CR Seals handbook

Industrial shaft seals

CR Seals®

CR Seals®

DESIGNED FOR REAL LIFE

Foreword

This all-new CR Seals handbook from SKF combines our best ideas and insights from the past and the present. We hope it becomes your first and last source for information on radial shaft seals.

The most obvious change in the handbook starts with its title. The "CR Seals handbook" references CR – Chicago Rawhide – throughout to describe the SKF industrial shaft seal offering.

Founded in 1878 as Chicago Rawhide, CR Seals has one of the longest histories in the seal industry. For the last 110+ years, CR Seals has been setting performance and service life standards for industrial and automotive shaft seals.

CR Seals has also been part of SKF since 1990, a span during which we've developed new materials, manufacturing processes and designs to create some of the most robust seals on the market.

This CR Seals handbook includes a range of practical knowledge and insights about everything from seal installation, storage and handling to complex seal application engineering and troubleshooting concepts.

Along with seal selection guides and full product listings by shaft size, this handbook also highlights key CR Seals types and technologies, including SKF Wave, SKF Edge and SKF Flex seals.

Ultimately, seals are a core SKF technology, as they contribute to our vision of a world of reliable rotation and help us differentiate our position as the undisputed leader of the bearing industry.

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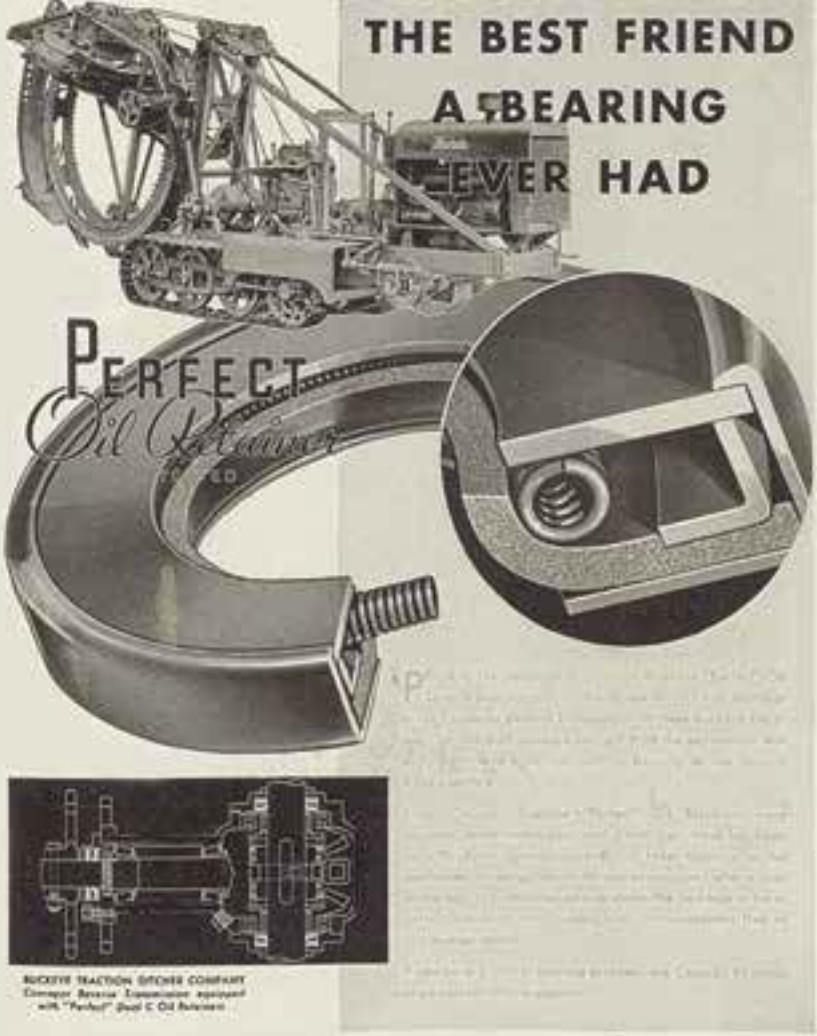
CR Seals handbook



SKF sealing history

1878: Chicago Rawhide is founded in Chicago. Products include belting, lacing, ropes and other rawhide leather articles.

1897: Chicago Rawhide introduces leather gears.

1914: CR leather products first appeared in the Ford Model T.

1928: Chicago Rawhide patents the Perfect Oil Seal made of leather.

1955: Chicago Rawhide begins selling its products to replacement markets.

1971: CR patents the first Wave seal.

1990-2006: SKF acquires Chicago Rawhide, Macrotech Polyseal and Economos and forms a global seal business unit with operations in Europe, Asia and North America. The acquisitions help establish SKF as a sealing technology leader for rotary, hydraulic and fluid handling applications.

SKF Wave seal

A legacy of proven technology at work

From rawhide leather to advanced polymers

SKF sealing technologies have evolved from some of the most successful and robust industrial sealing solutions ever designed.

Our sealing lineage stretches back to the 1870s, in the Chicago stockyards that gave rise to Chicago Rawhide (CR). In 1928, CR patented its first-ever Perfect Oil Seal. Made of rawhide leather, that seal dominated automotive and industrial equipment designs into the 1940s.

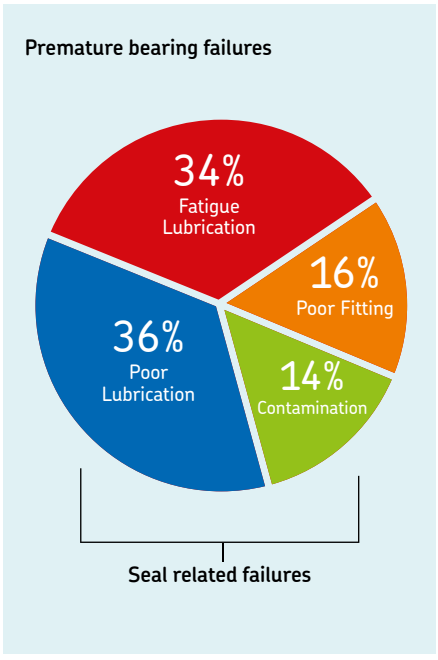
In the 1970s, CR introduced the SKF Wave seal lip design. Widely recognized as one of the most robust standard seal designs ever developed, the SKF Wave lip seal has been at work in rotating equipment in every industry for decades.

Today, SKF sealing design and materials continue to lead the industry with global sealing solutions like the SKF Edge seals (HMS5 & HMSA10) and SKF Flex heavy industrial seals, all of which are made from SKF-developed nitrile rubber (NBR) formulations and highly engineered fluorinated (FKM) compounds.

Why SKF for seals?

Because no one knows how they work with bearings better than us.

As a leading bearing manufacturer that also manufactures seals, SKF has a unique perspective on the interplay of the elements in rotating equipment. Thanks to our advanced sealing technologies, designs and development processes, CR Seals outperform the competition on the test bench and in the application. Why risk unplanned downtime and high warranty costs with a sub-par seal? Trust your uptime and your bottom line to the robust reliability of CR Seals from SKF.



Deep seal knowledge, proprietary tools and dedicated testing

Having studied bearing design and performance for over a century, SKF is uniquely qualified to recommend the optimum sealing solution for a given application.

We've developed a deep understanding of how temperatures, speeds, pressures, lubricants, shaft surfaces and other conditions impact seal life and performance. This knowledge, backed by years of R&D in sealing materials, design and tribology in industrial, automotive and aerospace applications, goes into every sealing solution and recommendation we offer.

Our in-house simulation tools include the SKF Seal Designer, which helps us explore the non-linear behavior of sealing materials to help predict sealing performance under various conditions. SKF engineers also apply non-linear Finite Elements Analysis (FEA) to simulate operating conditions by using different seal geometries to identify the critical design areas.

Sven Wingquist, inventor of the double-row self-aligning ball bearing

Once a seal and has been designed and developed, it undergoes an extensive series of performance trials at one of our seal testing labs. SKF operates a global network of dedicated seal testing facilities that perform thousands of analyses annually, measuring seal performance factors such as durability, contaminant exclusion, salt fog corrosion, cold fracture, pump rate, chemical compatibility and more.

The true costs of a poor seal

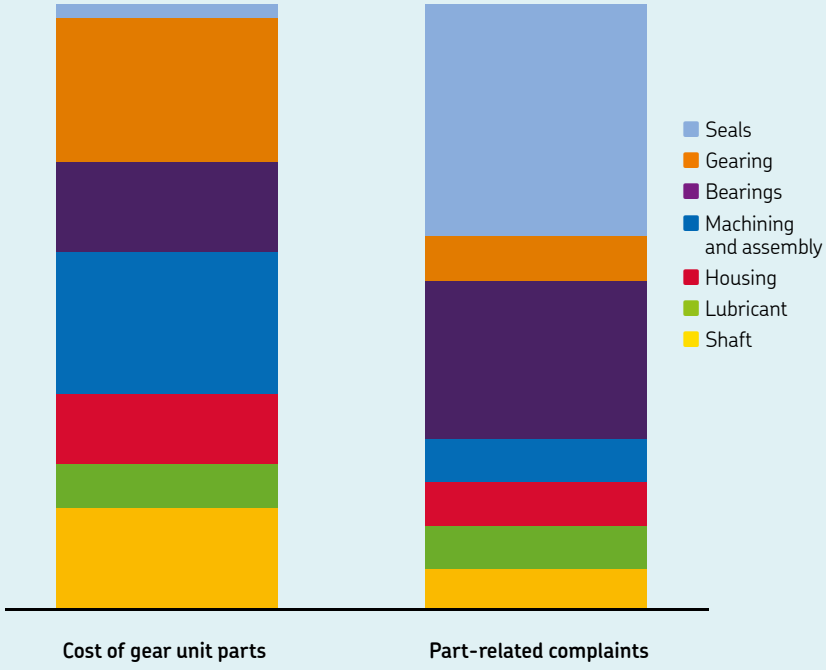
As the chart at right shows, seals account for just a sliver of total gearbox costs. But failing seals are responsible for most customer complaints! What is unrepresented by the chart is the costly downtime and lost business that seal failures also cause.

For OEMs, selecting a cheaper seal component carries big risks in terms of customer satisfaction. Customers that try to save a few dollars with an inferior seal could wind up costing themselves much more later, should the seal fail prematurely.

In either case, is the risk of causing the end-user so much hassle and lost productivity really worth the minimal savings? Instead, install confidence with CR Seals and recommend the world's most robust standard sealing solutions.

Seal costs vs. seal-related issues

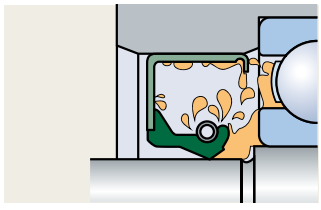
Seals account for just a tiny fraction of total gear unit costs, but are responsible for the majority of part-related failures.



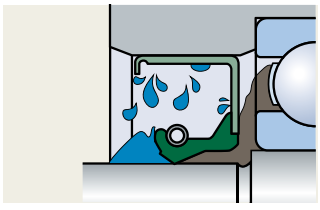
CR Seals

Primary seal functions

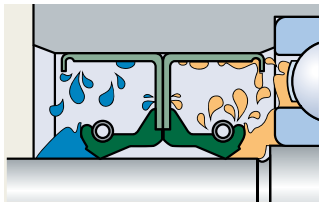
Rotating shafts need a bearing arrangement for smooth, effective operation. In turn, bearing arrangements need a sealing solution for protection and to achieve maximum service life. As it seals the opening between components, a sealing solution must perform one or more primary seal functions:



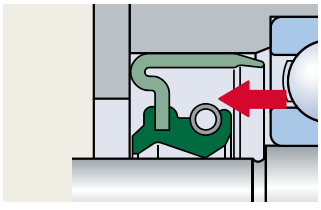
Retain the lubricant



Exclude contaminants



Separate two different media



Seal under pressure

Radial shaft seals

At work in every major industry, SKF radial shaft seals support greater uptime in everything from metal mills to wind turbines.

SKF Wave and SKF Edge for oil applications

The classic SKF Wave seals feature lips molded in a sinusoidal wave pattern onto a case with a metal OD. They are known as a trusted, robust solution used in every industry. SKF Edge seals meet ISO and DIN standards and feature a rubber OD, specially designed seal lips and premium compounds that resist chemical attack. Both SKF Wave and SKF Edge seals outperform all competitors in their classification and are one of the most robust seals on the market.

HM seals for grease applications

For decades customers have trusted our HM series grease seals to divert contamination away from critical bearings. HM seals are designed to withstand a grease purge when the lip is pointing toward the air side.

SKF Flex Seals for heavy industrial applications

This range includes heavy-duty metal-cased seals, as well as all rubber seals. SKF Flex seals can be custom made quickly to virtually any shaft and bore size over 4 in. (*100 mm*).

Cassette seals

SKF Scotseals for oil applications feature a multi-lip seal, an integrated wear sleeve and high-performance elastomeric materials. Our advanced SKF Wave lip technology is used for all SKF Scotseals.

Axial shaft seals

Designed to seal axially against a counterface perpendicular to the shaft or pin, axial shaft seals from SKF include high performance primary seals plus cost-effective V-ring seals.

V-ring seals

V-ring seals from SKF offer an easy-to-install solution for rotating shaft applications, including use as a secondary seal in highly contaminated environments.

Metal faced seals

Originally designed for the low speeds and severe conditions that affect off-road and tracked vehicles, SKF metal face seals have proven equally suitable for applications exposed to sand, soil, mud, water and more.

Axial excluder seals

The CT1 axial seal is a split seal that can be clamped to a housing. The sealing lip runs on a rotating face and excludes contaminants. They can be cut to any size from 6 in. (*152 mm*) to over 300 in. (*7620 mm*).

Wear sleeves

Over time, particles trapped underneath a shaft sealing lip form wear grooves on the shaft, leading to seal failure and shaft damage. SKF wear sleeves can help prevent the problem, or correct it without re-machining the shaft.

SKF Speedi-Sleeve – Standard and Gold

SKF Speedi-Sleeve is a thin-walled shaft sleeve up to 8 in. (*200 mm*) that is pressed into position over the shaft to provide an excellent sealing surface, one that is superior to what can typically be achieved on a shaft.

LDSLV4 Wear sleeves

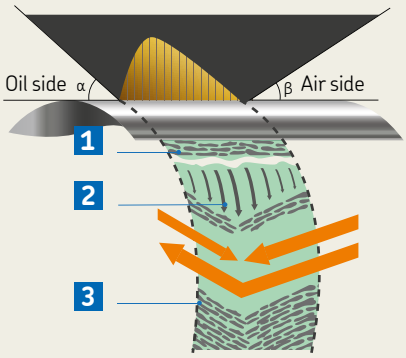
Designed for heavy industrial applications, LDSLV4 wear sleeves accommodate shaft dimensions over 8 in. (200 mm) and are used on original equipment or to repair the sealing surface of worn or damaged shafts.

CR Seals differentiators

Rotary oil seals must pump to protect

To keep contaminants and moisture from damaging a bearing or shaft, a rotary shaft seal must form a barrier between the oil supply and the outside environment. But to perform as effectively as possible, a seal must also be able to pump oil away from the air side and toward the oil side. This "pump rate" depends upon the seal lip design and seal lip material – and CR Seals is a global leader in pump rate.

Fig. 1

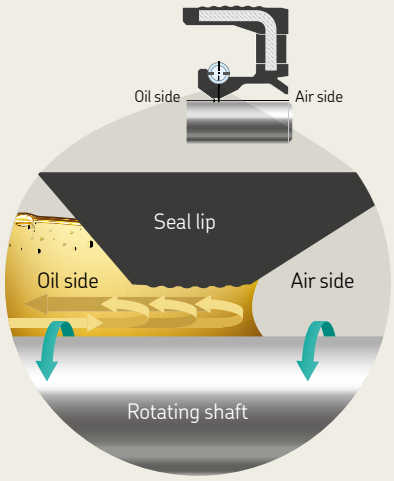


1 Undistorted seal lip surface structure at rest

2 Rotational friction distorts seal lip surface, creating torsional shear stress and forming a pattern of surface features call asperities

3 Overall effect of this pattern of asperities encourages oil to flow toward the oil side

Fig. 2



How pump rate works

As **figure 1** indicates, the approach angle from the oil side of the seal lip is steeper than the air side. This difference creates a contact pressure curve biased toward the oil side, which affects the management of the thin film of oil between the lip and the shaft. When the shaft is in motion it wears surface features onto the rubber in a specific pattern.

These surface features, or asperities, behave much like the skin on the back of your hand. Undisturbed, the pores and wrinkles on your hand are fairly uniform and undistorted. But place a finger on your skin and tug, the pores and wrinkles nearby will stretch as a reaction to the shear stress and orient themselves toward the direction of the forces.

Similarly, as a shaft rotates and wears the seal lip the surface asperities under the seal lip will form into a pattern that correlates with the pressure curve induced by the seal lip. This deformation is biased toward the oil side, just like the pressure curve from the lip.

As the arrows in **figure 2** indicate, the rotation of the shaft induces a hydrodynamic pumping mechanism that helps adjacent fluid molecules flow back toward the oil side at a surprising rate.

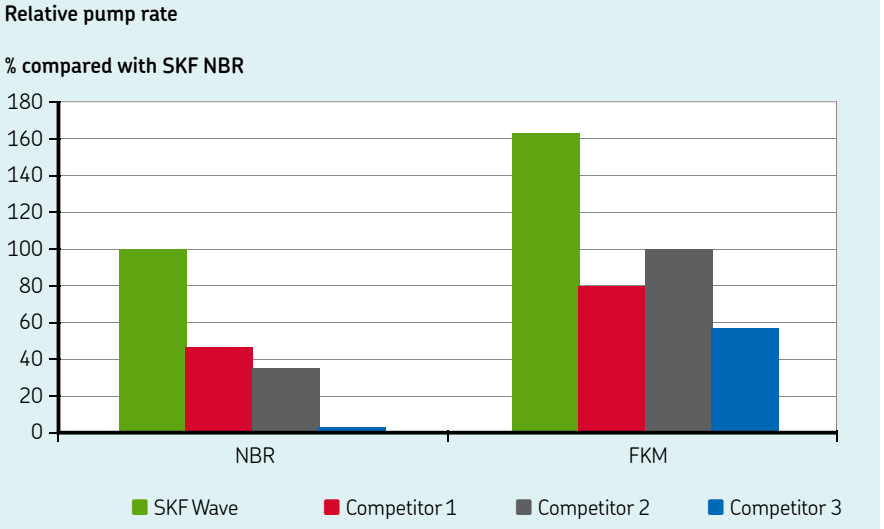
There are other ways to increase the pump rate of a seal, including adding hydrodynamic features like the SKF Wave or a helical pattern on the lip.

Why pump rate matters

Simply put, the higher the pump rate, the more robust the sealing system. That's because seals with a high pump rate will compensate for sealing system flaws that won't appear in a controlled lab test.

On the test bench, even a seal that pumps poorly still forms a barrier between the oil and air chambers. However, put that same seal in the field, and there are a range of potential sealing system flaws which can lead to failure. By simply keeping the oil on the side where it belongs, seals with a high pump rate will mitigate the effects of several uncontrollable operating parameters.

Diagram 1



CR Seals outpump the competition

To test pump rate, a fixed amount of oil is applied to the back side of the seal lip, then timed to see how long it takes for the oil to be pumped to the oil side. As **diagram 1** shows, SKF Wave seals delivered the highest pump rate of all major seal competitors. SKF Wave seals feature a patented sinusoidal lip design that enables the high pump rate, but even CR Seals with a conventional straight lip outpumped competitive seals. Bottom line? With the world's most robust standard seal designs, CR Seals are more likely to work in any given application than any other standard seal, making them the best starting point for new designs or for problem solving.

robust

rō'bəst

capable of performing without failure under a wide range of conditions

High pump rates compensate for:

- Poor shaft surface finish
- Temperature swings
- Misalignment, runout and axial play
- Particle contamination
- Speed and pressure swings
- Shifting fluid viscosity

SKF Wave seals

The most robust standard seals ever made

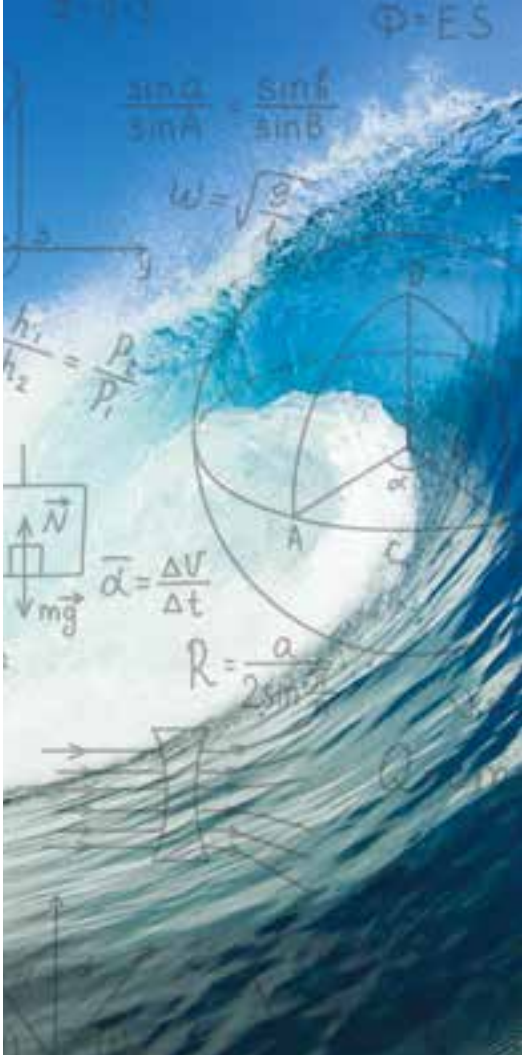
Since the 1970s, the SKF Wave lip design has been protecting rotating equipment in the world's harshest industrial environments. Time-tested in mines, mills, farms and other demanding places of work, SKF metal OD Wave seals feature a sinusoidal seal lip and advanced materials – a combination that helps SKF Wave seals out-pump and outlast any standard oil seal.

SKF Wave seal

- Pumps 2x more than standard seals
- Handles shaft misalignment
- Runs cooler with less drag
- Reduces shaft wear
- Cuts energy consumption

Typical applications

- Gearboxes
- Speed reducers
- Transmissions
- Motors
- Drive systems
- Pumps



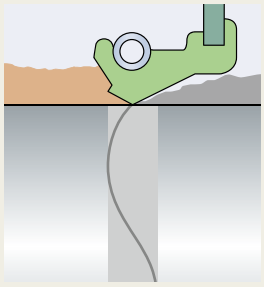
UNDER THE LIP,
SKF WAVE SEALS RUN

20 °F

COOLER, REDUCING OIL AND SEAL DEGRADATION

Figure 1

SKF Wave sealing lip with sinusoidal sealing lip edge



The SKF Wave lip

Industry's highest pump rate

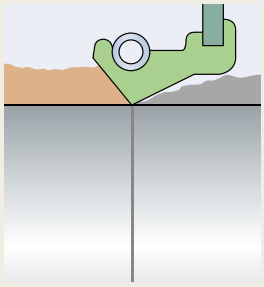
SKF metal OD Wave seals feature patented SKF Wave lip design (→**fig. 1**). As the shaft rotates beneath the wavy lip, the contact point itself moves back and forth across the shaft in a sinusoidal motion. This induces a hydrodynamic pumping action that pushes oil toward the bearing. The sinusoidal motion also distributes frictional heat over a wider wear band, reducing under lip operating temperature.

Less heat, friction and failure

Compared to conventional straight lip seals, SKF Wave seals generate up to 30% less heat and 20% less friction at the contact point (→ **diagrams 1** and **2**). Less heat and friction cuts equipment energy use, but it also means fewer heat-related seal failures. The 20% reduction in friction torque corresponds with a 20 °F reduction in lip operating temperature, which could make the difference between success and failure from overheated oil and a "cooked" seal lip.

Figure 2

Standard oil sealing lip with straight edge



Standard oil lips

More friction, less pumping

Unlike an SKF Wave lip seal, the contact point of a straight lip seal does not move back and forth across the shaft. Instead, contact is concentrated into a thin wear band (→ **fig. 2**), increasing friction and under lip temperature as the shaft turns. Pumping capabilities, if any, depend solely on the lip angles and lip material.

Diagram 1

Temperature rise at sealing lip/counterface contact for conventional and SKF Wave lips as a function of rotational speed for a 76 mm diameter shaft with SAE 30 engine oil

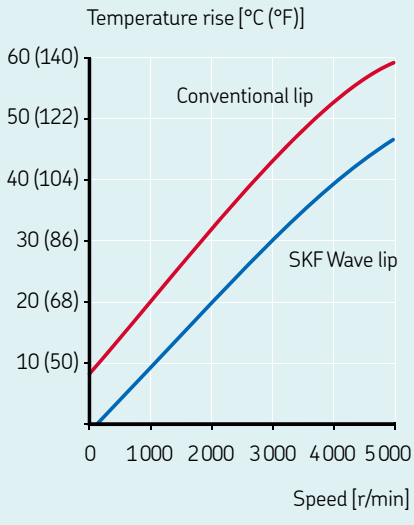
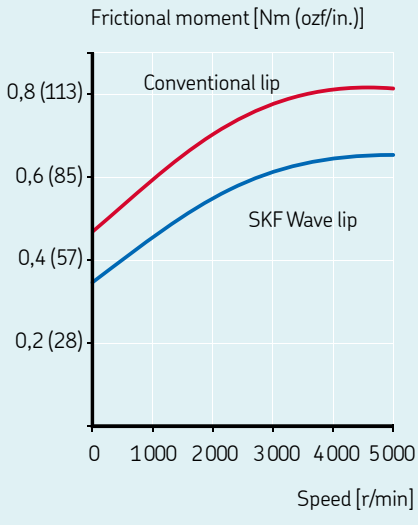


Diagram 2

Frictional moment at sealing lip/counterface contact for conventional and SKF Wave lips as a function of rotational speed for a 76 mm diameter shaft with SAE 30 engine oil



Availability and options

INCH and METRIC sizes

Choose from thousands of SKF metal OD Wave seal sizes and styles – stocked, tooled and available fast.

SKF Bore Tite Coating

SKF metal OD Wave seal lips are available with SKF Bore Tite Coating – a non-hardening, water-based acrylic sealant that helps fill small imperfections in the housing bore.

Heavy duty options

For the heaviest-duty applications, SKF Wave seals are available with an auxiliary dust lip and/or an inner case.

Pressure seals

CRW Wave seals can handle pressures up to 10 psi under normal conditions. For higher pressures up to 50 psi we recommend the CRW5 and CRWA5.

SKF Edge HMS5 and HMSA10

Not all straight lip seals are the same

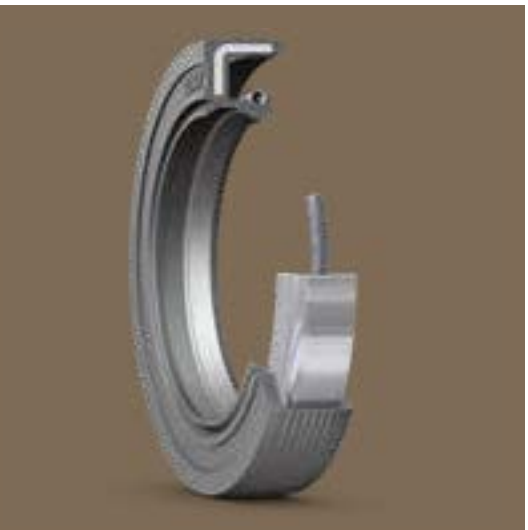
SKF Edge shaft seals HMS5 and HMSA10 deliver a field-tested first line of defense against downtime. An SKF-developed nitrile rubber (NBR) compound and a spring-loaded sealing lip help SKF Edge seals handle aggressive lubricants, thermal expansion, high dynamic runout, shaft-to-bore misalignment or surface roughness. ISO 6194 and DIN 3760-compliant, SKF Edge seals are more than suitable for the toughest industrial applications.

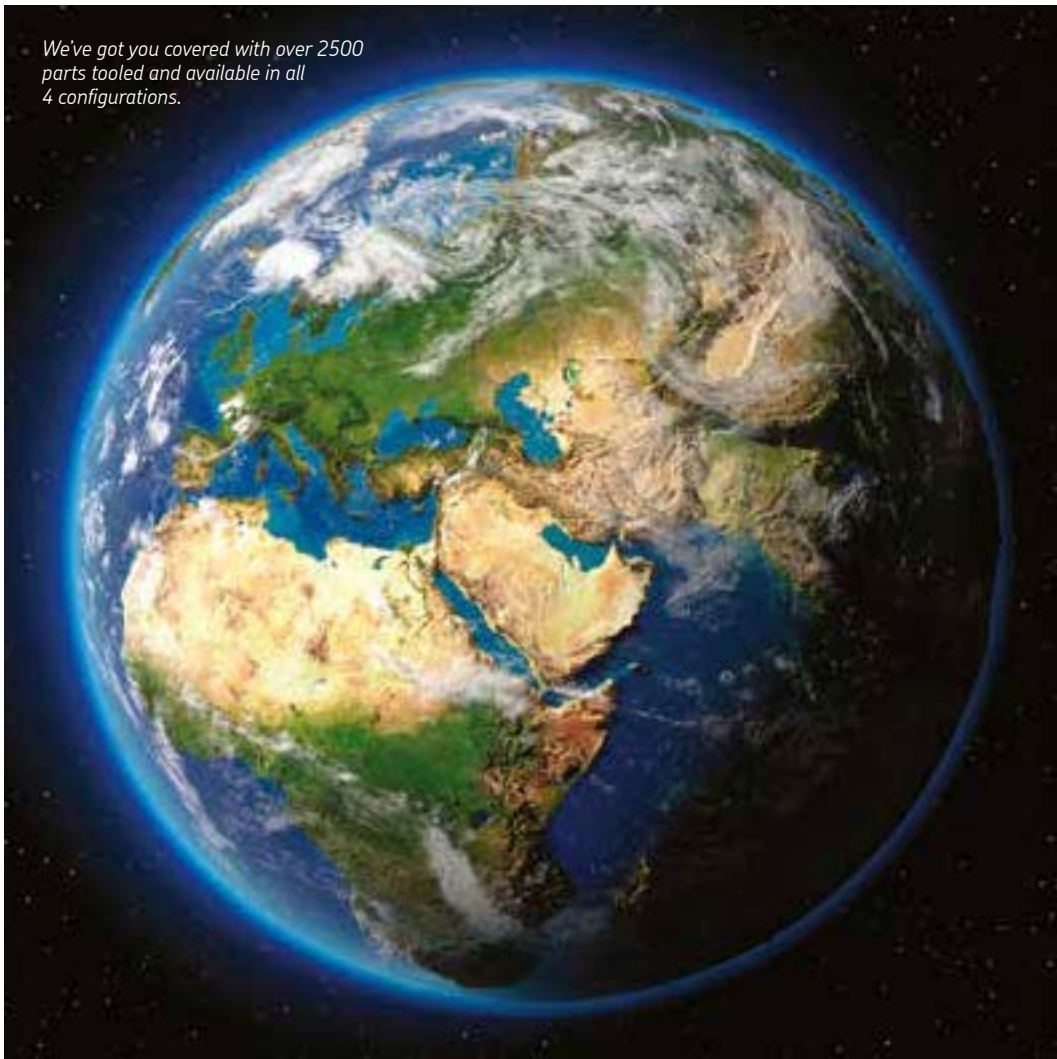
SKF Edge advantages

- Extend system service life
- Rubber OD seals better on bore
- Operate with synthetic oils
- 3x the pump rate of leading competitor
- Handle dynamic runout and shaft-to-bore misalignment

Typical applications

- Gearboxes
- Pumps
- Fans
- Axles
- Construction equipment





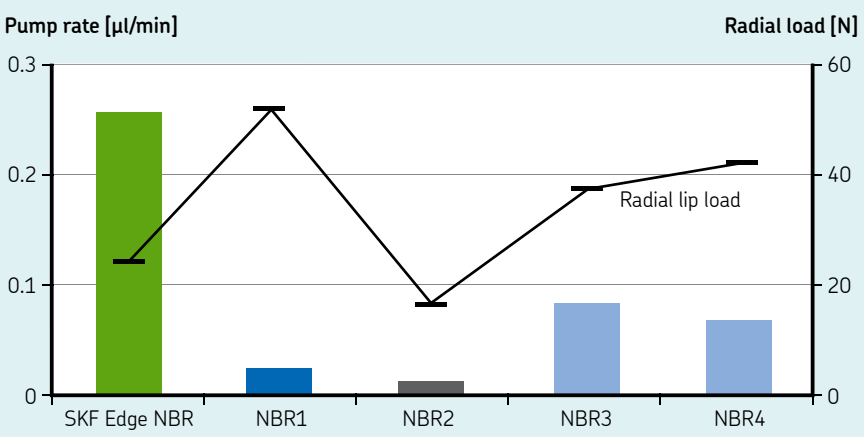
We've got you covered with over 2500 parts tooled and available in all 4 configurations.

Higher pump rate

A recent independent study on seal pump rate pitted SKF Edge sealing technology against several industry-leading seal products. Conducted at a major European university, the trial involved a standard test that measures seal pump rate.

Advanced lip design and materials development gave SKF the edge that helped the HMS5 seals outperform the field. The SKF Edge seal pumped at over three times the rate of a leading brand (NBR 3 and 4) and substantially outperformed the others. (→ **diagram 1**)

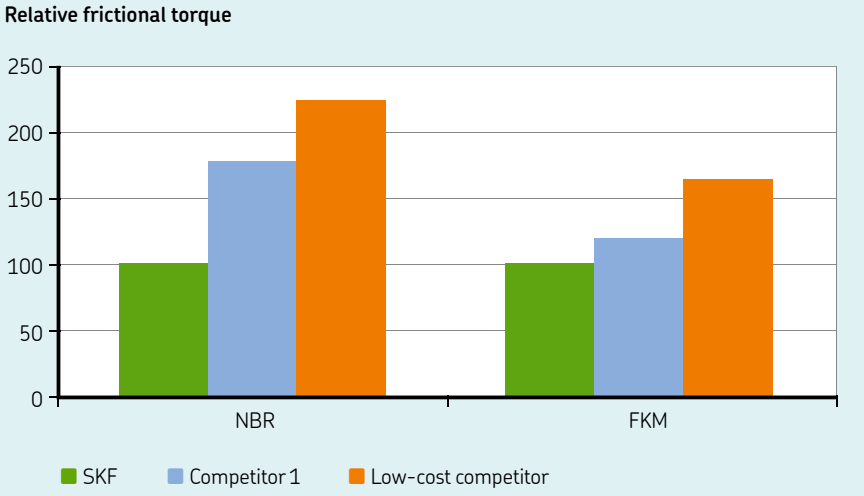
Diagram 1



Lower power consumption

In an SKF study, results showed the SKF HMS5 (RG) seal operates with 40% lower frictional torque on the shaft (→ **diagram 2**). The SKF Edge seal's lower radial lip load in **diagram 1** translates into less frictional torque and power consumption shown in **diagram 2** – good for equipment and operators.

Diagram 2



Handles misalignment

In a recent misalignment test against competitive seals, SKF Wave and SKF Edge were the only seals that could follow the shaft without leaking. The test featured a consecutive series of runout and misalignment iterations up to 0.025 in. (*0.635 mm*) each – all non-SKF seal brands leaked well before the test reached those extremes.

Availability and options

Metric sizes

ISO 6194 and DIN 3760 compliant up to 250 mm (*9.842 in.*) shaft sizes

Spring

SKF Edge seals made with NBR (RG) material come with a carbon steel garter spring, while seals made with FKM (V) for higher surface speeds and temperatures carry a stainless steel spring. They come primarily in metric sizes and are surprisingly affordable, available and robust.

SKF Flex heavy industrial seals

Made for work and made-to-order

In heavy industries, keeping lubricants in and contaminants out of systems is a serious challenge. SKF Flex heavy industrial seals can handle the harshest application environments, and help speed and simplify installation.

