63 | Bronze | FKM | MLE-3438-4500-B-1 |
| 3.500 | 4.500 | 4.625 | 0.354 | 0.63 | Bronze | FKM | MLE-3500-4500-B-1 |
| 3.500 | 4.750 | 4.875 | 0.354 | 0.63 | Bronze | FKM | MLE-3500-4750-B-1 |
| 3.537 | 4.538 | 4.663 | 0.354 | 0.63 | Bronze | FKM | MLE-3537-4538-B-1 |
| 3.625 | 4.625 | 4.750 | 0.354 | 0.63 | Bronze | FKM | MLE-3625-4625-B-1 |
| 3.750 | 4.750 | 4.875 | 0.354 | 0.63 | Bronze | FKM | MLE-3750-4750-B-1 |
| 3.938 | 4.938 | 5.063 | 0.354 | 0.63 | 304 SS | FKM | MLE-3938-4938-S-1 |
| 4.000 | 5.500 | 5.625 | 0.354 | 0.63 | Bronze | FKM | MLE-4000-5500-B-1 |
| 4.125 | 5.125 | 5.250 | 0.354 | 0.63 | Bronze | FKM | MLE-4125-5125-B-1 |
| 5.000 | 6.250 | 6.375 | 0.354 | 0.630 | Bronze | FKM | MLE-5000-6250-B-1 |
| 5.750 | 6.750 | 6.875 | 0.433 | 0.709 | Bronze | FKM | MLE-5750-6750-B-1 |
| 6.250 | 7.503 | 7.628 | 0.433 | 0.709 | Bronze | FKM | MLE-6250-7503-B-1 |
| 5.000 | 6.250 | 6.375 | 0.354 | 0.276 | Bronze | FKM | MLE-5000-6250-B-1 |
| 5.750 | 6.750 | 6.875 | 0.433 | 0.276 | Bronze | FKM | MLE-5750-6750-B-1 |
| 6.250 | 7.503 | 7.628 | 0.433 | 0.276 | Bronze | FKM | MLE-6250-7503-B-1 |

# MLM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 22.2 | 48.2 | 51.4 | 7.0 | 14.0 | Bronze | FKM | MLM-0222-0482-B-1 |
| 24.8 | 52.0 | 55.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0248-0520-B-1 |
| 25.0 | 40.1 | 43.3 | 7.0 | 14.0 | Bronze | FKM | MLM-0250-0401-B-1 |
| 25.0 | 45.0 | 48.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0250-0450-B-1 |
| 28.0 | 44.0 | 47.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0280-0440-B-1 |
| 28.0 | 46.0 | 49.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0280-0460-B-1 |
| 28.0 | 56.0 | 59.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0280-0560-B-1 |
| 30.0 | 40.0 | 43.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0300-0400-B-1 |
| 30.0 | 55.0 | 58.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0300-0550-B-1 |
| 30.0 | 56.0 | 59.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0300-0560-B-1 |
| 32.0 | 52.0 | 55.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0320-0520-B-1 |
| 32.0 | 55.0 | 58.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0320-0550-B-1 |
| 32.0 | 58.0 | 61.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0320-0580-B-1 |
| 33.0 | 50.1 | 53.3 | 7.0 | 14.0 | Bronze | FKM | MLM-0330-0501-B-1 |
| 34.9 | 72.0 | 75.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0349-0720-B-1 |
| 35.0 | 52.0 | 55.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0350-0520-B-1 |
| 35.0 | 55.0 | 58.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0350-0550-B-1 |
| 35.0 | 61.0 | 64.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0350-0610-B-1 |
| 38.0 | 58.0 | 61.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0380-0580-B-1 |
| 38.0 | 64.0 | 67.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0380-0640-B-1 |
| 38.0 | 66.0 | 69.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0380-0660-B-1 |
| 40.0 | 60.0 | 63.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0400-0600-B-1 |
| 40.0 | 62.0 | 65.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0400-0620-B-1 |
| 40.0 | 62.1 | 65.3 | 7.0 | 14.0 | Bronze | FKM | MLM-0400-0621-B-1 |
| 40.0 | 65.0 | 68.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0400-0650-B-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 40.0 | 66.0 | 69.2 | 7.0 | 14.0 | Bronze | FKM | MLM-0400-0660-B-1 |
| 42.0 | 60.0 | 63.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0420-0600-B-1 |
| 42.0 | 68.0 | 71.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0420-0680-B-1 |
| 42.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0420-0700-B-1 |
| 43.0 | 60.1 | 63.3 | 8.0 | 15.0 | Bronze | FKM | MLM-0430-0601-B-1 |
| 44.0 | 65.0 | 68.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0440-0650-B-1 |
| 44.0 | 66.0 | 69.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0440-0660-B-1 |
| 44.5 | 72.9 | 76.1 | 8.0 | 15.0 | Bronze | FKM | MLM-0445-0729-B-1 |
| 45.0 | 60.0 | 63.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0600-B-1 |
| 45.0 | 65.0 | 68.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0650-B-1 |
| 45.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0700-B-1 |
| 45.0 | 71.0 | 74.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0710-B-1 |
| 45.0 | 72.0 | 75.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0720-B-1 |
| 45.0 | 75.0 | 78.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0750-B-1 |
| 45.0 | 78.0 | 81.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0450-0780-B-1 |
| 47.0 | 59.0 | 62.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0470-0590-B-1 |
| 48.0 | 69.8 | 73.0 | 8.0 | 15.0 | Bronze | FKM | MLM-0480-0698-B-1 |
| 48.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0480-0700-B-1 |
| 48.0 | 74.0 | 77.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0480-0740-B-1 |
| 49.0 | 65.0 | 68.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0490-0650-B-1 |
| 49.2 | 75.0 | 78.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0492-0750-B-1 |
| 50.0 | 65.0 | 68.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0650-B-1 |
| 50.0 | 68.0 | 71.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0680-B-1 |
| 50.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0700-B-1 |
| 50.0 | 70.1 | 73.3 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0701-B-1 |
| 50.0 | 72.0 | 75.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0720-B-1 |
| 50.0 | 75.0 | 78.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0750-B-1 |
| 50.0 | 76.0 | 79.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0760-B-1 |
| 50.0 | 80.0 | 83.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0500-0800-B-1 |
| 51.0 | 77.1 | 80.3 | 8.0 | 15.0 | Bronze | FKM | MLM-0510-0771-B-1 |
| 52.0 | 78.0 | 81.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0520-0780-B-1 |
| 54.0 | 72.0 | 75.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0540-0720-B-1 |
| 54.0 | 72.1 | 75.3 | 8.0 | 15.0 | Bronze | FKM | MLM-0540-0721-B-1 |
| 54.0 | 75.0 | 78.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0540-0750-B-1 |
| 54.0 | 80.0 | 83.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0540-0800-B-1 |
| 55.0 | 68.0 | 71.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0680-B-1 |
| 55.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0700-B-1 |
| 55.0 | 72.0 | 75.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0720-B-1 |
| 55.0 | 80.0 | 83.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0800-B-1 |
| 55.0 | 81.0 | 84.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0810-B-1 |
| 55.0 | 82.0 | 85.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0820-B-1 |
| 55.0 | 85.0 | 88.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0850-B-1 |
| 55.0 | 90.0 | 93.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0550-0900-B-1 |
| 57.0 | 69.0 | 72.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0570-0690-B-1 |
| 57.0 | 76.0 | 79.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0570-0760-B-1 |
| 57.0 | 82.0 | 85.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0570-0820-B-1 |
| 57.2 | 73.0 | 76.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0572-0730-B-1 |
| 58.0 | 70.0 | 73.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0580-0700-B-1 |
| 58.0 | 76.0 | 79.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0580-0760-B-1 |
| 60.0 | 72.0 | 75.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0720-B-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 60.0 | 80.0 | 83.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0800-B-1 |
| 60.0 | 82.0 | 85.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0820-B-1 |
| 60.0 | 85.0 | 88.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0850-B-1 |
| 60.0 | 86.0 | 89.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0860-B-1 |
| 60.0 | 90.0 | 93.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0900-B-1 |
| 60.0 | 95.0 | 98.2 | 8.0 | 15.0 | Bronze | FKM | MLM-0600-0950-B-1 |
| 62.0 | 88.0 | 91.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0620-0880-B-1 |
| 65.0 | 85.0 | 88.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0650-0850-B-1 |
| 65.0 | 90.0 | 93.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0650-0900-B-1 |
| 65.0 | 91.0 | 94.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0650-0910-B-1 |
| 65.0 | 92.0 | 95.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0650-0920-B-1 |
| 68.0 | 85.0 | 88.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0680-0850-B-1 |
| 68.0 | 94.0 | 97.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0680-0940-B-1 |
| 69.0 | 95.0 | 98.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0690-0950-B-1 |
| 70.0 | 88.0 | 91.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0700-0880-B-1 |
| 70.0 | 90.0 | 93.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0700-0900-B-1 |
| 70.0 | 91.0 | 94.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0700-0910-B-1 |
| 70.0 | 96.0 | 99.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0700-0960-B-1 |
| 70.0 | 100.0 | 103.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0700-1000-B-1 |
| 70.4 | 96.0 | 99.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0704-0960-B-1 |
| 71.4 | 90.6 | 93.8 | 9.0 | 16.0 | Bronze | FKM | MLM-0714-0906-B-1 |
| 73.0 | 103.0 | 106.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0730-1030-B-1 |
| 75.0 | 91.0 | 94.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-0910-B-1 |
| 75.0 | 96.0 | 99.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-0960-B-13.905 in |
| 75.0 | 100.0 | 103.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-1000-B-1 |
| 75.0 | 101.0 | 104.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-1010-B-1 |
| 75.0 | 105.0 | 108.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-1050-B-1 |
| 75.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0750-1100-B-1 |
| 76.0 | 92.0 | 95.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0760-0920-B-1 |
| 77.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0770-1100-B-1 |
| 78.0 | 105.0 | 108.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0780-1050-B-1 |
| 78.0 | 108.0 | 111.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0780-1080-B-1 |
| 78.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0780-1100-B-1 |
| 79.0 | 105.0 | 108.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0790-1050-B-1 |
| 80.0 | 100.0 | 103.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0800-1000-B-1 |
| 80.0 | 106.0 | 109.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0800-1060-B-1 |
| 80.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0800-1100-B-1 |
| 80.0 | 120.0 | 123.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0800-1200-B-1 |
| 85.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0850-1100-B-1 |
| 85.0 | 111.0 | 114.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0850-1110-B-1 |
| 86.0 | 108.0 | 111.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0860-1080-B-1 |
| 86.0 | 110.0 | 113.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0860-1100-B-1 |
| 88.0 | 113.0 | 116.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0880-1130-B-1 |
| 89.5 | 112.0 | 115.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0895-1120-B-1 |
| 90.0 | 116.0 | 119.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0900-1160-B-1 |
| 90.0 | 130.0 | 133.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0900-1300-B-1 |
| 93.0 | 115.0 | 118.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0930-1150-B-1 |
| 93.0 | 120.0 | 123.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0930-1200-B-1 |
| 95.0 | 121.0 | 124.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0950-1210-B-1 |
| 95.0 | 124.0 | 127.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0950-1240-B-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 95.0 | 125.0 | 128.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0950-1250-B-1 |
| 96.0 | 125.0 | 128.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0960-1250-B-1 |
| 98.0 | 124.0 | 127.2 | 9.0 | 16.0 | Bronze | FKM | MLM-0980-1240-B-1 |
| 100.0 | 126.0 | 129.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1000-1260-B-1 |
| 100.0 | 130.0 | 133.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1000-1300-B-1 |
| 105.0 | 131.0 | 134.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1050-1310-B-1 |
| 108.0 | 148.0 | 151.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1080-1480-B-1 |
| 110.0 | 136.0 | 139.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1100-1360-B-1 |
| 110.0 | 150.0 | 153.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1100-1500-B-1 |
| 115.0 | 141.0 | 144.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1150-1410-B-1 |
| 120.0 | 146.0 | 149.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1200-1460-B-1 |
| 120.0 | 160.0 | 163.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1200-1600-B-1 |
| 122.0 | 155.0 | 158.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1220-1550-B-1 |
| 125.0 | 151.0 | 154.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1250-1510-B-1 |
| 125.0 | 156.0 | 159.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1250-1560-B-1 |
| 125.1 | 150.0 | 153.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1251-1500-B-1 |
| 127.0 | 160.0 | 163.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1270-1600-B-1 |
| 127.4 | 152.0 | 155.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1274-1520-B-1 |
| 130.0 | 155.0 | 158.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1300-1550-B-1 |
| 130.0 | 160.0 | 163.2 | 9.0 | 16.0 | Bronze | FKM | MLM-1300-1600-B-1 |
| 140.0 | 170.0 | 173.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1400-1700-B-1 |
| 140.0 | 171.0 | 174.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1400-1710-B-1 |
| 144.0 | 174.0 | 177.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1440-1740-B-1 |
| 145.0 | 170.0 | 173.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1450-1700-B-1 |
| 145.0 | 175.0 | 178.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1450-1750-B-1 |
| 146.0 | 173.0 | 176.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1460-1730-B-1 |
| 147.0 | 180.0 | 183.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1470-1800-B-1 |
| 150.0 | 175.0 | 178.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1500-1750-B-1 |
| 168.0 | 194.0 | 197.2 | 11.0 | 18.0 | Bronze | FKM | MLM-1680-1940-B-1 |
| 210.0 | 234.0 | 237.2 | 11.0 | 18.0 | Bronze | FKM | MLM-2100-2340-B-1 |