SKF Flex heavy industrial seals

- Highly flexible design options
- Fast and simple installation reduces risk of failure and resulting downtime
- Unlimited size range, so not limited to listed handbook part numbers
- Improved sealing performance
- Configured and produced to your requirements

Typical applications

- Gearboxes
- Hot and cold rolling mills
- Paper mills
- Crushers
- General and specialized machinery
- Construction equipment

TOOLING CHARGES FOR FLEX SEALS:

$0

* Some special profiles may require minimal tool cost, but this is a rare exception

Extreme performance flexibility

In heavy industries, extreme sealing performance is just part of the job description. But depending on the application and jobsite, specific sealing challenges can vary greatly. Available in customizable metal-cased, all-rubber, or reinforced all-rubber designs, SKF Flex heavy industrial seals were designed to handle any sealing challenge with as much flexibility as possible.

Full customization and fast delivery

SKF Flex seal orders need never be limited to the part numbers listed in this handbook. Our flexible part numbering system (**page 64**) allows for you to specify virtually any size within the limits of **table 1** on **page 57** and receive parts in two to four weeks with no tooling charges (faster delivery options are available upon request).

Innovative installation options

With seals of this size, maintenance staff must install the shaft into the seal already installed in the housing. The shaft is often misaligned, so installers risk catching the lip and dislodging the spring. In a blind installation, installers cannot tell if the spring has been dislodged. SKF developed Springlock and Springcover to address this specific installation challenge.

Customization options include:

- Auxiliary dust lips to exclude contaminates
- Alternate materials for main and dust lips
- Lugs on HDS or grooves on HSS to allow grease to flow between seals
- Springlock, Springcover, or the HDS7 with no spring at all
- Virtually any shaft/bore/width within limits of **table 1** on **page 57**

flexible *flex' e bul*

characterized by a ready capability to adapt to new, different, or changing requirements

***SKF Springlock** – wraps around 270 degrees of the spring for improved retention during installation*

***SKF Springcover** – polymer covering on spring for even better retention during installation*

The SKF Flex seal family

SKF Flex HDS metal-cased seals

HDS metal-cased seals perform exceptionally well in the heavily contaminated environments of metal rolling mills, the high-speed and high-temperature conditions in paper mills, and for more universal applications such as industrial gearboxes.

SKF Flex HS all-rubber seals

All-rubber HS seals are available either solid or split and have no metal or fabric reinforcements. They are finished oversized relative to the housing bore diameter and depth to enable proper compression and stability.

SKF Flex HSS reinforced all-rubber seals

SKF developed HSS seals to protect large size bearings under the tough operating conditions of wind turbine drive trains, but the seals have proven suitable for many other heavy industry applications.

SKF Speedi-Sleeve wear sleeves

The fastest way to an optimal sealing surface

Once a particle is trapped underneath a shaft sealing lip, it's only a matter of time before the resulting shaft wear renders the seal ineffective. Repairs used to mean the costly, time-consuming proposition of shaft dismounting and re-machining. But SKF Speedi-Sleeve can take a shaft from scored to restored in just minutes – or eliminate the need to finish it in the first place.

SKF Speedi-Sleeve

- Increases productivity and reliability
- Improves sealing performance
- Minimizes downtime for repairs
- Eliminates shaft grinding, metalizing or machining
- Compatible with the original seal size

Typical applications

Virtually any with a radial shaft seal:

- Industrial gearboxes and transmissions
- Motors, speed reducers, pumps and fans
- Construction and agriculture equipment
- Crushers and conveyors
- Rolling mills and paper mills

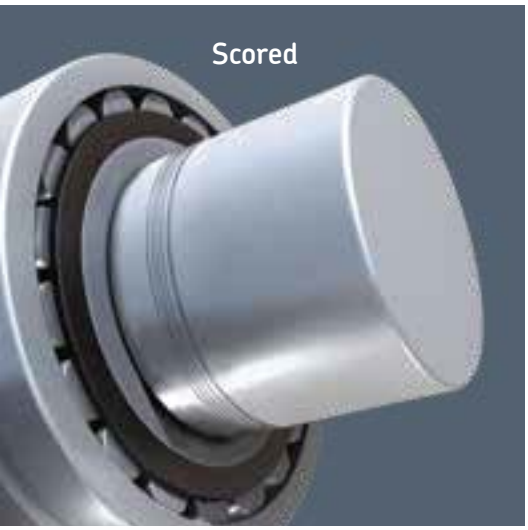
BE BACK UP AND RUNNING IN AS LITTLE AS

45 minutes

SAVE $1250 AND

1 week

OF REPAIR TIME



SKF Speedi-Sleeve – Standard and Gold

SKF Speedi-Sleeve is a thin-walled 0.011 in. (*0.28 mm*) shaft sleeve that presses into position over the shaft. The wear-resistant contact surface minimizes directionality, enabling a seal running surface that's superior to what can usually be achieved on a shaft.

SKF Speedi-Sleeve Gold is designed for highly abrasive applications and features a thin metallic coating on the base stainless steel that adds durability.

SKF Speedi-Sleeve Standard and Gold both fit shaft diameters from 0.472 in. (*12 mm*) to 7.99 in. (*203 mm*).

LDSLV4 wear sleeves

Designed for heavy industrial applications, large diameter wear sleeves feature a thicker 0.094 in. (*2.39 mm*) wall and fit shaft dimensions from 8 in. (*200 mm*) to 45 in. (*1 143 mm*).

For OEMs

More and more manufacturers are skipping shaft finishing and installing SKF Speedi-Sleeve from the start. Doing so eliminates the need to finish-machine, grind and harden the shaft; rough machining is all that is required. OEMs also get a premium shaft sealing surface with longer wear life, easier maintenance and better overall sealing system performance – all while avoiding machining vendors, vendor requirements and vendor blame for leakage issues.

speedi

spe' de

marked by swiftness of motion or action

For distributors

Every year, thousands of shafts are repaired or replaced due to a groove in the sealing surface. Distributors should remind customers that the best way to avoid these costly repairs is to prevent them in the first place with an SKF Speedi-Sleeve. Each time a customer buys a rotary seal, distributors should suggest pairing it with an SKF Speedi-Sleeve to help prevent unplanned downtime, repairs and costs.

For rebuilders

With SKF Speedi-Sleeve, shaft rebuilders can repair worn shafts in just minutes rather than the week or more that reworking a shaft usually requires. Rebuilders also get to avoid the costs and risks that come with re-metallizing or re-machining a worn shaft.

SKF Speedi-Sleeve wear sleeves

The fastest way to an optimal sealing surface

Diagram 1

SKF Speedi-Sleeve wear test
Abrasive media, test stopped at 500 hours

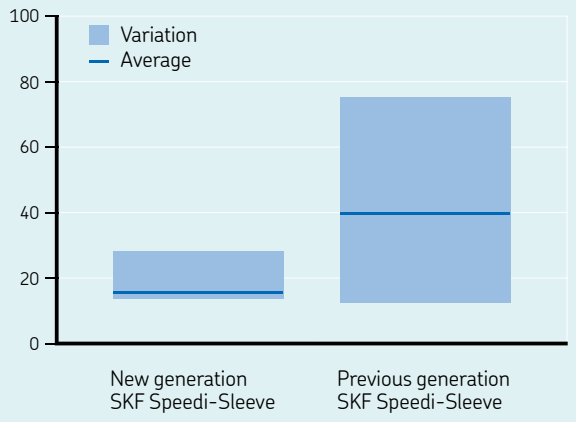
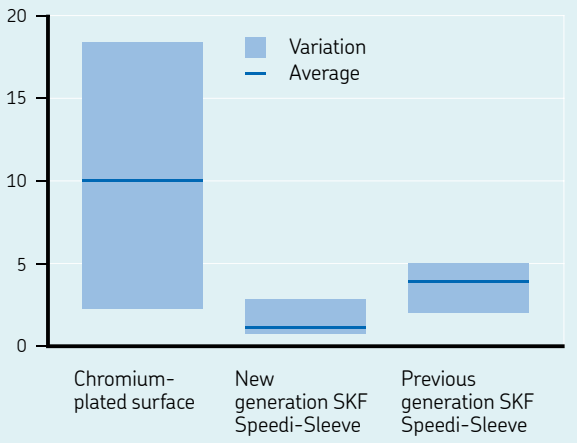


Diagram 2

Sealing lip wear test
Seals made from FKM, test stopped at 2 000 hours



New generation design and performance

Reflecting our commitment to continuous design improvements, the new generation SKF Speedi-Sleeve feature a proprietary stainless steel material and a manufacturing process that increases strength and ductility. The result is an optimized seal counterface surface that wears less than standard sleeves and increases overall sealing system performance.

Putting SKF Speedi-Sleeve to the test

In an effort to continuously improve our design, SKF has introduced an even better Speedi-Sleeve; a new generation of performance. SKF compared the new generation SKF Speedi-Sleeve with the previous generation in a series of abrasion wear tests. First, both Speedi-Sleeve generations were measured for abrasion resistance after exposure to coarse and fine dust conditions. A second test with both generations measured sealing lip abrasion resistance using SKF Wave seals made from the SKF FKM material SKF Duralife. Operating conditions were the same for each test: temperatures up to 225 °F (*110 °C*) and linear shaft speeds of up to 1700 ft/min (*8,6 m/s*).

Less abrasion and wear, more reliability

After the 500-hour contamination test (→ **diagram 1**), the latest generation SKF Speedi-Sleeve reduced abrasion by a factor of 1,5 vs. the previous version and was still operating efficiently. In the 2 000 hour life test shown in **diagram 2**, the latest generation SKF Speedi-Sleeve reduced sealing lip wear and the variation in the wear rate by approximately 30% compared to the previous generation and outperformed a chromium-plated surface by a factor of 2.

The new generation SKF Speedi-Sleeve wears less than standard sleeves and increases overall sealing system performance.

Chromium-plated sleeve A

Chromium-plated sleeve B

New generation SKF Speedi-Sleeve

A closer look at sleeve sealing surfaces

Images from a scanning electron microscope (SEM) show the razor sharp micro-cracks that often form on the chrome-plated surface of a thin sleeve.

Chromium isn't all it's cracked up to be

As **diagram 2** shows, chromium-plated shaft repair sleeves cause seals to wear out more quickly than SKF Speedi-Sleeve. Although chromium-plating renders a harder surface than stainless steel, once it is applied to a paper-thin substrate it will invariably crack, as the SEM images reveal. These razor-sharp micro-cracks significantly shorten seal life. SKF found this risk in the 1980s, yet chrome plating is still found in the market and touted for extreme wear resistance. Try SKF Speedi-Sleeve Gold - the proven solution for dirty, abrasive applications.

SKF Speedi-Sleeve wear sleeves

General installation/removal instructions

SKF Speedi-Sleeve requires proper installation and removal to function optimally. Follow the steps listed to ensure SKF Speedi-Sleeve is installed and removed effectively.

Installing SKF Speedi-Sleeve

1. Clean the seal counterface surface on the shaft. File down any burrs or rough spots and DO NOT install the sleeve over keyways, cross holes, splines or similar obstructions.
2. Measure shaft diameter on an unworn position where the sleeve will be positioned (→ **fig. 6**). Measure in three positions and average the readings to make sure the shaft is within recommended specifications. If the average diameter is within the range for a given sleeve size, there is sufficient press fit built into the sleeve to prevent it from sliding or spinning without using an adhesive.
3. Determine where the sleeve must be positioned to cover the worn area. Measure to the exact point and mark with a marker directly on the surface. The sleeve must be placed over the worn area, not just bottomed or left flush with the end of the shaft.
4. Shallow wear grooves do not require filling. Optionally, a light layer of a non-hardening sealant can be applied to the inside diameter surface of the sleeve. Clean away sealant that migrates to the shaft or sleeve outside diameter surface.
5. If the shaft is deeply scored, fill the groove with a powdered metal epoxy-type filler. Install the sleeve before the filler hardens, enabling the sleeve to expel any excess filler. Clean away any remaining filler from the sleeve outside diameter surface.
6. Never use heat to install SKF Speedi-Sleeve.
7. If the flange requires removal after installation, cut it from the outside diameter into the radius in one location. The flange end of the sleeve goes on the shaft first, followed by the installation tool over the sleeve (→ **fig. 7**).
8. Gently tap the center of the installation tool until the sleeve covers the worn shaft surface (→ **fig. 8**). If the installation tool is too short, a length of pipe or tubing with a squared-off, burr-free end can also be used. Make sure that the inside diameter of the pipe matches that of the installation tool. Use care not to scratch the precision ground sleeve's outside diameter.
9. SKF Speedi-Sleeve should always be installed so that the outside edge of the sleeve is seated on the full shaft diameter. It must not rest in or outside the chamfer area as the sharp edge will likely cut the sealing lip during seal installation.
10. If the flange was cut for removal, grasp the flange with a pair of long-nosed pliers to pull it away from the sleeve. Twist it into a coil to remove it fully; DO NOT lift the end of the sleeve off the shaft as it will leave a jagged edge. Flange removal must be done with care to avoid damage to the outside diameter of the sleeve.
11. After the sleeve is installed, check again for burrs that could damage the seal.
12. Lubricate the sleeve with the system medium before installing the seal.
13. Proceed with seal installation.

Figure 6

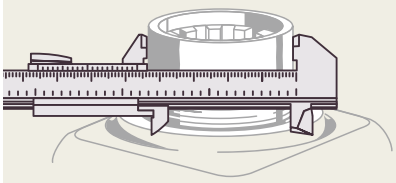


Figure 7

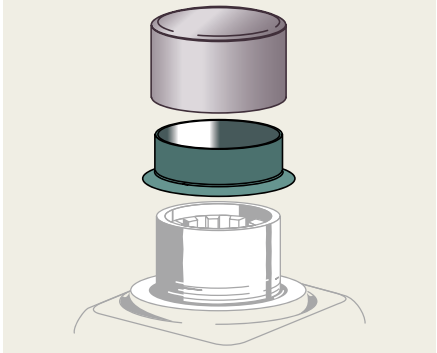
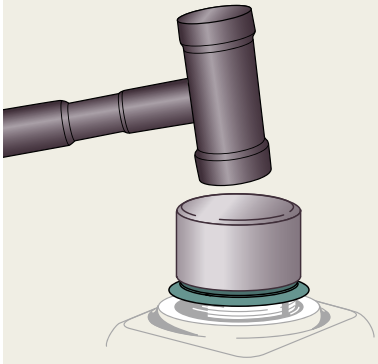


Figure 8



Removing SKF Speedi-Sleeve

SKF Speedi-Sleeve can be removed by applying heat to the sleeve with an electric heat blower. The heat will expand the sleeve enough to let it slide off easily, without damaging the shaft. The sleeve can also be removed without heat by:

- relieving the press-fit tension using a small hammer to peen across the full width of the sleeve
- using a cold chisel to cut through the sleeve
- using a pair of wire cutters starting at or near the flange and applying a twisting motion

Always use care to avoid damaging the shaft surface during any removal procedure. Please note that SKF Speedi-Sleeve cannot be reused.

Using LDSLV designs

SKF LDSLV wear sleeves for heavy industrial applications can be used in two ways (→ **fig. 9**):

1. Position the sleeve on the shaft until it covers the damaged part. Use a new seal, designed for a 0.188 in. (*4.78 mm*) larger shaft diameter.
2. Machine the shaft down by 0.188 in. (*4.78 mm*) in diameter, then install it w/original seal size. The reworked shaft surface for the sleeve should have a surface roughness between Ra 2.5 and 3.2 µm (*100* to *125 µin.*). Suitable for use in systems with sustained temperatures higher than 165 °F (*75 °C*) and surface speeds in excess of 3,900 ft/min (*20 m/s*).

Installing LDSLV

SKF wear sleeves for heavy industrial applications are designed for a heated slip-fit installation and must therefore be uniformly heated prior to installation. The sleeve temperature should be approximately 355 °F (*180 °C*). Under no circumstances should the sleeve be heated to above 390 °F (*200 °C*).

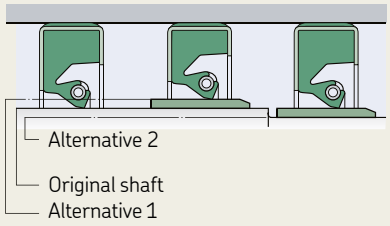
Heating techniques normally used for bearings are suitable, such as induction heaters or heating cabinets. Sleeves should be installed immediately after heating as they cool rapidly and could seize on the shaft before the correct position is achieved. If repositioning is necessary, use a soft-faced hammer and a wooden block. After the sleeve is in the desired position, check the lead-in chamfer for any damage from installation.

Removing LDSLV

The wear sleeves can be removed either by heating them or expanding them by light hammer blows.

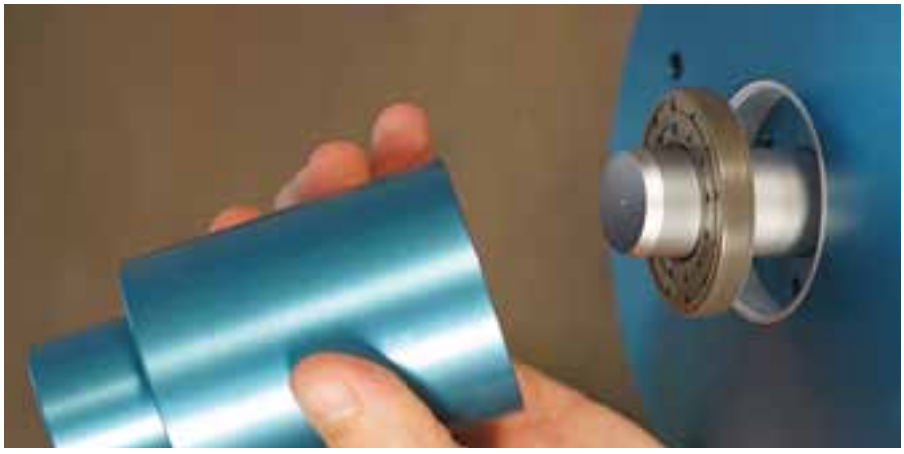
Figure 9

Using LDSLV designs



Seal installation:
General industrial applications

Effective sealing demands proper seal installation. To help ensure it for every job, installers should review and follow the general installation checklist below, plus any specific application instructions that apply throughout the rest of this section.



General installation checklist

☑ Check the dimensions

Be sure that shaft and bore diameters match those for the seal selected.

☑ Check the seal

Inspect the seal for damage – a sealing lip that is dirty, cut, or otherwise damaged will leak and the seal should be replaced.

☑ Check the bore

Make sure the leading edge is deburred; use a 15-30 degree-chamfer whenever possible as shown in **fig. 13** on **page 48**.

☑ Check the shaft

Remove surface nicks, burrs and grooves.

☑ Check the shaft end

Remove burrs or sharp edges. If the shaft must enter the seal against the sealing lip, the shaft end should be chamfered.

☑ Check splines and keyways

Look for sharp edges and use an assembly sleeve or cover with tape. If unavailable, round the spline or keyway edges and lubricate with a hard, fibrous grease.

☑ Check direction

Always point the seal lip toward its primary function. In oil applications, the lip should face the oil to retain it. In grease applications, the lip should point away from the grease to seal out fluid and contaminants and allow grease to purge. If there is no contamination and grease retention is key, the lip should point toward the grease.

☑ Pre-lubricate the sealing element

Right before installation, wipe or dip the seal in the lubricant to be retained.

☑ Use the correct installation tool

See Tool Tips for the optimal tool configuration.

☑ Use proper driving force

Use an arbor press if possible; otherwise use a soft-faced hammer to avoid popping the spring out of the seal or damaging the seal case.

☑ Avoid cocking the seal

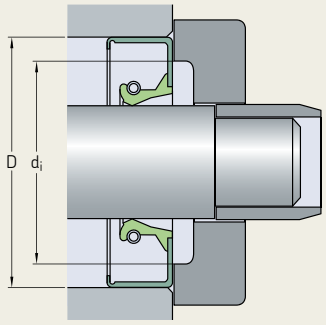
Make sure that the seal or tools can bottom out on a perpendicular face without crushing the seal case.

☑ Check for interference

Look for machine parts that could rub against the seal to generate friction and damaging heat.

Figure 1

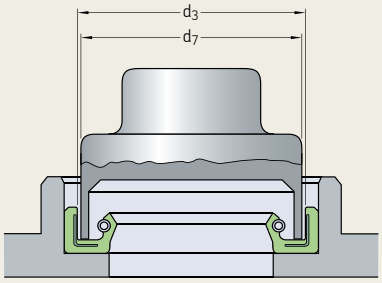
Preferred installation method



$d_i \approx D - 0.236"$ (6mm)

Figure 2

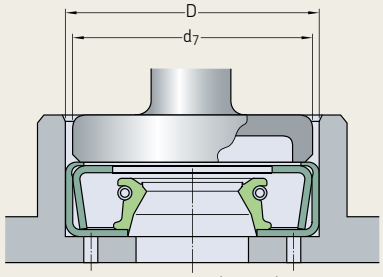
Alternative installation method



$d_7 = d_3 - 0.020"$ (0.5mm)

Figure 3

Alternative installation method



$d_7 = D - 0.020"$ (0.5mm)

Tool tips

Seals that are designed to sit flush with the housing bore must be installed perpendicular to the housing bore axis. The tool's outside diameter should be larger than the housing bore diameter (**→ fig. 1**).

When pressing seals up against a shoulder or retaining ring, installers should use the tool types shown in **figs. 2** and **3**.

On stepped shafts, where the shoulders do not have the recommended chamfer or rounded transition, an installation sleeve must be used (**→ fig. 4**). If the sealing lip must pass over grooves, threads or gearing, thin-walled installation sleeves (**→ fig. 5**), can help protect the lip from damage.

The tools used to install a seal at a certain distance in a cylindrical opening in a housing are shown in **figs. 6** and **7**. Instructions for designing the tools can be supplied on request.

Figure 4

Installation sleeve

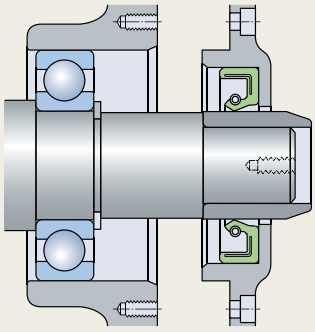


Figure 5

Thin-walled installation sleeve

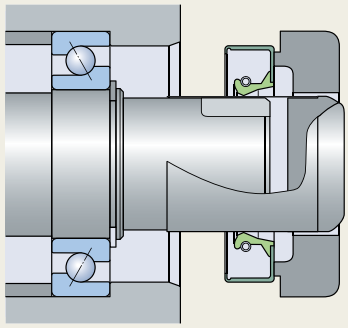
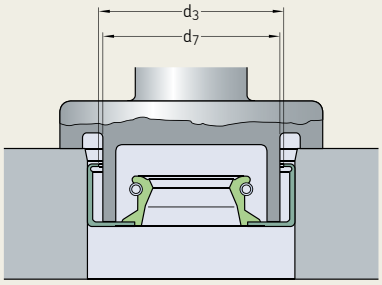


Figure 6

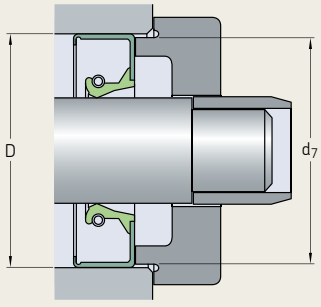
Installation in a cylindrical opening



$d_7 = d_3 - 0.020"$ (0.5mm)

Figure 7

Installation in a cylindrical opening



$d_7 = D - 0.020"$ (0.5mm)

Seal installation:

SKF Flex heavy industrial applications

Figure 8

Use a dead blow hammer

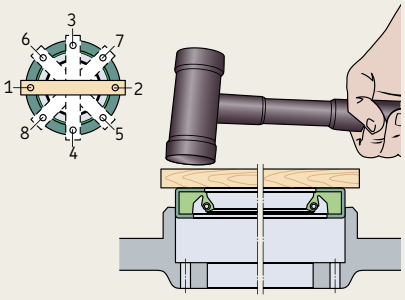
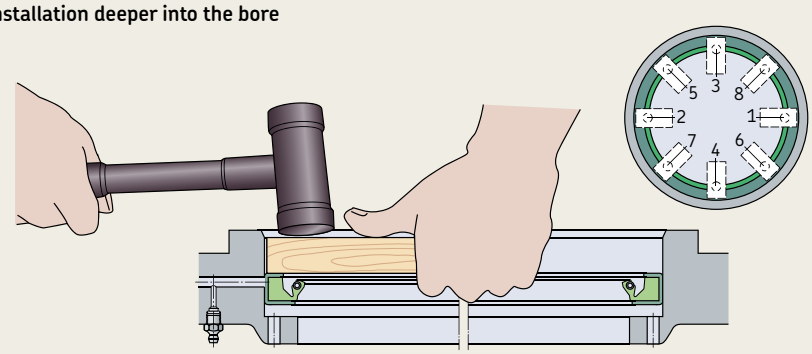


Figure 9

Installation deeper into the bore



Metal-reinforced seals

When installing metal-reinforced seals, first check the shaft and housing bore for proper specifications and condition. Next, coat both the seal and bore lightly with a lubricant, preferably the same one that will lubricate the application. For large diameter seals, a special installation tool may not be practical. In such cases, do not hit the seal or seal case directly; instead, use a wooden block long enough to span the seal's outside diameter.

When using this method, it is important to apply hammer-blows evenly and sequentially to the wood piece around the seal circumference to prevent the seal from tilting or skewing. SKF also recommends the use of a dead blow hammer for full energy transfer with less impact (→ **fig. 8**).

In some applications, the housing is designed for two seals in tandem, or a seal might have to be recessed further into the bore depth. In those cases, first set the seal flush with the housing using the method described above. Then, use a shorter piece of wood to drive the seal deeper into the bore utilizing a sequential pattern (→ **fig. 9**).

Seals without metal reinforcement

Be sure that the shaft surface and housing bore are clean and that they meet the specifications listed in Shaft requirements and Housing bore requirements on **pages 46-49.** Special care must be taken to avoid nicks and burrs on the shaft and to make sure that the spring is retained in the spring groove.

HS and HSS seals are installed differently depending on whether their main purpose in a specific application is to retain lubricant or to exclude contaminants (→ **fig. 10**).

Split seals

Where appropriate, insert the spring in the SKF Springlock groove and position the spring connection, so that it is displaced with regard to the seal joint (→ **A** in **fig. 11**). This is standard with all HS8 seals. Put the seal in the correct position on the shaft.

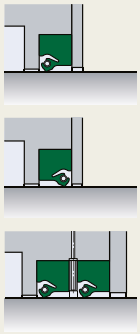
Lightly coat both the seal and counterface surface with a lubricant, preferably the same lubricant that will lubricate the application (**B**).

Join the ends of the garter spring using the spring connector (**C**).

For threaded connectors, back-wind the spring a couple of turns before the ends are brought together and allowed to thread into each other. When using a hook-and-eye connector, draw the ends of the spring together and insert the hook into the eye, taking care not to over-stretch the spring in the process, as this might impair seal performance. When using a control-wire connector, draw the seal ends together and insert the control wire into the center of the spring coil.

Figure 10

Ways of installing HS seals



Position the seal joint on the shaft at the 12 o'clock position and push both ends of the joint into the housing bore (**D**). Do not push only one joint and then work around the shaft as this will create an excess length, making installation difficult or impossible.

Continue at the 3 and 9 o'clock positions; push the rest of the seal into position (**E**) and finish simultaneously at the 6 and 12 o'clock positions. For shaft diameters ≥ 47 in. (*1200 mm*), fix the seal at the 12, 3, 6 and 9 o'clock positions before locating the remaining sections of the seal.

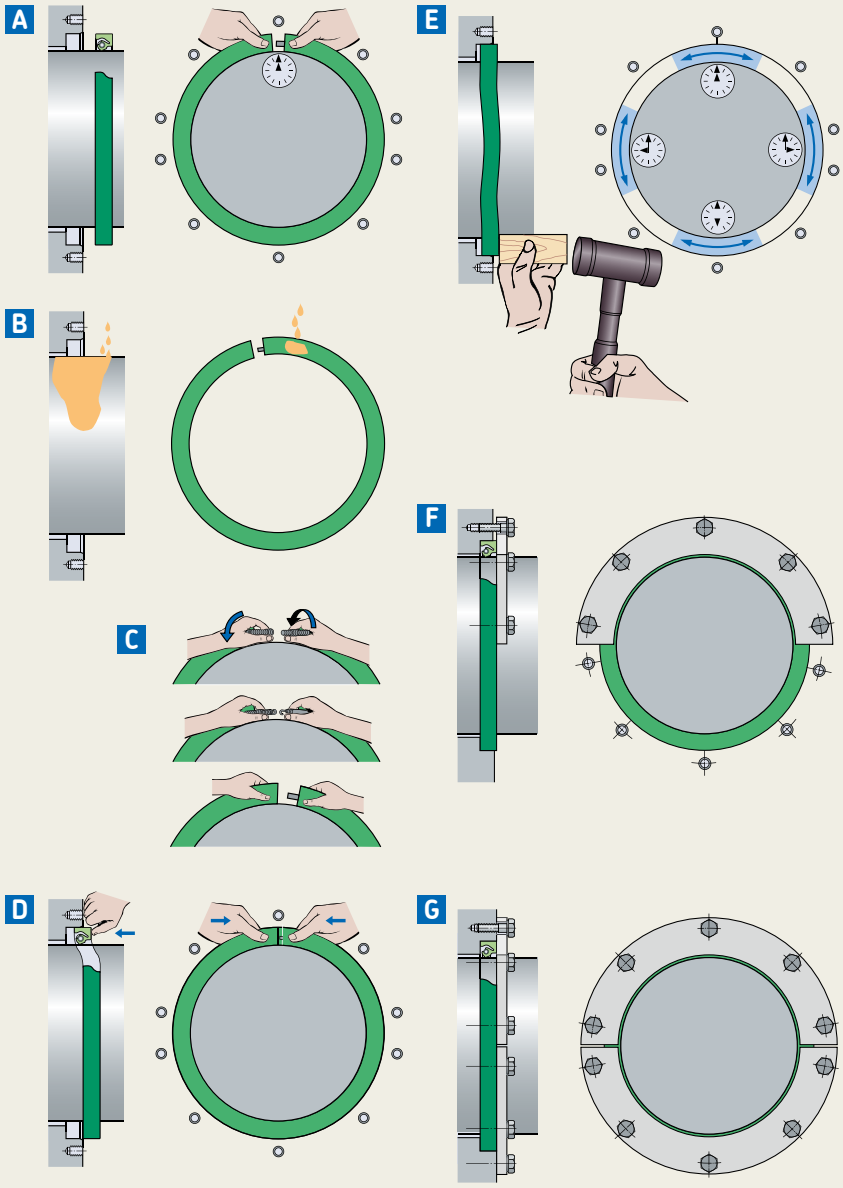
Use a small block of wood to push the seal in the housing bore until it contacts the housing shoulder (**E**).

Check the seal condition, particularly at the joint, to make sure that it has been positioned properly.

Install the cover plate (see paragraph *Cover plates* on **page 28**) on the housing face. Tighten the bolts evenly until the end cover abuts the housing face (**F** and **G**).

Figure 11

Installing a split seal

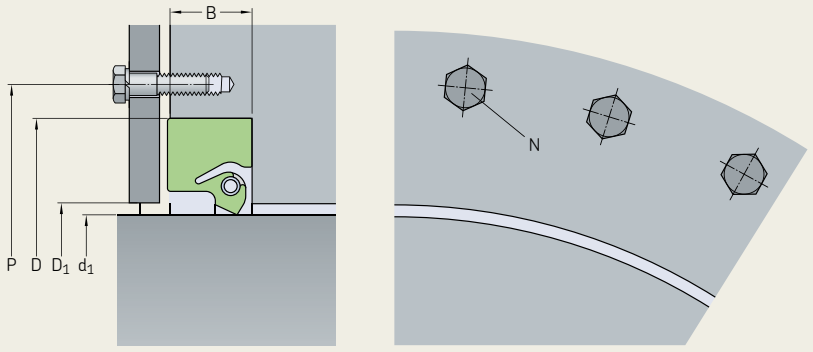


Seal installation:

SKF Flex Heavy industrial applications

Figure 12

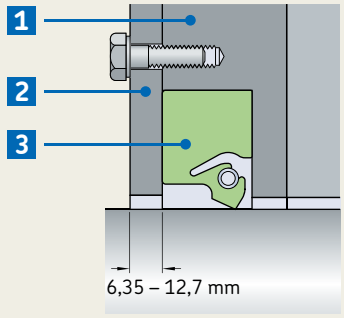
Cover plate recommendations



Inside diameter of cover: D1 ≈ d1 + 6 .. 8 [mm]
Pitch circle diameter of screws: P ≈ 1,1 D [mm]
No. of attachment screws: N ≈ 0,02 P
Bore depth = Nominal seal width = B

Figure 13

Cover plate



1 New seal cavity plate
2 Seal-retaining cover plate
3 Sealing element

Cover plates

Seals without metal reinforcement, split and solid, are manufactured oversized relative to the housing bore diameter and depth to enable proper compression and stability. A cover plate (→ **fig. 12**) provides axial compression of the seal and stabilizes it in the housing bore to achieve maximum seal performance. The cover plate must be dimensioned properly to obtain the required fit. It should be thick enough not to bend or distort; generally, a thickness of 0.25 to 0.50 in. (*6.35 to 12.7 mm*) is sufficient.

The plate should be fastened with bolts, no more than 6 in. (*150 mm*) apart, on a bolt circle located as close to the seal housing bore as practical. The cover plate should be flat and the housing bore depth uniform. Splitting the cover plate at 180° will make seal replacement easier, particularly in confined areas.

To block surges of lubricant toward the seal from the inside and to protect the seal from damage from the outside, SKF recommends dimensioning the inside diameter of the cover plate so that it is 0.25 to 0.30 in. (*6 to 8 mm*) greater than the shaft diameter to accommodate shaft-to-bore misalignment and runout (→ **fig. 12**).

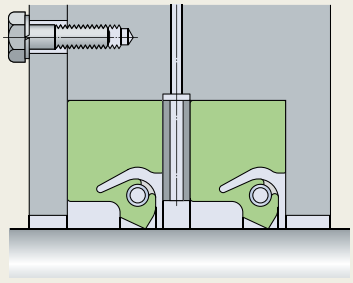
In applications where supplementary sealing is necessary and it is impractical to machine the original housing to provide a seal cavity, a seal cavity can be incorporated into a new plate that is bolted into place as in **fig. 13**.

Bore depth and seal width

For all rubber HS and HSS seals, the seal width is approximately 0.016 in. to 0.032 in. (*0.4 to 0.8 mm*) wider than the bore depth B (→ **fig. 12**). For sizing purposes, the bore depth and nominal seal width are the same. Therefore, when building a part number according to the SKF Flex designation system (**page 64**), you should put the bore depth (nominal seal width) in the part number.

Figure 14

Spacing washer



For example, the “32” in a 700-900-32 HSS8 R calls out a nominal 1/2-inch width, which fits properly in a 1/2-inch bore depth. We make the seal slightly wider than that so the cover plate will close tightly on the seal for stability. This principle only applies to all rubber HS and HSS seals; metal cased seals are made to the target width called out in the part number. For HS seals, the bore depth tolerance should be °æ0.005 in. (*0.13 mm*) and °æ0.004 in. (*0.10 mm*) for all-rubber reinforced HSS seals.

Multiple HS seal installations

When installing two split all-rubber HS seals in one cavity, the locations of the split joints should be staggered by 30° to 60° to minimize the risk of leakage through the joints. The splits should be located toward the top of the bore. Grease the cavity between the seals to provide lubricant to the outer sealing lip.