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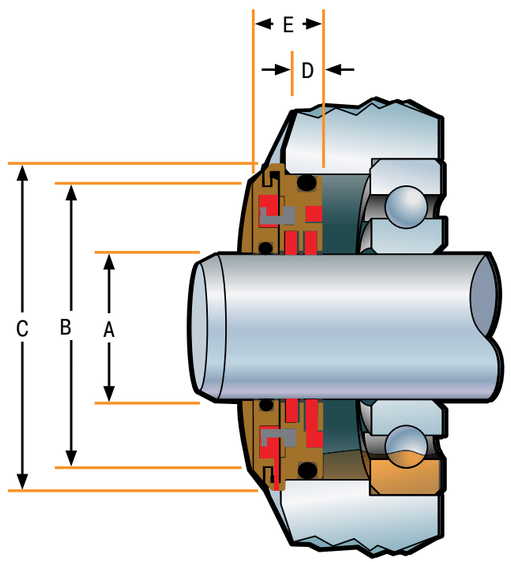
# MNE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 1.000 | 2.000 | 0.551 | Bronze | FKM | MNE-1000-2000-B-1 |
| 1.312 | 2.312 | 0.551 | Bronze | FKM | MNE-1312-2312-B-1 |
| 1.375 | 2.125 | 0.551 | Bronze | FKM | MNE-1375-2125-B-1 |
| 1.375 | 2.375 | 0.551 | Bronze | FKM | MNE-1375-2375-B-1 |
| 1.381 | 2.575 | 0.551 | Bronze | FKM | MNE-1381-2575-B-1 |
| 1.500 | 2.500 | 0.551 | Bronze | FKM | MNE-1500-2500-B-1 |
| 1.750 | 2.750 | 0.591 | Bronze | FKM | MNE-1750-2750-B-1 |
| 2.125 | 2.875 | 0.591 | Bronze | FKM | MNE-2125-2875-B-1 |
| 2.312 | 3.620 | 0.591 | Bronze | FKM | MNE-2312-3620-B-1 |
| 2.500 | 3.250 | 0.630 | Bronze | FKM | MNE-2500-3250-B-1 |
| 2.750 | 3.500 | 0.630 | Bronze | FKM | MNE-2750-3500-B-1 |
| 2.755 | 4.291 | 0.630 | Bronze | FKM | MNE-2755-4291-B-1 |
| 2.756 | 3.780 | 0.630 | Bronze | FKM | MNE-2756-3780-B-1 |
| 2.845 | 3.845 | 0.630 | Bronze | FKM | MNE-2845-3845-B-1 |
| 2.873 | 4.448 | 0.630 | Bronze | FKM | MNE-2873-4448-B-1 |
| 2.938 | 3.938 | 0.630 | Bronze | FKM | MNE-2938-3938-B-1 |
| 3.000 | 4.500 | 0.630 | 304 SS | FKM | MNE-3000-4500-S-1 |
| 3.027 | 3.937 | 0.630 | Bronze | FKM | MNE-3027-3937-B-1 |
| 3.125 | 4.375 | 0.630 | Bronze | FKM | MNE-3125-4375-B-1 |
| 3.250 | 4.275 | 0.630 | Bronze | FKM | MNE-3250-4275-B-1 |
| 3.688 | 4.750 | 0.630 | Bronze | FKM | MNE-3688-4750-B-1 |
| 4.114 | 5.255 | 0.630 | Bronze | FKM | MNE-4114-5255-B-1 |
| 5.000 | 6.000 | 0.630 | Bronze | FKM | MNE-5000-6000-B-1 |
| 5.125 | 6.375 | 0.709 | Bronze | FKM | MNE-5125-6375-B-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 5.500 | 6.500 | 0.709 | Bronze | FKM | MNE-5500-6500-B-1 |
| 5.575 | 6.750 | 0.709 | 304 SS | FKM | MNE-5575-6750-S-1 |

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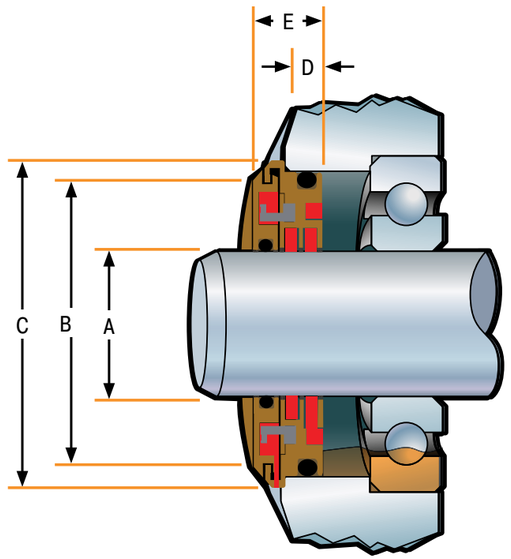
# MNM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 25.0 | 51.0 | 14.0 | Bronze | FKM | MNM-0250-0510-B-1 |
| 30.0 | 56.0 | 14.0 | Bronze | FKM | MNM-0300-0560-B-1 |
| 40.0 | 60.0 | 14.0 | Bronze | FKM | MNM-0400-0600-B-1 |
| 40.0 | 65.0 | 14.0 | Bronze | FKM | MNM-0400-0650-B-1 |
| 42.9 | 71.0 | 15.0 | Bronze | FKM | MNM-0429-0710-B-1 |
| 45.0 | 71.0 | 15.0 | Bronze | FKM | MNM-0450-0710-B-1 |
| 45.0 | 85.0 | 15.0 | Bronze | FKM | MNM-0450-0850-B-1 |
| 48.0 | 70.0 | 15.0 | Bronze | FKM | MNM-0480-0700-B-1 |
| 49.0 | 75.0 | 15.0 | Bronze | FKM | MNM-0490-0750-B-1 |
| 50.0 | 72.0 | 15.0 | Bronze | FKM | MNM-0500-0720-B-1 |
| 50.0 | 76.0 | 15.0 | Bronze | FKM | MNM-0500-0760-B-1 |
| 55.0 | 81.0 | 15.0 | Bronze | FKM | MNM-0550-0810-B-1 |
| 55.0 | 82.0 | 15.0 | Bronze | FKM | MNM-0550-0820-B-1 |
| 56.0 | 82.0 | 15.0 | Bronze | FKM | MNM-0560-0820-B-1 |
| 58.0 | 81.0 | 15.0 | Bronze | FKM | MNM-0580-0810-B-1 |
| 60.0 | 79.0 | 15.0 | Bronze | EPDM | MNM-0600-0790-B-5 |
| 60.0 | 86.0 | 15.0 | Bronze | FKM | MNM-0600-0860-B-1 |
| 60.0 | 90.0 | 15.0 | 304 SS | FKM | MNM-0600-0900-S-1 |
| 60.0 | 93.0 | 15.0 | Bronze | FKM | MNM-0600-0930-B-1 |
| 60.1 | 86.0 | 16.0 | Bronze | FKM | MNM-0601-0860-B-1 |
| 62.0 | 87.3 | 16.0 | Bronze | FKM | MNM-0620-0873-B-1 |
| 64.0 | 88.0 | 16.0 | Bronze | FKM | MNM-0640-0880-B-1 |
| 65.0 | 85.0 | 16.0 | Bronze | FKM | MNM-0650-0850-B-1 |
| 65.0 | 91.0 | 16.0 | Bronze | FKM | MNM-0650-0910-B-1 |
| 65.0 | 92.0 | 16.0 | Bronze | FKM | MNM-0650-0920-B-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 65.0 | 100.0 | 16.0 | Bronze | FKM | MNM-0650-1000-B-1 |
| 67.0 | 92.4 | 16.0 | Bronze | FKM | MNM-0670-0924-B-1 |
| 68.0 | 94.0 | 16.0 | Bronze | FKM | MNM-0680-0940-B-1 |
| 68.0 | 96.0 | 16.0 | Bronze | FKM | MNM-0680-0960-B-1 |
| 69.0 | 109.0 | 16.0 | Bronze | FKM | MNM-0690-1090-B-1 |
| 70.0 | 96.0 | 16.0 | Bronze | FKM | MNM-0700-0960-B-1 |
| 75.0 | 100.0 | 16.0 | Bronze | FKM | MNM-0750-1000-B-1 |
| 75.0 | 101.0 | 16.0 | Bronze | FKM | MNM-0750-1010-B-1 |
| 75.0 | 105.0 | 16.0 | 304 SS | FKM | MNM-0750-1050-S-1 |
| 75.0 | 110.0 | 16.0 | Bronze | FKM | MNM-0750-1100-B-1 |
| 78.0 | 108.0 | 16.0 | Bronze | FKM | MNM-0780-1080-B-1 |
| 80.0 | 100.0 | 16.0 | Bronze | FKM | MNM-0800-1000-B-1 |
| 80.0 | 106.0 | 16.0 | Bronze | FKM | MNM-0800-1060-B-1 |
| 80.0 | 110.0 | 16.0 | Bronze | FKM | MNM-0800-1100-B-1 |
| 81.0 | 108.0 | 16.0 | Bronze | FKM | MNM-0810-1080-B-1 |
| 85.0 | 110.0 | 16.0 | Bronze | FKM | MNM-0850-1100-B-1 |
| 86.0 | 110.0 | 16.0 | Bronze | FKM | MNM-0860-1100-B-1 |
| 90.0 | 115.0 | 16.0 | Bronze | FKM | MNM-0900-1150-B-1 |
| 90.0 | 116.0 | 16.0 | Bronze | FKM | MNM-0900-1160-B-1 |
| 90.0 | 120.0 | 16.0 | Bronze | FKM | MNM-0900-1200-B-1 |
| 90.0 | 120.0 | 16.0 | 304 SS | FKM | MNM-0900-1200-S-1 |
| 95.0 | 117.0 | 16.0 | Bronze | FKM | MNM-0950-1170-B-1 |
| 95.0 | 120.0 | 16.0 | Bronze | FKM | MNM-0950-1200-B-1 |
| 95.0 | 121.0 | 16.0 | Bronze | FKM | MNM-0950-1210-B-1 |
| 96.0 | 128.0 | 16.0 | Bronze | FKM | MNM-0960-1280-B-1 |
| 100.0 | 125.0 | 16.0 | Bronze | FKM | MNM-1000-1250-B-1 |
| 100.0 | 130.0 | 16.0 | Bronze | FKM | MNM-1000-1300-B-1 |
| 105.1 | 130.0 | 16.0 | Bronze | FKM | MNM-1051-1300-B-1 |
| 115.0 | 140.0 | 16.0 | 304 SS | FKM | MNM-1150-1400-S-1 |
| 120.0 | 160.0 | 16.0 | Bronze | FKM | MNM-1200-1600-B-1 |
| 122.5 | 154.0 | 16.0 | Bronze | FKM | MNM-1225-1540-B-1 |
| 140.0 | 166.0 | 18.0 | Bronze | FKM | MNM-1400-1660-B-1 |
| 150.0 | 176.0 | 18.0 | Bronze | FKM | MNM-1500-1760-B-1 |
| 165.0 | 191.0 | 18.0 | Bronze | FKM | MNM-1650-1910-B-1 |
| 200.0 | 240.0 | 18.0 | Bronze | FKM | MNM-2000-2400-B-1 |
| 260.0 | 300.0 | 18.0 | Bronze | FKM | MNM-2600-3000-B-1 |
| 265.0 | 290.0 | 18.0 | Bronze | FKM | MNM-2650-2900-B-1 |

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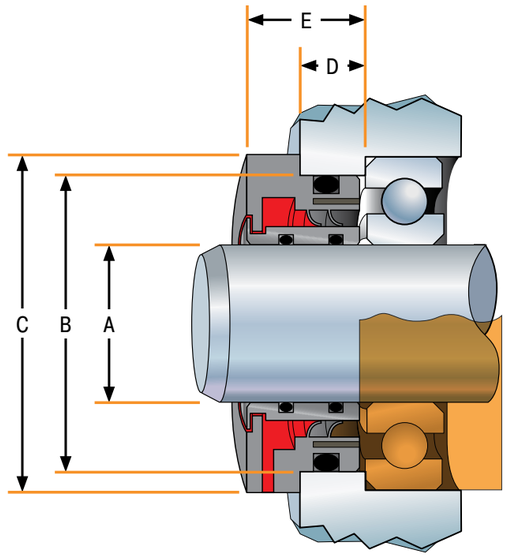
# FSE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 0.625 | 1.500 | 1.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0625-1500-1-1 |
| 0.625 | 1.625 | 1.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0625-1625-1-1 |
| 0.750 | 1.500 | 1.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0750-1500-1-1 |
| 0.750 | 1.875 | 2.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0750-1875-1-1 |
| 0.875 | 1.625 | 1.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0875-1625-1-1 |
| 0.938 | 1.752 | 2.002 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-0938-1752-1-1 |
| 1.000 | 1.750 | 2.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1000-1750-1-1 |
| 1.000 | 2.000 | 2.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1000-2000-1-1 |
| 1.000 | 2.000 | 2.250 | 0.313 | 0.688 | FDA PTFE/304SS | Silicone FDA | FSE-1000-2000-2-6 |
| 1.125 | 1.875 | 2.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-1875-1-1 |
| 1.125 | 2.000 | 2.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2000-1-1 |
| 1.125 | 2.001 | 2.251 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2001-1-1 |
| 1.125 | 2.062 | 2.312 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2062-1-1 |
| 1.125 | 2.125 | 2.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2125-1-1 |
| 1.125 | 2.250 | 2.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2250-1-1 |
| 1.125 | 2.375 | 2.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1125-2375-1-1 |
| 1.188 | 2.250 | 2.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1188-2250-1-1 |
| 1.250 | 2.000 | 2.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1250-2000-1-1 |
| 1.250 | 2.125 | 2.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1250-2125-1-1 |
| 1.250 | 2.250 | 2.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1250-2250-1-1 |
| 1.250 | 2.375 | 2.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1250-2375-1-1 |
| 1.375 | 2.125 | 2.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1375-2125-1-1 |
| 1.375 | 2.375 | 2.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1375-2375-1-1 |
| 1.375 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1375-2625-1-1 |
| 1.375 | 2.835 | 3.085 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1375-2835-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.375 | 2.835 | 3.085 | 0.313 | 0.688 | PTFE/304SS | TFE | FSE-1375-2835-1-4 |
| 1.438 | 2.250 | 2.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1438-2250-1-1 |
| 1.500 | 2.250 | 2.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1500-2250-1-1 |
| 1.500 | 2.500 | 2.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1500-2500-1-1 |
| 1.500 | 2.750 | 3.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1500-2750-1-1 |
| 1.500 | 2.885 | 3.135 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1500-2885-1-1 |
| 1.500 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1500-3000-1-1 |
| 1.562 | 2.375 | 2.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1562-2375-1-1 |
| 1.562 | 2.500 | 2.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1562-2500-1-1 |
| 1.562 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1562-2625-1-1 |
| 1.625 | 2.375 | 2.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1625-2375-1-1 |
| 1.625 | 2.500 | 2.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1625-2500-1-1 |
| 1.625 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1625-2625-1-1 |
| 1.625 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1625-3000-1-1 |
| 1.687 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1687-2625-1-1 |
| 1.688 | 2.438 | 2.688 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1688-2438-1-1 |
| 1.750 | 2.500 | 2.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1750-2500-1-1 |
| 1.750 | 2.600 | 2.850 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1750-2600-1-1 |
| 1.750 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1750-2625-1-1 |
| 1.750 | 2.750 | 3.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1750-2750-1-1 |
| 1.750 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1750-2875-1-1 |
| 1.750 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | TFE | FSE-1750-2875-1-4 |
| 1.875 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1875-2625-1-1 |
| 1.875 | 2.625 | 2.875 | 0.313 | 0.688 | PTFE/304SS | TFE | FSE-1875-2625-1-4 |
| 1.875 | 2.750 | 3.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1875-2750-1-1 |
| 1.875 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1875-2875-1-1 |
| 1.875 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1875-3000-1-1 |
| 1.938 | 2.688 | 2.938 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1938-2688-1-1 |
| 1.938 | 2.750 | 3.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1938-2750-1-1 |
| 1.938 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-1938-2875-1-1 |
| 2.000 | 2.750 | 3.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2000-2750-1-1 |
| 2.000 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2000-3000-1-1 |
| 2.062 | 3.062 | 3.312 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2062-3062-1-1 |
| 2.062 | 3.100 | 3.350 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2062-3100-1-1 |
| 2.125 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2125-2875-1-1 |
| 2.125 | 2.875 | 3.125 | 0.313 | 0.688 | PTFE/304SS | TFE | FSE-2125-2875-1-4 |
| 2.125 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2125-3000-1-1 |
| 2.125 | 3.125 | 3.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2125-3125-1-1 |
| 2.125 | 3.125 | 3.375 | 0.313 | 0.688 | PTFE/304SS | NBR | FSE-2125-3125-1-3 |
| 2.125 | 3.250 | 3.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2125-3250-1-1 |
| 2.125 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2125-3500-1-1 |
| 2.188 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2188-3000-1-1 |
| 2.250 | 3.000 | 3.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2250-3000-1-1 |
| 2.250 | 3.125 | 3.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2250-3125-1-1 |
| 2.250 | 3.250 | 3.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2250-3250-1-1 |
| 2.250 | 3.375 | 3.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2250-3375-1-1 |
| 2.250 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2250-3750-1-1 |
| 2.313 | 3.125 | 3.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2313-3125-1-1 |
| 2.375 | 3.125 | 3.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2375-3125-1-1 |
| 2.375 | 3.250 | 3.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2375-3250-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 2.375 | 3.251 | 3.501 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2375-3251-1-1 |
| 2.375 | 3.375 | 3.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2375-3375-1-1 |
| 2.375 | 3.375 | 3.625 | 0.313 | 0.688 | PTFE/304SS | NBR | FSE-2375-3375-1-3 |
| 2.375 | 3.875 | 4.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2375-3875-1-1 |
| 2.437 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2437-3500-1-1 |
| 2.438 | 3.438 | 3.688 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2438-3438-1-1 |
| 2.438 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2438-3500-1-1 |
| 2.500 | 3.250 | 3.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2500-3250-1-1 |
| 2.500 | 3.250 | 3.500 | 0.313 | 0.688 | PTFE/304SS | TFE | FSE-2500-3250-1-4 |
| 2.500 | 3.375 | 3.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2500-3375-1-1 |
| 2.500 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2500-3500-1-1 |
| 2.500 | 3.625 | 3.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2500-3625-1-1 |
| 2.500 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2500-3750-1-1 |
| 2.625 | 3.375 | 3.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2625-3375-1-1 |
| 2.625 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2625-3500-1-1 |
| 2.625 | 3.625 | 3.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2625-3625-1-1 |
| 2.625 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2625-3750-1-1 |
| 2.625 | 3.875 | 4.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2625-3875-1-1 |
| 2.750 | 3.500 | 3.750 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2750-3500-1-1 |
| 2.750 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2750-3750-1-1 |
| 2.750 | 4.250 | 4.500 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2750-4250-1-1 |
| 2.875 | 3.625 | 3.875 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2875-3625-1-1 |
| 2.875 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2875-3750-1-1 |
| 2.875 | 3.875 | 4.125 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2875-3875-1-1 |
| 2.937 | 4.003 | 4.253 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2937-4003-1-1 |
| 2.938 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2938-3750-1-1 |
| 2.938 | 4.125 | 4.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-2938-4125-1-1 |
| 3.000 | 3.750 | 4.000 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-3000-3750-1-1 |
| 3.000 | 4.000 | 4.250 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-3000-4000-1-1 |
| 3.000 | 4.125 | 4.375 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-3000-4125-1-1 |
| 3.000 | 4.375 | 4.625 | 0.313 | 0.688 | PTFE/304SS | FKM | FSE-3000-4375-1-1 |
| 3.071 | 4.571 | 4.821 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3071-4571-1-1 |
| 3.125 | 4.125 | 4.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3125-4125-1-1 |
| 3.188 | 4.188 | 4.438 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3188-4188-1-1 |
| 3.250 | 4.000 | 4.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3250-4000-1-1 |
| 3.250 | 4.250 | 4.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3250-4250-1-1 |
| 3.250 | 4.375 | 4.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3250-4375-1-1 |
| 3.250 | 4.500 | 4.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3250-4500-1-1 |
| 3.250 | 4.501 | 4.751 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3250-4501-1-1 |
| 3.313 | 4.250 | 4.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3313-4250-1-1 |
| 3.340 | 4.333 | 4.583 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3340-4333-1-1 |
| 3.346 | 4.250 | 4.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3346-4250-1-1 |
| 3.375 | 4.375 | 4.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3375-4375-1-1 |
| 3.500 | 4.250 | 4.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3500-4250-1-1 |
| 3.500 | 4.375 | 4.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3500-4375-1-1 |
| 3.500 | 4.500 | 4.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3500-4500-1-1 |
| 3.500 | 4.625 | 4.875 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3500-4625-1-1 |
| 3.500 | 5.000 | 5.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3500-5000-1-1 |
| 3.625 | 4.375 | 4.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-4375-1-1 |
| 3.625 | 4.500 | 4.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-4500-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 3.625 | 4.625 | 4.875 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-4625-1-1 |
| 3.625 | 4.750 | 5.000 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-4750-1-1 |
| 3.625 | 4.875 | 5.125 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-4875-1-1 |
| 3.625 | 5.000 | 5.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3625-5000-1-1 |
| 3.740 | 4.921 | 5.171 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3740-4921-1-1 |
| 3.750 | 4.750 | 5.000 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3750-4750-1-1 |
| 3.750 | 5.000 | 5.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3750-5000-1-1 |
| 3.875 | 4.875 | 5.125 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3875-4875-1-1 |
| 3.875 | 5.375 | 5.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3875-5375-1-1 |
| 3.937 | 5.375 | 5.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3937-5375-1-1 |
| 3.938 | 4.938 | 5.188 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-3938-4938-1-1 |
| 4.000 | 5.000 | 5.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4000-5000-1-1 |
| 4.000 | 5.001 | 5.251 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4000-5001-1-1 |
| 4.000 | 5.250 | 5.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4000-5250-1-1 |
| 4.125 | 5.125 | 5.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4125-5125-1-1 |
| 4.125 | 5.250 | 5.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4125-5250-1-1 |
| 4.187 | 5.000 | 5.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4187-5000-1-1 |
| 4.187 | 5.250 | 5.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4187-5250-1-1 |
| 4.250 | 5.250 | 5.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4250-5250-1-1 |
| 4.375 | 5.125 | 5.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4375-5125-1-1 |
| 4.375 | 5.500 | 5.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4375-5500-1-1 |
| 4.500 | 5.250 | 5.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4500-5250-1-1 |
| 4.500 | 5.500 | 5.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4500-5500-1-1 |
| 4.500 | 5.750 | 6.000 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4500-5750-1-1 |
| 4.625 | 5.500 | 5.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4625-5500-1-1 |
| 4.625 | 5.625 | 5.875 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4625-5625-1-1 |
| 4.750 | 5.750 | 6.000 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4750-5750-1-1 |
| 4.750 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4750-6250-1-1 |
| 4.875 | 5.875 | 6.125 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4875-5875-1-1 |
| 4.875 | 6.125 | 6.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4875-6125-1-1 |
| 4.875 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4875-6250-1-1 |
| 4.938 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-4938-6250-1-1 |
| 5.000 | 6.000 | 6.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5000-6000-1-1 |
| 5.000 | 6.125 | 6.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5000-6125-1-1 |
| 5.000 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5000-6250-1-1 |
| 5.063 | 6.063 | 6.313 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5063-6063-1-1 |
| 5.125 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5125-6250-1-1 |
| 5.250 | 6.250 | 6.500 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5250-6250-1-1 |
| 5.250 | 6.500 | 6.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5250-6500-1-1 |
| 5.375 | 6.625 | 6.875 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5375-6625-1-1 |
| 5.500 | 6.501 | 6.751 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5500-6501-1-1 |
| 5.500 | 6.751 | 7.001 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5500-6751-1-1 |
| 5.750 | 7.000 | 7.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-5750-7000-1-1 |
| 6.000 | 6.750 | 7.000 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-6000-6750-1-1 |
| 6.000 | 7.000 | 7.250 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-6000-7000-1-1 |
| 6.000 | 7.125 | 7.375 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-6000-7125-1-1 |
| 6.000 | 7.375 | 7.625 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-6000-7375-1-1 |
| 6.000 | 7.500 | 7.750 | 0.375 | 0.75 | PTFE/304SS | FKM | FSE-6000-7500-1-1 |
| 6.000 | 7.500 | 7.750 | 0.375 | 0.375 | PTFE/304SS | FKM | FSE-6000-7500-1-1 |