When two HS seals, split or solid, are installed in the same housing bore, a spacing washer must be placed between the two seals (→ **fig. 14**). Suitable washer dimensions can be determine based on the shaft and housing bore diameters, d1 and D, respectively:

washer inside diameter

= d1 + 0.25 to 0.4 in. (*6 to 10 mm*)

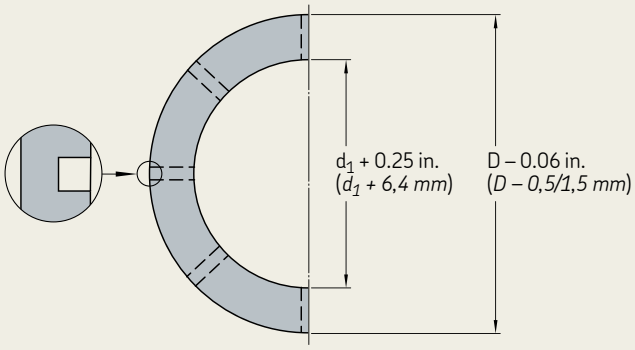
washer outside diameter

= D – 0.02 to 0.06 in. (*0.5 to 1.5 mm*)

The width of the washer is determined by the application conditions. There should, however, always be sufficient room for lubrication holes to be provided in the circumference, or lubrication grooves in one side face (→ **fig. 15**). These lubrication provisions must enable grease to be supplied from the housing to the sealing lips via a drilled passage or grease fitting **(→ fig. 16)**. When determining what washer width is appropriate for the depth of a housing bore, it is necessary to consider the axial displacement required when clamping the seals.

Figure 15

Details of spacing washer for central lubrication
A separator between two seals can be a slotted washer to promote distribution of the lubricant.



Multiple HDS seal installations

When installing two metal-cased radial shaft seals in the same housing bore, either in a tandem or back-to-back arrangement, care must be taken that neither of the sealing lips run dry. To reduce the risk of dry running, the space between the seals should be filled with a suitable grease.

SKF also recommends using spacer lugs or a spacing washer between the two seals. The spacing washer should be provided with lubrication holes so that grease can be supplied to the space between the sealing lips via a grease fitting (→ **fig. 16**). No spacing washer is required when using seals that have spacer lugs built into the air side of the metal case (→ **fig. 17**).

Figure 16

Spacing washer and grease fitting

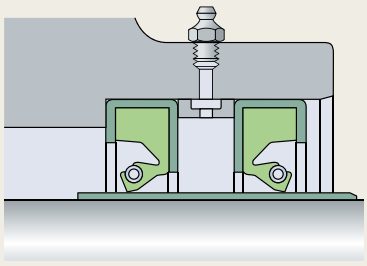
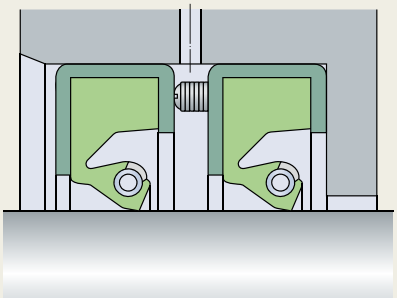


Figure 17

Spacer lug



Seal installation:
Special considerations for a PTFE lip

PTFE seals

In applications where PTFE seals will be retaining a lubricant or be fully flooded with a fluid, the seals should be installed dry. In applications that run dry or will be starved for lubrication, the sealing lip should be pre-lubricated with a grease appropriate for the temperature conditions of the application.

WARNING: At temperatures above 570 °F (*300 °C*), all PTFE compounds emit dangerous fumes.

Installation procedure

PTFE lips do not have the same elastic properties as rubber lips, which makes them more susceptible to damage. Therefore, special care must be taken during installation and handling to prevent damage and help ensure proper operation and function. Shaft features such as keyways and splines, as well as drill holes, ports and sharp-edged shaft steps have the potential to damage PTFE lips. Whenever possible, these obstructions can be covered by using thin-walled installation tools made from plastic or metal.

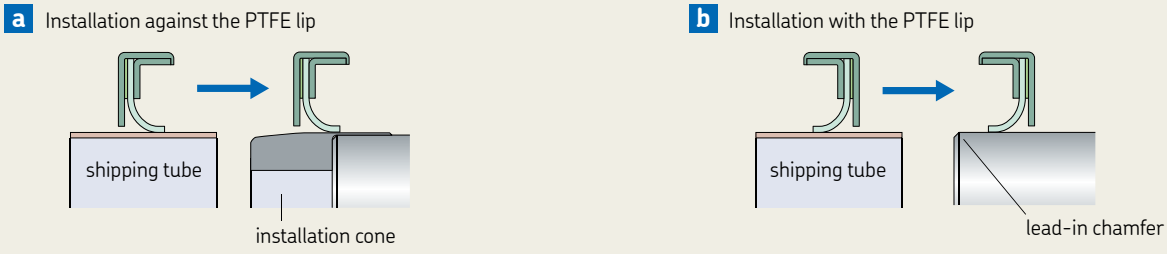
PTFE lip orientation during installation will determine the installation method. Installation is more difficult when the shaft is installed against the PTFE lip (→ **fig. 18**, **a** and **c**). This type of installation becomes even more complicated when the hardware is difficult to access or visually obstructed and may not be possible if an installation tool cannot be used. In any case, when the shaft is installed against the PTFE lip, SKF recommends the use of an installation cone or "bullet". In lieu of installation cones, longer than normal lead-in chamfers on the shaft would be required. However, shaft features that could damage the seal (keyways, etc.) must still be covered, possibly with tape.

If the shaft is installed with the PTFE lip, a smooth, burr-free radius or chamfer on the shaft end is all that is required, provided that no damaging shaft features are present as noted above (→ **fig. 18**, **b** and **d**).

Some seals have two PTFE lips facing opposite directions. In this case, installation is always against one of the lips and an installation cone is recommended.

Figure 18

Seals with a PTFE sealing lip



Seals with an elastomeric sealing lip and a PTFE auxilary lip


SKF

Seal storage and handling

Making sure CR Seals are always ready to work

Seals, like most products made from natural or synthetic rubber, are susceptible to physical changes. If stored or handled improperly, seals can harden, soften, peel, crack, or become permanently deformed. This often results in an immediate seal failure or a much-shortened lifespan. Protect seal inventories and machine uptime instead – follow these key seal storage and handling tips!

Keep them cool

Excessive heat causes rubber seals to become brittle and crack. Seals should always be stored in a moderately ventilated indoor area with temperatures between 60 °F to 80 °F (15 °C to 25 °C). Seal packages in heated storage rooms should be kept at least three feet away from the heat source. In rooms where a heater with a fan is used, the distance should be greater.

Store seals at

60 °F to 80 °F (15 °C to 25 °C)

Keep dry, avoid UV light, ozone and fumes

Keep them dry

High humidity can lead to condensation and corrosion in metal cases and springs. Before seals are unpacked, they should be warmed and kept at a temperature of at least 70 °F (20 °C) in order to prevent exposure to condensation. Seal storage areas should remain between 40 to 70% humidity (outdoor storage without protection should be avoided).

Avoid UV light

Excessive exposure to direct sunlight can cause premature aging and cracking in some seal materials. Exposure to artificial light with a high proportion of UV radiation can also cause damage. Accordingly, windows in the storage area should be filtered with a red or orange coating (never blue). Ordinary light bulbs are preferred for illumination.

Avoid ozone and fumes

Seals should be stored away from ozone-emitting sources such as fluorescent lights, mercury lights, or electric motors. Because combustion fumes and vapors can produce ozone as the result of photochemical processes, all solvents, fuels, lubricants, chemicals, acids, disinfectants, etc. should not be stored in the same room as seals.

Don't leave them hanging

In many facilities, seals hang on maintenance shop walls next to belts and chains. But hanging a seal on a nail or any small surface for more than a few hours will permanently distort the lip, creating a leak path that eventually can lead to seal failure. In general, elastomer products should not be subjected to any tension or compression during storage.

Keep in package until use

A seal should remain in its original packaging until it's time for installation. Once a seal leaves the box, it can be compromised easily by rough handling, contaminants and environmental conditions. SKF seal package labeling conveys key information about the seal inside, so there's no need to open the box. Instead, keep it closed and keep the seal factory-new for installation.

Hands off the sealing lip

Once the box is open, remember to NEVER handle a seal by the lip. Seal lips can be as thin as 0.2 mm, and simply touching or grabbing them can create momentary depressions. Such depressions can bounce back into shape, or they can lead to permanent crimps and tears and ultimately, seal failure. Natural oils in your hands can weaken certain seal materials as well.

Keep them contaminant-free

Never place a seal on a dirty workspace area. The RTV, metal chips, dirt and dust they can pick up will eventually undermine bearing performance. Be particularly careful with a seal that has just been lubricated for installation, as lubricant attracts contaminants like a magnet.

Avoid contact with certain metals

Certain metals, especially copper and manganese, damage elastomer products.

Contact with these metals should therefore be avoided and the seals should be covered with layers of paper or polyethylene to prevent such contact.

SKF seal storage and guidelines meet ISO 2230 and DIN 7716 standards

CR Seals lip materials

Optimized material options for industrial applications

To keep up with ever-changing sealing demands, SKF is constantly developing high-performance sealing solutions from these key material types:

NBR

Acrylonitrile-butadiene rubber (nitrile or Buna N) materials are extremely flexible; many resist mineral oils, greases and more.

XNBR (SKF Duralip)

This SKF-developed carboxylated nitrile rubber combines good technical properties of nitrile rubber with increased wear resistance.

HNBR (SKF Duratemp)

This SKF-developed hydrogenated nitrile rubber can withstand abrasive environments and high temperatures.

FKM (SKF Duralife)

This SKF-developed fluorocarbon rubber compound offers excellent resistance to wear, chemicals, UV light and ozone.

PTFE

Polytetrafluoroethylene compounds withstand aggressive chemicals, high temperatures and pressures and dry running conditions.

Polyacrylate elastomer

Polyacrylate elastomers are more heat-resistant than nitrile rubber or SKF Duralip, and resist aging and ozone.

Wear resistance

Seal wear resistance depends largely on the sealing lip material, although shaft surface finish, lubricant type, circumferential speed, temperature, and pressure differentials all play a role.
Diagram 1 compares relative wear resistance for CR Seals lip materials when the seals are of the same size and operating under identical conditions.

Operating temperatures

At low temperatures, the sealing lip loses its elasticity and becomes hard and brittle. Sealing efficiency decreases and the seal becomes more susceptible to mechanical damage. At high temperatures, the lubricant film often breaks down, resulting in insufficient lubrication – one of the most common causes of premature seal failure.

Diagram 2 presents the permissible operating temperature ranges of key SKF sealing lip materials.

Materials matrix

Material	Abbreviation	SKF trade name	Material code	Operating temperatures °F (°C)	Relative wear resistance	Fluid compatibility	Fluids to avoid
Nitrile Rubber	**NBR**	**–**	**R or RG**	**–40 to 210 °F (–40 to 100 °C)**	**4**	**Petroleum or silicone-based oils and greases, fuels, vegetable oils, warm water**	**Brake fluids, ammonia, amines, aliphatic or chlorinated hydrocarbons, phosphate ester fluids, polar solvents (ketones, acetones, MEK)**
Carboxylated Nitrile	**XNBR**	**Duralip**	**D**	**–40 to 210 °F (–40 to 100 °C)**	**7**		
Hydrogenated Nitrile	**HNBR**	**Duratemp**	**H**	**–40 to 302 °F (–40 to 150 °C)**	**7**		
Fluorocarbon Rubber	**FKM**	**Duralife**	**V**	**–5 to 390 °F (–20 to 200 °C)**	**8**	**Oils, fuels, mineral acids, aliphatics, aromatic hydrocarbons**	**Esters, ethers, keyones, amines, hot anhydrous hydrofluorides, MEK**
Polyacrylate elastomer	**ACM**	**–**	**P**	**–40 to 300+ °F (–40 to 150+ °C)**	**2**	**Fluids with EP additives, ozone**	**Water, acids, alkalis. Do not run dry.**
Filled Polytetrafluoroethylene	**PTFE**	**–**	**T**	**–90 to 480 °F (–70 to 250 °C)**	**10**	**Nearly ALL fluids**	**Rare fluids- fluorine, deithylamine**

Diagram 1

Wear resistance when lubricated

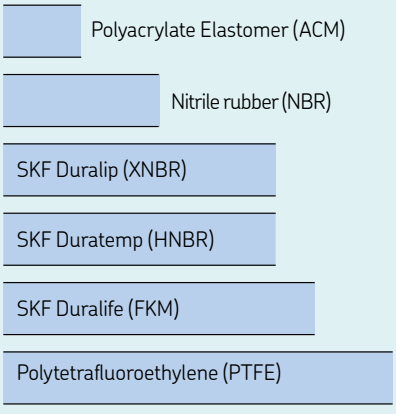
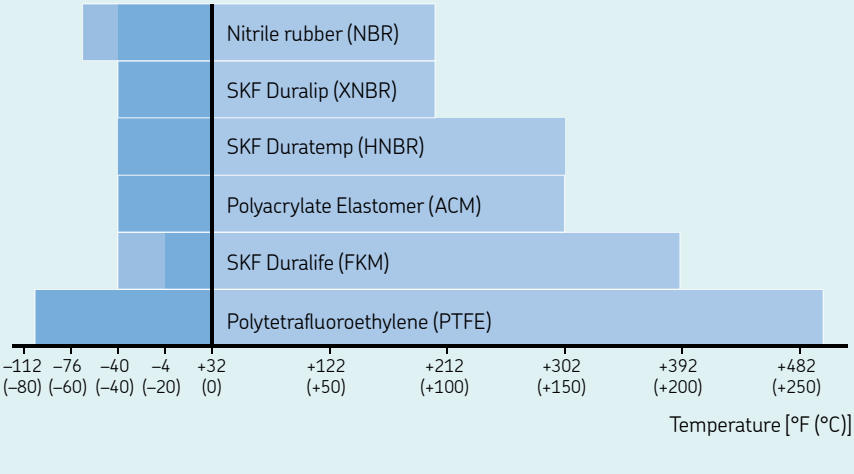


Diagram 2

Permissible operating temperatures



CR Seals lip materials

Optimized material options for industrial applications

Table 1

Chemical and thermal resistance, radial shaft seal lip materials

Medium to be sealed		Permissible operating temperatures (continuous) for SKF radial shaft seal lip materials					
		R (NBR)		P (ACM)		V (FKM)	
–		°F	°C	°F	°C	°F	°C
Mineral oil based lubricants							
Motor oils		210	100	270	130	340	170
Gear oils		175	80	250	120	300	150
Hypoid gear oils		175	80	250	120	300	150
Automatic transmission fluids (ATF oils)		210	100	270	130	340	170
Greases		195	90		□		□
Hydraulic fluids		195	90	250	120	300	150
Fire-resistant hydraulic fluids							
Oil in water emulsions and aqueous polymer solutions		160	70		■		□
Anhydrous fluids			■		■	300	150
Other media							
Fuel oils EL and L		195	90		□		□
Water		195	90		■	210	100
Alkaline washing solutions		195	90		■	210	100
Permissible temperature range for sealing lip	min:	–40	–40	–40	–40	–40	–40
	max:	+210	+100	+300	+150	+390	+200

■ Lip material not resistant □ Lip material not resistant to some media in this group

Chemical and thermal resistance

Chemical resistance to the medium to be sealed or excluded is the most important factor when selecting an elastomer for a radial shaft seal. Operating temperature is a close second, however, as heat accelerates aging of the elastomer and increases the reactivity and aggressiveness of the sealed medium.

Guideline values are provided in **table 1** for the operating temperatures at which SKF seals will remain chemically resistant. The temperature range stated for a group of media means that the sealing material is resistant when continuously operated within this particular range.

The □ means that, within the group, there are some media that are compatible with the elastomer, but also some that have a detrimental effect on the elastomer. The ■ means that the seal material is not resistant to media belonging to this group.

A seal's chemical resistance is influenced by temperature, pressure and the amount of media present. **Table 2** (**page 214** in the *Appendix*) provides information regarding the resistance of SKF sealing lip materials to most substances encountered in industrial applications.

The information is based on in-house testing plus input from seal end-users and suppliers of the various materials. Unless otherwise stated, the information is valid for media of commercial purity and quality. As seal service life can be influenced by all of the factors noted above, the information contained in **table 2** should only be considered as a rough guide.

Seal cases and inserts

Metal cases and reinforcements for SKF radial shaft seals are manufactured standard from deep-drawn carbon sheet steel. The exposed surfaces are treated to protect them from corrosion during normal handling and storage. SKF radial shaft seals that will be used in corrosive environments can also be designed with a stainless steel case on request.

Garter springs

The garter springs on SKF radial shaft seals are manufactured standard from cold-drawn steel wire. Exceptions are the metal-cased HDS seals, the all-rubber HS seals, and the HMS5/HMSA10 seals made from fluoro rubber that are designed with stainless steel garter springs.

SKF Bore Tite Coating

Available on most SKF metal-cased seals, SKF Bore Tite Coating is a water-based acrylic sealant used as a coating on the outside diameter of the seal. SKF Bore Tite Coating is pliable with a thickness of 0.0012 to 0.0028 in. (*0.03 to 0.08 mm*) to compensate for small imperfections in the housing bore surface.

The general guideline in Rubber Manufacturers Association (RMA) is, that if the bore surface texture is greater than 100 µin. (*2.5 µm*) Ra, a sealant should be used. This sealant can be used at temperatures up to 390 °F (*200 °C*) and is compatible with most oils, greases, aqueous acids and alkalis, alcohols and glycols. While SKF Bore Tite Coating is not compatible with aromatics, ketones or esters, contact with these substances will have little or no effect if wiped off quickly.

Adhesives and bonding agents

Adhesives and bonding agents are used to achieve static sealing ability and satisfactory bonding between metal and elastomers in seal designs. Both of them can be solvent or water-based depending on the metal and elastomer to be bonded.

CR Seal with green SKF Bore Tite Coating

Engineering
Configurations

Selecting a seal design and material

Choosing the optimum seal design and material depends on the operating conditions of the application, including:

- Temperature
- Speed
- Pressure differential
- Lubricant type
- Vertical or horizontal orientation
- Runout and shaft-to-bore misalignment

Because the influence of one operating condition typically dominates the seal selection process, there are no universal rules for determining the most appropriate seal type or design for a given application. Instead, this section provides general seal selection guidelines by describing how operating conditions affect seal performance and service life.

Retaining grease

Greases have a relatively high viscosity, making them in some ways easy to retain in a bearing arrangement. In many grease-lubricated applications, a non-spring-loaded sealing lip design or a V-ring can retain the grease adequately (→ **fig. 1**).

More demanding applications may require SKF Wave or SKF Edge spring-loaded radial shaft seals (→ **figs. 2** and **3**). When frequent relubrication is required, the lip of at least one of the seals in the sealing arrangement should be directed toward the air-side so that excess grease can escape via the sealing lip (→ **fig. 3**). Doing so eliminates grease build-up, which can retain heat and limit heat dissipation.

For grease-lubricated applications, SKF recommends calculating the permissible circumferential speed for oil then cutting the result in half.

Figure 1

V-ring

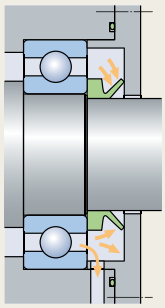


Figure 2

HMS5 seal

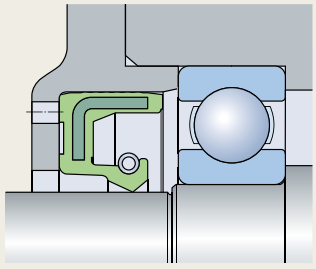


Figure 3

CRW1 seal

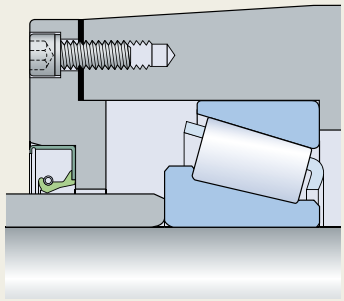


Figure 4

HMS5 seal

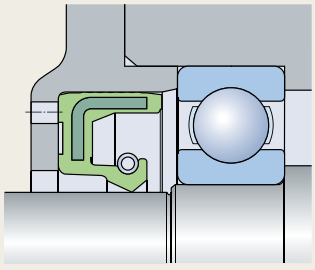


Figure 5

CRW1 seal

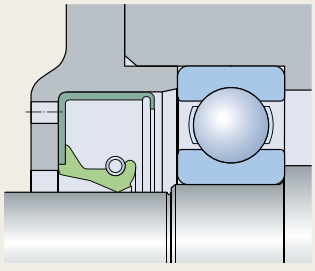


Figure 6

HDDF metal face seal

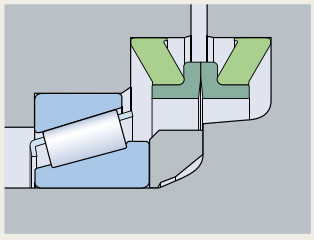
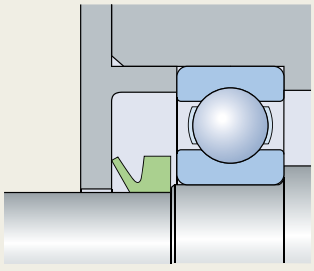


Figure 7

V-ring



Retaining oil

Lubricating oils, particularly relatively low-viscosity oils, are much more difficult to retain than greases. For oil-lubricated applications, SKF Wave or SKF Edge spring-loaded radial shaft seals (→ **figs. 4** and **5**) are recommended to achieve the necessary radial load and resistance to dynamic runout and shaft-to-bore misalignment.

Another way to increase a seal's pumping ability is to add hydrodynamic features to the sealing lip such as a helical pattern or a sinusoidal wave pattern like the SKF Wave seal.

The rubber outside diameter, like the one found on SKF Edge seals, helps compensate for small imperfections in the housing bore surface and is recommended when the required housing bore surface is questionable.

For extremely harsh operating conditions with relatively low circumferential speeds, metal face seals such as the HDDF seal (→ **fig. 6**) are suitable for retaining oil or grease.

V-rings (→ **fig. 7**) can also be used to retain oil, provided they are installed on the oil side and supported axially on the shaft.

Engineering
Configurations

Excluding contaminants

Radial shaft seals used primarily for contaminant exclusion should be installed with the lip pointing outward. When additional protection is needed, SKF recommends a seal design that incorporates an auxiliary lip, such as HMSA10 or CRWA1 seals.

For tough operating conditions, SKF Wave lip seals (→ **fig. 8**) with hydrodynamic features are recommended. To further enhance sealing efficiency, two single-lip seals can be arranged in tandem (→ **fig. 9**) or a double-lip seal (such the HDSE1 seal) is suitable (→ **fig. 10**).

V-rings (→ **fig. 11**) are used primarily to exclude contaminants. These seals act as flingers and rotate with the shaft and seal against a surface perpendicular to the shaft. V-rings and axial clamp seals are often used as secondary seals to protect the primary seals from coarse contaminants.

None of these seal arrangements are intended for oil retention.

Figure 8

CRW1 seal

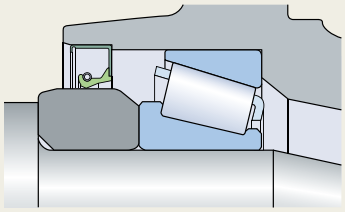


Figure 9

CRW1 seals in tandem

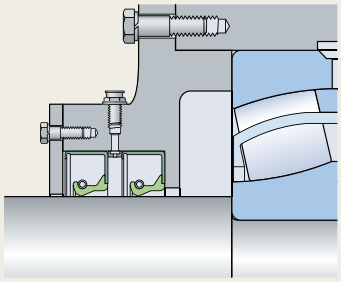


Figure 10

HDSE1 seal

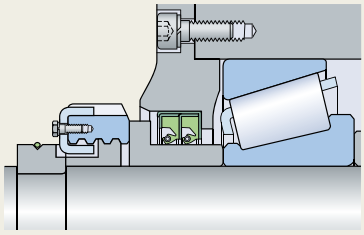
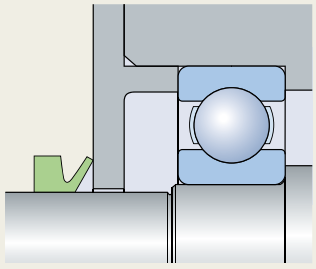


Figure 11

V-ring



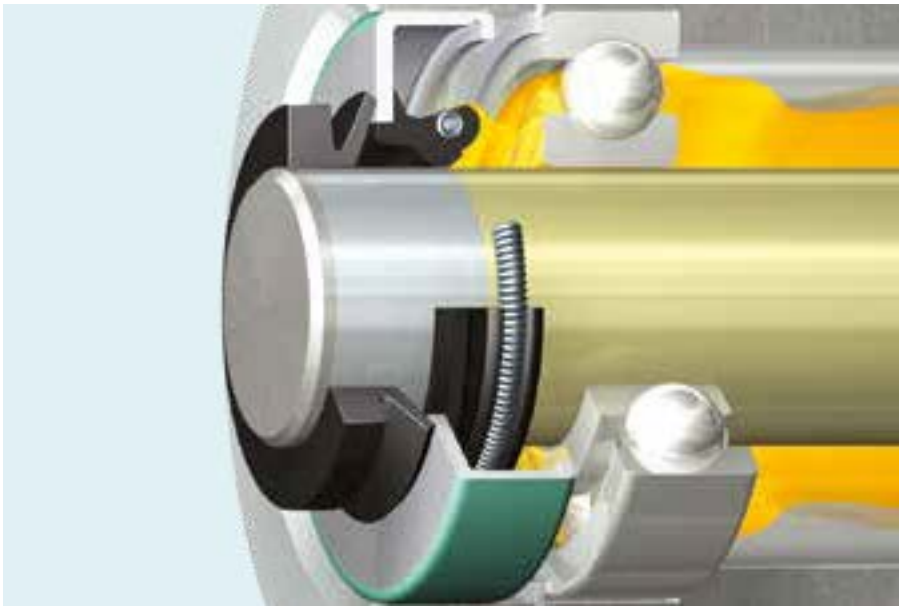


Figure 12

HMSA10 seal

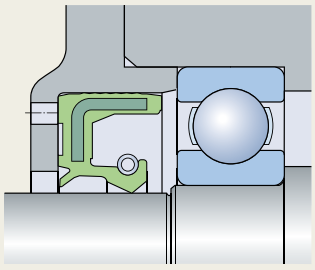


Figure 13

Two seals in opposite direction

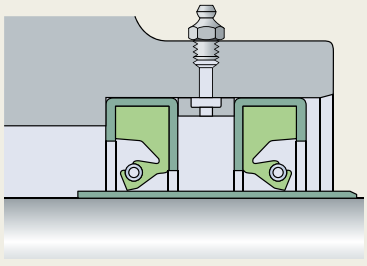


Figure 14

Two seals in opposite direction

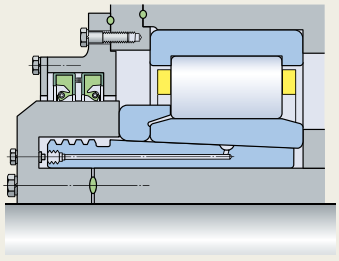


Figure 15

V-ring

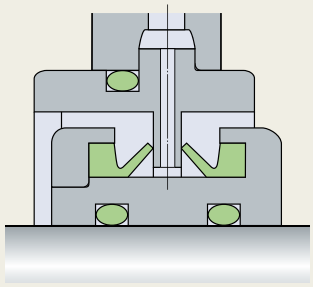


Figure 16

CRW1 seals

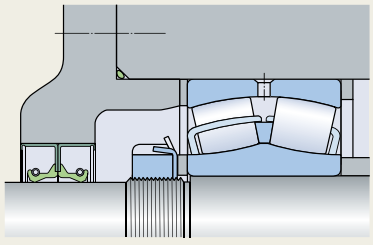
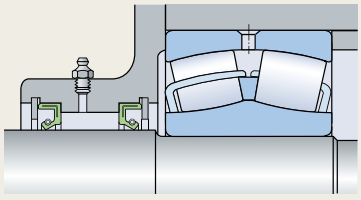


Figure 17

HMS5 seals



Retaining lubricants and excluding contaminants

For many applications, excluding contaminants is just as important as retaining lubricants. Seals with an auxiliary lip, such as HMSA10 seals (→ **fig. 12**), are appropriate for such applications.

Another option is to use two seals installed in opposite directions (→ **figs. 13** and **14**) or two opposing V-rings (→ **fig. 15**) with a spacing washer.

For extremely harsh operating conditions, SKF recommends using HDDF metal face seals (→ **fig. 6** on **page 39**), provided that the sliding velocity of the mating surfaces is within the permissible range.

Separating two different media

When an application has to keep two liquids from coming into contact with each other, SKF recommends using two separate seals (→ **figs. 16** and **17**) positioned with their lips facing in opposite directions. For this option the sealing lips must be spring-loaded.

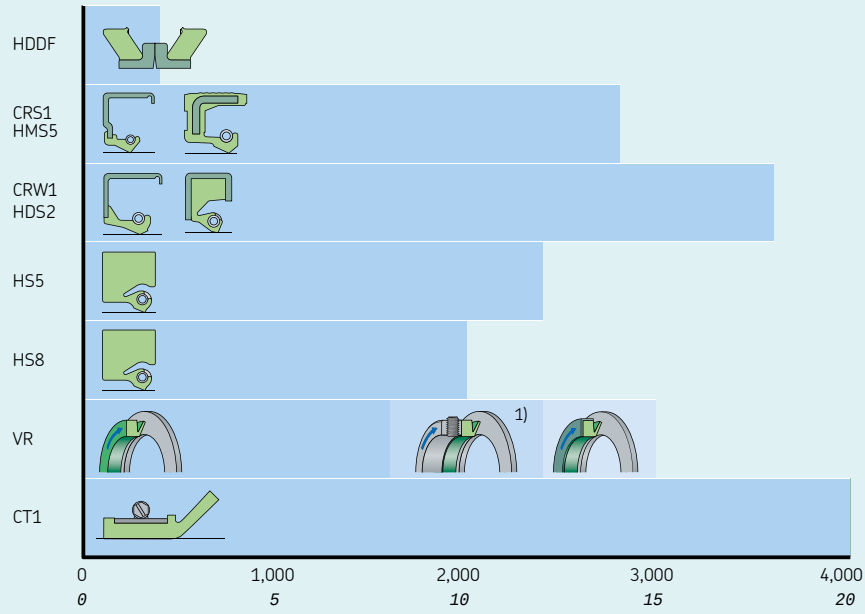
Engineering
Special considerations

Circumferential and rotational speed

The acceptable speed of a seal is determined by its design and sealing lip material, as well as the material and condition of the shaft. All of these factors influence heat generation at the seal counterface. Lubrication of the sealing lip and the characteristics of the lubricant also have a direct influence on heat generation as they impact heat dissipation.

Diagram 1 compares the allowable circumferential speeds for various seal designs assuming normal seal operation, grease or oil retention, and no pressure differential across the seal.

Diagram 1



1) Support ring by customer

To convert to circumferential speed (CS) use:

Inch:

$$CS\ (ft/min) = shaft\ diameter\ (in.) \times 0.26 \times RPM$$

Metric:

$$CS\ (m/s) = \frac{shaft\ diameter\ (mm) \times RPM}{19{,}100}$$

Sealing under pressure

When a seal is exposed to pressure, the radial load of the sealing lip increases. In turn, this increases the actual sealing lip/shaft contact area, resulting in additional friction and elevated underlip temperatures. **Diagram 2** shows an example of lip distortion of a conventional sealing lip design as sump pressure increases. The ultimate result is reduced seal service life.

Standard seals are rated for no more than 10 psi at 1,000 ft/min (*0.07 MPa* at *5 m/s*), but SKF offers CRW5 and CRWA5 pressure profile seals (→ **fig. 18**) that can accommodate 50 psi at 1,000 ft/min (*0.34 MPa* at *5 m/s*). Beyond 50 psi (*0.34 MPa*), SKF offers a line of special order PTFE seals that can accommodate more than 500 psi (*3.5 MPa*).

When there is a pressure differential across the seal, a shoulder or retaining ring should be used at the low-pressure side of the seal to prevent it from being pushed out of the housing bore (→ **fig. 19**).

Diagram 2

Seals under pressure
Example of conventional sealing lip distortion as sump pressure increases, resulting in reduced seal service life.

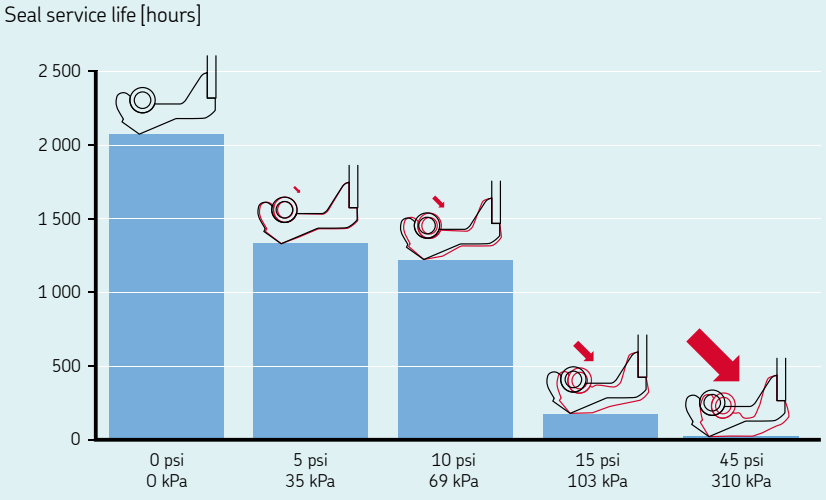


Figure 18

Pressure profile seals

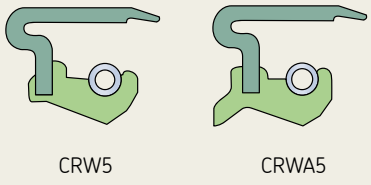
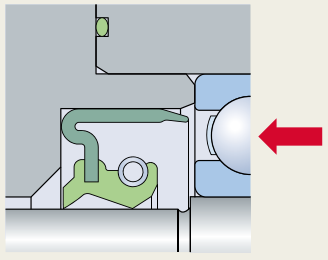


Figure 19

CRWA5 seal



Engineering
Special considerations

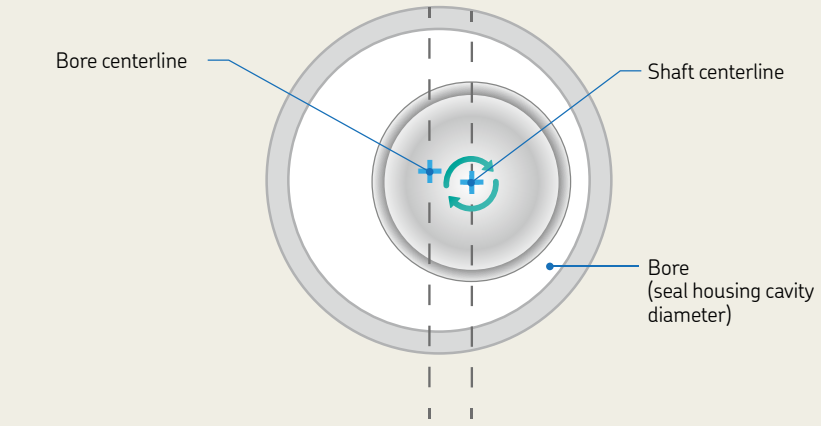
Shaft to bore misalignment

As **figure 18** shows, static misalignment of a shaft (also known as "STBM," or simply "misalignment") is the difference between the center lines of the shaft and housing bore.

When a shaft is misaligned, the sealing lip is exposed to irregular forces that cause an enlargement of the contact area between the lip and shaft surface. This in turn unloads the opposite side of the lip, reducing its sealing effect as it moves toward the contact area side.