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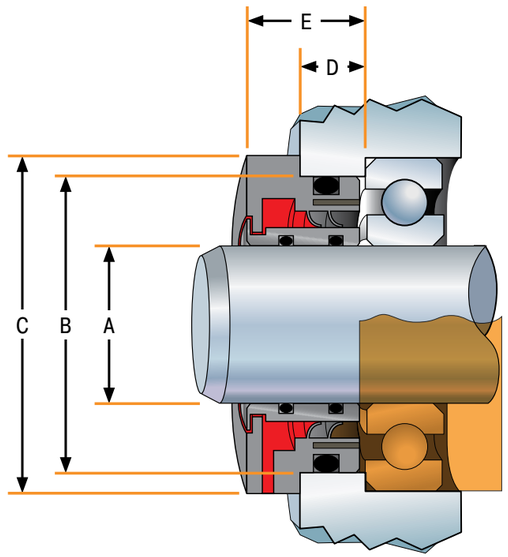
# FSM Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 15.0 | 35.0 | 41.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0150-0350-1-1 |
| 17.0 | 40.0 | 46.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0170-0400-1-1 |
| 22.0 | 45.0 | 51.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0220-0450-1-1 |
| 25.0 | 45.0 | 51.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0250-0450-1-1 |
| 25.0 | 52.0 | 58.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0250-0520-1-1 |
| 25.0 | 52.0 | 58.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0250-0520-2-6 |
| 28.0 | 47.0 | 53.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0280-0470-1-1 |
| 28.0 | 55.0 | 61.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0280-0550-1-1 |
| 30.0 | 50.0 | 56.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0300-0500-1-1 |
| 30.0 | 55.0 | 61.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0300-0550-1-1 |
| 30.0 | 56.0 | 62.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0300-0560-1-1 |
| 30.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0300-0620-1-1 |
| 32.0 | 52.0 | 58.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0320-0520-1-1 |
| 32.0 | 55.0 | 61.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0320-0550-1-1 |
| 32.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0320-0700-1-1 |
| 32.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0320-0720-1-1 |
| 33.0 | 53.0 | 59.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0330-0530-1-1 |
| 33.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0330-0600-1-1 |
| 35.0 | 54.0 | 60.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0540-1-1 |
| 35.0 | 55.0 | 61.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0550-1-1 |
| 35.0 | 61.0 | 67.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0610-1-1 |
| 35.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0620-1-1 |
| 35.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0650-1-1 |
| 35.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0350-0700-1-1 |
| 36.0 | 55.0 | 61.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0360-0550-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 36.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0360-0650-1-1 |
| 38.0 | 57.0 | 63.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0380-0570-1-1 |
| 38.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0380-0600-1-1 |
| 40.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0600-1-1 |
| 40.0 | 60.0 | 66.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0400-0600-2-6 |
| 40.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0620-1-1 |
| 40.0 | 64.0 | 70.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0640-1-1 |
| 40.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0650-1-1 |
| 40.0 | 66.0 | 72.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0660-1-1 |
| 40.0 | 67.0 | 73.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0670-1-1 |
| 40.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0400-0800-1-1 |
| 41.0 | 62.0 | 68.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0410-0620-1-1 |
| 42.0 | 61.0 | 67.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0420-0610-1-1 |
| 42.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0420-0680-1-1 |
| 43.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0430-0680-1-1 |
| 44.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0440-0700-1-1 |
| 45.0 | 64.0 | 70.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0640-1-1 |
| 45.0 | 65.0 | 71.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0650-1-1 |
| 45.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0680-1-1 |
| 45.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0700-1-1 |
| 45.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0450-0700-2-6 |
| 45.0 | 71.0 | 77.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0710-1-1 |
| 45.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0450-0850-1-1 |
| 48.0 | 68.0 | 74.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0480-0680-1-1 |
| 49.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0490-0750-1-1 |
| 50.0 | 69.0 | 75.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0690-1-1 |
| 50.0 | 70.0 | 76.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0700-1-1 |
| 50.0 | 72.0 | 78.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0720-1-1 |
| 50.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0750-1-1 |
| 50.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0760-1-1 |
| 50.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0800-1-1 |
| 50.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0850-1-1 |
| 50.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0500-0900-1-1 |
| 51.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0510-0760-1-1 |
| 54.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0540-0750-1-1 |
| 55.0 | 74.0 | 80.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0740-1-1 |
| 55.0 | 75.0 | 81.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0750-1-1 |
| 55.0 | 77.0 | 83.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0770-1-1 |
| 55.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0780-1-1 |
| 55.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0800-1-1 |
| 55.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0550-0800-2-6 |
| 55.0 | 81.0 | 87.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0810-1-1 |
| 55.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0850-1-1 |
| 55.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0550-0900-1-1 |
| 56.0 | 76.0 | 82.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0560-0760-1-1 |
| 56.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0560-0850-1-1 |
| 58.0 | 78.0 | 84.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0580-0780-1-1 |
| 58.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0580-0800-1-1 |
| 60.0 | 80.0 | 86.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0800-1-1 |
| 60.0 | 82.0 | 88.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0820-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 60.0 | 83.0 | 89.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0830-1-1 |
| 60.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0850-1-1 |
| 60.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0600-0850-2-6 |
| 60.0 | 86.0 | 92.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0860-1-1 |
| 60.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0900-1-1 |
| 60.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-0950-1-1 |
| 60.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0600-1000-1-1 |
| 62.0 | 87.3 | 93.3 | 8.0 | 17.0 | PTFE/304SS | TFE | FSM-0620-0873-1-4 |
| 62.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0620-0900-1-1 |
| 63.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0630-0850-1-1 |
| 63.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0630-0900-1-1 |
| 63.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE FDA /304SS | FKM | FSM-0630-0900-2-1 |
| 63.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0630-1000-1-1 |
| 64.0 | 92.0 | 98.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0640-0920-1-1 |
| 65.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0850-1-1 |
| 65.0 | 85.0 | 91.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0650-0850-2-6 |
| 65.0 | 87.0 | 93.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0870-1-1 |
| 65.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0900-1-1 |
| 65.0 | 91.0 | 97.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0910-1-1 |
| 65.0 | 92.0 | 98.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0920-1-1 |
| 65.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-0950-1-1 |
| 65.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0650-1000-1-1 |
| 67.0 | 92.0 | 98.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0670-0920-1-1 |
| 68.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0680-0900-1-1 |
| 69.8 | 92.0 | 98.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0698-0920-1-1 |
| 69.9 | 92.0 | 98.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0699-0920-1-1 |
| 70.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0700-0900-1-1 |
| 70.0 | 90.0 | 96.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0700-0900-2-6 |
| 70.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0700-0950-1-1 |
| 70.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0700-1000-1-1 |
| 70.0 | 110.0 | 116.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0700-1100-1-1 |
| 70.0 | 110.0 | 116.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0700-1100-2-6 |
| 73.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0730-0950-1-1 |
| 73.0 | 96.0 | 102.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0730-0960-1-1 |
| 73.0 | 98.4 | 104.4 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0730-0984-1-1 |
| 74.0 | 104.0 | 110.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0740-1040-1-1 |
| 75.0 | 95.0 | 101.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0750-0950-1-1 |
| 75.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0750-1000-1-1 |
| 75.0 | 100.0 | 106.0 | 8.0 | 17.0 | PTFE FDA /304SS | Silicone FDA | FSM-0750-1000-2-6 |
| 75.0 | 101.0 | 107.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0750-1010-1-1 |
| 75.0 | 105.0 | 111.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0750-1050-1-1 |
| 75.0 | 108.0 | 114.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0750-1080-1-1 |
| 76.0 | 96.0 | 102.0 | 8.0 | 17.0 | PTFE/304SS | FKM | FSM-0760-0960-1-1 |
| 76.2 | 101.6 | 107.6 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0762-1016-1-1 |
| 77.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0770-1050-1-1 |
| 78.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0780-1000-1-1 |
| 78.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0780-1050-1-1 |
| 80.0 | 100.0 | 106.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0800-1000-1-1 |
| 80.0 | 104.0 | 110.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0800-1040-1-1 |
| 80.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0800-1050-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "C" Flange Dia (Ref.) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 80.0 | 106.0 | 112.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0800-1060-1-1 |
| 80.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0800-1100-1-1 |
| 82.5 | 104.7 | 110.7 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0825-1047-1-1 |
| 85.0 | 105.0 | 111.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0850-1050-1-1 |
| 85.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0850-1100-1-1 |
| 85.0 | 111.0 | 117.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0850-1110-1-1 |
| 85.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0850-1150-1-1 |
| 85.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0850-1250-1-1 |
| 86.0 | 114.0 | 120.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0860-1140-1-1 |
| 88.9 | 107.9 | 113.9 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0889-1079-1-1 |
| 90.0 | 110.0 | 116.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0900-1100-1-1 |
| 90.0 | 116.0 | 122.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0900-1160-1-1 |
| 90.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0900-1200-1-1 |
| 90.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0900-1300-1-1 |
| 93.5 | 120.6 | 126.6 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0935-1206-1-1 |
| 94.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0940-1250-1-1 |
| 95.0 | 115.0 | 121.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0950-1150-1-1 |
| 95.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0950-1200-1-1 |
| 95.0 | 122.0 | 128.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0950-1220-1-1 |
| 95.0 | 125.0 | 131.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-0950-1250-1-1 |
| 100.0 | 120.0 | 126.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1000-1200-1-1 |
| 100.0 | 126.0 | 132.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1000-1260-1-1 |
| 100.0 | 127.0 | 133.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1000-1270-1-1 |
| 100.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1000-1300-1-1 |
| 100.0 | 137.0 | 143.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1000-1370-1-1 |
| 105.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1050-1300-1-1 |
| 108.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1080-1400-1-1 |
| 110.0 | 130.0 | 136.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1100-1300-1-1 |
| 110.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1100-1400-1-1 |
| 112.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1120-1500-1-1 |
| 114.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1140-1400-1-1 |
| 114.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1140-1500-1-1 |
| 115.0 | 140.0 | 146.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1150-1400-1-1 |
| 115.0 | 145.0 | 151.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1150-1450-1-1 |
| 116.0 | 141.0 | 147.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1160-1410-1-1 |
| 120.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1200-1500-1-1 |
| 120.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1200-1600-1-1 |
| 122.0 | 155.0 | 161.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1220-1550-1-1 |
| 125.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1250-1500-1-1 |
| 125.0 | 155.0 | 161.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1250-1550-1-1 |
| 130.0 | 150.0 | 156.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1300-1500-1-1 |
| 130.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1300-1600-1-1 |
| 133.0 | 160.0 | 166.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1330-1600-1-1 |
| 135.0 | 165.0 | 171.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1350-1650-1-1 |
| 135.0 | 170.0 | 176.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1350-1700-1-1 |
| 138.0 | 170.0 | 176.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1380-1700-1-1 |
| 140.0 | 170.0 | 176.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1400-1700-1-1 |
| 145.0 | 175.0 | 181.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1450-1750-1-1 |
| 146.0 | 172.0 | 178.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1460-1720-1-1 |
| 150.0 | 180.0 | 186.0 | 9.0 | 18.0 | PTFE/304SS | FKM | FSM-1500-1800-1-1 |