Figure 18

Static misalignment



Dynamic runout

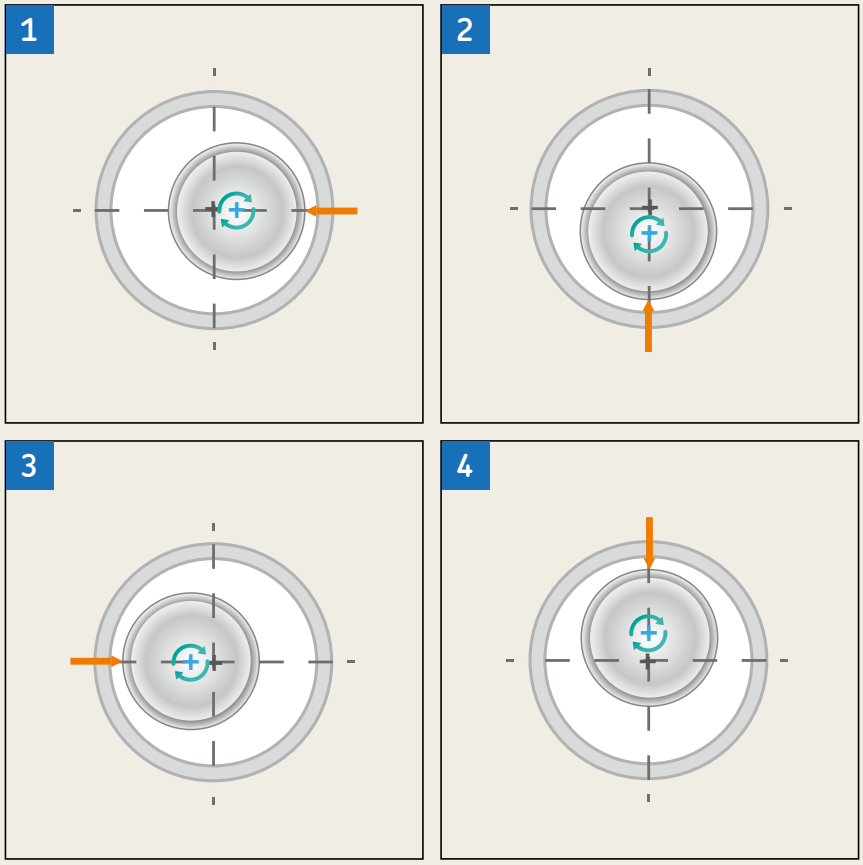
Unlike static misalignment, dynamic runout (DRO or just runout) is a function of time. As indicated by panels 1–4 in **figure 19**, runout occurs when a shaft exhibits dynamic eccentricity, essentially wobbling as it rotates.

As speeds increase, so does the risk that inertia will not allow the sealing lip to follow the shaft surface. If the eccentricity is such that the distance between the sealing lip and shaft becomes larger than what is required to maintain a hydrodynamic lubricant film, the medium to be sealed will escape through the gap.

Accordingly, the seal should be arranged in close proximity to the bearing and bearing operating clearance should be kept to a minimum.

Figure 19

Dynamic runout



Hardware specifications

Tolerances

The diameter of the shaft d1 at the counterface should be machined to the tolerances provided in **table 6** for inch size shafts and **table 7** for metric shafts.

Out-of-roundness must be less than 0.0002 in. (*0,005 mm*) at a maximum of 2 lobes or less than 0.0001 in. (*0,0025 mm*) at a maximum of 7 lobes.

If components with an interference fit will pass over the counterface during installation, the shaft diameter should be reduced by 0.008 in. (*0,2 mm*) The seal that was originally chosen can still be used without adversely affecting seal performance.

Table 6

Shaft tolerances - inch

Shaft diameter Nominal d_1 over	incl.	**Diameter tolerance (RMA 0S-4)** Deviation
in.		in.
–	4	±0.003
4	6	±0.004
6	10	±0.005
10		±0.006

Table 7

Shaft tolerances - metric

Shaft diameter Nominal d_1 over	incl.	**Diameter tolerance (ISO h11)**[1] Deviation high	low
mm		µm	
6	10	0	–90
10	18	0	–110
18	30	0	–130
30	50	0	–160
50	80	0	–190
80	120	0	–220
120	180	0	–250
180	250	0	–290
250	315	0	–320
315	400	0	–360
400	500	0	–400
500	630	0	–440
630	800	0	–500
800	1 000	0	–560
1 000	1 250	0	–660
1 250	1 600	0	–780
1 600	2 000	0	–920
2 000	2 500	0	–1 100
2 500	3 150	0	–1 350
3 150	4 000	0	–1 650
4 000	5 000	0	–2 000

[1] For shaft diameters of 3 150 mm and above, refer to DIN 7172.

Shaft surface roughness

The surface roughness values of the counterface for radial shaft seals, calculated according to methods described in ISO 4288 (DIN 4768), should be kept within the limits specified in RMA OS-1-1 (→ **table 8**).

The lower value for R_a is a minimum value. Using a lower value will adversely affect the lubricant supply to the sealing lip. The temperature rise caused by inadequate lubrication, particularly at high circumferential speeds, can lead to hardening and cracking of the sealing lip, and eventually premature seal failure. If the counterface is too rough, excessive sealing lip wear will occur and seal service life will be shortened. If the value R_{pm} is exceeded, the seal will leak, or excessive sealing lip wear may occur.

The seal counterface surface should be free of any damage, scratches, cracks, rust or burrs and should be properly protected until final installation.

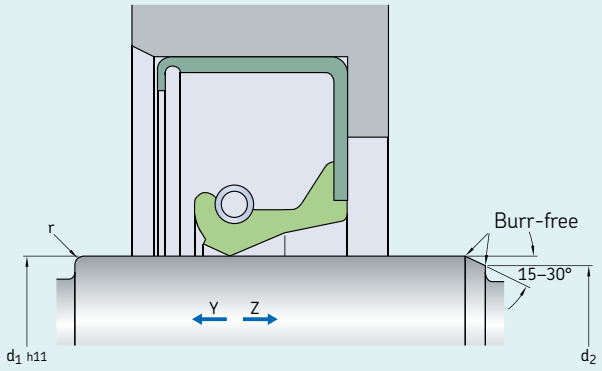
Table 8

Recommended shaft surface roughness values

	ISO		DIN		RMA	
	µin	µm	µin	µm	µin	µm
R_a	8–20	0,2–0,5	8–32	0,2–0,8	8–17	0,2–0,43
R_z	48–120	1,2–3	40–200	1–5	65–115	1,65–2,9
R_{pm}	N/A	N/A	N/A	N/A	20–50	0,5–1,5

Table 9

Lead-in chamfers and radii



Shaft diameter Nominal d_1 over	incl.	over	incl.	**Diameter diifference**[1] d_1–d_2 min		**Radii** Seal without auxiliary lip r min		Seal with auxiliary lip r min	
in.		mm		in.	mm	in.	mm	in.	mm
–	0.394	–	10	0.059	1,5	0.024	0,6	0.039	1
0.394	0.787	10	20	0.079	2	0.024	0,6	0.039	1
0.787	1.181	20	30	0.098	2,5	0.024	0,6	0.039	1
1.181	1.575	30	40	0.118	3	0.024	0,6	0.039	1
1.575	1.968	40	50	0.138	3,5	0.024	0,6	0.039	1
1.968	2.756	50	70	0.157	4	0.024	0,6	0.039	1
2.756	3.74	70	95	0.177	4,5	0.024	0,6	0.039	1
3.74	5.118	95	130	0.216	5,5	0.039	1	0.079	2
5.118	9.449	130	240	0.276	7	0.039	1	0.079	2
9.449	19.685	240	500	0.433	11	0.079	2	0.118	3
19.685	–	500	–	0.512	13	0.197	5	0.197	5

[1] If the corner is blended rather than chamfered, the blended section should not be smaller than the difference in diameters $d_1 - d_2$.

Hardware specifications

Shaft lead

Depending on the direction of rotation, directionality on the seal counterface may cause a seal to leak. Plunge grinding is the preferred machining method to minimize directionality (0±0.05°) on the seal counterface.

When plunge grinding, avoid applying whole number ratios of the grinding wheel speed to the work piece speed. Instead, run the grinding wheel until it "sparks out" completely and there are no more sparks flying from the wheel to ensure that all the lead is removed. The grinding wheel should be dressed using a cluster head dressing tool and the smallest possible lateral feed, or a profile dressing roll without a lateral feed. The negative influence of directionality in any particular case can only be determined by test running under conditions of alternating rotation.

Lead-in chamfers

To install radial shaft seals without damaging the sealing lip, SKF recommends chamfering or rounding the shaft ends or shoulders (→ **table 9**, **page 47**).

If the direction of installation is Z, follow the values (d1 – d2) provided in **table 9**. If the direction of installation is Y, the shaft end could be rounded (r) or chamfered (d1 – d2).

To install a seal over a shaft shoulder or end that has not been rounded or chamfered, SKF recommends using an installation sleeve.

Housing bore requirements

General

To reduce the risk of seal damage during installation, the housing bore should have a 15 to 30° lead-in chamfer. The chamfer should be free of burrs and the transition radius between the seal seat and shoulder should be in accordance with the recommendations in **table 10 (→ page 49)**.

In order to facilitate seal removal, holes in the housing shoulder A can be incorporated during the design stage.

Metal-reinforced seals

The depth of a metric housing bore B for metal-cased or metal-inserted seals should be at least 0.012 in. (*0,3 mm*) larger than the nominal seal width b (→ **fig. 13**). The corresponding values for an inch housing bore B are 0.016 in. (*0,4 mm*).

Figure 13

Housing bore requirements

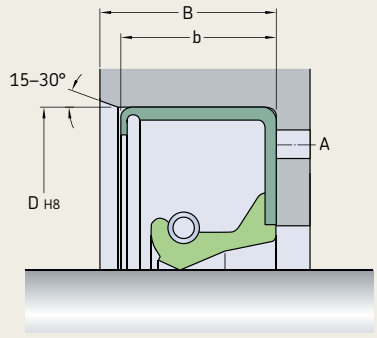
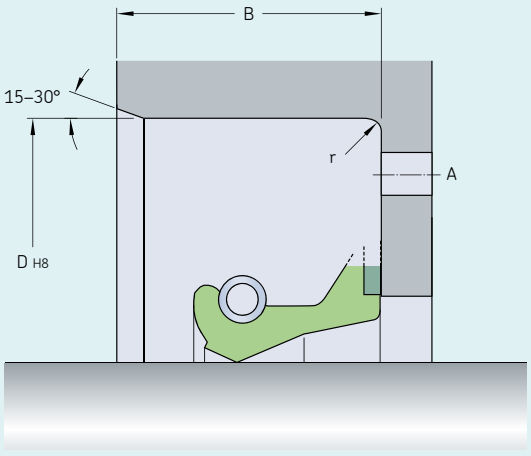


Table 10

Housing bore tolerances



Nominal diameter over	incl.	Housing bore tolerance deviation	Fillet radii r max
in.		in.	in.
–	3	±0.001	0.031
3	7	±0.0015	0.031
7	10	±0.002	0.031
10.000[2]	12	±0.002	0.031
12.000[2]	20	±0.003	0.031
20.000[2]	40	±0.004	0.031
40.000[2]	60	±0.006	0.031

Nominal diameter over	incl.	Housing bore tolerance (ISO tolerance H8) high	low	Fillet radii r max
mm		µm		mm
–	3	14	0	0,3
3	6	18	0	0,3
6	10	22	0	0,3
10	18	27	0	0,3
18	30	33	0	0,3
30	50	39	0	0,3
50	80	46	0	0,4
80	120	54	0	0,8
120	180	63	0	0,8
180	250	72	0	0,8
250	315	81	0	0,8
315	400	89	0	0,8
400	500	97	0	0,8
500	630	110	0	0,8
630	800	125	0	0,8
800	1 000	140	0	0,8
1 000	1 250	165	0	0,8
1 250	1 600	195	0	0,8
1 600	2 000	230	0	0,8
2 000	2 500	280	0	0,8
2 500	3 150	330	0	0,8
3 150[1]	4 000	410	0	0,8
4 000[1]	5 000	500	0	0,8

[1] SKF recommended bore specifications not covered in ISO 286-2
[2] SKF recommended bore specifications not covered in RMA OS-4

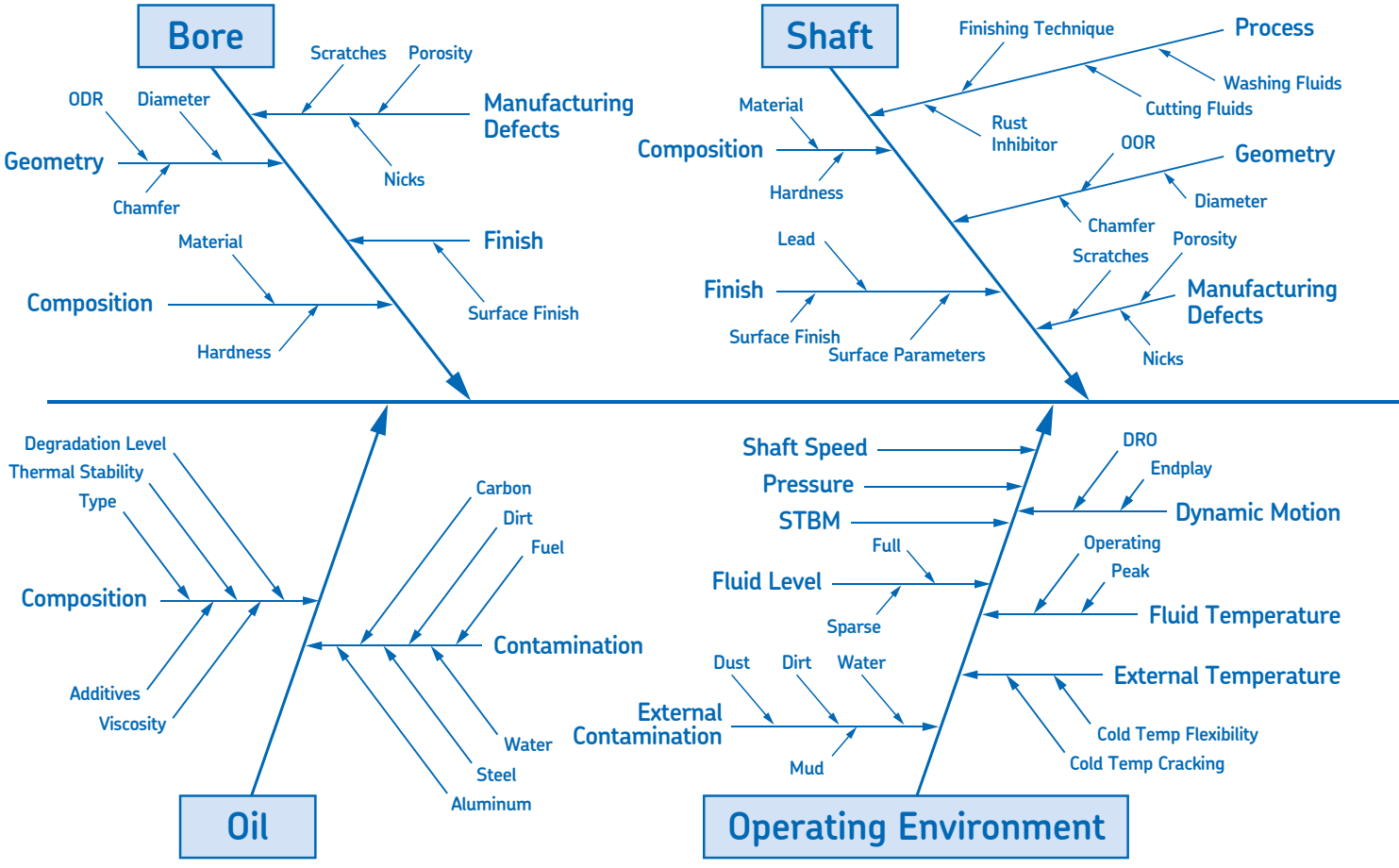
Common seal failure modes

Leaking seals are not inevitable

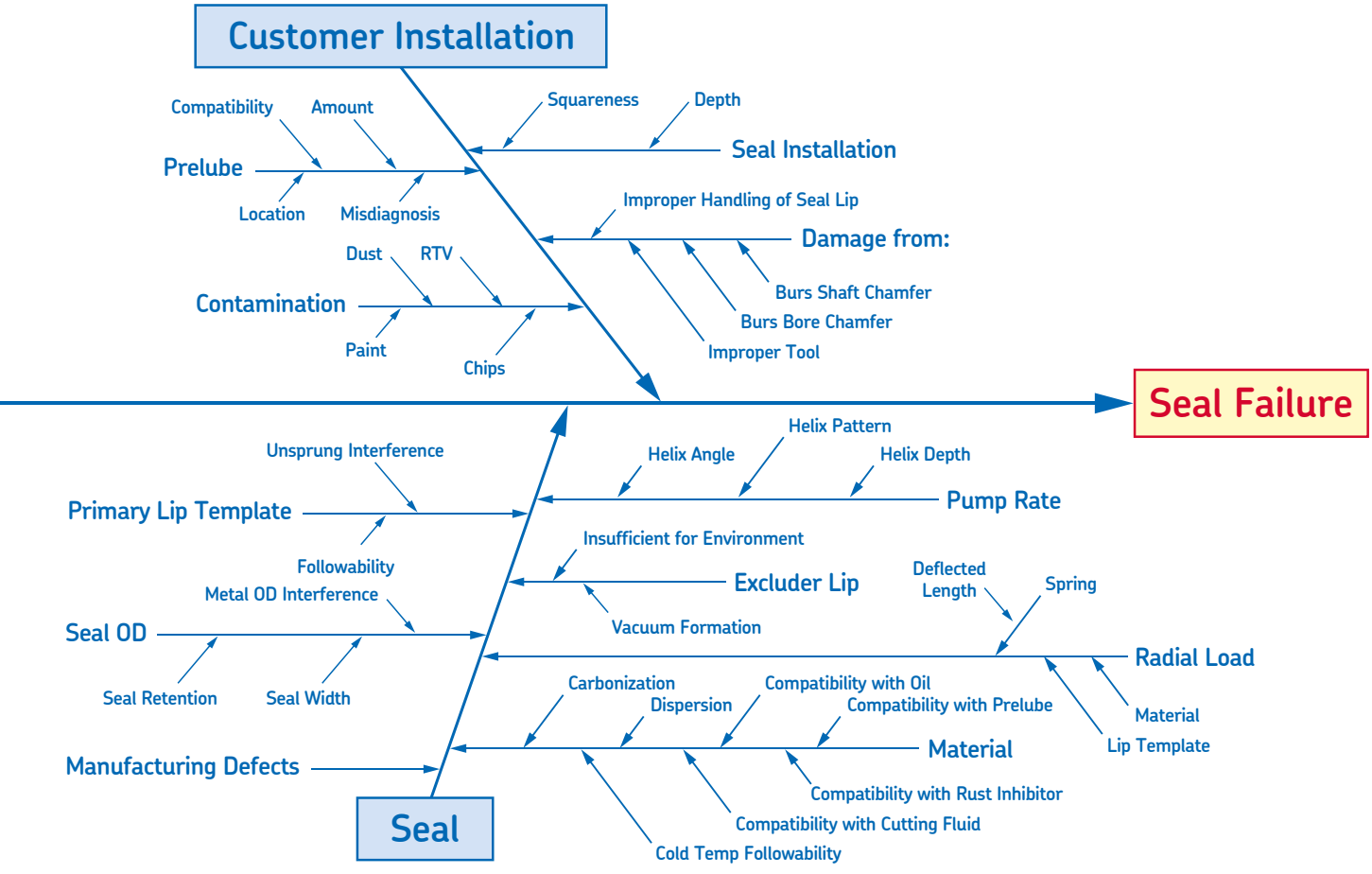
Attitudes about seal performance are influenced by industry expectations and personal habits. But no matter where you are on the spectrum between vigilance and indifference, understand that there is always a better way. After all, the definition of insanity is doing the same thing and expecting a different result.

Consider the fishbone

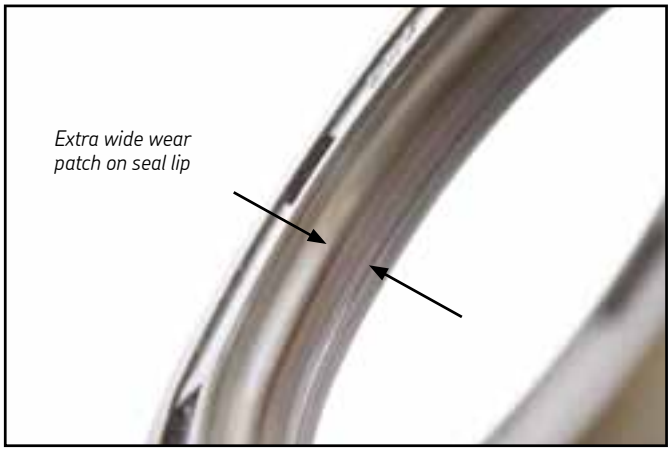
A leaking seal means a defective seal that must be replaced, right? As the fishbone diagram below shows, there are several potential causes of a leaking seal, and only one of the six categories involves a problem with the actual seal. CR Seals is committed to helping you identify the root causes of failure and find a better way. Contact your local SKF application engineer for help with your trouble spots.




SKF


Customer Installation
Compatibility
Amount
Squareness
Depth
Seal Installation
Prelube
Location
Misdiagnosis
Improper Handling of Seal Lip
Damage from:
Dust
RTV
Contamination
Paint
Chips
Burs Shaft Chamfer
Burs Bore Chamfer
Improper Tool
Seal Failure
Unsprung Interference
Helix Angle
Helix Pattern
Helix Depth
Pump Rate
Primary Lip Template
Followability
Insufficient for Environment
Excluder Lip
Deflected Length
Spring
Metal OD Interference
Seal OD
Vacuum Formation
Radial Load
Seal Retention
Seal Width
Carbonization
Dispersion
Compatibility with Oil
Compatibility with Prelube
Material
Lip Template
Manufacturing Defects
Compatibility with Rust Inhibitor
Compatibility with Cutting Fluid
Seal
Cold Temp Followability

Common seal failure modes



Excessive wear

Possible root causes

- Elevated internal operating pressure
- External contaminant ingress
- Excessive radial load or interference
- Lack of adequate lubrication
- Internal contaminant ingress
- Incorrect material selected for the application
- Seal reached normal end of life
- Shaft running surface too rough

Potential solutions

- Remove contamination
- Switch to high wear seal material or increase lubrication at lip interface
- Follow RMA / ISO standards for surface finish
- Reduce radial load

Nicks, scratches, or cuts in lip contact area

Possible root causes

- Installation tool or bullet with sharp edge
- Seal installed over defects in shaft
- Seal installed over shaft through hole, keyway, or splines
- Inconsistent manufacturing trimming operation
- Damage caused during packaging or handling

Potential solutions

- Protect lip by covering splines, keyways and holes with chamfered sleeve or tape
- Keep screwdrivers and other sharp tools away from seal lip
- Regularly inspect seal lips before installation

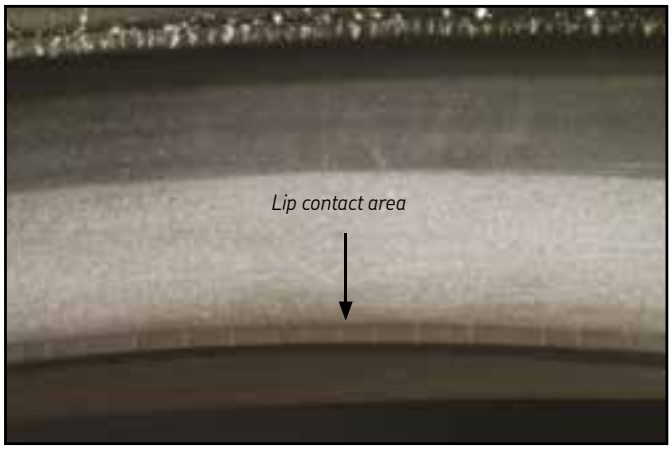
Crosslink carbonization

Possible root causes

- Chemical bond occurs between amines in oil additives and fluorine in FKM compounds
- Penetrates the elastomer and hardens until cracks form
- Generally requires temperatures of 210 °F or higher

Potential solutions

- Switch material to HNBR if under-lip temperatures are below 290 °F
- Switch material to base-resistant FKM for higher temperatures
- Reduce interference or increase lubrication to decrease under-lip temperature



Axial cracking on NBR lip contact area

Possible root causes

- Elevated internal operating pressure
- High shaft speed
- Fluid compatibility
- Excessive under-lip temperature
- Insufficient lubrication at the lip interface

Potential solutions

- Change material to HNBR or FKM
- Increase lubrication
- Reduce radial interference

Common seal failure modes

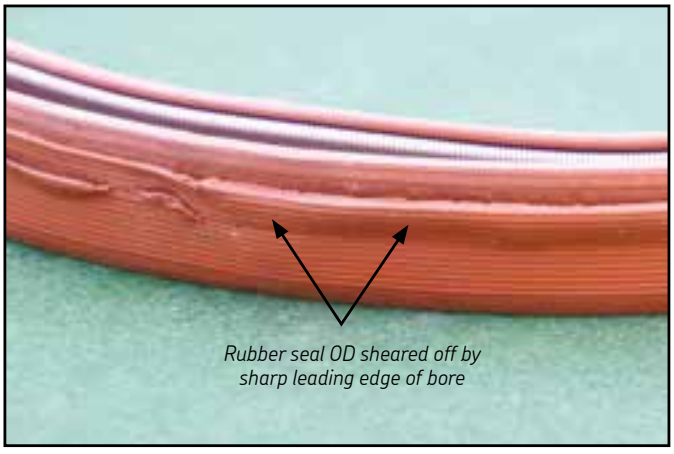
Inverted seal lip

Possible root causes

- Poor assembly procedures
- High internal operating pressure

Potential solutions

- Switch to HDS7 springless design, HDS2 garter spring design with Springcover, or HSS5
- Modify installation tool and/or procedure
- If failure is pressure-induced, use pressure seal



Seal damaged during installation

Possible root causes

- Improper or worn installation tool
- Direct contact with hammer on seal
- Inadequate lead in chamfer on the bore
- Undersized bore

Potential solutions

- Add proper bore chamfer per recommendations and check bore diameter
- Use installation tool designed for the specific installation procedure
- Reevaluate installation procedure

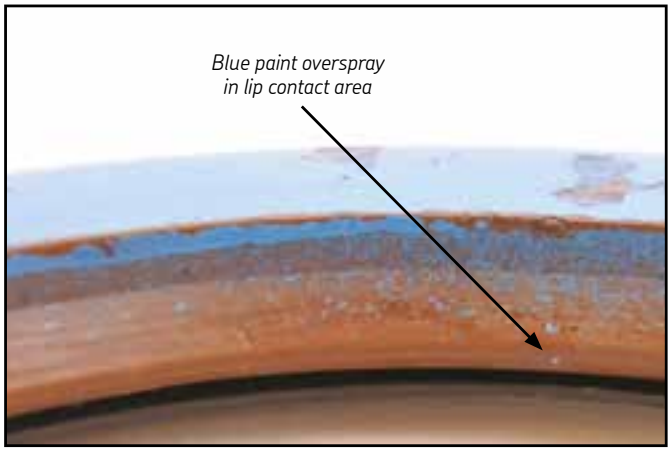
Irregular/damaged shaft surface finish

Possible root causes

- Excessively rough shaft may accelerate lip wear
- Overly smooth shaft may result in early leakage
- Poor shaft grinding process or none at all
- Change in shaft suppliers
- Installation or handling damage prior to assembly
- Contamination ingress
- Shaft hardness too soft for the application
- Hardened outer heat-treat layer too thin

Potential solutions

- Measure surface finish and shaft lead and compare to RMA/ISO standards
- Check for visual damage or irregular surface characteristics
- Reevaluate shaft packaging during handling and transport



Paint overspray on seal lip or contamination

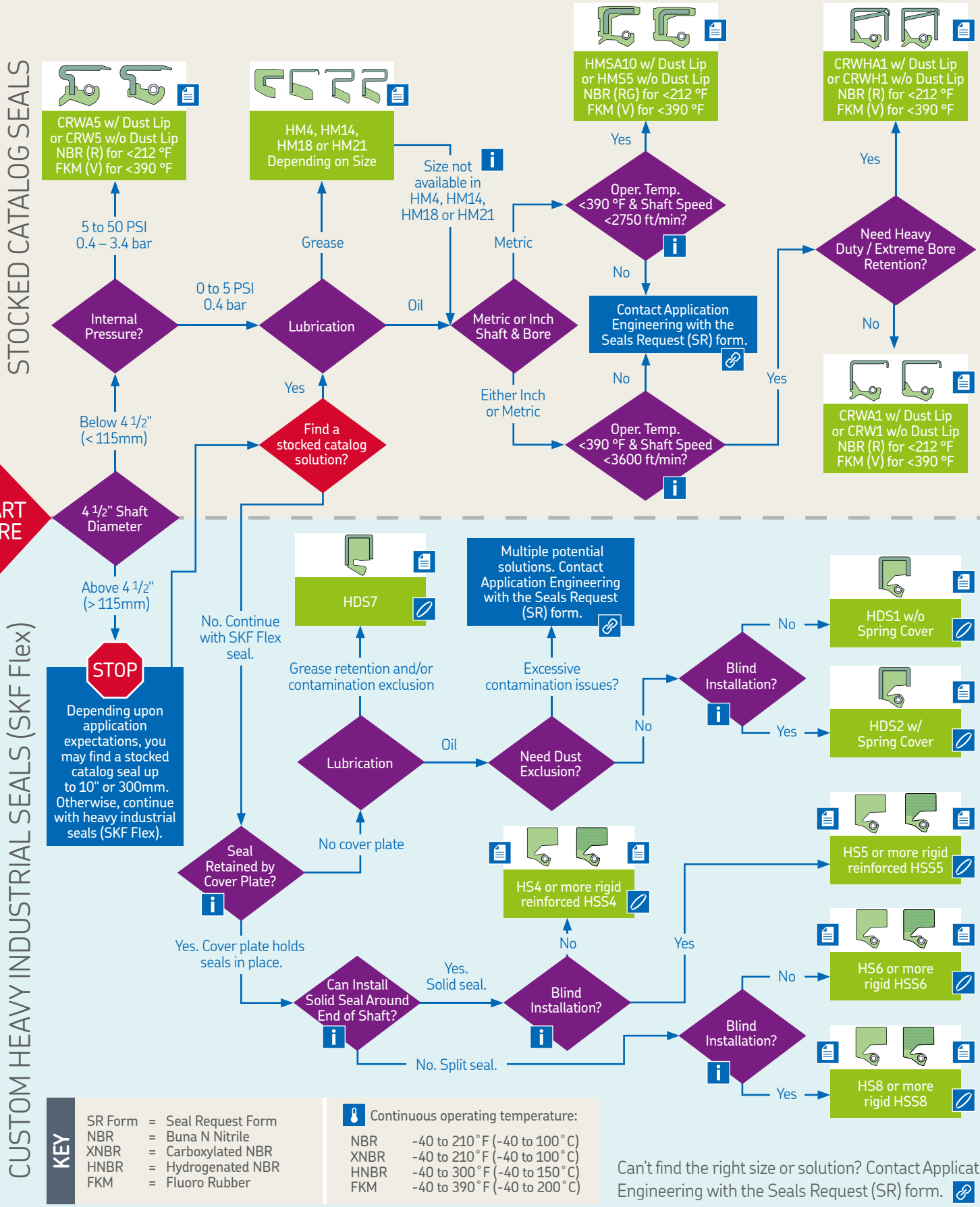
Possible root causes

- Inadequate seal protection during manufacturing paint process
- Loose paint/contaminants get trapped under seal lip
- Seal failure caused by contamination ingress

Potential solutions

- Use proper shielding during painting process
- Pack grease on air side to form a barrier from paint overspray
- Use V-ring on metal seal face to protect lip
- Choose seal with a dust lip to reduce contaminant ingression

Decision Tree for CR Seals



KEY

SR Form	=	Seal Request Form
NBR	=	Buna N Nitrile
XNBR	=	Carboxylated NBR
HNBR	=	Hydrogenated NBR
FKM	=	Fluoro Rubber

Continuous operating temperature:

NBR	-40 to 210°F (-40 to 100°C)
XNBR	-40 to 210°F (-40 to 100°C)
HNBR	-40 to 300°F (-40 to 150°C)
FKM	-40 to 390°F (-40 to 200°C)

Can't find the right size or solution? Contact Application Engineering with the Seals Request (SR) form.

Start here to find the seal you need

To optimize seal and equipment performance, proper seal selection is essential. Choosing the right seal for the job is a step-by-step process of elimination that defines seal compatibility based on key operating requirements.

With this all-new edition of the CR Seals handbook, SKF is making the seal selection process as easy as possible.

To find the seal for your application, go to the red "START HERE" triangle in the decision tree at left and take it step-by-step.

Find out even more online

An interactive version of this decision tree with the added functionality of the four links below is available online.

- – Seal request form
- – Information pop-up
- – Link to catalog page
- – Heavy Industrial (HIS) part numbering

Just scan the QR code to launch the app:

Table 1

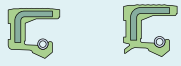
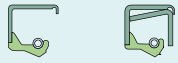
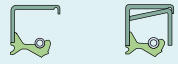
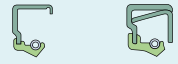
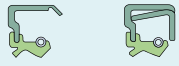
SKF Flex seals size capability chart

		Shaft diameter		Bore diameter		Bore depth		Difference between shaft and bore	
		From	To	From	To	From	To	From	To
HS / HSS / HSSG	inch	6.500	180.000	7.500	181.000	0.500	–	1.000	–
	mm	*165.10*	*4572.00*	*190.50*	*4597.40*	*12.70*	–	*25.40*	–
	inch	4.000	8.750	4.984	10.630	0.438	0.797	0.984	1.880
	mm	*101.60*	*222.25*	*126.60*	*270.00*	*11.13*	*20.24*	*25.00*	*47.75*
	inch	8.000	180.000	9.181	182.000	0.500	0.797	1.181	2.000
	mm	*203.20*	*4572.00*	*233.20*	*4622.80*	*12.70*	*20.24*	*30.00*	*50.80*
	inch	13.000	180.000	14.250	182.520	0.625	1.000	1.250	2.520
	mm	*330.20*	*4572.00*	*361.95*	*4636.00*	*15.88*	*25.40*	*31.75*	*64.00*
HDS 1,2 / HDSF 1,2	inch	4.000	8.750	5.000	10.750	0.500	0.984	1.000	2.000
	mm	*101.60*	*222.25*	*127.00*	*273.05*	*12.70*	*25.00*	*25.40*	*50.80*
	inch	8.000	63.319	9.181	64.500	0.591	1.250	1.181	3.000
	mm	*203.20*	*1608.30*	*233.20*	*1638.30*	*15.01*	*31.75*	*30.00*	*76.20*
\ 1,2	inch	4.000	8.750	5.000	10.750	0.672	0.984	1.000	2.000
	mm	*101.60*	*222.25*	*127.00*	*273.05*	*17.07*	*25.00*	*25.40*	*50.80*
	inch	8.000	63.319	9.181	64.500	0.787	1.250	1.181	3.000
	mm	*203.20*	*1608.30*	*233.20*	*1638.30*	*20.00*	*31.75*	*30.00*	*76.20*
HDS7	inch	4.500	8.750	5.000	10.750	0.500	0.787	1.000	2.000
	mm	*114.30*	*222.25*	*139.70*	*273.05*	*12.70*	*20.00*	*25.40*	*50.80*
	inch	8.000	63.319	9.181	64.500	0.591	1.250	1.181	3.000
	mm	*203.20*	*1608.30*	*233.20*	*1638.30*	*15.00*	*31.75*	*30.00*	*76.20*
HDSH7	inch	4.000	8.750	5.000	10.750	0.591	0.828	1.000	2.000
	mm	*101.60*	*222.25*	*127.00*	*273.05*	*15.00*	*21.03*	*25.40*	*50.80*
	inch	8.000	63.319	9.181	64.500	0.750	1.250	1.181	2.000
	mm	*203.20*	*1608.30*	*233.20*	*1638.30*	*19.05*	*31.75*	*30.00*	*50.80*
HDSA 1 / HDSA 2	inch	4.000	8.750	5.000	10.750	0.688	1.188	1.000	2.000
	mm	*101.60*	*222.25*	*127.00*	*273.05*	*17.48*	*30.18*	*25.40*	*50.80*
	inch	8.000	46.819	9.181	48.000	0.787	1.500	1.181	3.000
	mm	*203.20*	*1189.20*	*233.20*	*1219.20*	*20.00*	*38.10*	*30.00*	*76.20*

Seal capability matrixes

Seals for general industrial applications, selected main designs

RG, R	Nitrile rubber (NBR)
V	Fluorocarbon rubber (FKM)
H	Hydrogenated nitrile rubber (HNBR)
P	Polyacrylate elastomer (ACM)

Seal designs	**Design**			
	Outside diameter Configuration	Material code	Sealing lip technology	Auxiliary lip A = Contacting B = Non-contacting
	–			
 HMS5 HMSA10	Rubber	RG, V	SKF Edge	B (HMSA10)
 CRW1 CRWH1	Metal	R, V, P	SKF Wave	N/A
 CRWA1 CRWHA1	Metal	R, V, P	SKF Wave	B
 CRW5 CRWA5	Metal	R, V	SKF Wave	A (CRWA5)
 CRS1 CRSH1	Metal	R, V, P	Std Oil	N/A
 CRSA1 CRSHA1	Metal	R, V, P	Std Oil	A
 HM14 HM18 HM21 HM1	Metal	R, V	Grease	N/A
 TL1 TL6 TL7 TL8	Metal	R	Grease	N/A
 X4 X12 X13 X15	Rubber	R	Grease	N/A
 SCOT1	Metal	R	OD running lip	A
 PLUS XL	Rubber	H	SKF Wave	A

Matrix 1

Maximum* shaft-to-bore misalignment (STBM)		Maximum* dynamic runout (DRO) TIR		Maximum* pressure differential		Maximum* shaft surface speed	
in.	mm	in.	mm	psi	MPa	ft/min	m/s
0.015	0.38	0.020	0.51	7	0.05	2,755	14
0.025	0.64	0.025	0.64	10	0.07	3,600	18
0.025	0.64	0.025	0.64	10	0.07	3,600	18
0.005	0.13	0.005	0.13	50	0.35	2,000	10
0.015	0.38	0.020	0.51	10	0.07	3,600	18
0.015	0.38	0.020	0.51	10	0.07	3,600	18
0.005	0.13	0.003	0.08	3	0.07	2,000	10
0.015	0.38	0.010	0.25	3	0.02	500	2.54
0.015	0.38	0.010	0.25	3	0.02	500	2.54
0.005	0.13	0.005	0.13	2	0.014	2,000	10
0.005	0.13	0.005	0.13	2	0.014	2,000	10

* Stated maximum parameters apply only when all other parameters are at normal operating conditions.