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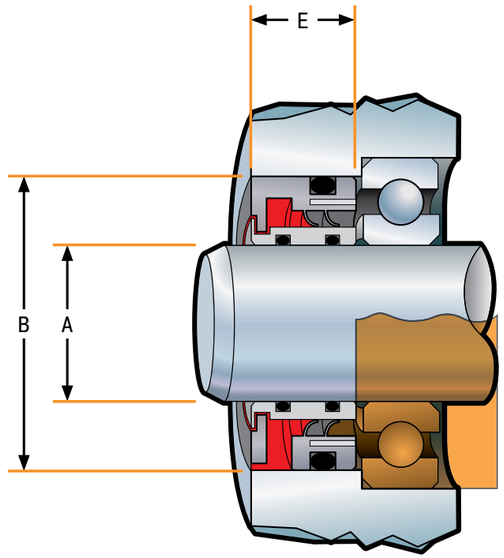
# FNE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 0.625 | 1.375 | 0.591 | PTFE/304SS | FKM | FNE-0625-1375-1-1 |
| 0.625 | 1.375 | 0.591 | PTFE FDA/304SS | Silicone FDA | FNE-0625-1375-2-6 |
| 0.875 | 1.625 | 0.591 | PTFE/304SS | FKM | FNE-0875-1625-1-1 |
| 0.875 | 2.000 | 0.591 | PTFE/304SS | FKM | FNE-0875-2000-1-1 |
| 1.000 | 1.750 | 0.591 | PTFE/304SS | FKM | FNE-1000-1750-1-1 |
| 1.000 | 2.000 | 0.591 | PTFE FDA/304SS | Silicone FDA | FNE-1000-2000-2-6 |
| 1.000 | 2.062 | 0.591 | PTFE/304SS | EPDM | FNE-1000-2062-1-5 |
| 1.000 | 2.500 | 0.591 | PTFE/304SS | FKM | FNE-1000-2500-1-1 |
| 1.125 | 1.875 | 0.591 | PTFE/304SS | FKM | FNE-1125-1875-1-1 |
| 1.125 | 2.000 | 0.591 | PTFE/304SS | FKM | FNE-1125-2000-1-1 |
| 1.125 | 2.063 | 0.591 | PTFE/304SS | FKM | FNE-1125-2063-1-1 |
| 1.125 | 2.125 | 0.591 | PTFE/304SS | FKM | FNE-1125-2125-1-1 |
| 1.125 | 2.250 | 0.591 | PTFE/304SS | FKM | FNE-1125-2250-1-1 |
| 1.125 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1125-2375-1-1 |
| 1.250 | 2.000 | 0.591 | PTFE/304SS | FKM | FNE-1250-2000-1-1 |
| 1.250 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1250-2375-1-1 |
| 1.375 | 2.125 | 0.591 | PTFE/304SS | FKM | FNE-1375-2125-1-1 |
| 1.375 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1375-2375-1-1 |
| 1.375 | 2.625 | 0.591 | PTFE/304SS | FKM | FNE-1375-2625-1-1 |
| 1.437 | 2.500 | 0.591 | PTFE/304SS | FKM | FNE-1437-2500-1-1 |
| 1.500 | 2.250 | 0.591 | PTFE/304SS | FKM | FNE-1500-2250-1-1 |
| 1.500 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1500-2375-1-1 |
| 1.500 | 2.500 | 0.591 | PTFE/304SS | FKM | FNE-1500-2500-1-1 |
| 1.500 | 2.750 | 0.591 | PTFE/304SS | FKM | FNE-1500-2750-1-1 |
| 1.500 | 3.000 | 0.591 | PTFE/304SS | NBR | FNE-1500-3000-1-3 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 1.563 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1563-2375-1-1 |
| 1.625 | 2.375 | 0.591 | PTFE/304SS | FKM | FNE-1625-2375-1-1 |
| 1.625 | 2.438 | 0.591 | PTFE/304SS | EPDM | FNE-1625-2438-1-5 |
| 1.625 | 2.500 | 0.591 | PTFE/304SS | FKM | FNE-1625-2500-1-1 |
| 1.625 | 2.575 | 0.591 | PTFE/304SS | FKM | FNE-1625-2575-1-1 |
| 1.625 | 2.625 | 0.591 | PTFE/304SS | FKM | FNE-1625-2625-1-1 |
| 1.687 | 2.660 | 0.591 | PTFE/304SS | FKM | FNE-1687-2660-1-1 |
| 1.750 | 2.500 | 0.591 | PTFE/304SS | FKM | FNE-1750-2500-1-1 |
| 1.750 | 2.750 | 0.591 | PTFE/304SS | FKM | FNE-1750-2750-1-1 |
| 1.750 | 2.875 | 0.591 | PTFE/304SS | FKM | FNE-1750-2875-1-1 |
| 1.772 | 2.750 | 0.591 | PTFE/304SS | FKM | FNE-1772-2750-1-1 |
| 1.875 | 2.625 | 0.591 | PTFE/304SS | FKM | FNE-1875-2625-1-1 |
| 1.875 | 2.750 | 0.591 | PTFE/304SS | FKM | FNE-1875-2750-1-1 |
| 1.875 | 2.875 | 0.591 | PTFE/304SS | FKM | FNE-1875-2875-1-1 |
| 1.875 | 3.000 | 0.591 | PTFE/304SS | FKM | FNE-1875-3000-1-1 |
| 1.938 | 3.000 | 0.591 | PTFE/304SS | FKM | FNE-1938-3000-1-1 |
| 1.938 | 3.250 | 0.591 | PTFE/304SS | FKM | FNE-1938-3250-1-1 |
| 2.000 | 2.750 | 0.591 | PTFE/304SS | FKM | FNE-2000-2750-1-1 |
| 2.000 | 3.000 | 0.591 | PTFE/304SS | FKM | FNE-2000-3000-1-1 |
| 2.000 | 3.063 | 0.591 | PTFE/304SS | EPDM | FNE-2000-3063-1-5 |
| 2.000 | 3.500 | 0.591 | PTFE/304SS | NBR | FNE-2000-3500-1-3 |
| 2.125 | 2.875 | 0.591 | PTFE/304SS | FKM | FNE-2125-2875-1-1 |
| 2.125 | 3.125 | 0.591 | PTFE/304SS | FKM | FNE-2125-3125-1-1 |
| 2.125 | 3.625 | 0.591 | PTFE/304SS | FKM | FNE-2125-3625-1-1 |
| 2.188 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2188-3500-1-1 |
| 2.250 | 3.000 | 0.591 | PTFE/304SS | FKM | FNE-2250-3000-1-1 |
| 2.250 | 3.250 | 0.591 | PTFE/304SS | FKM | FNE-2250-3250-1-1 |
| 2.250 | 3.250 | 0.591 | PTFE/304SS | NBR | FNE-2250-3250-1-3 |
| 2.250 | 3.375 | 0.591 | PTFE/304SS | NBR | FNE-2250-3375-1-3 |
| 2.250 | 3.750 | 0.591 | PTFE/304SS | FKM | FNE-2250-3750-1-1 |
| 2.360 | 3.250 | 0.591 | PTFE/304SS | FKM | FNE-2360-3250-1-1 |
| 2.375 | 3.125 | 0.591 | PTFE/304SS | FKM | FNE-2375-3125-1-1 |
| 2.375 | 3.250 | 0.591 | PTFE/304SS | FKM | FNE-2375-3250-1-1 |
| 2.375 | 3.375 | 0.591 | PTFE/304SS | FKM | FNE-2375-3375-1-1 |
| 2.375 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2375-3500-1-1 |
| 2.375 | 3.625 | 0.591 | PTFE/304SS | FKM | FNE-2375-3625-1-1 |
| 2.438 | 3.438 | 0.591 | PTFE/304SS | FKM | FNE-2438-3438-1-1 |
| 2.438 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2438-3500-1-1 |
| 2.500 | 3.250 | 0.591 | PTFE/304SS | FKM | FNE-2500-3250-1-1 |
| 2.500 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2500-3500-1-1 |
| 2.500 | 3.625 | 0.591 | PTFE/304SS | FKM | FNE-2500-3625-1-1 |
| 2.500 | 4.000 | 0.591 | PTFE/304SS | FKM | FNE-2500-4000-1-1 |
| 2.625 | 3.375 | 0.591 | PTFE/304SS | FKM | FNE-2625-3375-1-1 |
| 2.625 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2625-3500-1-1 |
| 2.625 | 3.625 | 0.591 | PTFE/304SS | FKM | FNE-2625-3625-1-1 |
| 2.625 | 3.750 | 0.591 | PTFE/304SS | FKM | FNE-2625-3750-1-1 |
| 2.625 | 4.125 | 0.591 | PTFE/304SS | FKM | FNE-2625-4125-1-1 |
| 2.750 | 3.500 | 0.591 | PTFE/304SS | FKM | FNE-2750-3500-1-1 |
| 2.750 | 3.750 | 0.591 | PTFE/304SS | FKM | FNE-2750-3750-1-1 |
| 2.751 | 4.000 | 0.591 | PTFE/304SS | FKM | FNE-2751-4000-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 2.875 | 3.750 | 0.591 | PTFE/304SS | FKM | FNE-2875-3750-1-1 |
| 2.875 | 3.875 | 0.591 | PTFE/304SS | FKM | FNE-2875-3875-1-1 |
| 3.000 | 3.750 | 0.591 | PTFE/304SS | FKM | FNE-3000-3750-1-1 |
| 3.000 | 4.000 | 0.591 | PTFE/304SS | FKM | FNE-3000-4000-1-1 |
| 3.000 | 4.125 | 0.591 | PTFE/304SS | FKM | FNE-3000-4125-1-1 |
| 3.000 | 4.250 | 0.591 | PTFE/304SS | FKM | FNE-3000-4250-1-1 |
| 3.000 | 4.375 | 0.591 | PTFE/304SS | FKM | FNE-3000-4375-1-1 |
| 3.000 | 4.500 | 0.591 | PTFE/304SS | NBR | FNE-3000-4500-1-3 |
| 3.125 | 3.875 | 0.591 | PTFE/304SS | FKM | FNE-3125-3875-1-1 |
| 3.125 | 4.125 | 0.591 | PTFE/304SS | FKM | FNE-3125-4125-1-1 |
| 3.125 | 4.250 | 0.591 | PTFE/304SS | FKM | FNE-3125-4250-1-1 |
| 3.125 | 4.625 | 0.591 | PTFE/304SS | FKM | FNE-3125-4625-1-1 |
| 3.250 | 4.000 | 0.591 | PTFE/304SS | FKM | FNE-3250-4000-1-1 |
| 3.250 | 4.250 | 0.591 | PTFE/304SS | FKM | FNE-3250-4250-1-1 |
| 3.250 | 4.500 | 0.591 | PTFE/304SS | FKM | FNE-3250-4500-1-1 |
| 3.375 | 4.250 | 0.591 | PTFE/304SS | FKM | FNE-3375-4250-1-1 |
| 3.375 | 4.375 | 0.591 | PTFE/304SS | FKM | FNE-3375-4375-1-1 |
| 3.375 | 4.875 | 0.591 | PTFE/304SS | FKM | FNE-3375-4875-1-1 |
| 3.500 | 4.250 | 0.591 | PTFE/304SS | FKM | FNE-3500-4250-1-1 |
| 3.500 | 4.375 | 0.591 | PTFE/304SS | FKM | FNE-3500-4375-1-1 |
| 3.500 | 4.496 | 0.591 | PTFE/304SS | FKM | FNE-3500-4496-1-1 |
| 3.500 | 4.500 | 0.591 | PTFE/304SS | FKM | FNE-3500-4500-1-1 |
| 3.500 | 4.750 | 0.591 | PTFE/304SS | FKM | FNE-3500-4750-1-1 |
| 3.500 | 5.000 | 0.591 | PTFE/304SS | FKM | FNE-3500-5000-1-1 |
| 3.500 | 5.000 | 0.591 | PTFE/304SS | NBR | FNE-3500-5000-1-3 |
| 3.625 | 4.375 | 0.591 | PTFE/304SS | FKM | FNE-3625-4375-1-1 |
| 3.625 | 4.500 | 0.591 | PTFE/304SS | FKM | FNE-3625-4500-1-1 |
| 3.625 | 4.625 | 0.591 | PTFE/304SS | FKM | FNE-3625-4625-1-1 |
| 3.625 | 5.000 | 0.591 | PTFE/304SS | FKM | FNE-3625-5000-1-1 |
| 3.625 | 5.062 | 0.591 | PTFE/304SS | FKM | FNE-3625-5062-1-1 |
| 3.750 | 4.750 | 0.591 | PTFE/304SS | FKM | FNE-3750-4750-1-1 |
| 3.750 | 5.000 | 0.591 | PTFE/304SS | FKM | FNE-3750-5000-1-1 |
| 3.810 | 4.750 | 0.591 | PTFE/304SS | FKM | FNE-3810-4750-1-1 |
| 3.875 | 5.375 | 0.591 | PTFE/304SS | FKM | FNE-3875-5375-1-1 |
| 4.000 | 4.875 | 0.591 | PTFE/304SS | FKM | FNE-4000-4875-1-1 |
| 4.000 | 5.000 | 0.591 | PTFE/304SS | FKM | FNE-4000-5000-1-1 |
| 4.000 | 5.500 | 0.591 | PTFE/304SS | FKM | FNE-4000-5500-1-1 |
| 4.125 | 5.125 | 0.591 | PTFE/304SS | FKM | FNE-4125-5125-1-1 |
| 4.125 | 5.500 | 0.591 | PTFE/304SS | FKM | FNE-4125-5500-1-1 |
| 4.250 | 5.250 | 0.591 | PTFE/304SS | FKM | FNE-4250-5250-1-1 |
| 4.250 | 5.500 | 0.591 | PTFE/304SS | FKM | FNE-4250-5500-1-1 |
| 4.250 | 5.500 | 0.591 | PTFE/304SS | NBR | FNE-4250-5500-1-3 |
| 4.375 | 5.250 | 0.591 | PTFE/304SS | FKM | FNE-4375-5250-1-1 |
| 4.375 | 5.375 | 0.591 | PTFE/304SS | FKM | FNE-4375-5375-1-1 |
| 4.375 | 5.500 | 0.591 | PTFE/304SS | FKM | FNE-4375-5500-1-1 |
| 4.380 | 5.250 | 0.591 | PTFE/304SS | FKM | FNE-4380-5250-1-1 |
| 4.500 | 5.500 | 0.591 | PTFE/304SS | FKM | FNE-4500-5500-1-1 |
| 4.500 | 5.500 | 0.591 | PTFE/304SS | EPDM | FNE-4500-5500-1-5 |
| 4.500 | 5.750 | 0.591 | PTFE/304SS | FKM | FNE-4500-5750-1-1 |
| 4.500 | 6.000 | 0.591 | PTFE/304SS | FKM | FNE-4500-6000-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 4.625 | 5.625 | 0.591 | PTFE/304SS | FKM | FNE-4625-5625-1-1 |
| 4.625 | 5.750 | 0.591 | PTFE/304SS | FKM | FNE-4625-5750-1-1 |
| 4.720 | 5.900 | 0.591 | PTFE/304SS | FKM | FNE-4720-5900-1-1 |
| 4.750 | 5.750 | 0.591 | PTFE/304SS | FKM | FNE-4750-5750-1-1 |
| 4.750 | 6.250 | 0.591 | PTFE/304SS | FKM | FNE-4750-6250-1-1 |
| 4.875 | 5.875 | 0.591 | PTFE/304SS | FKM | FNE-4875-5875-1-1 |
| 4.875 | 6.125 | 0.591 | PTFE/304SS | FKM | FNE-4875-6125-1-1 |
| 5.000 | 6.000 | 0.591 | PTFE/304SS | FKM | FNE-5000-6000-1-1 |
| 5.000 | 6.250 | 0.591 | PTFE/304SS | FKM | FNE-5000-6250-1-1 |
| 5.000 | 6.500 | 0.591 | PTFE/304SS | FKM | FNE-5000-6500-1-1 |
| 5.000 | 6.500 | 0.591 | PTFE/304SS | NBR | FNE-5000-6500-1-3 |
| 5.187 | 6.250 | 0.591 | PTFE/304SS | FKM | FNE-5187-6250-1-1 |
| 5.250 | 6.000 | 0.591 | PTFE/304SS | EPDM | FNE-5250-6000-1-5 |
| 5.250 | 6.250 | 0.591 | PTFE/304SS | FKM | FNE-5250-6250-1-1 |
| 5.250 | 6.375 | 0.591 | PTFE/304SS | FKM | FNE-5250-6375-1-1 |
| 5.250 | 6.500 | 0.591 | PTFE/304SS | FKM | FNE-5250-6500-1-1 |
| 5.250 | 6.750 | 0.591 | PTFE/304SS | FKM | FNE-5250-6750-1-1 |
| 5.375 | 6.500 | 0.591 | PTFE/304SS | FKM | FNE-5375-6500-1-1 |
| 5.375 | 6.875 | 0.591 | PTFE/304SS | NBR | FNE-5375-6875-1-3 |
| 5.500 | 6.750 | 0.591 | PTFE/304SS | FKM | FNE-5500-6750-1-1 |
| 5.750 | 6.500 | 0.591 | PTFE/304SS | FKM | FNE-5750-6500-1-1 |

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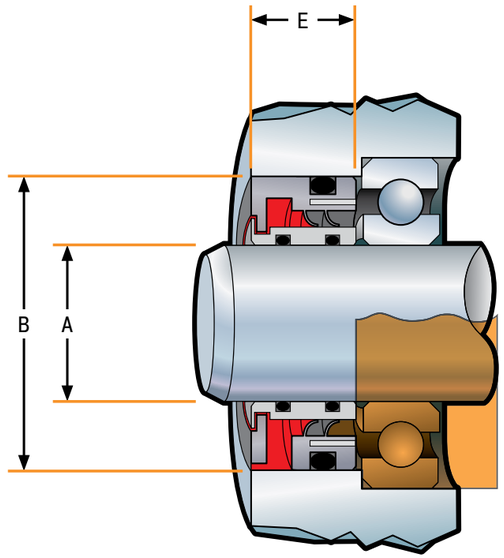
# FNM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 20.0 | 52.0 | 15.0 | PTFE/304SS | FKM | FNM-0200-0520-1-1 |
| 22.0 | 45.0 | 15.0 | PTFE/304SS | FKM | FNM-0220-0450-1-1 |
| 22.0 | 50.0 | 15.0 | PTFE/304SS | FKM | FNM-0220-0500-1-1 |
| 25.0 | 45.0 | 15.0 | PTFE/304SS | FKM | FNM-0250-0450-1-1 |
| 25.0 | 52.0 | 15.0 | PTFE/304SS | EPDM | FNM-0250-0520-1-5 |
| 30.0 | 50.0 | 15.0 | PTFE/304SS | FKM | FNM-0300-0500-1-1 |
| 30.0 | 50.0 | 15.0 | PTFE/304SS | EPDM | FNM-0300-0500-1-5 |
| 30.0 | 50.0 | 15.0 | PTFE FDA/304SS | EPDM | FNM-0300-0500-2-5 |
| 30.0 | 52.0 | 15.0 | PTFE FDA/304SS | SILICONE FDA | FNM-0300-0520-2-6 |
| 30.0 | 55.0 | 15.0 | PTFE/304SS | FKM | FNM-0300-0550-1-1 |
| 30.0 | 62.0 | 15.0 | PTFE/304SS | FKM | FNM-0300-0620-1-1 |
| 30.0 | 62.0 | 15.0 | PTFE FDA/304SS | SILICONE FDA | FNM-0300-0620-2-6 |
| 32.0 | 52.0 | 15.0 | PTFE/304SS | FKM | FNM-0320-0520-1-1 |
| 32.0 | 54.0 | 15.0 | PTFE/304SS | FKM | FNM-0320-0540-1-1 |
| 32.0 | 55.0 | 15.0 | PTFE/304SS | FKM | FNM-0320-0550-1-1 |
| 35.0 | 55.0 | 15.0 | PTFE/304SS | FKM | FNM-0350-0550-1-1 |
| 35.0 | 60.0 | 15.0 | PTFE/304SS | FKM | FNM-0350-0600-1-1 |
| 35.0 | 61.0 | 15.0 | PTFE/304SS | FKM | FNM-0350-0610-1-1 |
| 35.0 | 62.0 | 15.0 | PTFE/304SS | FKM | FNM-0350-0620-1-1 |
| 35.0 | 65.0 | 15.0 | PTFE/304SS | FKM | FNM-0350-0650-1-1 |
| 36.5 | 57.0 | 15.0 | PTFE/304SS | FKM | FNM-0365-0570-1-1 |
| 38.0 | 62.0 | 15.0 | PTFE FDA/304SS | SILICONE FDA | FNM-0380-0620-2-6 |
| 38.0 | 70.0 | 15.0 | PTFE/304SS | FKM | FNM-0380-0700-1-1 |
| 40.0 | 60.0 | 15.0 | PTFE/304SS | FKM | FNM-0400-0600-1-1 |
| 40.0 | 62.0 | 15.0 | PTFE/304SS | FKM | FNM-0400-0620-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 40.0 | 65.0 | 15.0 | PTFE/304SS | FKM | FNM-0400-0650-1-1 |
| 40.0 | 70.0 | 15.0 | PTFE FDA/304SS | EPDM | FNM-0400-0700-2-5 |
| 40.0 | 72.0 | 15.0 | PTFE/304SS | EPDM | FNM-0400-0720-1-5 |
| 40.0 | 80.0 | 15.0 | PTFE/304SS | FKM | FNM-0400-0800-1-1 |
| 42.0 | 65.0 | 15.0 | PTFE/304SS | FKM | FNM-0420-0650-1-1 |
| 44.0 | 63.0 | 15.0 | PTFE/304SS | FKM | FNM-0440-0630-1-1 |
| 45.0 | 64.0 | 15.0 | PTFE/304SS | FKM | FNM-0450-0640-1-1 |
| 45.0 | 65.0 | 15.0 | PTFE/304SS | FKM | FNM-0450-0650-1-1 |
| 45.0 | 70.0 | 15.0 | PTFE/304SS | FKM | FNM-0450-0700-1-1 |
| 45.0 | 71.0 | 15.0 | PTFE/304SS | FKM | FNM-0450-0710-1-1 |
| 45.0 | 75.0 | 15.0 | PTFE/304SS | FKM | FNM-0450-0750-1-1 |
| 46.0 | 70.0 | 15.0 | PTFE FDA/304SS | SILICONE FDA | FNM-0460-0700-2-6 |
| 48.0 | 70.0 | 15.0 | PTFE/304SS | FKM | FNM-0480-0700-1-1 |
| 50.0 | 70.0 | 15.0 | PTFE/304SS | FKM | FNM-0500-0700-1-1 |
| 50.0 | 72.0 | 15.0 | PTFE/304SS | FKM | FNM-0500-0720-1-1 |
| 50.0 | 74.6 | 15.0 | PTFE/304SS | FKM | FNM-0500-0746-1-1 |
| 50.0 | 75.0 | 15.0 | PTFE/304SS | FKM | FNM-0500-0750-1-1 |
| 50.0 | 80.0 | 15.0 | PTFE/304SS | FKM | FNM-0500-0800-1-1 |
| 50.0 | 86.0 | 15.0 | PTFE/304SS | FKM | FNM-0500-0860-1-1 |
| 52.0 | 72.0 | 15.0 | PTFE/304SS | FKM | FNM-0520-0720-1-1 |
| 55.0 | 75.0 | 15.0 | PTFE/304SS | FKM | FNM-0550-0750-1-1 |
| 55.0 | 75.0 | 15.0 | PTFE/304SS | EPDM | FNM-0550-0750-1-5 |
| 55.0 | 78.0 | 15.0 | PTFE/304SS | FKM | FNM-0550-0780-1-1 |
| 55.0 | 80.0 | 15.0 | PTFE/304SS | FKM | FNM-0550-0800-1-1 |
| 55.0 | 86.0 | 15.0 | PTFE/304SS | FKM | FNM-0550-0860-1-1 |
| 55.0 | 90.0 | 15.0 | PTFE/304SS | FKM | FNM-0550-0900-1-1 |
| 56.0 | 85.0 | 15.0 | PTFE/304SS | FKM | FNM-0560-0850-1-1 |
| 57.2 | 90.0 | 15.0 | PTFE/304SS | FKM | FNM-0572-0900-1-1 |
| 58.0 | 78.0 | 15.0 | PTFE/304SS | FKM | FNM-0580-0780-1-1 |
| 60.0 | 80.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-0800-1-1 |
| 60.0 | 85.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-0850-1-1 |
| 60.0 | 86.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-0860-1-1 |
| 60.0 | 90.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-0900-1-1 |
| 60.0 | 95.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-0950-1-1 |
| 60.0 | 100.0 | 15.0 | PTFE/304SS | FKM | FNM-0600-1000-1-1 |
| 63.0 | 85.0 | 15.0 | PTFE/304SS | FKM | FNM-0630-0850-1-1 |
| 65.0 | 85.0 | 15.0 | PTFE/304SS | FKM | FNM-0650-0850-1-1 |
| 65.0 | 90.0 | 15.0 | PTFE/304SS | FKM | FNM-0650-0900-1-1 |
| 65.0 | 92.0 | 15.0 | PTFE/304SS | FKM | FNM-0650-0920-1-1 |
| 65.0 | 94.8 | 15.0 | PTFE/304SS | FKM | FNM-0650-0948-1-1 |
| 65.0 | 100.0 | 15.0 | PTFE/304SS | FKM | FNM-0650-1000-1-1 |
| 70.0 | 90.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-0900-1-1 |
| 70.0 | 95.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-0950-1-1 |
| 70.0 | 96.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-0960-1-1 |
| 70.0 | 98.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-0980-1-1 |
| 70.0 | 100.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-1000-1-1 |
| 70.0 | 101.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-1010-1-1 |
| 70.0 | 110.0 | 15.0 | PTFE/304SS | FKM | FNM-0700-1100-1-1 |
| 70.0 | 110.0 | 15.0 | PTFE/304SS | EPDM | FNM-0700-1100-1-5 |
| 75.0 | 95.0 | 15.0 | PTFE/304SS | FKM | FNM-0750-0950-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 75.0 | 100.0 | 15.0 | PTFE/304SS | FKM | FNM-0750-1000-1-1 |
| 75.0 | 110.0 | 15.0 | PTFE/304SS | FKM | FNM-0750-1100-1-1 |
| 76.8 | 101.8 | 15.0 | PTFE/304SS | FKM | FNM-0768-1018-1-1 |
| 79.5 | 105.0 | 15.0 | PTFE/304SS | FKM | FNM-0795-1050-1-1 |
| 80.0 | 100.0 | 15.0 | PTFE/304SS | FKM | FNM-0800-1000-1-1 |
| 80.0 | 105.0 | 15.0 | PTFE/304SS | FKM | FNM-0800-1050-1-1 |
| 80.0 | 110.0 | 15.0 | PTFE/304SS | FKM | FNM-0800-1100-1-1 |
| 80.0 | 115.0 | 15.0 | PTFE/304SS | FKM | FNM-0800-1150-1-1 |
| 80.0 | 120.0 | 15.0 | PTFE/304SS | FKM | FNM-0800-1200-1-1 |
| 85.0 | 105.0 | 15.0 | PTFE/304SS | FKM | FNM-0850-1050-1-1 |
| 85.0 | 110.0 | 15.0 | PTFE/304SS | FKM | FNM-0850-1100-1-1 |
| 86.0 | 105.0 | 15.0 | PTFE/304SS | FKM | FNM-0860-1050-1-1 |
| 90.0 | 110.0 | 15.0 | PTFE/304SS | FKM | FNM-0900-1100-1-1 |
| 90.0 | 110.0 | 15.0 | PTFE/304SS | NBR | FNM-0900-1100-1-3 |
| 90.0 | 111.1 | 15.0 | PTFE/304SS | FKM | FNM-0900-1111-1-1 |
| 90.0 | 115.0 | 15.0 | PTFE/304SS | FKM | FNM-0900-1150-1-1 |
| 90.0 | 120.0 | 15.0 | PTFE/304SS | FKM | FNM-0900-1200-1-1 |
| 90.0 | 130.0 | 15.0 | PTFE/304SS | FKM | FNM-0900-1300-1-1 |
| 95.0 | 120.0 | 15.0 | PTFE/304SS | FKM | FNM-0950-1200-1-1 |
| 95.0 | 122.0 | 15.0 | PTFE/304SS | FKM | FNM-0950-1220-1-1 |
| 95.0 | 125.0 | 15.0 | PTFE/304SS | FKM | FNM-0950-1250-1-1 |
| 95.0 | 132.0 | 15.0 | PTFE/304SS | FKM | FNM-0950-1320-1-1 |
| 100.0 | 120.0 | 15.0 | PTFE/304SS | FKM | FNM-1000-1200-1-1 |
| 100.0 | 121.0 | 15.0 | PTFE/304SS | FKM | FNM-1000-1210-1-1 |
| 100.0 | 125.0 | 15.0 | PTFE/304SS | FKM | FNM-1000-1250-1-1 |
| 100.0 | 130.0 | 15.0 | PTFE/304SS | FKM | FNM-1000-1300-1-1 |
| 100.0 | 140.0 | 15.0 | PTFE/304SS | FKM | FNM-1000-1400-1-1 |
| 105.0 | 130.0 | 15.0 | PTFE/304SS | FKM | FNM-1050-1300-1-1 |
| 105.0 | 135.0 | 15.0 | PTFE/304SS | FKM | FNM-1050-1350-1-1 |
| 105.0 | 140.0 | 15.0 | PTFE/304SS | FKM | FNM-1050-1400-1-1 |
| 105.0 | 145.0 | 15.0 | PTFE/304SS | FKM | FNM-1050-1450-1-1 |
| 108.0 | 140.0 | 15.0 | PTFE/304SS | FKM | FNM-1080-1400-1-1 |
| 110.0 | 130.0 | 15.0 | PTFE/304SS | FKM | FNM-1100-1300-1-1 |
| 110.0 | 135.0 | 15.0 | PTFE/304SS | FKM | FNM-1100-1350-1-1 |
| 110.0 | 140.0 | 15.0 | PTFE/304SS | FKM | FNM-1100-1400-1-1 |
| 110.0 | 150.0 | 15.0 | PTFE/304SS | FKM | FNM-1100-1500-1-1 |
| 115.0 | 140.0 | 15.0 | PTFE/304SS | FKM | FNM-1150-1400-1-1 |
| 115.0 | 145.0 | 15.0 | PTFE/304SS | FKM | FNM-1150-1450-1-1 |
| 120.0 | 145.0 | 15.0 | PTFE/304SS | FKM | FNM-1200-1450-1-1 |
| 120.0 | 150.0 | 15.0 | PTFE/304SS | FKM | FNM-1200-1500-1-1 |
| 120.0 | 155.0 | 15.0 | PTFE/304SS | FKM | FNM-1200-1550-1-1 |
| 120.0 | 160.0 | 15.0 | PTFE/304SS | FKM | FNM-1200-1600-1-1 |
| 125.0 | 150.0 | 15.0 | PTFE/304SS | FKM | FNM-1250-1500-1-1 |
| 125.0 | 160.0 | 15.0 | PTFE/304SS | FKM | FNM-1250-1600-1-1 |
| 130.0 | 160.0 | 15.0 | PTFE/304SS | FKM | FNM-1300-1600-1-1 |
| 130.0 | 165.0 | 15.0 | PTFE/304SS | FKM | FNM-1300-1650-1-1 |
| 130.0 | 170.0 | 15.0 | PTFE/304SS | FKM | FNM-1300-1700-1-1 |
| 135.0 | 165.0 | 15.0 | PTFE/304SS | FKM | FNM-1350-1650-1-1 |
| 135.0 | 170.0 | 15.0 | PTFE/304SS | FKM | FNM-1350-1700-1-1 |
| 136.7 | 168.7 | 15.0 | PTFE/304SS | FKM | FNM-1367-1687-1-1 |