Seal capability matrixes

SKF Flex seals for heavy industrial applications, selected main designs

Standard design (preferred design)	Other basic designs			Material code	Maximum* pressure differential	Maximum* shaft-to-bore misalignment (STBM)	Maximum* dynamic runout (DRO) TIR	Maximum* shaft surface speed
				–	psi (MPa)	in. (mm)	in. (mm)	ft/min (m/s)
 HDS7	 HDS7L	 HDSF7	 HDSH7	R D H V	0	0.062 (1.6)	0.093 (2.4)	4,900 (25)
 HDS2	 HDS1  HDS2L	 HDSF1  HDSF2	 HDS1L  HDSH2	R D H V	15 (0.1)	0.062 (1.6)	0.093 (2.4)	4,900 (25)
 HDSA2	 HDSA1			R D H V	15 (0.1)	0.062 (1.6)	0.093 (2.4)	4,900 (25)
 HS5	 HS4			R D H V	11 (0.07)	0.062 (1.6)	0.093 (2.4)	HS4: 2,950 (15) HS5: 2,560 (13)
 HS8	 HS6	 HS7		R D H V	0	0.062 (1.6)	0.093 (2.4)	HS6: 1,970 (10) HS7: 1,480 (7.5) HS8: 1,970 (10)
 HSS5	 HSS4  HSS7	 HSS6  HSS8		R V	5 (0.03)	0.06 (1.5)	0.093 (2.4)	2,950 (15) depending on the operating conditions
 HSS5G	 HSS4G  HSS7G	 HSS6G  HSS8G		R V	0	0.06 (1.5)	0.093 (2.4)	2,950 (15) depending on the operating conditions

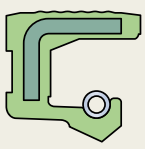
Matrix 2

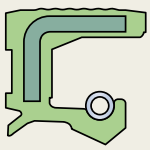
Housing type	Retention and exclusion ability
–	–
Open housing (self-retaining)	Highly effective exclusion of water and solid contaminants and excellent retention of grease
Open housing (self-retaining)	Excellent oil or grease retention
Open housing (self-retaining)	Excellent oil or grease retention and exclusion of light to moderate contaminants
Cover plate required (axially compressed seal)	Good oil retention
Cover plate required (axially compressed seal)	HS6, HS8: Good to excellent oil or grease retention HS7: Good (grease retention only)
Cover plate required (axially compressed seal)	Excellent oil retention
Cover plate required (axially compressed seal)	Good to excellent oil retention

* Stated maximum parameters apply only when all other parameters are at normal operating conditions.

Profile overview

Rotary shaft seals - oil applications

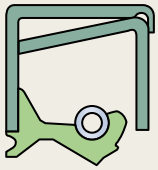

HMS5

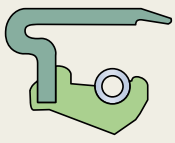

HMSA10

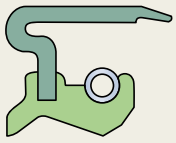

CRW1


CRWA1

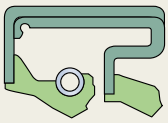

CRWH1


CRWHA1


CRW5

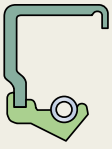

CRWA5

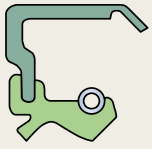

HDW1


C8


PLUS XL


SCOT 1


CRS1


CRSA1


CRSH1


CRSHA1


HMS4


HMSA7

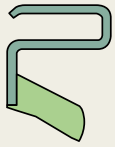

HMSA7P2

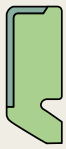
SKF Edge
SKF Wave

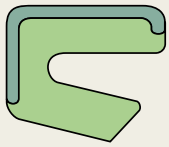
Rotary shaft seals - grease applications


HM14

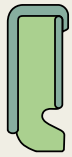

HM18

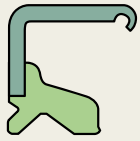

HM21

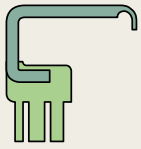

HM1

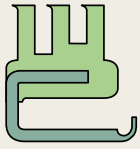

HM3


HM4


HD1


HMA1


TL7


X15

Wear sleeves

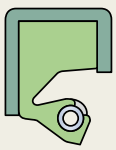

SKF Speedi-Sleeve


LDSLV4

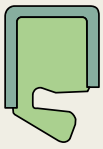
Rotary shaft seals- SKF Flex heavy industrial seals

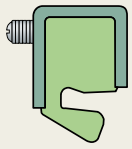

HDS1

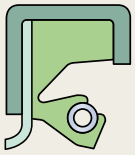

HDS1L

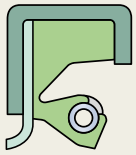

HDS2


HDS2L


HDS7


HDS7L


HDSF1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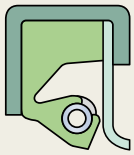
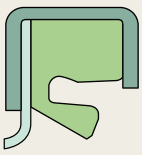
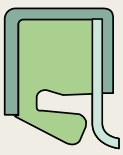
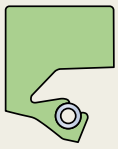
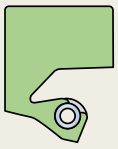

HDSH2

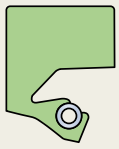

HDSF7

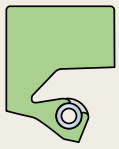

HDSH7

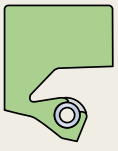

HDSA1


HS4

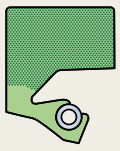

HS5

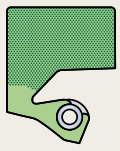

HS6

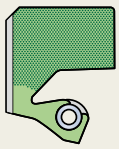

HS7

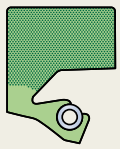

HS8

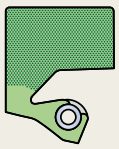

HDSA2


HSS4


HSS5


HSS5G


HSS6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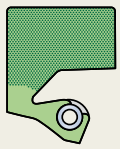
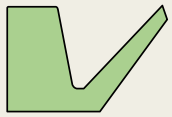
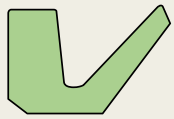

HSS8

Axial shaft seals - V-rings


VR1


VR2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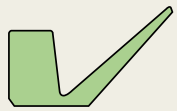
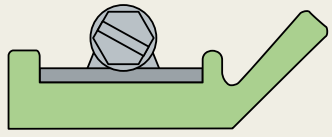
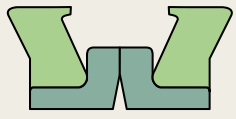

VR4

Axial shaft seals - Excluder seals


CT1

Axial shaft seals - Metal face seals


HDDF

SKF Flex seal designation system

Inch size Decimal code			
Key	**Inch**	**Key**	**Inch**
00	0	33	0.516
01	0.016	34	0.531
02	0.031	35	0.547
03	0.047	36	0.563
04	0.063	37	0.578
05	0.078	38	0.594
06	0.094	39	0.609
07	0.109	40	0.625
08	0.125	41	0.641
09	0.141	42	0.656
10	0.156	43	0.672
11	0.172	44	0.688
12	0.188	45	0.703
13	0.203	46	0.719
14	0.219	47	0.734
15	0.234	48	0.750
16	0.250	49	0.766
17	0.266	50	0.781
18	0.281	51	0.797
19	0.297	52	0.813
20	0.313	53	0.828
21	0.328	54	0.844
22	0.344	55	0.859
23	0.359	56	0.875
24	0.375	57	0.891
25	0.391	58	0.906
26	0.406	59	0.922
27	0.422	60	0.938
28	0.438	61	0.953
29	0.453	62	0.969
30	0.469	63	0.984
31	0.484	64	1.000
32	0.500		

Rubber seals HS/HSS – Axial cover plate required						
All-rubber: HS		HS4	HS5	HS6	HS7	HS8
Reinforced all-rubber HSS		HSS4	HSS5	HSS6	HSS7	HSS8
Lubrication groove for HSS		HSS4G	HSS5G	HSS6G		HSS8G
Auxiliary lip (dust lip)					HSA7	HSA8
Radial clamp					HSA7C	HSA8C
Solid		✓	✓			
Split				✓	✓	✓
SKF springcover			✓		✓	✓
Threaded spring connection		✓	✓	✓		✓
Hook-and-eye connection (Above 18 in or 455 mm)				✓		✓
Control-wire connection					✓	

Dimension / Designation examples

Shaft (d1)	Decimal Code[1]	Bore (D)	Decimal Code[1]	Bore Depth (B)	Decimal Code[1]
12.00"	1200	13.25"	1316	0.75"	48
6.25"	616	7.00"	700	0.50"	32
18.25"	1816	20.25"	2016	1.00"	64
675mm	–	725.2mm	–	28mm	–

[1] Inch sizes are stated in 1/64th of an inch, as shown in the table on the left.
[2] "L6" indicates a 6mm lug length from the table on the right.

Metal case seal HDS Open housing

Lip features		 HDS1	 HDS2 Springcover	 HDS7 no spring
Spacer lug on back of seal		HDS1L	HDS2L	HDS7L
Auxiliary lip (dust lip)		HDSA1	HDSA2	–
PTFE or ECOPUR auxiliary lip (dust lip) on back of seal		–	HDSF2	HDSF7
PTFE or ECOPUR auxiliary lip (dust lip) on face of seal		–	HDSH2	HDSH7
Stainless steel case (Optional)		HDS19	HDS29	HDS79

Size

Type

Lip

Lugs specifications
HDS1L / HDS2L / HDS7L

Metric Code L*	Length (mm)	Inch Code L*	Length (in)
L4	4	L08	0.125
L5	5	L10	0.156
L6	6	L12	0.188
L7	7	L16	0.250
L8	8	L20	0.313
L9	9	L24	0.375

Main lip material

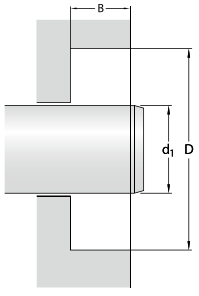
Key	Main lip
R	NBR
H	HNBR
D	XNBR
V	FKM

Auxiliary lip material (if applicable)

Key	Auxiliary lip	Shaft size
D	XNBR	–
T	PTFE	–
U	H-ECOPUR	<600mm
U	G-ECOPUR	>600mm
L	S-ECOPUR	<600mm
L	G-ECOPUR SL	>600mm

Type	Main Lip	Dust Lip	Designation
HDS2	NBR	–	1200 - 1316 - 48 HDS2 R
HSS8G	FKM	–	616 - 700 - 32 HSS8G V
HDSF2L6[2]	HNBR	H-ECOPUR	1816 - 2016 - 64 HDSF2L6 HU
HDSA2	XNBR	XNBR	675 X 725.2 X 28 HDSA2 DD

Separators (- inch, X metric)



CR Seals product listings

Understanding key table elements

Designed to be user-friendly, CR Seals and product listings convey a good deal of information on every line. As you familiarize yourself with the tables, keep these need-to-know basics in mind:

Seal and product sizes

All size listings for all CR Seals products are arranged by ascending shaft diameters, segregated as inch sizes (green bars) and metric sizes (blue bars). All bore and width sizes listed under the green bars are in inches, while all sizes listed under blue bars are in mm.

Bore / width

Once you have selected the right shaft size, you will need to identify the seals with a matching bore size. The recommended tolerance ranges for shaft and bore can be found on **pages 46-49**. While it is important to choose a seal with a close match to shaft and bore, it is less important to choose a seal with a predetermined width. As long as the seal is short enough not to protrude out of the bore, it will work just fine.

Preferred designs

Highlighted in bold in the "Part Number" and "Seal Type" columns, preferred seal design listings represent the highest performing or otherwise best suited sealing solution for a given shaft diameter.

Lip material

R = NBR (nitrile rubber)

RG = NBR with advanced oil resistance and pumping ability

D = XNBR (carboxylated nitrile)

H = HNBR (hydrogenated nitrile)

V = FKM (fluorocarbon rubber)

P = ACM (polyacrylate elastomer)

T = PTFE (polytetrafluoroethylene)

Seal technologies

W = SKF Wave: Featuring the patented SKF Wave lip design, these are the most robust standard seals ever made.

E = SKF Edge: SKF Edge shaft seals HMS5 and HMSA10 combine an SKF-developed NBR compound with a rubber outside diameter according to ISO/DIN global design standards – primarily available in metric sizes.

F = SKF Flex: SKF Flex seals deliver heavy-duty performance in fully customizable sizes and features to fit and perform in the application.

S = Standard oil seal: SKF carries some older designs that do not have the modern advancements of the SKF Edge or SKF Wave lips, but may be adequate for some applications. Use these when SKF Edge or SKF Wave seals are not available in the size needed.

G = Grease seal: Oil seals can handle oil or grease applications, but grease seals do not have the garter spring needed for oil retention, so they are for grease only. Normally you point the lip away from grease if the main concern is water/dirt ingression, which also allows the grease to purge if needed.

Key features

▲ **WasteWatcher:** Indicates that the product is most likely to be in stock at our distributors and our own SKF warehouses. The CR Seals WasteWatcher program helps distributors optimize seal inventories.

■ **Bore-Tite:** Indicates the seal uses SKF Bore-Tite, a green, water-based acrylic sealant used as a coating on the outside diameter of the seal.

◤ **SS Case:** Indicates the seal has a stainless steel seal case.

◎ **SS Spring:** Indicates the seal has a stainless steel seal lip spring.

◆ **Pressure seal up to 50 psi:** Suitable for higher-pressure sealing applications; typical industrial shaft seals can handle only up to 5 or 10 psi.

◇ **Cover plate required:** Proper seal installation and operation requires a cover plate, which clamps down axially on an all-rubber seal to hold it in place in many large diameter seal applications.

Contents

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 0.188" (4.78 mm)						
0.500	0.125	1850	HM1	R	G	
METRIC Shaft Diameter – 5 mm (0.197")						
16	6	5X16X6 HMS4 R	HMS4	R	S	
METRIC Shaft Diameter – 6 mm (0.236")						
12	2	6X12X2 HM3 R	HM3	R	G	
16	5	**6X16X5 HMS5 RG**	**HMS5**	RG	E	
16	5	**6X16X5 HMS5 V**	**HMS5**	V	E	◎
16	5	**6X16X5 HMSA10 RG**	**HMSA10**	RG	E	
16	5	**6X16X5 HMSA10 V**	**HMSA10**	V	E	◎
16	7	**6X16X7 HMS5 RG**	**HMS5**	RG	E	
16	7	**6X16X7 HMS5 V**	**HMS5**	V	E	◎
16	7	▲ **6X16X7 HMSA10 RG**	**HMSA10**	RG	E	
16	7	**6X16X7 HMSA10 V**	**HMSA10**	V	E	◎
22	7	**6X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**6X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	▲ **6X22X7 HMSA10 RG**	**HMSA10**	RG	E	
22	7	**6X22X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.250" (6.35 mm)						
0.499	0.188	**2450**	**HM14**	R	G	
0.562	0.188	**2470**	**HM14**	R	G	■
0.626	0.250	**2492**	**HM14**	R	G	
0.749	0.188	**2563**	**HM14**	R	G	
0.749	0.250	▲ **2514**	**CRW1**	R	W	■◤◎
0.749	0.250	**2517**	**CRW1**	V	W	
METRIC Shaft Diameter – 7 mm (0.276")						
16	7	**7X16X7 HMS5 RG1**	**HMS5**	RG	E	
16	7	**7X16X7 HMS5 V1**	**HMS5**	V	E	◎
16	7	**7X16X7 HMSA10 RG1**	**HMSA10**	RG	E	
16	7	**7X16X7 HMSA10 V1**	**HMSA10**	V	E	◎
20	7	7X20X7 HMS4 R	HMS4	R	S	
20	7	7X20X7 HMSA7 R	HMSA7	R	S	
22	7	**7X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**7X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	▲ **7X22X7 HMSA10 RG**	**HMSA10**	RG	E	
22	7	**7X22X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.313" (7.95 mm)						
0.500	0.125	3044	HM4	R	G	
0.626	0.156	**3060**	**HM14**	R	G	■
0.626	0.203	3050	HM1	R	G	■
0.633	0.141	**3080**	**HM14**	R	G	
0.686	0.313	**3094**	**CRWA5**	R	W	◆
0.686	0.313	**3096**	**CRWA5**	V	W	◆
0.749	0.250	**3103**	**CRWA5**	V	W	◆
0.749	0.250	**3140**	**HM14**	R	G	
0.749	0.256	**3101**	**CRWA5**	R	W	◆
0.750	0.250	3141	HM3	R	G	
0.862	0.250	**3086**	**HM14**	R	G	
0.999	0.313	**3171**	**CRWA5**	R	W	◆
METRIC Shaft Diameter – 8 mm (0.315")						
12	3	8X12X3 HM4 R	HM4	R	G	
16	7	8X16X7 HMS4 R	HMS4	R	S	
18	5	**8X18X5 HMS5 RG**	**HMS5**	RG	E	
18	5	**8X18X5 HMS5 V**	**HMS5**	V	E	◎
18	5	▲ **8X18X5 HMSA10 RG**	**HMSA10**	RG	E	
18	5	**8X18X5 HMSA10 V**	**HMSA10**	V	E	◎
18	7	**8X18X7 HMS5 RG**	**HMS5**	RG	E	
18	7	**8X18X7 HMS5 V**	**HMS5**	V	E	◎
18	7	**8X18X7 HMSA10 RG**	**HMSA10**	RG	E	
18	7	**8X18X7 HMSA10 V**	**HMSA10**	V	E	◎
22	7	**8X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**8X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	▲ **8X22X7 HMSA10 RG**	**HMSA10**	RG	E	
METRIC Shaft Diameter (cont.) – 0.315" (8 mm)						
22	7	**8X22X7 HMSA10 V**	**HMSA10**	V	E	◎
24	7	**8X24X7 HMS5 RG**	**HMS5**	RG	E	
24	7	**8X24X7 HMS5 V**	**HMS5**	V	E	◎
24	7	**8X24X7 HMSA10 RG**	**HMSA10**	RG	E	
24	7	**8X24X7 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter – 9 mm (0.354")						
13	3	9X13X3 HM4 R	HM4	R	G	
18	7	9X18X7 HMSA7 R	HMSA7	R	S	
22	7	**9X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**9X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	**9X22X7 HMSA10 RG**	**HMSA10**	RG	E	
22	7	**9X22X7 HMSA10 V**	**HMSA10**	V	E	◎
24	7	9X24X7 HMS4 R	HMS4	R	S	■
26	7	9X26X7 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 0.375" (9.53 mm)						
0.563	0.094	3621	HM3	R	G	
0.625	0.125	528759	HM1	R	G	◤
0.625	0.125	527935	HM1	R	G	
0.687	0.156	**3645**	**HM14**	R	G	■
0.749	0.250	▲ **3687**	**CRW1**	R	W	
0.749	0.250	**3688**	**CRW1**	V	W	■
0.749	0.250	**3689**	**CRW5**	R	W	◤◎◆
0.749	0.250	**3683**	**HM14**	R	G	
0.750	0.250	▲ **3680**	**CRWA1**	R	W	■
0.836	0.188	**3719**	**CRW1**	P	W	■
0.875	0.250	▲ **3725**	**CRW1**	R	W	■
0.875	0.250	**3727**	**HM14**	R	G	
0.999	0.250	▲ **3751**	**CRW1**	R	W	
0.999	0.250	**3754**	**CRW1**	R	W	
0.999	0.250	**3752**	**CRW1**	V	W	■
1.124	0.250	▲ **3806**	**CRW1**	R	W	
1.124	0.375	**3807**	**CRW5**	V	W	■◆
METRIC Shaft Diameter – 10 mm (0.394")						
14	3	10X14X3 HM4 R	HM4	R	G	
19	7	**10X19X7 HMS5 RG1**	**HMS5**	RG	E	
19	7	**10X19X7 HMS5 V1**	**HMS5**	V	E	◎
19	7	▲ **10X19X7 HMSA10 RG1**	**HMSA10**	RG	E	
19	7	**10X19X7 HMSA10 V1**	**HMSA10**	V	E	◎
20	6	**10X20X6 HMS5 RG**	**HMS5**	RG	E	
20	6	**10X20X6 HMS5 V**	**HMS5**	V	E	◎
20	6	▲ **10X20X6 HMSA10 RG**	**HMSA10**	RG	E	
20	6	**10X20X6 HMSA10 V**	**HMSA10**	V	E	◎
20	7	**10X20X7 HMS5 RG**	**HMS5**	RG	E	
20	7	**10X20X7 HMS5 V**	**HMS5**	V	E	◎
20	7	**10X20X7 HMSA10 RG**	**HMSA10**	RG	E	
20	7	**10X20X7 HMSA10 V**	**HMSA10**	V	E	◎
22	7	**10X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**10X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	▲ **10X22X7 HMSA10 RG**	**HMSA10**	RG	E	
22	7	**10X22X7 HMSA10 V**	**HMSA10**	V	E	◎
24	7	**10X24X7 HMS5 RG**	**HMS5**	RG	E	
24	7	**10X24X7 HMS5 V**	**HMS5**	V	E	◎
24	7	▲ **10X24X7 HMSA10 RG**	**HMSA10**	RG	E	
24	7	**10X24X7 HMSA10 V**	**HMSA10**	V	E	◎
25	7	**10X25X7 HMS5 RG**	**HMS5**	RG	E	
25	7	**10X25X7 HMS5 V**	**HMS5**	V	E	◎
25	7	▲ **10X25X7 HMSA10 RG**	**HMSA10**	RG	E	
25	7	**10X25X7 HMSA10 V**	**HMSA10**	V	E	◎
26	7	**10X26X7 HMS5 RG**	**HMS5**	RG	E	
26	7	**10X26X7 HMS5 V**	**HMS5**	V	E	◎
26	7	▲ **10X26X7 HMSA10 RG**	**HMSA10**	RG	E	
26	7	**10X26X7 HMSA10 V**	**HMSA10**	V	E	◎
28	8	10X28X8 HMS4 R	HMS4	R	S	■
30	7	**10X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**10X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲ **10X30X7 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 10 mm (0.394")						
30	7	**10X30X7 HMSA10 V**	**HMSA10**	V	E	◎
30	10	10X30X10 HMS4 R	HMS4	R	S	
40	7	10X40X7 HMS4 R	HMS4	R	S	
40	7	10X40X7 HMSA7 R	HMSA7	R	S	
INCH Shaft Diameter – 0.404" (10.26 mm)						
0.620	0.188	**4010**	**HM14**	R	G	
0.862	0.250	**4012**	**HM14**	R	G	
METRIC Shaft Diameter – 11 mm (0.433")						
17	4	11X17X4 HMS4 R	HMS4	R	S	
22	6	11X22X6 HMSA7 V	HMSA7	V	S	
22	7	11X22X7 HMS4 R	HMS4	R	S	
26	7	11X26X7 HMS4 R	HMS4	R	S	
30	7	11X30X7 HMS4 R	HMS4	R	S	
)INCH Shaft Diameter – 0.438" (11.13 mm						
0.836	0.188	**4231**	**HM14**	R	G	
0.875	0.250	**4249**	**CRW1**	P	W	■
0.875	0.250	▲**4251**	**CRW1**	R	W	
0.875	0.375	**4261**	**CRWA1**	R	W	
0.999	0.250	**4356**	**CRW1**	V	W	■
0.999	0.250	**4340**	**HM14**	R	G	
0.999	0.375	▲**4355**	**CRW1**	R	W	■
1.124	0.250	▲**4390**	**CRW1**	R	W	■
0.836	0.188	**4623**	**HM14**	P	G	
0.875	0.219	**4628**	**HM14**	R	G	
METRIC Shaft Diameter – 12 mm (0.472")						
	8.4	99049	SSLEEVE			
Shaft Ø11.91-12.01mm - 'on-shaft' width 6mm - flange Ø15.5mm						
16	3	12X16X3 HM4 R	HM4	R	G	
18	3	12X18X3 HM4 R	HM4	R	G	
18	3	12X18X3 HMS4 R	HMS4	R	S	
18	3	12X18X3 HMSA7 R	HMSA7	R	S	
19	3	12X19X3 HM4 R	HM4	R	G	
19	5	**12X19X5 HMS5 RG1**	**HMS5**	RG	E	
19	5	**12X19X5 HMS5 V1**	**HMS5**	V	E	◎
19	5	▲**12X19X5 HMSA10 RG1**	**HMSA10**	RG	E	
19	5	**12X19X5 HMSA10 V1**	**HMSA10**	V	E	◎
20	5	12X20X5 CRSA1 R	CRSA1	R	S	
20	5	12X20X5 HMS4 R	HMS4	R	S	
22	4	12X22X4 HM4 R	HM4	R	G	
22	5	**12X22X5 HMS5 RG**	**HMS5**	RG	E	
22	5	**12X22X5 HMS5 V**	**HMS5**	V	E	◎
22	5	▲**12X22X5 HMSA10 RG**	**HMSA10**	RG	E	
22	5	**12X22X5 HMSA10 V**	**HMSA10**	V	E	◎
22	6	**12X22X6 HMS5 RG**	**HMS5**	RG	E	
22	6	**12X22X6 HMS5 V**	**HMS5**	V	E	◎
22	6	**12X22X6 HMSA10 RG**	**HMSA10**	RG	E	
22	6	**12X22X6 HMSA10 V**	**HMSA10**	V	E	◎
22	6	12X22X6 HMSA72P2 R	HMSA72P2	R	S	◆
22	7	**12X22X7 CRW1 R**	**CRW1**	R	W	■
22	7	**12X22X7 CRW1 V**	**CRW1**	V	W	■
22	7	**12X22X7 HMS5 RG**	**HMS5**	RG	E	
22	7	**12X22X7 HMS5 V**	**HMS5**	V	E	◎
22	7	**12X22X7 HMSA10 RG**	**HMSA10**	RG	E	
22	7	**12X22X7 HMSA10 V**	**HMSA10**	V	E	◎
24	6	12X24X6 HMSA7P2 R	HMSA7P2	R	S	◆
24	7	**12X24X7 HMS5 RG**	**HMS5**	RG	E	
24	7	**12X24X7 HMS5 V**	**HMS5**	V	E	◎
24	7	▲**12X24X7 HMSA10 RG**	**HMSA10**	RG	E	
24	7	**12X24X7 HMSA10 V**	**HMSA10**	V	E	◎
25	4.50	12X25X4.5 HMS4 R	HMS4	R	S	
25	7	**12X25X7 CRW1 R**	**CRW1**	R	W	
25	7	**12X25X7 HMS5 RG**	**HMS5**	RG	E	
25	7	**12X25X7 HMS5 V**	**HMS5**	V	E	◎
25	7	▲**12X25X7 HMSA10 RG**	**HMSA10**	RG	E	
25	7	**12X25X7 HMSA10 V**	**HMSA10**	V	E	◎

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 12 mm (0.472")						
26	7	**12X26X7 CRW1 R**	**CRW1**	R	W	
26	8	12X26X8 HMS4 R	HMS4	R	S	
28	7	**12X28X7 CRW1 P**	**CRW1**	P	W	■
28	7	**12X28X7 CRW1 R**	**CRW1**	R	W	■
28	7	**12X28X7 HMS5 RG**	**HMS5**	RG	E	
28	7	**12X28X7 HMS5 V**	**HMS5**	V	E	◎
28	7	▲**12X28X7 HMSA10 RG**	**HMSA10**	RG	E	
28	7	**12X28X7 HMSA10 V**	**HMSA10**	V	E	◎
30	7	**12X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**12X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**12X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**12X30X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	**12X32X7 CRW1 R**	**CRW1**	R	W	
32	7	**12X32X7 CRW1 V**	**CRW1**	V	W	■
32	7	**12X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**12X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**12X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**12X32X7 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**12X35X7 CRW1 R**	**CRW1**	R	W	■
37	7	**12X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**12X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	**12X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**12X37X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.500" (12.70 mm)						
	0.344	99050	SSLEEVE			
Shaft Ø0.498-0.502" - 'on-shaft' width 0.25" - flange Ø0.61"						
0.688	0.094	**4911**	**HM3**	R	G	
0.750	0.125	4912	HM14	R	G	■
0.820	0.156	**4914**	**HM14**	R	G	■
0.843	0.250	**4923**	**HM14**	R	G	■
0.875	0.125	**4925**	**HM14**	R	G	
0.875	0.250	**4936**	**CRW1**	D	W	■
0.875	0.250	▲**4931**	**CRW1**	R	W	■
0.875	0.250	**4932**	**CRW1**	V	W	■
0.875	0.250	**4933**	**CRWA1**	V	W	■
0.875	0.250	**4935**	**CRWA1**	V	W	■◤◎
0.875	0.250	**4938**	**HM14**	R	G	
0.875	0.313	**4939**	**CRWA1**	R	W	■
0.875	0.313	**4940**	**CRWA5**	R	W	■◆
0.875	0.313	**4941**	**CRWA5**	V	W	■◆
0.987	0.250	**4943**	**CRW1**	R	W	■
0.999	0.188	**4950**	**HM14**	R	G	■
0.999	0.250	**4984**	**CRW1**	R	W	■
0.999	0.250	**4980**	**CRW1**	V	W	■◎
0.999	0.250	**4982**	**CRWA1**	P	W	■
0.999	0.250	▲**4985**	**CRWA1**	R	W	■
0.999	0.250	**4991**	**CRWA5**	V	W	■◎◆
0.999	0.250	**4990**	**HM14**	R	G	■
0.999	0.313	**4996**	**CRWA5**	R	W	■◆
1.000	0.375	**541625**	**CRW1**	R	W	
1.124	0.250	**5066**	**CRW1**	V	W	■
1.124	0.250	**5062**	**CRWA1**	R	W	■
1.124	0.250	**5067**	**CRWA1**	V	W	■
1.124	0.250	**5069**	**CRWA5**	R	W	■◆
1.124	0.250	**5072**	**CRWA5**	V	W	■◆
1.124	0.250	**5085**	**HM14**	R	G	■
1.124	0.256	▲**5068**	**CRW1**	R	W	■
1.124	0.313	**5046**	**CRW1**	P	W	■
1.250	0.250	▲**5133**	**CRW1**	R	W	■
1.250	0.250	**546966**	**CRW1**	V	W	■
1.375	0.250	▲**5150**	**CRW1**	R	W	■
1.375	0.250	**5151**	**CRW1**	V	W	■
METRIC Shaft Diameter – 13 mm (0.512")						
26	7	**13X26X7 HMS5 RG**	**HMS5**	RG	E	
26	7	**13X26X7 HMS5 V**	**HMS5**	V	E	◎
26	7	▲**13X26X7 HMSA10 RG**	**HMSA10**	RG	E	
26	7	**13X26X7 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: W = SKF Wave E = SKF Edge F = SKF Flex S = standard oil G = grease **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 13 mm (0.512")						
28	7	13X28X7 CRS1 R	CRS1	R	S	
28	7	13X28X7 HMS4 R	HMS4	R	S	
30	7	13X30X7 HMSA7 R	HMSA7	R	S	
30	8	13X30X8 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 0.531" (13.49 mm)						
0.999	0.250	**5321**	**CRWA1**	S	W	■
INCH Shaft Diameter – 0.546" (13.87 mm)						
0.875	0.250	**5385**	**CRW1**	P	W	
1.124	0.313	5334	CRSA1	R	S	
METRIC Shaft Diameter – 14 mm (0.551")						
	9.9	**99055**	**SSLEEVE**			
Shaft Ø13.89-14mm - 'on-shaft' width 6.35mm - flange Ø19.05mm						
20	3	14X20X3 HM4 R	HM4	R	G	
22	3	14X22X3 HM4 R	HM4	R	G	
22	4	14X22X4 HMS4 R	HMS4	R	S	
22	4	14X22X4 HMSA7 R	HMSA7	R	S	
24	6	14X24X6 HMSA7 R	HMSA7	R	S	
24	7	**14X24X7 HMS5 RG**	**HMS5**	RG	E	
24	7	**14X24X7 HMS5 V**	**HMS5**	V	E	◎
24	7	▲**14X24X7 HMSA10 RG**	**HMSA10**	RG	E	
24	7	**14X24X7 HMSA10 V**	**HMSA10**	V	E	◎
25	5	**14X25X5 HMS5 RG**	**HMS5**	RG	E	
25	5	**14X25X5 HMS5 V**	**HMS5**	V	E	◎
25	5	**14X25X5 HMSA10 RG**	**HMSA10**	RG	E	
25	5	**14X25X5 HMSA10 V**	**HMSA10**	V	E	◎
25	7	14X25X7 HMSA7 P	HMSA7	P	S	
26	7	**14X26X7 CRW1 V**	**CRW1**	V	W	■
28	6	14X28X6 HMS4 R	HMS4	R	S	
28	7	**14X28X7 HMS5 RG**	**HMS5**	RG	E	
28	7	**14X28X7 HMS5 V**	**HMS5**	V	E	◎
28	7	▲**14X28X7 HMSA10 RG**	**HMSA10**	RG	E	
28	7	**14X28X7 HMSA10 V**	**HMSA10**	V	E	◎
28.55	5.16	**5399**	**HM21**	R	G	■
30	7	**14X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**14X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**14X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**14X30X7 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**14X35X7 CRW1 R**	**CRW1**	R	W	
35	7	14X35X7 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 0.554" (14.07 mm)						
0.999	0.250	▲**5605**	**CRW1**	R	W	■◤◎
INCH Shaft Diameter – 0.563" (14.30 mm)						
	0.391	**99056**	**SSLEEVE**			
Shaft Ø0.56-0.564" - 'on-shaft' width 0.25" - flange Ø0.75"						
0.750	0.094	5500	HM3	R	G	
0.875	0.188	**5523**	**CRW1**	D	W	■
0.875	0.188	**5522**	**HM14**	R	G	■
0.999	0.219	**5569**	**HM14**	R	G	■
0.999	0.250	**5543**	**CRW1**	R	W	■◤◎
0.999	0.250	**5542**	**CRW1**	V	W	■
0.999	0.250	**5606**	**CRWA1**	R	W	■
0.999	0.256	▲**5541**	**CRW1**	R	W	■
1.124	0.250	▲**5652**	**CRW1**	R	W	■
1.124	0.250	**5650**	**CRW1**	V	W	■
1.124	0.250	**5662**	**CRWA1**	R	W	■
1.124	0.250	5685	HM14	R	G	
1.250	0.250	▲**5707**	**CRW1**	R	W	■
1.375	0.250	▲**5756**	**CRW1**	R	W	■
METRIC Shaft Diameter – 15 mm (0.591")						
	9	**99059**	**SSLEEVE**			
Shaft Ø14.96-15.06mm - 'on-shaft' width 5mm - flange Ø19.05mm						
21	3	15X21X3 HM4 R	HM4	R	G	
METRIC Shaft Diameter (cont.) – 15 mm (0.591")						
21	3	15X21X3 HM4 V	HM4	V	G	
21	5	5904	HMSA7	P	S	
23	3	15X23X3 HM4 R	HM4	R	G	
24	5	15X24X5 HMS4 R	HMS4	R	S	
24	5	15X24X5 HMSA7 R	HMSA7	R	S	
24	7	**15X24X7 HMS5 RG1**	**HMS5**	RG	E	
24	7	**15X24X7 HMS5 V1**	**HMS5**	V	E	◎
24	7	▲**15X24X7 HMSA10 RG1**	**HMSA10**	RG	E	
24	7	**15X24X7 HMSA10 V1**	**HMSA10**	V	E	◎
25	5	**15X25X5 HMS5 RG**	**HMS5**	RG	E	
25	5	**15X25X5 HMS5 V**	**HMS5**	V	E	◎
25	5	▲**15X25X5 HMSA10 RG**	**HMSA10**	RG	E	
25	5	**15X25X5 HMSA10 V**	**HMSA10**	V	E	◎
25	6	**15X25X6 HMS5 RG**	**HMS5**	RG	E	
25	6	**15X25X6 HMS5 V**	**HMS5**	V	E	◎
25	6	**15X25X6 HMSA10 RG**	**HMSA10**	RG	E	
25	6	**15X25X6 HMSA10 V**	**HMSA10**	V	E	◎
25	7	**15X25X7 CRW1 P**	**CRW1**	P	W	■
26	6	15X26X6 HMS4 R	HMS4	R	S	
26	7	**15X26X7 HMS5 RG**	**HMS5**	RG	E	
26	7	**15X26X7 HMS5 V**	**HMS5**	V	E	◎
26	7	▲**15X26X7 HMSA10 RG**	**HMSA10**	RG	E	
26	7	**15X26X7 HMSA10 V**	**HMSA10**	V	E	◎
28	7	**15X28X7 CRW1 R**	**CRW1**	R	W	■
28	7	15X28X7 HMS4 R	HMS4	R	S	
28.55	6.35	**5946**	**HM14**	R	G	■
28.55	7.95	**5926**	**CRW1**	R	W	■
30	7	**15X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**15X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**15X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**15X30X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	**15X32X7 CRW1 R**	**CRW1**	R	W	
32	7	**15X32X7 CRW1 V**	**CRW1**	V	W	■
32	7	**15X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**15X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**15X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**15X32X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	15X32X7 HMSA7P2 R	HMSA7P2	R	S	◆
35	6	15X35X6 HMSA7P2 R	HMSA7P2	R	S	◆
35	7	**15X35X7 CRW1 P**	**CRW1**	P	W	■
35	7	**15X35X7 CRW1 R**	**CRW1**	R	W	■
35	7	**15X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**15X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**15X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**15X35X7 HMSA10 V**	**HMSA10**	V	E	◎
35	8	15X35X8 HMS4 R	HMS4	R	S	
40	7	**15X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**15X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	**15X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**15X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	10	**15X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**15X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	▲**15X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**15X40X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.594" (15.09 mm)						
1.250	0.313	5950	CRSA1	R	S	
1.375	0.313	5966	CRSA1	R	S	■
INCH Shaft Diameter – 0.624" (15.85 mm)						
1.131	0.188	**6243**	**HM14**	R	G	■
INCH Shaft Diameter – 0.625" (15.88 mm)						
	0.406	**99062**	**SSLEEVE**			
Shaft Ø0.623-0.627" - 'on-shaft' width 0.313" - flange Ø0.75"						
	0.406	99810	GSLEEVE			
Shaft Ø0.623-0.627" - 'on-shaft' width 0.313" - flange Ø0.75"						
0.812	0.094	6105	HM3	R	G	
0.813	0.094	6106	HM3	V	G	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 0.625" (15.88 mm)						
0.933	0.188	**6125**	**HM14**	R	G	■
0.933	0.188	**6126**	**HM14**	V	G	■
0.937	0.188	**6130**	**HM14**	R	G	■
0.987	0.250	▲**6134**	**CRW1**	R	W	■◎
0.999	0.250	▲**6143**	**CRW1**	R	W	■
0.999	0.250	**6141**	**CRWA1**	R	W	■
0.999	0.250	**6139**	**CRWA1**	V	W	■◎
0.999	0.250	**6151**	**CRWA5**	R	W	■◆
1.000	0.125	**6152**	**HM14**	P	G	■
1.063	0.250	▲**6157**	**CRW1**	R	W	■
1.063	0.250	**6158**	**HM14**	R	G	■
1.124	0.250	**6903**	**CRW1**	R	W	■
1.124	0.250	**6823**	**CRW1**	V	W	■
1.124	0.250	**6191**	**CRW5**	R	W	■◆
1.124	0.250	▲**6904**	**CRWA1**	R	W	■
1.124	0.250	**6825**	**CRWA1**	V	W	■
1.124	0.250	**6225**	**HM14**	R	G	■
1.124	0.374	**6231**	**CRWA5**	V	W	■◆
1.124	0.375	**6229**	**CRWA5**	R	W	■◆
1.125	0.125	527937	HM1	R	G	
1.125	0.250	**531074**	**HM14**	R	G	
1.126	0.250	**6242**	**CRW5**	R	W	■◆
1.181	0.250	▲**6247**	**CRWA1**	R	W	■
1.181	0.256	**6248**	**CRWA1**	V	W	■
1.250	0.250	**6925**	**CRW1**	R	W	■
1.250	0.250	**6909**	**CRW1**	V	W	■
1.250	0.250	▲**6916**	**CRWA1**	R	W	■
1.250	0.250	**6323**	**HM14**	R	G	■
1.250	0.313	**6280**	**CRWA5**	R	W	◤◎◆
1.250	0.313	**6285**	**CRWA5**	V	W	◤◎◆
1.259	0.250	**6335**	**HM14**	R	G	■
1.375	0.250	**6372**	**CRW1**	R	W	■
1.375	0.250	**6979**	**CRW1**	V	W	■
1.375	0.250	**6371**	**CRW5**	P	W	■◆
1.375	0.250	▲**6373**	**CRWA1**	R	W	■
1.375	0.250	**6383**	**CRWA1**	V	W	■
1.375	0.250	**6370**	**HM14**	R	G	■
1.375	0.375	**6388**	**CRWA5**	R	W	■◤ ◎◆
1.377	0.250	▲**6391**	**CRWHA1**	R	W	■
1.499	0.250	▲**6422**	**CRW1**	R	W	■
1.500	0.313	**6393**	**CRW5**	V	W	■◎◆
1.850	0.276	**534948**	**CRWA1**	V	W	
METRIC Shaft Diameter – 16 mm (0.630")						
	11.1	**99058**	**SSLEEVE**			
Shaft Ø15.9-16mm - 'on-shaft' width 7.95mm - flange Ø18.24mm						
21	4	6113	HMA1	R	G	
22	3	16X22X3 HM4 R	HM4	R	G	
22	4	16X22X4 HM4 R	HM4	R	G	
24	5	16X24X5 HMS4 R	HMS4	R	S	
24	5	16X24X5 HMSA7 R	HMSA7	R	S	
24	7	**16X24X7 HMS5 RG1**	**HMS5**	RG	E	
24	7	**16X24X7 HMS5 V1**	**HMS5**	V	E	◎
24	7	▲**16X24X7 HMSA10 RG1**	**HMSA10**	RG	E	
24	7	**16X24X7 HMSA10 V1**	**HMSA10**	V	E	◎
26	6.35	6293	HMSA7	P	S	
27	6	16X27X6 HMS4 P	HMS4	P	S	
28	6	16X28X6 HMS4 R	HMS4	R	S	
28	7	**16X28X7 CRW1 R**	**CRW1**	R	W	■
28	7	**16X28X7 HMS5 RG**	**HMS5**	RG	E	
28	7	**16X28X7 HMS5 V**	**HMS5**	V	E	◎
28	7	▲**16X28X7 HMSA10 RG**	**HMSA10**	RG	E	
28	7	**16X28X7 HMSA10 V**	**HMSA10**	V	E	◎
30	7	**16X30X7 CRW1 R**	**CRW1**	R	W	■
30	7	**16X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**16X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**16X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**16X30X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	**16X32X7 CRW1 R**	**CRW1**	R	W	
METRIC Shaft Diameter (cont.) – 16 mm (0.630")						
32	7	**16X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**16X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**16X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**16X32X7 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**16X35X7 CRW1 R**	**CRW1**	R	W	
35	7	**16X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**16X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**16X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**16X35X7 HMSA10 V**	**HMSA10**	V	E	◎
38	7	16X38X7 HMSA7 R	HMSA7	R	S	
40	7	**16X40X7 CRW1 R**	**CRW1**	R	W	
40	7	**16X40X7 CRWA1 R**	**CRWA1**	R	W	■
47	7	**16X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**16X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	**16X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**16X47X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.656" (16.66 mm)						
1.124	0.313	▲**6523**	**CRW1**	R	W	■
1.250	0.250	▲**6541**	**CRW1**	R	W	■
1.375	0.313	▲**6556**	**CRW1**	R	W	■
1.575	0.250	▲**6582**	**CRW1**	R	W	■
METRIC Shaft Diameter – 17 mm (0.669")						
	11	**99068**	**SSLEEVE**			
23	3	17X23X3 HM4 R	HM4	R	G	
25	4	17X25X4 HMS4 R	HMS4	R	S	
25	4	17X25X4 HMSA7 R	HMSA7	R	S	
25.37	4.78	**6595**	**CRW1**	R	W	■
27	6.35	**6728**	**CRW1**	R	W	■◤◎
27	6.35	**6729**	**CRW1**	R	W	■
27	7	17X27X7 HMSA7 R	HMSA7	R	S	
28	6	17X28X6 HMSA7 R	HMSA7	R	S	
28	7	**17X28X7 CRW1 R**	**CRW1**	R	W	◎
28	7	**17X28X7 CRW1 V**	**CRW1**	V	W	■
28	7	**17X28X7 HMS5 RG**	**HMS5**	RG	E	
28	7	**17X28X7 HMS5 V**	**HMS5**	V	E	◎
28	7	▲**17X28X7 HMSA10 RG**	**HMSA10**	RG	E	
28	7	**17X28X7 HMSA10 V**	**HMSA10**	V	E	◎
29	5	**17X29X5 HMS5 RG**	**HMS5**	RG	E	
29	5	**17X29X5 HMS5 V**	**HMS5**	V	E	◎
29	5	**17X29X5 HMSA10 RG**	**HMSA10**	RG	E	
29	5	**17X29X5 HMSA10 V**	**HMSA10**	V	E	◎
30	6	17X30X6 HMS4 R	HMS4	R	S	
30	7	**17X30X7 CRW1 R**	**CRW1**	R	W	■
30	7	**17X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**17X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**17X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**17X30X7 HMSA10 V**	**HMSA10**	V	E	◎
31.75	6.35	**6806**	**HM14**	R	G	■
32	7	**17X32X7 CRW1 R**	**CRW1**	R	W	■
32	7	**17X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**17X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**17X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**17X32X7 HMSA10 V**	**HMSA10**	V	E	◎
35	6	17X35X6 HMS4 R	HMS4	R	S	
35	7	**17X35X7 CRW1 R**	**CRW1**	R	W	■
35	7	**17X35X7 CRW1 V**	**CRW1**	V	W	■
35	7	**17X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**17X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**17X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**17X35X7 HMSA10 V**	**HMSA10**	V	E	◎
37	7	**17X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**17X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	▲**17X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**17X37X7 HMSA10 V**	**HMSA10**	V	E	◎
39.95	7.14	**6597**	**CRW1**	V	W	◤◎
40	7	**17X40X7 CRW1 R**	**CRW1**	R	W	
40	7	**17X40X7 HMS5 RG**	**HMS5**	RG	E	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 17 mm (0.669")						
40	7	**17X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**17X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**17X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	10	**17X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**17X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	**17X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**17X40X10 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**17X47X7 CRW1 R**	**CRW1**	R	W	
47	7	**17X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**17X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**17X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**17X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	17X47X8 HMSA7 R	HMSA7	R	S	
47	10	**17X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**17X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**17X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**17X47X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.684" (17.37mm)						
	0.438	**99060**	**SSLEEVE**			
Shaft Ø0.682-0.686" - 'on-shaft' width 0.313" - flange Ø0.9"						
INCH Shaft Diameter – 0.688" (17.48 mm)						
0.999	0.188	**6720**	**HM14**	R	G	■
1.124	0.190	**6738**	**CRW1**	R	W	■
1.124	0.250	▲**6741**	**CRW1**	R	W	■
1.124	0.250	**6743**	**CRW1**	R	W	■◎
1.124	0.250	**6745**	**CRW1**	V	W	■◎
1.124	0.250	**6759**	**HM14**	R	G	■
1.187	0.188	▲**6763**	**CRW1**	R	W	■
1.187	0.188	**6770**	**CRW1**	V	W	■
1.250	0.256	**6765**	**CRWA1**	R	W	■
1.250	0.313	▲**6767**	**CRW1**	R	W	■
1.250	0.313	**6768**	**CRW1**	V	W	■
1.252	0.220	**6769**	**CRWH1**	V	W	■
1.375	0.125	**6915**	**HM14**	R	G	■
1.375	0.250	**6814**	**CRWA1**	R	W	■
1.375	0.250	**6920**	**HM14**	R	G	■
1.375	0.313	▲**6816**	**CRW1**	R	W	■
1.375	0.313	**6817**	**CRW1**	V	W	■
1.499	0.250	**6935**	**CRW1**	R	W	■
1.624	0.250	▲**6990**	**CRWA1**	R	W	■
METRIC Shaft Diameter – 18 mm (0.709")						
	11	**99082**	**SSLEEVE**			
Shaft Ø17.88-17.98mm - 'on-shaft' width 8mm - flange Ø24.43mm						
24	3	18X24X3 HM4 R	HM4	R	G	
26	4	18X26X4 HMA1 R	HMA1	R	G	
28	6	18X28X6 HMS4 R	HMS4	R	S	
28	7	**18X28X7 HMS5 RG**	**HMS5**	RG	E	
28	7	**18X28X7 HMS5 V**	**HMS5**	V	E	◎
28	7	▲**18X28X7 HMSA10 RG**	**HMSA10**	RG	E	
28	7	**18X28X7 HMSA10 V**	**HMSA10**	V	E	◎
28	8	18X28X8 HMS4 R	HMS4	R	S	
30	5	**18X30X5 CRW1 V**	**CRW1**	V	W	
30	6	**18X30X6 HMS5 RG**	**HMS5**	RG	E	
30	6	**18X30X6 HMS5 V**	**HMS5**	V	E	◎
30	6	**18X30X6 HMSA10 RG**	**HMSA10**	RG	E	
30	6	**18X30X6 HMSA10 V**	**HMSA10**	V	E	◎
30	6	18X30X6 HMSA7P2 R	HMSA7P2	R	S	◆
30	7	**18X30X7 CRW1 R**	**CRW1**	R	W	■
30	7	**18X30X7 CRW1 V**	**CRW1**	V	W	■
30	7	**18X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**18X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**18X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**18X30X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	**18X32X7 CRW1 R**	**CRW1**	R	W	■
32	7	**18X32X7 CRW1 V**	**CRW1**	V	W	■
32	7	**18X32X7 HMS5 RG**	**HMS5**	RG	E	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 18 mm (0.709")						
32	7	**18X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**18X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**18X32X7 HMSA10 V**	**HMSA10**	V	E	◎
32	8	18X32X8 HMS4 R	HMS4	R	S	
34	8	7089	CRSA1	P	S	
35	6	18X35X6 HMSA7P2 R	HMSA7P2	R	S	◆
35	7	**18X35X7 CRW1 R**	**CRW1**	R	W	
35	7	**18X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**18X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**18X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**18X35X7 HMSA10 V**	**HMSA10**	V	E	◎
37	8	18X37X8 HMSA7 R	HMSA7	R	S	
38	7	18X38X7 HMSA7 R	HMSA7	R	S	
40	7	**18X40X7 CRW1 R**	**CRW1**	R	W	■
40	7	**18X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**18X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**18X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**18X40X7 HMSA10 V**	**HMSA10**	V	E	◎
47	6	**18X47X6 HMS5 RG**	**HMS5**	RG	E	
47	6	**18X47X6 HMS5 V**	**HMS5**	V	E	◎
47	6	**18X47X6 HMSA10 RG**	**HMSA10**	RG	E	
47	6	**18X47X6 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**18X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**18X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**18X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**18X47X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.736" (18.70 mm)						
35	7	7400	HMSA7	R	S	
METRIC Shaft Diameter – 19 mm (0.748")						
27	4	19X27X4 HM4 R	HM4	R	G	
27	6	19X27X6 HMS4 R	HMS4	R	S	
30	7	**19X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**19X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**19X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**19X30X7 HMSA10 V**	**HMSA10**	V	E	◎
30	8	**19X30X8 HMS5 RG**	**HMS5**	RG	E	
30	8	**19X30X8 HMS5 V**	**HMS5**	V	E	◎
30	8	**19X30X8 HMSA10 RG**	**HMSA10**	RG	E	
30	8	**19X30X8 HMSA10 V**	**HMSA10**	V	E	◎
32	7	**19X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**19X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**19X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**19X32X7 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**19X35X7 CRW1 R**	**CRW1**	R	W	■
35	8	19X35X8 HMS4 R	HMS4	R	S	
35	10	19X35X10 HMS4 R	HMS4	R	S	
35	10	19X35X10 HMSA7 R	HMSA7	R	S	
38	7.62	7251	HMSA7	R	S	
40	10	19X40X10 HMS4 R	HMS4	R	S	
42	6	**19X42X6 HMS5 RG**	**HMS5**	RG	E	
42	6	**19X42X6 HMS5 V**	**HMS5**	V	E	◎
42	6	**19X42X6 HMSA10 RG**	**HMSA10**	RG	E	
42	6	**19X42X6 HMSA10 V**	**HMSA10**	V	E	◎
52	7.01	**534956**	**CRWA1**	V	W	■
INCH Shaft Diameter – 0.750" (19.05 mm)						
	0.438	**99076**	**SSLEEVE**			
Shaft Ø0.748-0.752" - 'on-shaft' width 0.313" - flange Ø0.945"						
	0.438	99811	GSLEEVE			
Shaft Ø0.748-0.752" - 'on-shaft' width 0.313" - flange Ø0.945"						
1.000	0.125	**7408**	**HM14**	D	G	■
1.000	0.125	**7410**	**HM14**	R	G	
1.006	0.125	**7411**	**HM14**	R	G	■
1.062	0.188	**7413**	**HM14**	R	G	
1.124	0.156	**7415**	**HM14**	R	G	■
1.124	0.188	▲**7414**	**CRW1**	R	W	■
1.124	0.188	**7417**	**CRW1**	V	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 0.750" (19.05 mm)						
1.187	0.156	**7421**	**HM14**	R	G	
1.249	0.188	**7467**	**CRW1**	V	W	◎
1.250	0.125	527938	HM1	D	G	
1.250	0.125	528762	HM1	R	G	◤
1.250	0.188	▲**7439**	**CRW1**	R	W	■
1.250	0.188	**7478**	**CRW1**	R	W	
		OD IS GROUND				
1.250	0.250	**7438**	**CRW1**	R	W	■◎
		W/BRASS CASE & SS SPRING				
1.250	0.250	**7440**	**CRW1**	R	W	■
1.250	0.250	**7450**	**CRW1**	V	W	■
1.250	0.250	**7455**	**CRWA1**	V	W	■◤◎
1.250	0.250	**7434**	**CRWA5**	R	W	■◆
1.250	0.250	**7464**	**HM14**	R	G	■
1.250	0.256	▲**7443**	**CRWA1**	R	W	■
1.250	0.256	**7453**	**CRWA1**	V	W	■
1.250	0.375	**7449**	**CRWA5**	R	W	■◆
1.252	0.188	▲**7469**	**CRW1**	R	W	■
1.259	0.250	**7477**	**HM14**	R	G	■
1.260	0.250	▲**7473**	**CRW1**	R	W	■
1.301	0.250	**7481**	**HM14**	R	G	■
1.312	0.250	▲**7474**	**CRW1**	R	W	■
1.312	0.250	**7475**	**CRWA1**	R	W	■
1.375	0.250	**7512**	**CRW1**	R	W	■
1.375	0.250	**7515**	**CRW1**	V	W	■
1.375	0.250	**7533**	**CRWA1**	P	W	■
1.375	0.250	▲**7513**	**CRWA1**	R	W	■
1.375	0.250	**7517**	**CRWA1**	V	W	■
1.375	0.250	**7509**	**CRWA5**	V	W	■◆
1.375	0.250	**7537**	**HM14**	P	G	
1.375	0.250	**7536**	**HM14**	R	G	
1.437	0.250	**7550**	**HM14**	R	G	■
1.499	0.250	▲**7572**	**CRW1**	R	W	
1.499	0.250	**7567**	**CRW1**	V	W	■
1.499	0.250	▲**7573**	**CRWA1**	R	W	■
1.499	0.250	**7571**	**HM14**	R	G	■
1.575	0.250	▲**7591**	**CRW1**	R	W	■
1.624	0.250	**7627**	**CRW1**	R	W	■
1.624	0.250	**7623**	**CRW1**	V	W	■◎
1.624	0.250	▲**7628**	**CRWA1**	R	W	■
1.624	0.250	**7624**	**CRWA1**	V	W	■◎
1.752	0.250	▲**7636**	**CRW1**	R	W	■
1.752	0.250	**7638**	**CRWA1**	V	W	■
1.828	0.250	**7661**	**CRW1**	R	W	■
1.874	0.250	▲**7690**	**CRW1**	R	W	■
2.047	0.313	▲**7693**	**CRW1**	R	W	■
INCH Shaft Diameter – 0.760" (19.30 mm)						
	0.438	**99081**	**SSLEEVE**			
		Shaft Ø0.759-0.763" - 'on-shaft' width 0.313" - flange Ø0.938"				
INCH Shaft Diameter – 0.781" 19.84 mm						
	0.438	**99080**	**SSLEEVE**			
		Shaft Ø0.78-0.784" - 'on-shaft' width 0.313" - flange Ø0.935"				
1.375	0.197	**7831**	**HM14**	R	G	■
1.375	0.313	▲**7829**	**CRW1**	R	W	
1.375	0.313	**7824**	**CRW1**	V	W	■
1.499	0.313	▲**7849**	**CRW1**	R	W	■
1.624	0.313	▲**7872**	**CRW1**	R	W	■
1.752	0.313	8213	CRSHA1	R	S	
1.828	0.250	**7889**	**CRW1**	P	W	■
METRIC Shaft Diameter – 20 mm (0.787")						
	11	**99078**	**SSLEEVE**			
		Shaft Ø19.94-20.04mm - 'on-shaft' width 8mm - flange Ø23.62mm				
	11.1	**99075**	**SSLEEVE**			
		Shaft Ø19.86-19.96mm - 'on-shaft' width 8.61mm - flange Ø23.62mm				
26	4	20X26X4 HM4 R	HM4	R	G	
26	4	20X26X4 HMS4 R	HMS4	R	S	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 20 mm (0.787")						
26	4	20X26X4 HMSA7 R	HMSA7	R	S	
28	4	20X28X4 HM4 R	HM4	R	G	
28	6	20X28X6 HMS4 R	HMS4	R	S	
28.55	4.78	**7740**	**CRW1**	R	W	■
30	5	**20X30X5 HMS5 RG**	**HMS5**	RG	E	
30	5	**20X30X5 HMS5 V**	**HMS5**	V	E	◎
30	5	**20X30X5 HMSA10 RG**	**HMSA10**	RG	E	
30	5	**20X30X5 HMSA10 V**	**HMSA10**	V	E	◎
30	5	20X30X5 CRS1 R	CRS1	R	S	
30	7	**20X30X7 CRW1 R**	**CRW1**	R	W	■
30	7	**20X30X7 HMS5 RG**	**HMS5**	RG	E	
30	7	**20X30X7 HMS5 V**	**HMS5**	V	E	◎
30	7	▲**20X30X7 HMSA10 RG**	**HMSA10**	RG	E	
30	7	**20X30X7 HMSA10 V**	**HMSA10**	V	E	◎
30	7	20X30X7 CRS1 V	CRS1	V	S	
31	7	**20X31X7 CRW1 R**	**CRW1**	R	W	■
32	6	**20X32X6 HMS5 RG**	**HMS5**	RG	E	
32	6	**20X32X6 HMS5 V**	**HMS5**	V	E	◎
32	6	**20X32X6 HMSA10 RG**	**HMSA10**	RG	E	
32	6	**20X32X6 HMSA10 V**	**HMSA10**	V	E	◎
32	6	20X32X6 HMS4 R	HMS4	R	S	
32	7	**20X32X7 CRW1 R**	**CRW1**	R	W	■
32	7	**20X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**20X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲**20X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**20X32X7 HMSA10 V**	**HMSA10**	V	E	◎
32	7	20X32X7 CRS1 V	CRS1	V	S	
32	8	20X32X8 HMS4 R	HMS4	R	S	
34	7	**20X34X7 HMS5 RG**	**HMS5**	RG	E	
34	7	**20X34X7 HMS5 V**	**HMS5**	V	E	◎
34	7	**20X34X7 HMSA10 RG**	**HMSA10**	RG	E	
34	7	**20X34X7 HMSA10 V**	**HMSA10**	V	E	◎
34	7	20X34X7 HMSA7 P	HMSA7	P	S	
35	6	**20X35X6 HMS5 RG**	**HMS5**	RG	E	
35	6	**20X35X6 HMS5 V**	**HMS5**	V	E	◎
35	6	**20X35X6 HMSA10 RG**	**HMSA10**	RG	E	
35	6	**20X35X6 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**20X35X7 CRW1 R**	**CRW1**	R	W	■
35	7	**20X35X7 CRW1 V**	**CRW1**	V	W	■
35	7	**20X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**20X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**20X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**20X35X7 HMSA10 V**	**HMSA10**	V	E	◎
35	8	**20X35X8 HMS5 RG**	**HMS5**	RG	E	
35	8	**20X35X8 HMS5 V**	**HMS5**	V	E	◎
35	8	**20X35X8 HMSA10 RG**	**HMSA10**	RG	E	
35	8	**20X35X8 HMSA10 V**	**HMSA10**	V	E	◎
35	10	**20X35X10 HMS5 RG**	**HMS5**	RG	E	
35	10	**20X35X10 HMS5 V**	**HMS5**	V	E	◎
35	10	**20X35X10 HMSA10 RG**	**HMSA10**	RG	E	
35	10	**20X35X10 HMSA10 V**	**HMSA10**	V	E	◎
36	7	**20X36X7 CRW1 R**	**CRW1**	R	W	■
36	7	**20X36X7 CRW1 V**	**CRW1**	V	W	■
36	7	**20X36X7 HMS5 RG**	**HMS5**	RG	E	
36	7	**20X36X7 HMS5 V**	**HMS5**	V	E	◎
36	7	▲**20X36X7 HMSA10 RG**	**HMSA10**	RG	E	
36	7	**20X36X7 HMSA10 V**	**HMSA10**	V	E	◎
1.438	0.256	**538124**	**CRW1**	V	W	■
37	7	**20X37X7 CRW1 R**	**CRW1**	R	W	
37	7	**20X37X7 CRW1 V**	**CRW1**	V	W	■
37	7	**20X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**20X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	▲**20X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**20X37X7 HMSA10 V**	**HMSA10**	V	E	◎
38	7	**20X38X7 CRW1 R**	**CRW1**	R	W	
38	7	**20X38X7 HMS5 RG**	**HMS5**	RG	E	
38	7	**20X38X7 HMS5 V**	**HMS5**	V	E	◎
38	7	▲**20X38X7 HMSA10 RG**	**HMSA10**	RG	E	
38	7	**20X38X7 HMSA10 V**	**HMSA10**	V	E	◎
38	8	20X38X8 HMS4 R	HMS4	R	S	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 20 mm (0.787")						
40	7	**20X40X7 CRW1 R**	**CRW1**	R	W	
40	7	**20X40X7 CRW1 V**	**CRW1**	V	W	■
40	7	**20X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**20X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲ **20X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**20X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	10	**20X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**20X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	**20X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**20X40X10 HMSA10 V**	**HMSA10**	V	E	◎
42	7	**20X42X7 CRW1 R**	**CRW1**	R	W	■
42	7	**20X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**20X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	▲ **20X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**20X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	7	20X42X7 CRS1 V	CRS1	V	S	
42	8	20X42X8 HMSA7 R	HMSA7	R	S	
42	10	**20X42X10 HMS5 RG**	**HMS5**	RG	E	
42	10	**20X42X10 HMS5 V**	**HMS5**	V	E	◎
42	10	**20X42X10 HMSA10 RG**	**HMSA10**	RG	E	
42	10	**20X42X10 HMSA10 V**	**HMSA10**	V	E	◎