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| "A" Shaft Dia +/- .05 mm | "B" Bore Dia +/- .05 mm | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|
| 140.0 | 160.0 | 15.0 | PTFE/304SS | FKM | FNM-1400-1600-1-1 |
| 140.0 | 170.0 | 15.0 | PTFE/304SS | FKM | FNM-1400-1700-1-1 |
| 145.0 | 170.0 | 15.0 | PTFE/304SS | FKM | FNM-1450-1700-1-1 |
| 145.0 | 180.0 | 15.0 | PTFE/304SS | FKM | FNM-1450-1800-1-1 |
| 150.0 | 180.0 | 15.0 | PTFE/304SS | FKM | FNM-1500-1800-1-1 |
| 150.0 | 190.0 | 15.0 | PTFE/304SS | FKM | FNM-1500-1900-1-1 |

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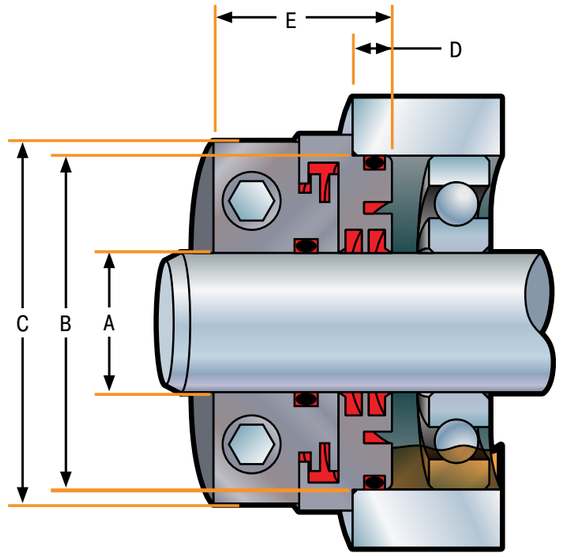
# SLE Profile, Standard Sizes & Part Numbers

## Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 1.250 | 2.250 | 2.500 | 0.276 | 1.078 | PTFE FDA | Silicone FDA | SLE-1250-2250-2-6 |
| 1.438 | 2.438 | 2.688 | 0.276 | 1.078 | PTFE | FKM | SLE-1438-2438-1-1 |
| 1.625 | 2.374 | 2.875 | 0.315 | 1.117 | PTFE | FKM | SLE-1625-2374-1-1 |
| 2.000 | 3.000 | 3.250 | 0.315 | 1.117 | PTFE | FKM | SLE-2000-3000-1-1 |
| 2.250 | 3.250 | 3.500 | 0.315 | 1.117 | PTFE | FKM | SLE-2250-3250-1-1 |
| 2.375 | 3.500 | 3.736 | 0.354 | 1.156 | PTFE | FKM | SLE-2375-3500-1-1 |
| 2.437 | 3.543 | 3.779 | 0.354 | 1.156 | PTFE | FKM | SLE-2437-3543-1-1 |
| 2.500 | 3.375 | 3.750 | 0.354 | 1.156 | PTFE | FKM | SLE-2500-3375-1-1 |
| 2.500 | 3.625 | 3.861 | 0.354 | 1.156 | PTFE | FKM | SLE-2500-3625-1-1 |
| 2.750 | 3.375 | 4.000 | 0.354 | 1.156 | PTFE | FKM | SLE-2750-3375-1-1 |
| 2.750 | 3.625 | 4.000 | 0.354 | 1.156 | PTFE | FKM | SLE-2750-3625-1-1 |
| 2.750 | 3.750 | 4.000 | 0.354 | 1.156 | PTFE | FKM | SLE-2750-3750-1-1 |
| 2.750 | 4.000 | 4.236 | 0.354 | 1.156 | PTFE | FKM | SLE-2750-4000-1-1 |
| 3.000 | 3.990 | 4.250 | 0.354 | 1.156 | PTFE | FKM | SLE-3000-3990-1-1 |
| 3.000 | 4.000 | 4.250 | 0.354 | 1.156 | PTFE | FKM | SLE-3000-4000-1-1 |
| 3.250 | 4.249 | 4.625 | 0.354 | 1.257 | PTFE | FKM | SLE-3250-4249-1-1 |
| 3.250 | 4.375 | 4.625 | 0.354 | 1.257 | PTFE | FKM | SLE-3250-4375-1-1 |
| 3.250 | 4.500 | 4.736 | 0.354 | 1.257 | PTFE | FKM | SLE-3250-4500-1-1 |
| 3.375 | 4.375 | 4.750 | 0.354 | 1.257 | PTFE | FKM | SLE-3375-4375-1-1 |
| 3.385 | 4.385 | 4.760 | 0.354 | 1.257 | PTFE | FKM | SLE-3385-4385-1-1 |
| 3.438 | 4.438 | 4.813 | 0.354 | 1.257 | PTFE | FKM | SLE-3438-4438-1-1 |
| 3.500 | 4.375 | 4.875 | 0.354 | 1.257 | PTFE | FKM | SLE-3500-4375-1-1 |
| 3.500 | 4.500 | 4.875 | 0.354 | 1.257 | PTFE | FKM | SLE-3500-4500-1-1 |
| 3.750 | 4.750 | 5.125 | 0.354 | 1.257 | PTFE | FKM | SLE-3750-4750-1-1 |
| 3.875 | 4.875 | 5.250 | 0.354 | 1.257 | PTFE | FKM | SLE-3875-4875-1-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 3.875 | 5.000 | 5.250 | 0.354 | 1.257 | PTFE | FKM | SLE-3875-5000-1-1 |
| 3.938 | 4.813 | 5.313 | 0.354 | 1.257 | PTFE | FKM | SLE-3938-4813-1-1 |
| 4.000 | 5.000 | 5.375 | 0.354 | 1.257 | PTFE | FKM | SLE-4000-5000-1-1 |
| 4.000 | 5.250 | 5.486 | 0.354 | 1.257 | PTFE | FKM | SLE-4000-5250-1-1 |
| 4.125 | 5.125 | 5.500 | 0.354 | 1.257 | PTFE | FKM | SLE-4125-5125-5-1 |
| 4.250 | 5.250 | 5.625 | 0.354 | 1.257 | PTFE | FKM | SLE-4250-5250-5-1 |
| 4.313 | 5.500 | 5.736 | 0.354 | 1.257 | PTFE | FKM | SLE-4313-5500-5-1 |
| 4.370 | 5.354 | 5.745 | 0.354 | 1.257 | PTFE | FKM | SLE-4370-5354-5-1 |
| 4.375 | 5.506 | 5.750 | 0.354 | 1.257 | PTFE | FKM | SLE-4375-5506-5-1 |
| 4.437 | 5.250 | 5.812 | 0.354 | 1.257 | PTFE | FKM | SLE-4437-5250-5-1 |
| 4.438 | 5.235 | 5.813 | 0.354 | 1.257 | PTFE | FKM | SLE-4438-5235-5-1 |
| 4.500 | 5.506 | 5.875 | 0.354 | 1.257 | PTFE | FKM | SLE-4500-5506-5-1 |
| 4.875 | 6.000 | 6.250 | 0.354 | 1.257 | PTFE | FKM | SLE-4875-6000-5-1 |
| 4.936 | 5.990 | 6.311 | 0.354 | 1.257 | PTFE | FKM | SLE-4936-5990-5-1 |
| 5.000 | 6.000 | 6.375 | 0.354 | 1.257 | PTFE | FKM | SLE-5000-6000-5-1 |
| 5.000 | 6.250 | 6.486 | 0.354 | 1.257 | PTFE | FKM | SLE-5000-6250-5-1 |
| 5.190 | 6.500 | 6.736 | 0.433 | 1.436 | PTFE | FKM | SLE-5190-6500-5-1 |
| 5.250 | 6.250 | 6.750 | 0.433 | 1.436 | PTFE | FKM | SLE-5250-6250-5-1 |
| 5.375 | 6.875 | 7.111 | 0.433 | 1.436 | PTFE | FKM | SLE-5375-6875-5-1 |
| 5.437 | 6.437 | 6.937 | 0.433 | 1.436 | PTFE | FKM | SLE-5437-6437-5-1 |
| 5.438 | 6.427 | 6.938 | 0.433 | 1.436 | PTFE | FKM | SLE-5438-6427-5-1 |
| 5.500 | 6.500 | 7.000 | 0.433 | 1.436 | PTFE | FKM | SLE-5500-6500-5-1 |
| 5.750 | 7.000 | 7.250 | 0.433 | 1.436 | PTFE | FKM | SLE-5750-7000-5-1 |
| 5.875 | 7.375 | 7.611 | 0.433 | 1.436 | PTFE | FKM | SLE-5875-7375-5-1 |
| 6.437 | 7.688 | 7.937 | 0.433 | 1.436 | PTFE | FKM | SLE-6437-7688-5-1 |
| 7.000 | 8.000 | 8.500 | 0.433 | 1.436 | PTFE | FKM | SLE-7000-8000-5-1 |
| 7.000 | 8.071 | 8.500 | 0.433 | 1.436 | PTFE | FKM | SLE-7000-8071-5-1 |
| 7.750 | 9.250 | 9.486 | 0.433 | 1.436 | PTFE | FKM | SLE-7750-9250-5-1 |
| 8.000 | 9.000 | 9.500 | 0.433 | 1.436 | PTFE | FKM | SLE-8000-9000-5-1 |
| 8.196 | 9.377 | 9.696 | 0.433 | 1.436 | PTFE | FKM | SLE-8196-9377-5-1 |
| 8.500 | 9.500 | 10.000 | 0.433 | 1.436 | PTFE | FKM | SLE-8500-9500-5-1 |