45	7	**20X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**20X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	▲ **20X45X7 HMSA10 RG**	**HMSA10**	RG	E	
45	7	**20X45X7 HMSA10 V**	**HMSA10**	V	E	◎
45	12	20X45X12 HMS4 R	HMS4	R	S	
47	7	**20X47X7 CRW1 R**	**CRW1**	R	W	
47	7	**20X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**20X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲ **20X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**20X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**20X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**20X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**20X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**20X47X10 HMSA10 V**	**HMSA10**	V	E	◎
52	7	**20X52X7 CRW1 P**	**CRW1**	P	W	
52	7	**20X52X7 CRW1 R**	**CRW1**	R	W	■
52	7	**20X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**20X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲ **20X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**20X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	20X52X8 HMSA7 R	HMSA7	R	S	
52	10	**20X52X10 HMS5 RG**	**HMS5**	RG	E	
52	10	**20X52X10 HMS5 V**	**HMS5**	V	E	◎
52	10	**20X52X10 HMSA10 RG**	**HMSA10**	RG	E	
52	10	**20X52X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.813" (20.65 mm)						
	0.563	**99083**	**SSLEEVE**			
Shaft Ø0.811-0.815" - 'on-shaft' width 0.375" - flange Ø1.188"						
1.063	0.125	8009	HM3	R	G	
1.187	0.313	**8050**	**CRWA1**	V	W	■◎
1.250	0.188	▲ **8017**	**CRW1**	R	W	
1.250	0.375	8019	HMS4	R	S	
1.375	0.234	**8080**	**CRW1**	R	W	
1.375	0.375	▲ **8060**	**CRW1**	R	W	■
1.375	0.375	**8053**	**CRW1**	V	W	■
1.499	0.250	▲ **8088**	**CRW1**	R	W	
1.499	0.256	**544245**	**CRW1**	V	W	■
1.624	0.250	**8178**	**CRW1**	V	W	■
1.752	0.375	**8215**	**CRW1**	R	W	■
METRIC Shaft Diameter – 21 mm (0.827")						
35	7	**21X35X7 CRW1 R**	**CRW1**	R	W	■
35	7	**21X35X7 CRW1 V**	**CRW1**	V	W	■
35	7	**21X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**21X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	**21X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**21X35X7 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter (cont.) – 21 mm (0.827")						
40	7	**21X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**21X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	**21X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**21X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	8	**21X40X8 CRW1 R**	**CRW1**	R	W	■
INCH Shaft Diameter – 0.844" (21.44 mm)						
1.828	0.313	8485	CRSA1	R	S	
INCH Shaft Diameter – 0.859" (21.82 mm)						
	0.375	**99086**	**SSLEEVE**			
Shaft Ø0.857-0.861" - 'on-shaft' width 0.25" - flange Ø1.155"						
METRIC Shaft Diameter – 22 mm (0.866")						
	9.1	**99084**	**SSLEEVE**			
Shaft Ø21.87-21.97mm - 'on-shaft' width 6.58mm - flange Ø30.18mm						
	12	**99085**	**SSLEEVE**			
Shaft Ø21.87-21.97mm - 'on-shaft' width 8mm - flange Ø30.18mm						
28	4	22X28X4 HM1 R	HM1	R	G	
30	4	22X30X4 HM4 R	HM4	R	G	
31	7	**22X31X7 CRW1 P**	**CRW1**	P	W	■
32	7	**22X32X7 CRW1 R**	**CRW1**	R	W	■
32	7	**22X32X7 HMS5 RG**	**HMS5**	RG	E	
32	7	**22X32X7 HMS5 V**	**HMS5**	V	E	◎
32	7	▲ **22X32X7 HMSA10 RG**	**HMSA10**	RG	E	
32	7	**22X32X7 HMSA10 V**	**HMSA10**	V	E	◎
33	7	22X33X7 HMS4 R	HMS4	R	S	
35	5	**22X35X5 HM14 R**	**HM14**	R	G	
35	6	22X35X6 HMS4 R	HMS4	R	S	
35	7	**22X35X7 CRW1 R**	**CRW1**	R	W	
35	7	**22X35X7 CRW1 V**	**CRW1**	V	W	■
35	7	**22X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**22X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲ **22X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**22X35X7 HMSA10 V**	**HMSA10**	V	E	◎
35	10	22X35X10 HMS4 R	HMS4	R	S	
36	7	**22X36X7 HMS5 RG**	**HMS5**	RG	E	
36	7	**22X36X7 HMS5 V**	**HMS5**	V	E	◎
36	7	▲ **22X36X7 HMSA10 RG**	**HMSA10**	RG	E	
36	7	**22X36X7 HMSA10 V**	**HMSA10**	V	E	◎
38	7	**22X38X7 CRW1 R**	**CRW1**	R	W	
38	7	**22X38X7 CRW1 V**	**CRW1**	V	W	■
38	8	**22X38X8 HMS5 RG**	**HMS5**	RG	E	
38	8	**22X38X8 HMS5 V**	**HMS5**	V	E	◎
38	8	**22X38X8 HMSA10 RG**	**HMSA10**	RG	E	
38	8	**22X38X8 HMSA10 V**	**HMSA10**	V	E	◎
40	6.35	**22X40X6.3 CRW1 V**	**CRW1**	V	W	
40	6.40	**22X40X6.4 CRW1 R**	**CRW1**	R	W	■
40	7	**22X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**22X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲ **22X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**22X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	10	**22X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**22X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	**22X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**22X40X10 HMSA10 V**	**HMSA10**	V	E	◎
42	7	**22X42X7 CRW1 R**	**CRW1**	R	W	■
42	10	**22X42X10 HMS5 RG**	**HMS5**	RG	E	
42	10	**22X42X10 HMS5 V**	**HMS5**	V	E	◎
42	10	▲ **22X42X10 HMSA10 RG**	**HMSA10**	RG	E	
42	10	**22X42X10 HMSA10 V**	**HMSA10**	V	E	◎
42	11	22X42X11 HMS4 R	HMS4	R	S	
45	7	**22X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**22X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	**22X45X7 HMSA10 RG**	**HMSA10**	RG	E	
45	7	**22X45X7 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**22X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**22X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲ **22X47X7 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 22 mm (0.866")						
47	7	**22X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	**22X47X8 CRW1 R**	**CRW1**	R	W	■
50	8	**22X50X8 CRW1 R**	**CRW1**	R	W	■
62	6	**22X62X6 HMS5 RG**	**HMS5**	RG	E	
62	6	**22X62X6 HMS5 V**	**HMS5**	V	E	◎
62	6	**22X62X6 HMSA10 RG**	**HMSA10**	RG	E	
62	6	**22X62X6 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**22X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**22X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**22X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**22X62X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.875" (22.23 mm)						
	0.438	**99087**	**SSLEEVE**			
Shaft Ø0.873-0.877" - 'on-shaft' width 0.313" - flange Ø1.094"						
	0.438	99812	GSLEEVE			
Shaft Ø0.873-0.877" - 'on-shaft' width 0.313" - flange Ø1.094"						
1.125	0.125	**8620**	**HM14**	R	G	
1.125	0.125	**8619**	**HM14**	V	G	■
1.246	0.188	**8625**	**HM14**	R	G	■
1.250	0.188	▲**8624**	**CRW1**	R	W	■
1.250	0.250	**8621**	**CRW1**	V	W	■
1.250	0.250	**8634**	**CRWA5**	V	W	■◆
1.251	0.188	**8627**	**HM14**	R	G	
1.251	0.188	8631	HM3	R	G	◤
1.255	0.188	**8632**	**HM14**	R	G	■
1.308	0.250	**8649**	**CRW1**	V	W	■
1.308	0.250	**8637**	**HM14**	R	G	■
1.312	0.250	**8645**	**HM14**	R	G	■
1.375	0.188	**8677**	**HM14**	R	G	■
1.375	0.246	**8786**	**CRWA1**	R	W	■
1.375	0.250	**8646**	**CRW1**	V	W	■
1.375	0.250	**8660**	**CRWA5**	R	W	■◆
1.375	0.250	**8665**	**CRWA5**	V	W	■◆
1.375	0.256	▲**8648**	**CRW1**	R	W	■
1.437	0.250	▲**8691**	**CRW1**	R	W	■
1.437	0.250	**8690**	**HM14**	R	G	■
1.497	0.313	**8694**	**CRWA5**	V	W	■◎◆
1.499	0.250	**8700**	**CRW1**	R	W	■
1.499	0.250	**8704**	**CRW1**	V	W	■
1.499	0.250	▲**8702**	**CRWA1**	R	W	■
1.499	0.250	**8707**	**CRWA1**	V	W	■◎
1.499	0.313	**8703**	**CRW1**	R	W	
1.502	0.313	▲**8748**	**CRWA1**	R	W	■
1.562	0.250	**8761**	**HM14**	R	G	
1.575	0.250	▲**8763**	**CRW1**	R	W	■
1.575	0.250	**8772**	**HM14**	R	G	
1.624	0.250	▲**8796**	**CRW1**	R	W	■
1.624	0.250	**8795**	**CRW1**	V	W	■
1.624	0.250	**8782**	**CRWA1**	R	W	■
1.624	0.256	**534953**	**CRWA1**	V	W	■
1.752	0.250	▲**8821**	**CRW1**	R	W	■
1.828	0.250	▲**8842**	**CRW1**	R	W	■
1.874	0.250	▲**8860**	**CRW1**	R	W	■
2.000	0.250	▲**8870**	**CRW1**	R	W	■
2.050	0.375	**8871**	**CRWH1**	V	W	■
METRIC Shaft Diameter – 23 mm (0.906")						
32	5.50	23X32X5.5 HM1 R	HM1	R	G	
34	6.50	9006	HMS4	R	S	
40	7	23X40X7 HMSA7 P	HMSA7	P	S	
40	8	23X40X8 HMS4 R	HMS4	R	S	
40	10	**23X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**23X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	**23X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**23X40X10 HMSA10 V**	**HMSA10**	V	E	◎
42	11	23X42X11 HMS4 R	HMS4	R	S	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 0.910" (23.11 mm)						
	0.438	**99091**	**SSLEEVE**			
Shaft Ø0.908-0.912" - 'on-shaft' width 0.313" - flange Ø1.218"						
	0.438	99860	GSLEEVE			
Shaft Ø0.908-0.912" - 'on-shaft' width 0.313" - flange Ø1.218"						
INCH Shaft Diameter – 0.938" (23.83 mm)						
1.375	0.250	▲**9244**	**CRWA1**	R	W	■
1.375	0.250	**9243**	**HM14**	R	G	■
1.499	0.250	**9298**	**HM14**	R	G	■
1.500	0.250	▲**9303**	**CRW1**	R	W	■
1.500	0.250	**9304**	**CRW1**	V	W	■
1.624	0.250	▲**9307**	**CRW1**	R	W	■
1.624	0.250	**9308**	**CRW1**	V	W	■
1.752	0.250	▲**9347**	**CRW1**	R	W	■
1.828	0.250	▲**9409**	**CRW1**	R	W	■
METRIC Shaft Diameter – 24 mm (0.945")						
	11.1	**99092**	**SSLEEVE**			
Shaft Ø23.88-23.98mm - 'on-shaft' width 7.95mm - flange Ø28.7mm						
32	4	24X32X4 HM4 R	HM4	R	G	
35	7	**24X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**24X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**24X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**24X35X7 HMSA10 V**	**HMSA10**	V	E	◎
36	7	**24X36X7 CRW1 V**	**CRW1**	V	W	■
37	7	**24X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**24X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	▲**24X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**24X37X7 HMSA10 V**	**HMSA10**	V	E	◎
38	7	**24X38X7 CRW1 V**	**CRW1**	V	W	■
38	8	24X38X8 HMS4 R	HMS4	R	S	
40	7	**24X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**24X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**24X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**24X40X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	**24X42X8 HMS5 RG**	**HMS5**	RG	E	
42	8	**24X42X8 HMS5 V**	**HMS5**	V	E	◎
42	8	**24X42X8 HMSA10 RG**	**HMSA10**	RG	E	
42	8	**24X42X8 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**24X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**24X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**24X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**24X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	**24X47X8 CRW1 R**	**CRW1**	R	W	■
50	10	**24X50X10 HMS5 RG**	**HMS5**	RG	E	
50	10	**24X50X10 HMS5 V**	**HMS5**	V	E	◎
50	10	**24X50X10 HMSA10 RG**	**HMSA10**	RG	E	
50	10	**24X50X10 HMSA10 V**	**HMSA10**	V	E	◎
52	7	24X52X7 HMSA7 R	HMSA7	R	S	
62	8	**534949**	**CRWA1**	V	W	
62	10	**24X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**24X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**24X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**24X62X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 0.950" (24.13 mm)						
1.358	0.275	**9520**	**CRW1**	P	W	■
INCH Shaft Diameter – 0.969" (24.61 mm)						
	0.438	**99094**	**SSLEEVE**			
Shaft Ø0.966-0.97" - 'on-shaft' width 0.313" - flange Ø1.13"						
	0.719	**99096**	**SSLEEVE**			
Shaft Ø0.966-0.97" - 'on-shaft' width 0.625" - flange Ø1.13"						
1.406	0.250	**9604**	**CRWA1**	P	W	■
1.499	0.313	▲**9613**	**CRW1**	R	W	
1.499	0.313	**9611**	**CRW1**	V	W	■
1.624	0.250	▲**9646**	**CRW1**	R	W	■
1.624	0.250	**9647**	**CRW1**	V	W	■
1.686	0.313	**9664**	**CRW1**	R	W	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 0.969" (24.61 mm)						
1.686	0.313	▲**9663**	**CRWA1**	R	W	■
1.752	0.250	▲**9667**	**CRW1**	R	W	■
1.828	0.313	**9681**	**CRW1**	R	W	■
2.048	0.375	9688	CRS1	R	S	■
METRIC Shaft Diameter – 25 mm (0.984")						
	11	**99098**	**SSLEEVE**			
Shaft Ø24.94-25.04mm - 'on-shaft' width 7.95mm - flange Ø33.02mm						
	11	99813	GSLEEVE			
Shaft Ø24.94-25.04mm - 'on-shaft' width 7.95mm - flange Ø33.02mm						
32	4	25X32X4 HM4 R	HM4	R	G	
32	4	25X32X4 HMS4 R	HMS4	R	S	
32	4	25X32X4 HMSA7 R	HMSA7	R	S	
32	7	25X32X7 CRSA1 R	CRSA1	R	S	
33	4	25X33X4 HM4 R	HM4	R	G	
33	6	25X33X6 HMS4 R	HMS4	R	S	
34.93	7.95	**9888**	**CRW1**	V	W	◤◎
35	4	25X35X4 HM4 R	HM4	R	G	
35	5	**25X35X5 CRW1 V**	**CRW1**	V	W	■
35	6	**25X35X6 HMS5 RG**	**HMS5**	RG	E	
35	6	**25X35X6 HMS5 V**	**HMS5**	V	E	◎
35	6	▲**25X35X6 HMSA10 RG**	**HMSA10**	RG	E	
35	6	**25X35X6 HMSA10 V**	**HMSA10**	V	E	◎
35	7	**25X35X7 CRW1 R**	**CRW1**	R	W	■
35	7	**25X35X7 CRW1 V**	**CRW1**	V	W	■
35	7	**25X35X7 HMS5 RG**	**HMS5**	RG	E	
35	7	**25X35X7 HMS5 V**	**HMS5**	V	E	◎
35	7	▲**25X35X7 HMSA10 RG**	**HMSA10**	RG	E	
35	7	**25X35X7 HMSA10 V**	**HMSA10**	V	E	◎
36	7	**25X36X7 CRW1 R**	**CRW1**	R	W	■
36	8	**25X36X8 HMS5 RG**	**HMS5**	RG	E	
36	8	**25X36X8 HMS5 V**	**HMS5**	V	E	◎
36	8	▲**25X36X8 HMSA10 RG**	**HMSA10**	RG	E	
36	8	**25X36X8 HMSA10 V**	**HMSA10**	V	E	◎
37	5	**25X37X5 HMS5 RG**	**HMS5**	RG	E	
37	5	**25X37X5 HMS5 V**	**HMS5**	V	E	◎
37	5	**25X37X5 HMSA10 RG**	**HMSA10**	RG	E	
37	5	**25X37X5 HMSA10 V**	**HMSA10**	V	E	◎
37	6	**25X37X6 HMS5 RG**	**HMS5**	RG	E	
37	6	**25X37X6 HMS5 V**	**HMS5**	V	E	◎
37	6	**25X37X6 HMSA10 RG**	**HMSA10**	RG	E	
37	6	**25X37X6 HMSA10 V**	**HMSA10**	V	E	◎
37	7	**25X37X7 CRW1 R**	**CRW1**	R	W	■
37	7	**25X37X7 CRW1 V**	**CRW1**	V	W	■
37	7	**25X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**25X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	▲**25X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**25X37X7 HMSA10 V**	**HMSA10**	V	E	◎
37	8.50	25X37X8.5 HMS4 R	HMS4	R	S	
38	7	**25X38X7 CRW1 R**	**CRW1**	R	W	■
38	7	**25X38X7 CRW1 V**	**CRW1**	V	W	■
38	7	**25X38X7 HMS5 RG**	**HMS5**	RG	E	
38	7	**25X38X7 HMS5 V**	**HMS5**	V	E	◎
38	7	▲**25X38X7 HMSA10 RG**	**HMSA10**	RG	E	
38	7	**25X38X7 HMSA10 V**	**HMSA10**	V	E	◎
38.07	6.35	**9686**	**CRW1**	V	W	■◤◎
40	5	**25X40X5 HMS5 RG**	**HMS5**	RG	E	
40	5	**25X40X5 HMS5 V**	**HMS5**	V	E	◎
40	5	**25X40X5 HMSA10 RG**	**HMSA10**	RG	E	
40	5	**25X40X5 HMSA10 V**	**HMSA10**	V	E	◎
40	7	**25X40X7 CRW1 R**	**CRW1**	R	W	
40	7	**25X40X7 CRW1 R9**	**CRW1**	R	W	◤◎
40	7	**25X40X7 CRW1 V**	**CRW1**	V	W	■
40	7	**25X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**25X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**25X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**25X40X7 HMSA10 V**	**HMSA10**	V	E	◎
40	8	**25X40X8 HMS5 RG**	**HMS5**	RG	E	
40	8	**25X40X8 HMS5 V**	**HMS5**	V	E	◎
40	8	**25X40X8 HMSA10 RG**	**HMSA10**	RG	E	
40	8	**25X40X8 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter (cont.) – 25 mm (0.984")						
40	8	**25X40X8 HMSA10 V**	**HMSA10**	V	E	◎
40	10	**25X40X10 HMS5 RG**	**HMS5**	RG	E	
40	10	**25X40X10 HMS5 V**	**HMS5**	V	E	◎
40	10	**25X40X10 HMSA10 RG**	**HMSA10**	RG	E	
40	10	**25X40X10 HMSA10 V**	**HMSA10**	V	E	◎
40.54	6.35	**9700**	**CRWA5**	R	W	■◆
42	6	**25X42X6 HMS5 RG**	**HMS5**	RG	E	
42	6	**25X42X6 HMS5 V**	**HMS5**	V	E	◎
42	6	▲**25X42X6 HMSA10 RG**	**HMSA10**	RG	E	
42	6	**25X42X6 HMSA10 V**	**HMSA10**	V	E	◎
42	7	**25X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**25X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	**25X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**25X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	**25X42X8 CRW1 R**	**CRW1**	R	W	
42	8	**25X42X8 CRW1 V**	**CRW1**	V	W	■
42	10	**25X42X10 HMS5 RG**	**HMS5**	RG	E	
42	10	**25X42X10 HMS5 V**	**HMS5**	V	E	◎
42	10	▲**25X42X10 HMSA10 RG**	**HMSA10**	RG	E	
42	10	**25X42X10 HMSA10 V**	**HMSA10**	V	E	◎
44.42	9.53	**9803**	**CRWA1**	V	W	◤◎
44.50	7.95	**9805**	**CRWA5**	V	W	■◤◎◆
45	7	**25X45X7 CRW1 R**	**CRW1**	R	W	■
45	7	**25X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**25X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	▲**25X45X7 HMSA10 RG**	**HMSA10**	RG	E	
45	7	**25X45X7 HMSA10 V**	**HMSA10**	V	E	◎
45	8	**25X45X8 HMS5 RG**	**HMS5**	RG	E	
45	8	**25X45X8 HMS5 V**	**HMS5**	V	E	◎
45	8	**25X45X8 HMSA10 RG**	**HMSA10**	RG	E	
45	8	**25X45X8 HMSA10 V**	**HMSA10**	V	E	◎
45	10	**25X45X10 HMS5 RG**	**HMS5**	RG	E	
45	10	**25X45X10 HMS5 V**	**HMS5**	V	E	◎
45	10	**25X45X10 HMSA10 RG**	**HMSA10**	RG	E	
45	10	**25X45X10 HMSA10 V**	**HMSA10**	V	E	◎
45	11	25X45X11 HMSA7 R	HMSA7	R	S	
46	7	**25X46X7 HMS5 RG**	**HMS5**	RG	E	
46	7	**25X46X7 HMS5 V**	**HMS5**	V	E	◎
46	7	▲**25X46X7 HMSA10 RG**	**HMSA10**	RG	E	
46	7	**25X46X7 HMSA10 V**	**HMSA10**	V	E	◎
47	6	**25X47X6 CRWA1 V**	**CRWA1**	V	W	◎
47	6	25X47X6 HMSA72P2 R	HMSA72P2	R	S	◆
47	6.35	**25X47X6.3 CRW1 R**	**CRW1**	R	W	
47	7	**25X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**25X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**25X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**25X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**25X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**25X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**25X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**25X47X10 HMSA10 V**	**HMSA10**	V	E	◎
48	8	**25X48X8 CRW1 R**	**CRW1**	R	W	■
48	8	**25X48X8 CRW1 V**	**CRW1**	V	W	■
50	8	**25X50X8 CRW1 R**	**CRW1**	R	W	
50	10	**25X50X10 HMS5 RG**	**HMS5**	RG	E	
50	10	**25X50X10 HMS5 V**	**HMS5**	V	E	◎
50	10	▲**25X50X10 HMSA10 RG**	**HMSA10**	RG	E	
50	10	**25X50X10 HMSA10 V**	**HMSA10**	V	E	◎
50	12	25X50X12 HMS4 R	HMS4	R	S	
52	7	**25X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**25X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲**25X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**25X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**25X52X8 CRW1 R**	**CRW1**	R	W	■
52	8	**25X52X8 CRW1 V**	**CRW1**	V	W	■
52	8	**25X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**25X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	**25X52X8 HMSA10 RG**	**HMSA10**	RG	E	
52	8	**25X52X8 HMSA10 V**	**HMSA10**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 25 mm (0.984")						
52	10	**25X52X10 HMS5 RG**	**HMS5**	RG	E	
52	10	**25X52X10 HMS5 V**	**HMS5**	V	E	◎
52	10	**25X52X10 HMSA10 RG**	**HMSA10**	RG	E	
52	10	**25X52X10 HMSA10 V**	**HMSA10**	V	E	◎
62	7	**25X62X7 CRW1 R**	**CRW1**	R	W	■
62	7	**25X62X7 CRW1 V**	**CRW1**	V	W	■
62	7	**25X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**25X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲ **25X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**25X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**25X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**25X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	**25X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**25X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**25X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**25X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**25X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**25X62X10 HMSA10 V**	**HMSA10**	V	E	◎
72	7	**25X72X7 HMS5 RG**	**HMS5**	RG	E	
72	7	**25X72X7 HMS5 V**	**HMS5**	V	E	◎
72	7	**25X72X7 HMSA10 RG**	**HMSA10**	RG	E	
72	7	**25X72X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.000" (25.40 mm)						
	0.438	**99868**	**SSLEEVE**			
Shaft Ø0.998-1.003" - 'on-shaft' width 0.313" - flange Ø1.219"						
	0.438	99814	GSLEEVE			
Shaft Ø0.998-1.003" - 'on-shaft' width 0.313" - flange Ø1.219"						
1.250	0.125	**9815**	**HM14**	R	G	■
1.312	0.125	**9818**	**HM14**	R	G	■
1.367	0.313	▲ **9822**	**CRW1**	R	W	■
1.375	0.188	**9820**	**HM14**	R	G	■
1.375	0.250	**9826**	**CRW1**	P	W	
1.375	0.250	**9831**	**CRW1**	V	W	■
1.375	0.250	**9814**	**CRWA5**	R	W	■◆
1.437	0.250	▲ **9837**	**CRW1**	R	W	■
1.437	0.250	**9833**	**CRW1**	V	W	■
1.437	0.250	▲ **9838**	**CRWA1**	R	W	■
1.437	0.250	**9847**	**CRWA1**	V	W	■
1.437	0.250	**9835**	**HM14**	R	G	■
1.496	0.390	**9850**	**CRW1**	R	W	■
1.499	0.188	**9859**	**HM14**	R	G	■
1.499	0.250	**9852**	**CRW1**	R	W	■◎
1.499	0.250	**9876**	**CRW1**	R	W	■
1.499	0.250	**9854**	**CRW1**	V	W	■
1.499	0.250	**9855**	**CRW5**	R	W	◎◆
1.499	0.250	▲ **9878**	**CRWA1**	R	W	■
1.499	0.250	**9879**	**CRWA1**	V	W	■
1.499	0.250	**9843**	**CRWA5**	R	W	■◆
1.499	0.250	**9858**	**CRWA5**	V	W	■◆
1.499	0.315	**9862**	**CRWA1**	V	W	■
1.499	0.374	**544167**	**CRWA5**	P	W	■◆
1.500	0.250	**9863**	**CRWA5**	R	W	■◆
1.500	0.374	25.4X38.1X9.5 HMS4 R	HMS4	R	S	
1.510	0.219	**9853**	**HM21**	R	G	■
1.561	0.250	▲ **9894**	**CRW1**	R	W	■
1.561	0.250	**9900**	**HM14**	R	G	■
1.563	0.188	527939	HM1	R	G	
1.575	0.250	**9903**	**HM14**	R	G	■
1.575	0.313	▲ **9907**	**CRWA1**	R	W	■
1.624	0.250	**9934**	**CRW1**	R	W	■
1.624	0.250	**9937**	**CRW1**	V	W	■
1.624	0.250	▲ **9935**	**CRWA1**	R	W	■
1.624	0.250	**9939**	**CRWA1**	V	W	■
1.624	0.250	**9932**	**HM14**	R	G	■
1.686	0.256	▲ **9960**	**CRW1**	R	W	■
1.686	0.256	**544257**	**CRW1**	V	W	■
1.752	0.250	**9997**	**CRW1**	R	W	■
1.752	0.250	**9982**	**CRW1**	V	W	■
1.752	0.250	▲ **9998**	**CRWA1**	R	W	■
INCH Shaft Diameter (cont.) – 1.000" (25.40 mm)						
1.752	0.250	**9983**	**CRWA1**	V	W	■◎
1.752	0.250	**9995**	**HM21**	R	G	■
1.752	0.313	**9967**	**CRWA5**	R	W	■◆
1.780	0.250	**530484**	**HM21**	R	G	
1.781	0.469	**10034**	**HM14**	R	G	■
1.781	0.469	**10035**	**HM18**	R	G	■
1.828	0.250	▲ **10049**	**CRW1**	R	W	■
1.828	0.250	**10058**	**CRW1**	V	W	■
1.828	0.250	**10050**	**CRWA1**	R	W	■◎
1.851	0.250	▲ **10071**	**CRW1**	R	W	■
1.851	0.250	**10074**	**HM14**	R	G	■
1.874	0.250	▲ **10075**	**CRW1**	R	W	■
1.938	0.250	▲ **10104**	**CRW1**	R	W	■
1.938	0.250	**10112**	**HM14**	R	G	■
1.983	0.250	**10111**	**CRWA1**	V	W	■
1.983	0.313	▲ **10114**	**CRWA1**	R	W	■
2.000	0.250	**10123**	**CRW1**	R	W	■
2.000	0.250	**10128**	**CRW1**	V	W	■
2.000	0.250	▲ **10124**	**CRWA1**	R	W	■
2.000	0.250	**10127**	**CRWA1**	R	W	■◎
2.000	0.250	**10129**	**CRWA1**	V	W	■
2.000	0.250	**10152**	**HM21**	R	G	■
2.000	0.313	**10131**	**CRWA5**	R	W	■◆
2.047	0.250	▲ **10157**	**CRWA1**	R	W	■
2.062	0.250	▲ **10158**	**CRW1**	R	W	■
2.250	0.250	▲ **10169**	**CRW1**	R	W	■
2.250	0.250	**10185**	**HM14**	R	G	■
METRIC Shaft Diameter – 26 mm (1.024")						
	12	**99103**	**SSLEEVE**			
Shaft Ø25.88-26.01mm - 'on-shaft' width 8mm - flange Ø33.35mm						
34	4	26X34X4 HM4 R	HM4	R	G	
35	7	26X35X7 CRS1 R	CRS1	R	S	
37	7	**26X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**26X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	▲ **26X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**26X37X7 HMSA10 V**	**HMSA10**	V	E	◎
38	5	**26X38X5 HMS5 RG**	**HMS5**	RG	E	
38	5	**26X38X5 HMS5 V**	**HMS5**	V	E	◎
38	5	▲ **26X38X5 HMSA10 RG**	**HMSA10**	RG	E	
38	5	**26X38X5 HMSA10 V**	**HMSA10**	V	E	◎
38	7	**26X38X7 HMS5 RG**	**HMS5**	RG	E	
38	7	**26X38X7 HMS5 V**	**HMS5**	V	E	◎
38	7	**26X38X7 HMSA10 RG**	**HMSA10**	RG	E	
38	7	**26X38X7 HMSA10 V**	**HMSA10**	V	E	◎
38	8	26X38X8 HMS4 R	HMS4	R	S	
40	7	26X40X7 HMSA7 R	HMSA7	R	S	
40	8	26X40X8 HMS4 R	HMS4	R	S	
40	8	26X40X8 HMSA7 R	HMSA7	R	S	
42	7	**26X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**26X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	▲ **26X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**26X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	26X42X8 CRS1 R	CRS1	R	S	
47	7	**26X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**26X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲ **26X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**26X47X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.063" (27.00 mm)						
	0.438	**99106**	**SSLEEVE**			
Shaft Ø1.06-1.065" - 'on-shaft' width 0.313" - flange Ø1.32"						
	0.438	99815	GSLEEVE			
Shaft Ø1.06-1.065" - 'on-shaft' width 0.313" - flange Ø1.32"						
1.499	0.250	▲ **10515**	**CRW1**	R	W	■
1.499	0.250	**10518**	**CRW1**	V	W	■
1.512	0.256	**532866**	**CRW1**	P	W	■
1.561	0.250	▲ **10581**	**CRW1**	R	W	■
1.577	0.250	▲ **10583**	**CRW1**	R	W	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.063" (27.00 mm)						
1.624	0.250	▲**10598**	**CRW1**	R	W	■
1.686	0.250	▲**10632**	**CRW1**	R	W	■
1.752	0.250	▲**10653**	**CRW1**	R	W	■
1.752	0.250	**10655**	**CRW1**	V	W	■
1.828	0.250	▲**10681**	**CRW1**	R	W	■
1.874	0.250	▲**10700**	**CRW1**	R	W	■
1.979	0.250	**10728**	**CRW1**	R	W	■
1.983	0.250	▲**10733**	**CRW1**	R	W	■
2.000	0.250	▲**10740**	**CRW1**	R	W	■
2.062	0.250	▲**10766**	**CRW1**	R	W	■
METRIC Shaft Diameter – 27 mm (1.063")						
	11.1	**99106**	**SSLEEVE**			
Shaft Ø26.92-27.05mm - 'on-shaft' width 7.95mm - flange Ø33.53mm						
	11.1	99815	GSLEEVE			
Shaft Ø26.92-27.05mm - 'on-shaft' width 7.95mm - flange Ø33.53mm						
37	7	**27X37X7 HMS5 RG**	**HMS5**	RG	E	
37	7	**27X37X7 HMS5 V**	**HMS5**	V	E	◎
37	7	**27X37X7 HMSA10 RG**	**HMSA10**	RG	E	
37	7	**27X37X7 HMSA10 V**	**HMSA10**	V	E	◎
38.35	6.50	**532952**	**CRW1**	R	W	■
42	7	▲**27X42X7 CRW1 R**	**CRW1**	R	W	
42	7	**27X42X7 CRW1 V**	**CRW1**	V	W	■
42	10	**27X42X10 HMS5 RG**	**HMS5**	RG	E	
42	10	**27X42X10 HMS5 V**	**HMS5**	V	E	◎
42	10	**27X42X10 HMSA10 RG**	**HMSA10**	RG	E	
42	10	**27X42X10 HMSA10 V**	**HMSA10**	V	E	◎
43	7	**27X43X7 HMS5 RG**	**HMS5**	RG	E	
43	7	**27X43X7 HMS5 V**	**HMS5**	V	E	◎
43	7	**27X43X7 HMSA10 RG**	**HMSA10**	RG	E	
43	7	**27X43X7 HMSA10 V**	**HMSA10**	V	E	◎
43	8	**27X43X8 CRW1 V**	**CRW1**	V	W	
45	8	**27X45X8 CRW1 V**	**CRW1**	V	W	■
45	8	27X45X8 HMS4 R	HMS4	R	S	
47	7	**27X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**27X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**27X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**27X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**27X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**27X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**27X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**27X47X10 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**27X52X8 CRW1 R**	**CRW1**	R	W	
INCH Shaft Diameter – 1.089" (27.66 mm)						
	0.438	**99108**	**SSLEEVE**			
Shaft Ø1.087-1.092" - 'on-shaft' width 0.313" - flange Ø1.406"						
METRIC Shaft Diameter – 28 mm (1.102")						
	12.7	**99111**	**SSLEEVE**			
Shaft Ø27.94-28.07mm - 'on-shaft' width 9.53mm - flange Ø35mm						
	12.7	99866	GSLEEVE			
Shaft Ø27.94-28.07mm - 'on-shaft' width 9.525mm - flange Ø35mm						
35	4	28X35X4 HM4 R	HM4	R	G	
37	4	28X37X4 HM4 R	HM4	R	G	
38	7	**28X38X7 HMS5 RG**	**HMS5**	RG	E	
38	7	**28X38X7 HMS5 V**	**HMS5**	V	E	◎
38	7	▲**28X38X7 HMSA10 RG**	**HMSA10**	RG	E	
38	7	**28X38X7 HMSA10 V**	**HMSA10**	V	E	◎
38	8	**28X38X8 HMS5 RG**	**HMS5**	RG	E	
38	8	**28X38X8 HMS5 V**	**HMS5**	V	E	◎
38	8	**28X38X8 HMSA10 RG**	**HMSA10**	RG	E	
38	8	**28X38X8 HMSA10 V**	**HMSA10**	V	E	◎
40	7	**28X40X7 CRW1 R**	**CRW1**	R	W	
40	7	**28X40X7 CRW1 V**	**CRW1**	V	W	■
40	7	**28X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**28X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**28X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**28X40X7 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter (cont.) – 28 mm (1.102")						
40	8	**28X40X8 HMS5 RG**	**HMS5**	RG	E	
40	8	**28X40X8 HMS5 V**	**HMS5**	V	E	◎
40	8	**28X40X8 HMSA10 RG**	**HMSA10**	RG	E	
40	8	**28X40X8 HMSA10 V**	**HMSA10**	V	E	◎
42	7	**28X42X7 CRW1 R**	**CRW1**	R	W	
42	7	**28X42X7 CRW1 V**	**CRW1**	V	W	■
42	7	**28X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**28X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	▲**28X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**28X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	**28X42X8 HMS5 RG**	**HMS5**	RG	E	
42	8	**28X42X8 HMS5 V**	**HMS5**	V	E	◎
42	8	**28X42X8 HMSA10 RG**	**HMSA10**	RG	E	
42	8	**28X42X8 HMSA10 V**	**HMSA10**	V	E	◎
42.50	8	10936	HMS4	R	S	
43	10	28X43X10 HMS4 R	HMS4	R	S	
44	6	**28X44X6 HMS5 RG**	**HMS5**	RG	E	
44	6	**28X44X6 HMS5 V**	**HMS5**	V	E	◎