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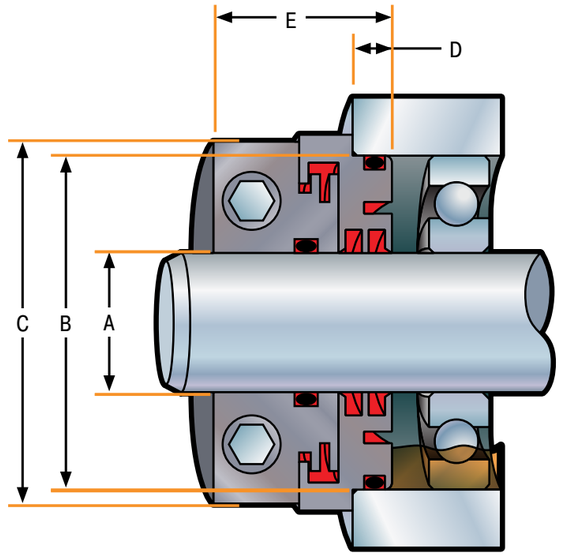
# SLM Profile, Standard Sizes & Part Numbers

## Metric (mm) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 38.0 | 56.0 | 69.7 | 7.0 | 27.4 | PTFE | FKM | SLM-0380-0560-1-1 |
| 40.0 | 64.0 | 71.7 | 7.0 | 27.4 | PTFE | FKM | SLM-0400-0640-1-1 |
| 45.0 | 65.0 | 76.7 | 8.0 | 28.4 | PTFE | FKM | SLM-0450-0650-1-1 |
| 55.0 | 70.0 | 86.7 | 8.0 | 28.4 | PTFE | FKM | SLM-0550-0700-1-1 |
| 59.0 | 92.0 | 98.0 | 8.0 | 28.4 | PTFE | FKM | SLM-0598-0920-1-1 |
| 60.0 | 76.0 | 91.7 | 8.0 | 28.4 | PTFE | FKM | SLM-0600-0760-1-1 |
| 65.0 | 85.0 | 96.8 | 9.0 | 29.4 | PTFE | FKM | SLM-0650-0850-1-1 |
| 65.0 | 90.0 | 96.8 | 9.0 | 29.4 | PTFE | FKM | SLM-0650-0900-1-1 |
| 68.0 | 85.0 | 99.7 | 9.0 | 29.4 | PTFE | FKM | SLM-0680-0850-1-1 |
| 70.0 | 100.0 | 106.0 | 9.0 | 29.4 | PTFE | FKM | SLM-0700-1000-1-1 |
| 75.0 | 105.0 | 111.0 | 9.0 | 29.4 | PTFE | FKM | SLM-0750-1050-1-1 |
| 75.0 | 110.0 | 116.0 | 9.0 | 29.4 | PTFE | FKM | SLM-0750-1100-1-1 |
| 80.0 | 110.0 | 116.0 | 9.0 | 29.4 | PTFE | FKM | SLM-0800-1100-1-1 |
| 86.0 | 110.0 | 120.9 | 9.0 | 31.9 | PTFE | FKM | SLM-0860-1100-1-1 |
| 88.0 | 110.0 | 122.9 | 9.0 | 31.9 | PTFE | FKM | SLM-0880-1100-1-1 |
| 90.0 | 110.0 | 124.9 | 9.0 | 31.9 | PTFE | FKM | SLM-0900-1100-1-1 |
| 90.0 | 130.0 | 136.0 | 9.0 | 31.9 | PTFE | FKM | SLM-0900-1300-1-1 |
| 95.0 | 120.0 | 129.9 | 9.0 | 31.9 | PTFE | FKM | SLM-0950-1200-1-1 |
| 95.0 | 125.0 | 131.3 | 9.0 | 31.9 | PTFE | FKM | SLM-0950-1250-1-1 |
| 100.0 | 125.0 | 134.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1000-1250-1-1 |
| 100.0 | 132.0 | 138.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1000-1320-1-1 |
| 100.0 | 140.0 | 146.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1000-1400-1-1 |
| 105.0 | 140.0 | 146.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1000-1400-5-1 |
| 105.0 | 145.0 | 151.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1050-1450-5-1 |
| 109.0 | 129.8 | 143.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1090-1298-5-1 |

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| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 110.0 | 131.5 | 144.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1100-1315-5-1 |
| 110.0 | 135.0 | 144.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1100-1350-5-1 |
| 112.6 | 133.3 | 147.5 | 9.0 | 31.9 | PTFE | FKM | SLM-1126-1333-5-1 |
| 114.0 | 154.0 | 147.5 | 9.0 | 31.9 | PTFE | FKM | SLM-1140-1540-5-1 |
| 115.0 | 140.0 | 149.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1150-1400-5-1 |
| 115.0 | 145.0 | 151.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1150-1450-5-1 |
| 120.0 | 150.0 | 156.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1200-1500-5-1 |
| 120.0 | 156.0 | 162.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1200-1560-5-1 |
| 120.0 | 160.0 | 166.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1200-1600-5-1 |
| 125.0 | 150.0 | 159.9 | 9.0 | 31.9 | PTFE | FKM | SLM-1250-1500-5-1 |
| 125.0 | 165.0 | 171.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1250-1650-5-1 |
| 125.5 | 158.7 | 164.7 | 9.0 | 31.9 | PTFE | FKM | SLM-1255-1587-5-1 |
| 130.0 | 160.0 | 166.0 | 9.0 | 31.9 | PTFE | FKM | SLM-1300-1600-5-1 |
| 135.0 | 160.0 | 173.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1350-1600-5-1 |
| 140.0 | 170.0 | 178.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1400-1700-5-1 |
| 140.0 | 172.0 | 178.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1400-1720-5-1 |
| 160.0 | 190.0 | 198.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1600-1900-5-1 |
| 160.0 | 192.0 | 198.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1600-1920-5-1 |
| 170.0 | 194.0 | 208.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1700-1940-5-1 |
| 170.0 | 200.0 | 208.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1700-2000-5-1 |
| 170.0 | 210.0 | 216.0 | 11.0 | 36.5 | PTFE | FKM | SLM-1700-2100-5-1 |
| 180.0 | 210.0 | 218.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1800-2100-5-1 |
| 190.0 | 220.0 | 228.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1900-2200-5-1 |
| 190.0 | 226.0 | 232.0 | 11.0 | 36.5 | PTFE | FKM | SLM-1900-2260-5-1 |
| 194.0 | 224.0 | 232.1 | 11.0 | 36.5 | PTFE | FKM | SLM-1940-2240-5-1 |
| 200.0 | 226.5 | 238.1 | 11.0 | 36.5 | PTFE | FKM | SLM-2000-2265-5-1 |
| 209.5 | 248.0 | 254.0 | 11.0 | 36.5 | PTFE | FKM | SLM-2095-2480-5-1 |
| 210.0 | 240.0 | 248.1 | 11.0 | 36.5 | PTFE | FKM | SLM-2100-2400-5-1 |
| 219.0 | 259.0 | 265.0 | 11.0 | 36.5 | PTFE | FKM | SLM-2190-2590-5-1 |
| 220.0 | 250.0 | 258.1 | 11.0 | 36.5 | PTFE | FKM | SLM-2200-2500-5-1 |
| 220.0 | 260.0 | 266.0 | 11.0 | 36.5 | PTFE | FKM | SLM-2200-2600-5-1 |
| 240.0 | 270.0 | 278.1 | 11.0 | 36.5 | PTFE | FKM | SLM-2400-2700-5-1 |

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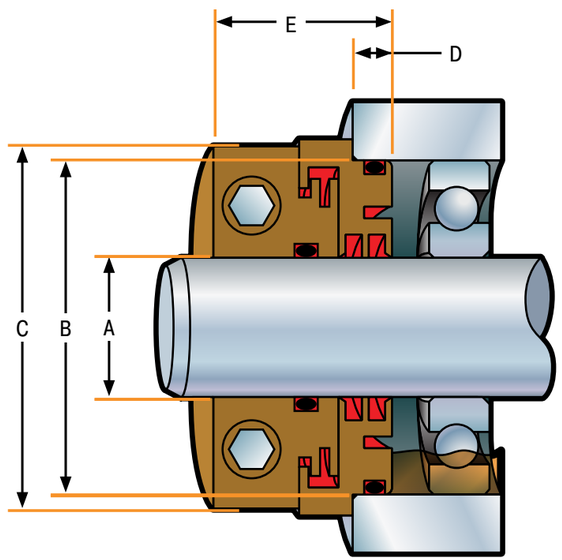
# SME Profile, Standard Sizes & Part Numbers

Imperial (Inch) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 3.500 | 4.500 | 4.875 | 0.354 | 1.257 | Bronze | FKM | SME-3500-4500-B-1 |
| 3.938 | 5.000 | 5.313 | 0.354 | 1.257 | Bronze | FKM | SME-3938-5000-B-1 |
| 4.250 | 5.063 | 5.625 | 0.354 | 1.257 | 304 SS | FKM | SME-4250-5063-S-1 |
| 6.295 | 7.395 | 7.795 | 0.433 | 1.436 | Bronze | FKM | SME-6295-7395-B-1 |
| 6.437 | 7.688 | 7.937 | 0.433 | 1.436 | Bronze | FKM | SME-6437-7688-B-1 |

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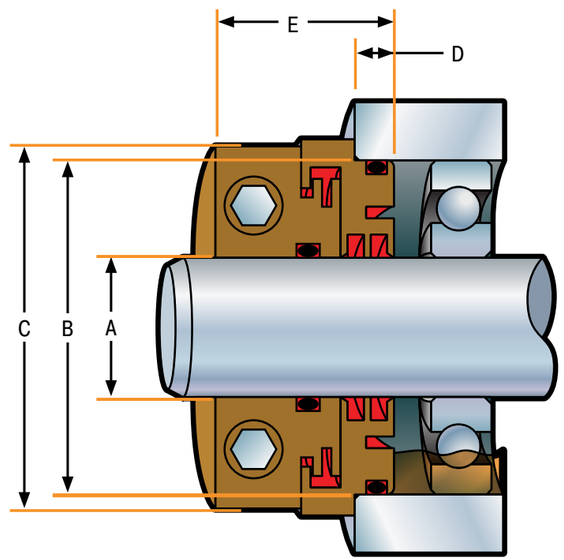
# SMM Profile, Standard Sizes & Part Numbers

Metric (mm) - Dimension




| "A" Shaft Dia +/- .002" | "B" Bore Dia +/- .002" | "C" Flange Dia. (Reference) | "D" In Bore Depth | "E" Overall Width | Seal Material | O-Ring Material | Part Number |
|---|---|---|---|---|---|---|---|
| 50.0 | 68.0 | 81.8 | 8.0 | 28.4 | Bronze | FKM | SMM-0500-0680-B-1 |
| 140.0 | 170.0 | 178.1 | 11.0 | 36.5 | Bronze | FKM | SMM-1400-1700-B-1 |
| 180.0 | 215.0 | 221.0 | 11.0 | 36.5 | Bronze | FKM | SMM-1800-2150-B-1 |
| 235.0 | 270.0 | 276.0 | 11.0 | 36.5 | Bronze | FKM | SMM-2350-2700-B-1 |

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Parker Hannifin Corporation
**Engineered Polymer Systems Division**
2220 South 3600 West
Salt Lake City, UT 84119, USA

Phone: 801-972-3000
eps-ccare@parker.com
www.parker.com/eps

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