44	6	▲**28X44X6 HMSA10 RG**	**HMSA10**	RG	E	
44	6	**28X44X6 HMSA10 V**	**HMSA10**	V	E	◎
45	7	**28X45X7 CRW1 V**	**CRW1**	V	W	■
45	8	**28X45X8 HMS5 RG**	**HMS5**	RG	E	
45	8	**28X45X8 HMS5 V**	**HMS5**	V	E	◎
45	8	▲**28X45X8 HMSA10 RG**	**HMSA10**	RG	E	
45	8	**28X45X8 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**28X47X7 CRW1 V**	**CRW1**	V	W	
47	7	**28X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**28X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**28X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**28X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	**28X47X8 CRW1 R**	**CRW1**	R	W	
47	10	**28X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**28X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**28X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**28X47X10 HMSA10 V**	**HMSA10**	V	E	◎
48	8	28X48X8 HMSA7 R	HMSA7	R	S	
48	11	**28X48X11 HMS4 R**	**HMS4**	R	S	
52	7	**28X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**28X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲**28X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**28X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**28X52X8 CRW1 R**	**CRW1**	R	W	
52	10	**28X52X10 HMS5 RG**	**HMS5**	RG	E	
52	10	**28X52X10 HMS5 V**	**HMS5**	V	E	◎
52	10	**28X52X10 HMSA10 RG**	**HMSA10**	RG	E	
52	10	**28X52X10 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**28X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**28X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**28X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**28X72X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.125" (28.58 mm)						
	0.438	**99112**	**SSLEEVE**			
Shaft Ø1.123-1.128" - 'on-shaft' width 0.313" - flange Ø1.5"						
	0.438	99816	GSLEEVE			
Shaft Ø1.123-1.128" - 'on-shaft' width 0.313" - flange Ø1.5"						
	0.500	**99116**	**SSLEEVE**			
Shaft Ø1.123-1.128" - 'on-shaft' width 0.313" - flange Ø1.5"						
1.375	0.125	**11050**	**HM14**	R	G	
1.375	0.125	**11052**	**HM14**	V	G	■
1.438	0.203	**11055**	**HM14**	R	G	■
1.499	0.188	▲**11061**	**CRW1**	R	W	
1.499	0.188	**11060**	**HM14**	R	G	■
1.561	0.250	**11066**	**CRW1**	P	W	■
1.561	0.250	**11071**	**CRW1**	V	W	■
1.561	0.256	▲**11067**	**CRW1**	R	W	■
1.562	0.250	**11081**	**HM14**	R	G	
1.565	0.250	**11082**	**CRW1**	R	W	■
1.575	0.236	▲**11086**	**CRWA1**	R	W	■
1.624	0.250	**11111**	**CRW1**	P	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.125" (28.58 mm)						
1.624	0.250	**11123**	**CRW1**	R	W	■
1.624	0.250	**11130**	**HM21**	R	G	■
1.624	0.256	**11133**	**CRW1**	V	W	■
1.624	0.256	**562487**	**CRWA1**	H	W	■
1.624	0.256	▲**11124**	**CRWA1**	R	W	■
1.624	0.256	**11134**	**CRWA1**	V	W	■
1.626	0.250	**11139**	**CRWA5**	V	W	■◆
1.750	0.250	**11150**	**HM14**	R	G	■
1.752	0.250	▲**11138**	**CRW1**	R	W	■
1.752	0.250	**11144**	**CRW1**	V	W	■
1.781	0.250	**11161**	**HM21**	R	G	■
1.781	0.469	**11164**	**HM18**	R	G	
1.828	0.250	▲**11170**	**CRW1**	R	W	■
1.828	0.250	**11172**	**CRW1**	V	W	■
1.828	0.250	**11171**	**CRWA1**	R	W	■
1.828	0.250	**11175**	**CRWA1**	V	W	■
1.828	0.250	**11191**	**HM21**	R	G	
1.852	0.313	▲**11197**	**CRWH1**	R	W	■
1.852	0.313	**11200**	**CRWHA1**	R	W	■
1.874	0.250	**11224**	**CRW1**	R	W	■
1.874	0.250	**11225**	**CRW1**	V	W	■
1.874	0.250	▲**11223**	**CRWA1**	R	W	■
1.874	0.250	**11218**	**CRWA1**	V	W	■
1.938	0.343	**11269**	**HM14**	R	G	
1.983	0.250	▲**11299**	**CRW1**	R	W	■
2.000	0.250	**11344**	**CRW1**	V	W	■
2.000	0.250	**11334**	**HM21**	R	G	■
2.000	0.256	▲**11340**	**CRW1**	R	W	■
2.000	0.375	**11343**	**CRWA1**	R	W	■
2.047	0.250	**11352**	**HM21**	R	G	■
2.047	0.313	▲**11353**	**CRWA1**	R	W	■
2.062	0.250	**11368**	**CRWA1**	V	W	■
2.062	0.313	▲**11366**	**CRW1**	R	W	■
2.125	0.313	▲**11372**	**CRW1**	R	W	■
2.250	0.250	▲**11378**	**CRW1**	R	W	■
2.441	0.250	▲**11392**	**CRW1**	R	W	■
2.441	0.256	**538762**	**CRWA1**	V	W	
2.835	0.375	11405	CRSA1	R	S	■
2.875	0.469	11410	CRSH1	R	S	■
METRIC Shaft Diameter – 29 mm (1.142")						
37	5	29X37X5 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 1.156" (29.36 mm)						
	0.500	**99120**	**SSLEEVE**			
Shaft Ø1.154-1.159" - 'on-shaft' width 0.375" - flange Ø1.35"						
1.686	0.250	▲**11518**	**CRWA1**	R	W	■
1.752	0.250	▲**11514**	**CRWA1**	R	W	■
1.874	0.250	▲**11524**	**CRW1**	R	W	■
1.875	0.375	**11536**	**CRWA1**	R	W	◤◎
2.000	0.250	**11544**	**CRW1**	R	W	■
2.000	0.250	**11550**	**CRW1**	V	W	■
2.000	0.250	▲**11545**	**CRWA1**	R	W	■
2.062	0.313	▲**11558**	**CRW1**	R	W	■
2.125	0.438	11566	CRSH1	R	S	■
INCH Shaft Diameter – 1.175" (29.85 mm)						
	0.438	**99122**	**SSLEEVE**			
Shaft Ø1.173-1.178" - 'on-shaft' width 0.313" - flange Ø1.4"						
2.031	0.500	**11553**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.178" (29.92 mm)						
2.073	0.335	**11650**	**CRW1**	S	W	■
METRIC Shaft Diameter – 30 mm (1.181")						
	11	**99114**	**SSLEEVE**			
Shaft Ø29.95-30.07mm - 'on-shaft' width 8mm - flange Ø35.56mm						
37	4	30X37X4 HM4 R	HM4	R	G	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 30 mm (1.181")						
37	4	30X37X4 HMS4 R	HMS4	R	S	
37	4	30X37X4 HMSA7 R	HMSA7	R	S	
40	4	30X40X4 HM4 R	HM4	R	G	
40	4	30X40X4 HMS4 R	HMS4	R	S	
40	4	30X40X4 HMSA7 R	HMSA7	R	S	
40	7	**30X40X7 CRW1 R**	**CRW1**	R	W	■
40	7	**30X40X7 CRW1 V**	**CRW1**	V	W	■
40	7	**30X40X7 HMS5 RG**	**HMS5**	RG	E	
40	7	**30X40X7 HMS5 V**	**HMS5**	V	E	◎
40	7	▲**30X40X7 HMSA10 RG**	**HMSA10**	RG	E	
40	7	**30X40X7 HMSA10 V**	**HMSA10**	V	E	◎
42	6	**30X42X6 HMS5 RG**	**HMS5**	RG	E	
42	6	**30X42X6 HMS5 V**	**HMS5**	V	E	◎
42	6	**30X42X6 HMSA10 RG**	**HMSA10**	RG	E	
42	6	**30X42X6 HMSA10 V**	**HMSA10**	V	E	◎
42	6	30X42X6 HMSA7P2 R	HMSA7P2	R	S	◆
42	7	**30X42X7 CRW1 R**	**CRW1**	R	W	
42	7	**30X42X7 CRW1 V**	**CRW1**	V	W	■
42	7	**30X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**30X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	▲**30X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**30X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	**30X42X8 HMS5 RG**	**HMS5**	RG	E	
42	8	**30X42X8 HMS5 V**	**HMS5**	V	E	◎
42	8	**30X42X8 HMSA10 RG**	**HMSA10**	RG	E	
42	8	**30X42X8 HMSA10 V**	**HMSA10**	V	E	◎
44	7	**30X44X7 HMS5 RG**	**HMS5**	RG	E	
44	7	**30X44X7 HMS5 V**	**HMS5**	V	E	◎
44	7	▲**30X44X7 HMSA10 RG**	**HMSA10**	RG	E	
44	7	**30X44X7 HMSA10 V**	**HMSA10**	V	E	◎
44	10	30X44X10 HMS4 R	HMS4	R	S	
45	5	30X45X5 HMSA7 R	HMSA7	R	S	
45	7	**30X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**30X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	▲**30X45X7 HMSA10 RG**	**HMSA10**	RG	E	
45	7	**30X45X7 HMSA10 V**	**HMSA10**	V	E	◎
45	8	**30X45X8 CRW1 P**	**CRW1**	P	W	■
45	8	**30X45X8 CRW1 R**	**CRW1**	R	W	■
45	8	**30X45X8 HMS5 RG**	**HMS5**	RG	E	
45	8	**30X45X8 HMS5 V**	**HMS5**	V	E	◎
45	8	**30X45X8 HMSA10 RG**	**HMSA10**	RG	E	
45	8	**30X45X8 HMSA10 V**	**HMSA10**	V	E	◎
45	8	30X45X8 CRS1 V	CRS1	V	S	
46	7	**30X46X7 HMS5 RG**	**HMS5**	RG	E	
46	7	**30X46X7 HMS5 V**	**HMS5**	V	E	◎
46	7	▲**30X46X7 HMSA10 RG**	**HMSA10**	RG	E	
46	7	**30X46X7 HMSA10 V**	**HMSA10**	V	E	◎
47	6	**30X47X6 HMS5 RG**	**HMS5**	RG	E	
47	6	**30X47X6 HMS5 V**	**HMS5**	V	E	◎
47	6	**30X47X6 HMSA10 RG**	**HMSA10**	RG	E	
47	6	**30X47X6 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**30X47X7 CRW1 R**	**CRW1**	R	W	
47	7	**30X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**30X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**30X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**30X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	**30X47X8 CRW1 V**	**CRW1**	V	W	
47	8	**30X47X8 HMS5 RG**	**HMS5**	RG	E	
47	8	**30X47X8 HMS5 V**	**HMS5**	V	E	◎
47	8	**30X47X8 HMSA10 RG**	**HMSA10**	RG	E	
47	8	**30X47X8 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**30X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**30X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**30X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**30X47X10 HMSA10 V**	**HMSA10**	V	E	◎
48	8	**30X48X8 CRW1 R**	**CRW1**	R	W	■
48	8	**30X48X8 HMS5 RG**	**HMS5**	RG	E	
48	8	**30X48X8 HMS5 V**	**HMS5**	V	E	◎
48	8	▲**30X48X8 HMSA10 RG**	**HMSA10**	RG	E	
48	8	**30X48X8 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 30 mm (1.181")						
50	5	**30X50X5 HMS5 RG**	**HMS5**	RG	E	
50	5	**30X50X5 HMS5 V**	**HMS5**	V	E	◎
50	5	**30X50X5 HMSA10 RG**	**HMSA10**	RG	E	
50	5	**30X50X5 HMSA10 V**	**HMSA10**	V	E	◎
50	7	**30X50X7 HMS5 RG**	**HMS5**	RG	E	
50	7	**30X50X7 HMS5 V**	**HMS5**	V	E	◎
50	7	▲ **30X50X7 HMSA10 RG**	**HMSA10**	RG	E	
50	7	**30X50X7 HMSA10 V**	**HMSA10**	V	E	◎
50	8	**30X50X8 CRW1 R**	**CRW1**	R	W	
50	8	**30X50X8 CRW1 V**	**CRW1**	V	W	■
50	8	**30X50X8 HMS5 RG**	**HMS5**	RG	E	
50	8	**30X50X8 HMS5 V**	**HMS5**	V	E	◎
50	8	**30X50X8 HMSA10 RG**	**HMSA10**	RG	E	
50	8	**30X50X8 HMSA10 V**	**HMSA10**	V	E	◎
50	10	**30X50X10 HMS5 RG**	**HMS5**	RG	E	
50	10	**30X50X10 HMS5 V**	**HMS5**	V	E	◎
50	10	**30X50X10 HMSA10 RG**	**HMSA10**	RG	E	
50	10	**30X50X10 HMSA10 V**	**HMSA10**	V	E	◎
52	7	**30X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**30X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲ **30X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**30X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**30X52X8 CRW1 R**	**CRW1**	R	W	
52	8	**30X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**30X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	**30X52X8 HMSA10 RG**	**HMSA10**	RG	E	
52	8	**30X52X8 HMSA10 V**	**HMSA10**	V	E	◎
52	10	**30X52X10 HMS5 RG**	**HMS5**	RG	E	
52	10	**30X52X10 HMS5 V**	**HMS5**	V	E	◎
52	10	**30X52X10 HMSA10 RG**	**HMSA10**	RG	E	
52	10	**30X52X10 HMSA10 V**	**HMSA10**	V	E	◎
55	7	**30X55X7 CRW1 R**	**CRW1**	R	W	
55	7	**30X55X7 HMS5 RG**	**HMS5**	RG	E	
55	7	**30X55X7 HMS5 V**	**HMS5**	V	E	◎
55	7	▲ **30X55X7 HMSA10 RG**	**HMSA10**	RG	E	
55	7	**30X55X7 HMSA10 V**	**HMSA10**	V	E	◎
55	10	**30X55X10 HMS5 RG**	**HMS5**	RG	E	
55	10	**30X55X10 HMS5 V**	**HMS5**	V	E	◎
55	10	**30X55X10 HMSA10 RG**	**HMSA10**	RG	E	
55	10	**30X55X10 HMSA10 V**	**HMSA10**	V	E	◎
56	8	**30X56X8 CRW1 R**	**CRW1**	R	W	
58	8	**30X58X8 CRWA1 R**	**CRWA1**	R	W	■
60	8	▲ **30X60X8 CRW1 R**	**CRW1**	R	W	■
60	10	30X60X10 HMS4 R	HMS4	R	S	
60	10	30X60X10 HMSA7 R	HMSA7	R	S	
62	7	**30X62X7 CRW1 R**	**CRW1**	R	W	
62	7	**30X62X7 CRW1 V**	**CRW1**	V	W	■
62	7	**30X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**30X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲ **30X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**30X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**30X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**30X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**30X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**30X62X10 HMSA10 V**	**HMSA10**	V	E	◎
72	8	▲ **30X72X8 CRW1 R**	**CRW1**	R	W	■
72	10	**30X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**30X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	▲ **30X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**30X72X10 HMSA10 V**	**HMSA10**	V	E	◎
72	12	**30X72X12 CRWA1 V**	**CRWA1**	V	W	
INCH Shaft Diameter – 1.188" (30.18 mm)						
	0.438	**99118**	**SSLEEVE**			
Shaft Ø1.185-1.19" - 'on-shaft' width 0.313" - flange Ø1.4"						
1.561	0.313	**11710**	**CRW1**	V	W	◤◎
1.654	0.236	535107	HM3	H	G	
1.686	0.250	**11728**	**CRW1**	P	W	■
1.687	0.250	**540903**	**CRW1**	R	W	■
1.752	0.250	▲ **11734**	**CRW1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.188" (30.18 mm)						
1.752	0.250	**11736**	**CRW1**	V	W	■
1.828	0.375	▲ **11740**	**CRW1**	R	W	■
1.875	0.250	**11763**	**CRW1**	P	W	■
1.875	0.375	▲ **11585**	**CRW1**	R	W	■
1.983	0.250	**11776**	**CRW1**	R	W	■
1.983	0.250	▲ **11777**	**CRWA1**	R	W	■
1.996	0.250	11782	HD1	R	G	
1.996	0.250	11846	HM1	R	G	■
2.000	0.250	▲ **11800**	**CRW1**	R	W	■
2.000	0.250	**11806**	**CRW1**	V	W	■
2.000	0.250	**11801**	**CRWA1**	R	W	■
2.000	0.250	11836	HM1	R	G	
2.062	0.250	**11879**	**CRW1**	P	W	■
2.062	0.250	▲ **11878**	**CRW1**	R	W	■
2.125	0.313	▲ **11907**	**CRW1**	R	W	■
2.125	0.313	**11908**	**CRWHA1**	R	W	■
2.165	0.250	▲ **11911**	**CRW1**	R	W	■
2.250	0.256	▲ **11914**	**CRW1**	R	W	■
2.250	0.256	**534358**	**CRW1**	V	W	■
2.437	0.250	▲ **11923**	**CRW1**	R	W	■
2.441	0.250	▲ **11930**	**CRW1**	R	W	■
METRIC Shaft Diameter – 31 mm (1.220")						
	11	**99123**	**SSLEEVE**			
Shaft Ø30.89-31.01mm - 'on-shaft' width 7.95mm - flange Ø39.7mm						
42	8	31X42X8 HMS4 V	HMS4	V	S	
44	6.50	12208	HMS4	R	S	
50	11.91	**12121**	**HM14**	R	G	■
50.27	10.31	**12124**	**HM14**	R	G	■
50.80	11.13	12131	CRSH1	R	S	■
INCH Shaft Diameter – 1.234" (31.34 mm)						
2.250	0.250	▲ **12590**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.240" (31.50 mm)						
	0.438	**99141**	**SSLEEVE**			
Shaft Ø1.237-1.243" - 'on-shaft' width 0.315" - flange Ø1.54"						
INCH Shaft Diameter – 1.250" (31.75 mm)						
	0.438	**99125**	**SSLEEVE**			
Shaft Ø1.247-1.253" - 'on-shaft' width 0.313" - flange Ø1.5"						
	0.438	99817	GSLEEVE			
Shaft Ø1.247-1.253" - 'on-shaft' width 0.313" - flange Ø1.5"						
1.500	0.125	**12330**	**HM14**	R	G	■
1.624	0.250	**12325**	**HM14**	R	G	■
1.625	0.188	▲ **12329**	**CRW1**	R	W	■
1.625	0.188	**11096**	**HM14**	R	G	
1.686	0.188	**12334**	**HM14**	R	G	■
1.687	0.250	▲ **12336**	**CRW1**	R	W	■
1.687	0.250	**12335**	**CRW1**	V	W	■
1.687	0.250	**12337**	**CRWA1**	V	W	■
1.687	0.313	**12350**	**CRWA1**	R	W	■
1.687	0.313	**12333**	**CRWA5**	R	W	■◆
1.750	0.250	**12360**	**CRWA5**	R	W	■◆
1.750	0.250	**12339**	**CRWA5**	V	W	■◆
1.752	0.188	**12361**	**HM21**	R	G	■
1.752	0.250	**12363**	**CRW1**	R	W	■
1.752	0.250	**12340**	**CRW1**	V	W	■
1.752	0.250	▲ **12364**	**CRWA1**	R	W	■
1.752	0.250	**12343**	**CRWA1**	V	W	■
1.752	0.250	**12369**	**HM21**	R	G	
1.752	0.313	12371	HMS4	R	S	
1.874	0.250	**12382**	**CRW1**	P	W	■
1.874	0.250	**12384**	**CRW1**	R	W	■
1.874	0.250	▲ **12386**	**CRWA1**	R	W	■
1.874	0.250	**12383**	**CRWA1**	V	W	■
1.874	0.250	**12379**	**HM21**	R	G	■
1.937	0.375	**12542**	**CRWA5**	V	W	◆
1.938	0.250	▲ **12391**	**CRW1**	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.250" (31.75 mm)						
1.955	0.250	**12396**	**CRWA1**	R	W	■
1.968	0.438	**12398**	**HM14**	R	G	
1.968	0.469	**12399**	**HM18**	R	G	■
1.979	0.250	**12407**	**HM21**	R	G	■
1.979	0.406	**12404**	**HM14**	R	G	■
1.979	0.406	**12411**	**HM18**	R	G	
1.983	0.250	**12427**	**CRW1**	R	W	■
1.983	0.250	**12432**	**CRW1**	V	W	■
1.983	0.250	▲**12428**	**CRWA1**	R	W	■
1.983	0.250	**12437**	**HM21**	R	G	
1.997	0.438	**12438**	**CRWA5**	V	W	■◎◆
2.000	0.250	**12456**	**CRW1**	R	W	■
2.000	0.250	**12445**	**CRW1**	V	W	■
2.000	0.250	▲**12458**	**CRWA1**	R	W	■
2.000	0.250	**12446**	**CRWA1**	V	W	■◎
2.000	0.250	**12481**	**HM21**	R	G	■
2.000	0.438	**12483**	**CRW1**	P	W	■
2.062	0.250	**12528**	**CRWA1**	R	W	■
2.062	0.250	**12531**	**CRWA1**	V	W	■
2.062	0.250	**12508**	**HM21**	R	G	■
2.062	0.433	**12533**	**CRWHA1**	V	W	■
2.062	0.438	▲**12530**	**CRWH1**	R	W	■
2.125	0.250	▲**12545**	**CRW1**	R	W	■
2.125	0.250	**12544**	**CRW1**	V	W	■
2.125	0.250	**12551**	**CRWA1**	R	W	■
2.125	0.250	**12565**	**HM21**	R	G	■
2.125	0.256	**534955**	**CRWA1**	V	W	■
2.250	0.250	▲**12577**	**CRW1**	R	W	■
2.250	0.250	**12582**	**HM14**	R	G	■
2.327	0.500	▲**12610**	**CRW1**	R	W	■
2.328	0.500	**12609**	**CRWA5**	R	W	■◎◆
2.328	0.500	**12611**	**HM18**	R	G	■
2.374	0.313	**12613**	**CRW1**	R	W	■
2.374	0.313	▲**12614**	**CRWA1**	R	W	■
2.374	0.315	**12612**	**CRW1**	V	W	■
2.437	0.250	▲**12621**	**CRW1**	R	W	■
2.441	0.250	▲**12631**	**CRW1**	R	W	■
2.500	0.310	**12638**	**CRW1**	V	W	■
2.502	0.313	▲**12637**	**CRW1**	R	W	■
2.502	0.500	**12640**	**CRWA5**	R	W	■◎◆
2.561	0.500	12655	CRSH1	R	S	
2.713	0.469	12660	CRSH1	R	S	■
3.156	0.500	12678	CRSH1	R	S	
METRIC Shaft Diameter – 32 mm (1.260")						
	11.1	**99128**	**SSLEEVE**			
Shaft Ø31.93-32.08mm - 'on-shaft' width 8mm - flange Ø38.1mm						
	11.1	99876	GSLEEVE			
Shaft Ø31.93-32.08mm - 'on-shaft' width 8.001mm - flange Ø38.1mm						
40	7	32X40X7 HMS4 R	HMS4	R	S	
42	4	32X42X4 HM4 R	HM4	R	G	
42	7	**32X42X7 CRW1 R**	**CRW1**	R	W	■
42	7	**32X42X7 CRW1 V**	**CRW1**	V	W	■
42	7	**32X42X7 HMS5 RG**	**HMS5**	RG	E	
42	7	**32X42X7 HMS5 V**	**HMS5**	V	E	◎
42	7	▲**32X42X7 HMSA10 RG**	**HMSA10**	RG	E	
42	7	**32X42X7 HMSA10 V**	**HMSA10**	V	E	◎
42	8	32X42X8 HMSA7 R	HMSA7	R	S	
43	7	**32X43X7 HMS5 RG**	**HMS5**	RG	E	
43	7	**32X43X7 HMS5 V**	**HMS5**	V	E	◎
43	7	**32X43X7 HMSA10 RG**	**HMSA10**	RG	E	
43	7	**32X43X7 HMSA10 V**	**HMSA10**	V	E	◎
44	7	**32X44X7 HMS5 RG**	**HMS5**	RG	E	
44	7	**32X44X7 HMS5 V**	**HMS5**	V	E	◎
44	7	**32X44X7 HMSA10 RG**	**HMSA10**	RG	E	
44	7	**32X44X7 HMSA10 V**	**HMSA10**	V	E	◎
44	9	32X44X9 HMS4 R	HMS4	R	S	
45	7	**32X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**32X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	▲**32X45X7 HMSA10 RG**	**HMSA10**	RG	E	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 32 mm (1.260")						
45	7	**32X45X7 HMSA10 V**	**HMSA10**	V	E	◎
45	8	**32X45X8 CRW1 R**	**CRW1**	R	W	■
45	8	**32X45X8 HMS5 RG**	**HMS5**	RG	E	
45	8	**32X45X8 HMS5 V**	**HMS5**	V	E	◎
45	8	**32X45X8 HMSA10 RG**	**HMSA10**	RG	E	
45	8	**32X45X8 HMSA10 V**	**HMSA10**	V	E	◎
46	8	32X46X8 CRS1 R	CRS1	R	S	
47	6	**32X47X6 HMS5 RG**	**HMS5**	RG	E	
47	6	**32X47X6 HMS5 V**	**HMS5**	V	E	◎
47	6	**32X47X6 HMSA10 RG**	**HMSA10**	RG	E	
47	6	**32X47X6 HMSA10 V**	**HMSA10**	V	E	◎
47	7	**32X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**32X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲**32X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**32X47X7 HMSA10 V**	**HMSA10**	V	E	◎
47	8	**32X47X8 CRW1 R**	**CRW1**	R	W	■
47	8	**32X47X8 CRW1 V**	**CRW1**	V	W	■
47	8	**32X47X8 HMS5 RG**	**HMS5**	RG	E	
47	8	**32X47X8 HMS5 V**	**HMS5**	V	E	◎
47	8	**32X47X8 HMSA10 RG**	**HMSA10**	RG	E	
47	8	**32X47X8 HMSA10 V**	**HMSA10**	V	E	◎
47	10	**32X47X10 HMS5 RG**	**HMS5**	RG	E	
47	10	**32X47X10 HMS5 V**	**HMS5**	V	E	◎
47	10	**32X47X10 HMSA10 RG**	**HMSA10**	RG	E	
47	10	**32X47X10 HMSA10 V**	**HMSA10**	V	E	◎
48	5	32X48X5 HMS4 R	HMS4	R	S	
48	5	32X48X5 HMSA7 R	HMSA7	R	S	
48	7	32X48X7 HMS4 R	HMS4	R	S	
48	8	**32X48X8 CRW1 R**	**CRW1**	R	W	■
48	8	**32X48X8 CRW1 V**	**CRW1**	V	W	■
48	8	**32X48X8 HMS5 RG**	**HMS5**	RG	E	
48	8	**32X48X8 HMS5 V**	**HMS5**	V	E	◎
48	8	▲**32X48X8 HMSA10 RG**	**HMSA10**	RG	E	
48	8	**32X48X8 HMSA10 V**	**HMSA10**	V	E	◎
48	8	12720	HMSA7	P	S	
50	8	**32X50X8 CRW1 R**	**CRW1**	R	W	■
50	8	**32X50X8 CRW1 V**	**CRW1**	V	W	■
50	8	**32X50X8 HMS5 RG**	**HMS5**	RG	E	
50	8	**32X50X8 HMS5 V**	**HMS5**	V	E	◎
50	8	▲**32X50X8 HMSA10 RG**	**HMSA10**	RG	E	
50	8	**32X50X8 HMSA10 V**	**HMSA10**	V	E	◎
50	10	**32X50X10 HMS5 RG**	**HMS5**	RG	E	
50	10	**32X50X10 HMS5 V**	**HMS5**	V	E	◎
50	10	**32X50X10 HMSA10 RG**	**HMSA10**	RG	E	
50	10	**32X50X10 HMSA10 V**	**HMSA10**	V	E	◎
52	7	**32X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**32X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲**32X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**32X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**32X52X8 CRW1 R**	**CRW1**	R	W	■
52	8	**32X52X8 CRW1 V**	**CRW1**	V	W	■
52	8	**32X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**32X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	**32X52X8 HMSA10 RG**	**HMSA10**	RG	E	
52	8	**32X52X8 HMSA10 V**	**HMSA10**	V	E	◎
52	10	32X52X10 HMSA7 R	HMSA7	R	S	
52	11	32X52X11 HMSA7 R	HMSA7	R	S	
54	10	32X54X10 HMSA7 R	HMSA7	R	S	
55	10	**32X55X10 HMS5 RG**	**HMS5**	RG	E	
55	10	**32X55X10 HMS5 V**	**HMS5**	V	E	◎
55	10	▲**32X55X10 HMSA10 RG**	**HMSA10**	RG	E	
55	10	**32X55X10 HMSA10 V**	**HMSA10**	V	E	◎
56	8	**32X56X8 CRW1 R**	**CRW1**	R	W	■
56	10	32X56X10 HMS4 R	HMS4	R	S	
58	8	32X58X8 HMS4 R	HMS4	R	S	
58	8	32X58X8 HMSA7 R	HMSA7	R	S	
60	8	32X60X8 HMSA7 R	HMSA7	R	S	
62	10	**32X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**32X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	▲**32X62X10 HMSA10 RG**	**HMSA10**	RG	E	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 32 mm (1.260")						
62	10	**32X62X10 HMSA10 V**	**HMSA10**	V	E	◎
72	7	**32X72X7 HMS5 RG**	**HMS5**	RG	E	
72	7	**32X72X7 HMS5 V**	**HMS5**	V	E	◎
72	7	**32X72X7 HMSA10 RG**	**HMSA10**	RG	E	
72	7	**32X72X7 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter – 33 mm (1.299")						
	18	**99121**	**SSLEEVE**			
Shaft Ø32.84-32.99mm - 'on-shaft' width 15.011mm - flange Ø40.488mm						
45	7	**33X45X7 HMS5 RG**	**HMS5**	RG	E	
45	7	**33X45X7 HMS5 V**	**HMS5**	V	E	◎
45	7	▲ **33X45X7 HMSA10 RG**	**HMSA10**	RG	E	
45	7	**33X45X7 HMSA10 V**	**HMSA10**	V	E	◎
50	6	**33X50X6 HMS5 RG**	**HMS5**	RG	E	
50	6	**33X50X6 HMS5 V**	**HMS5**	V	E	◎
50	6	▲ **33X50X6 HMSA10 RG**	**HMSA10**	RG	E	
50	6	**33X50X6 HMSA10 V**	**HMSA10**	V	E	◎
50	12	12900	HMSA7	R	S	
51.92	12.50	**12907**	**CRWA1**	R	W	■
INCH Shaft Diameter – 1.301" (33.05 mm)						
2.000	0.438	12905	CRSA1	P	S	
INCH Shaft Diameter – 1.313" (33.35 mm)						
	0.374	**99129**	**SSLEEVE**			
Shaft Ø1.308-1.314" - 'on-shaft' width 0.25" - flange Ø1.6"						
	0.625	**99131**	**SSLEEVE**			
Shaft Ø1.31-1.316" - 'on-shaft' width 0.5" - flange Ø1.594"						
1.828	0.375	**13021**	**CRW1**	P	W	■
1.874	0.375	13027	CRSA1	R	S	■
2.000	0.313	13037	CRSA1	R	S	
2.062	0.313	**13050**	**CRW1**	R	W	■
2.062	0.313	**13054**	**CRW1**	V	W	■
2.062	0.313	▲ **13052**	**CRWA1**	R	W	■
2.062	0.315	**534950**	**CRWA1**	V	W	
2.106	0.375	13084	CRSA1	R	S	■
2.125	0.313	▲ **13092**	**CRW1**	R	W	■
2.250	0.313	▲ **13112**	**CRW1**	R	W	■
2.282	0.250	**13157**	**CRWA1**	R	W	■
2.031	0.313	**13415**	**CRW1**	R	W	
2.061	0.313	▲ **13350**	**CRW1**	R	W	■
2.227	0.313	▲ **13418**	**CRW1**	R	W	■
METRIC Shaft Diameter – 34 mm (1.339")						
	15.9	**99134**	**SSLEEVE**			
Shaft Ø33.86-34.01mm - 'on-shaft' width 12.7mm - flange Ø41.28mm						
44	8	**34X44X8 HMS5 RG**	**HMS5**	RG	E	
44	8	**34X44X8 HMS5 V**	**HMS5**	V	E	◎
44	8	▲ **34X44X8 HMSA10 RG**	**HMSA10**	RG	E	
44	8	**34X44X8 HMSA10 V**	**HMSA10**	V	E	◎
45	8	34X45X8 HMSA7 R	HMSA7	R	S	
46	8	34X46X8 HMSA7 R	HMSA7	R	S	
48	8	**34X48X8 CRW1 R**	**CRW1**	R	W	■
48	8	**34X48X8 CRW1 V**	**CRW1**	V	W	■
48	8	**34X48X8 HMS5 RG**	**HMS5**	RG	E	
48	8	**34X48X8 HMS5 V**	**HMS5**	V	E	◎
48	8	**34X48X8 HMSA10 RG**	**HMSA10**	RG	E	
48	8	**34X48X8 HMSA10 V**	**HMSA10**	V	E	◎
50	7	34X50X7 HMS4 R	HMS4	R	S	
52	8	**34X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**34X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	▲ **34X52X8 HMSA10 RG**	**HMSA10**	RG	E	
52	8	**34X52X8 HMSA10 V**	**HMSA10**	V	E	◎
53	8	13435	HMSA7	R	S	
54	9	34X54X9 HMSA7 R	HMSA7	R	S	
54	11	34X54X11 CRS1 R	CRS1	R	S	
55	8	**34X55X8 CRW1 R**	**CRW1**	R	W	■
55	9	34X55X9 HMSA7 R	HMSA7	R	S	
56	8	**34X56X8 CRW1 R**	**CRW1**	R	W	■
METRIC Shaft Diameter (cont.) – 34 mm (1.339")						
56	8	**34X56X8 CRW1 V**	**CRW1**	V	W	■
62	8	▲ **34X62X8 CRW1 R**	**CRW1**	R	W	■
62	10	**34X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**34X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**34X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**34X62X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.344" (34.14 mm)						
2.106	0.313	**13421**	**CRW1**	R	W	■
2.125	0.313	▲ **13437**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.362" (34.59 mm)						
2.191	0.250	13500	CRS1	P	S	
INCH Shaft Diameter – 1.365" (34.67 mm)						
1.956	0.438	▲ **13985**	**CRW1**	R	W	■
2.081	0.313	▲ **13598**	**CRW1**	R	W	■
2.261	0.313	▲ **13700**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.375" (34.93 mm)						
	0.438	**99133**	**SSLEEVE**			
Shaft Ø1.371-1.377" - 'on-shaft' width 0.313" - flange Ø1.638"						
	0.625	**99138**	**SSLEEVE**			
Shaft Ø1.371-1.377" - 'on-shaft' width 0.5" - flange Ø1.638"						
	0.625	99819	GSLEEVE			
Shaft Ø1.371-1.377" - 'on-shaft' width 0.5" - flange Ø1.638"						
1.750	0.197	**13529**	**HM14**	R	G	
1.750	0.197	**13509**	**HM14**	V	G	■
1.750	0.250	▲ **13514**	**CRW1**	R	W	■◎
1.828	0.250	**13510**	**CRWA1**	V	W	■
1.828	0.313	▲ **13537**	**CRW1**	R	W	■
1.835	0.250	▲ **13536**	**CRW1**	R	W	■
1.873	0.313	**13511**	**CRWA1**	V	W	■
1.874	0.188	**13543**	**HM14**	R	G	
1.874	0.250	**13512**	**CRW1**	P	W	■
1.874	0.250	**13545**	**HM14**	P	G	■
1.874	0.250	**13548**	**HM14**	R	G	■
1.874	0.256	**547586**	**CRW1**	H	W	■
1.874	0.256	▲ **13534**	**CRW1**	R	W	■
1.874	0.256	**13538**	**CRW1**	V	W	■
1.874	0.313	**13535**	**CRWA1**	R	W	■
1.938	0.250	▲ **13552**	**CRWA1**	R	W	■
1.938	0.250	**13556**	**HM14**	R	G	■
1.955	0.433	**13527**	**CRWA1**	P	W	■
1.983	0.313	**13557**	**CRW1**	P	W	■
2.000	0.250	**13573**	**HM21**	R	G	■
2.000	0.313	**13568**	**CRW1**	R	W	■
2.000	0.313	**13579**	**CRW1**	V	W	■
2.000	0.313	**13562**	**CRWA1**	P	W	■
2.000	0.313	▲ **13569**	**CRWA1**	R	W	■
2.000	0.313	**13581**	**CRWA1**	V	W	■
2.000	0.313	**13571**	**CRWH1**	R	W	■
2.047	0.276	**534952**	**CRWA1**	V	W	■
2.062	0.313	▲ **13585**	**CRW1**	R	W	
2.062	0.313	**13582**	**CRW1**	V	W	■
2.062	0.313	**13588**	**CRWA1**	P	W	■
2.063	0.375	13596	HMS4	R	S	
2.106	0.250	**13612**	**HM21**	R	G	■
2.106	0.313	**13614**	**CRW1**	P	W	■
2.106	0.313	▲ **13602**	**CRWA1**	R	W	
2.125	0.250	**13662**	**HM21**	R	G	■
2.125	0.313	▲ **13649**	**CRW1**	R	W	■
2.125	0.313	**13663**	**CRW1**	V	W	■
2.125	0.313	**13651**	**CRWA1**	R	W	■
2.125	0.313	**13661**	**CRWA1**	V	W	■
2.250	0.250	▲ **13698**	**CRWA1**	R	W	■
2.250	0.250	**13689**	**HM14**	R	G	■
2.250	0.313	**13869**	**CRW1**	P	W	■
2.250	0.313	**13671**	**CRW1**	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.375" (34.93 mm)						
2.250	0.313	**13688**	CRW1	V	W	■
2.250	0.313	**13676**	CRWA1	R	W	■
2.250	0.313	**13691**	CRWA1	V	W	■
2.282	0.250	**13710**	HM14	R	G	■
2.328	0.406	**13711**	HM18	R	G	
2.374	0.250	**13758**	HM21	R	G	■
2.374	0.313	**13738**	CRW1	R	W	■
2.374	0.313	**13734**	CRW1	V	W	■
2.374	0.313	▲**13739**	CRWA1	R	W	■
2.437	0.250	▲**13797**	CRW1	R	W	■
2.437	0.250	**13796**	HM21	R	G	■
2.502	0.250	**13862**	HM21	R	G	■
2.502	0.313	▲**13865**	CRW1	R	W	■
2.502	0.313	**13867**	CRW1	V	W	■
2.562	0.375	**13875**	CRW1	R	W	■
2.562	0.375	▲**13876**	CRWA1	R	W	■
2.562	0.375	**13878**	CRWA1	V	W	■
2.623	0.313	**13882**	CRWA1	V	W	■
2.686	0.500	▲**13892**	CRW1	R	W	■
2.715	0.315	**543910**	CRWA1	R	W	
2.716	0.313	▲**13900**	CRW1	R	W	■
2.750	0.500	13906	CRSH1	R	S	■
2.812	0.375	▲**13912**	CRWHA1	R	W	■
2.875	0.313	**13929**	CRWA1	P	W	■
3.000	0.500	13937	CRSHA1	R	S	
3.125	0.500	13936	CRSH1	R	S	
3.350	0.469	13934	CRSH1	R	S	■
METRIC Shaft Diameter – 35 mm (1.378")						
	16	**99139**	SSLEEVE			
Shaft Ø34.93-35.08mm - 'on-shaft' width 13mm - flange Ø41.61mm						
	16	99820	GSLEEVE			
Shaft Ø34.93-35.08mm - 'on-shaft' width 13mm - flange Ø41.61mm						
42	4	35X42X4 HM4 R	HM4	R	G	
45	4	35X45X4 HM4 R	HM4	R	G	
45	7	**35X45X7 HMS5 RG**	HMS5	RG	E	
45	7	**35X45X7 HMS5 V**	HMS5	V	E	◎
45	7	▲**35X45X7 HMSA10 RG**	HMSA10	RG	E	
45	7	**35X45X7 HMSA10 V**	HMSA10	V	E	◎
46	8	35X46X8 HMSA7 R	HMSA7	R	S	
47	5	35X47X5 HM4 R	HM4	R	G	
47	5	35X47X5 HMS4 R	HMS4	R	S	
47	6	**35X47X6 HMS5 RG**	HMS5	RG	E	
47	6	**35X47X6 HMS5 V**	HMS5	V	E	◎
47	6	**35X47X6 HMSA10 RG**	HMSA10	RG	E	
47	6	**35X47X6 HMSA10 V**	HMSA10	V	E	◎
47	7	**35X47X7 CRW1 R**	CRW1	R	W	■
47	7	**35X47X7 CRW1 V**	CRW1	V	W	■◎
47	7	**534951**	CRWA1	V	W	■
47	7	**35X47X7 HMS5 RG**	HMS5	RG	E	
47	7	**35X47X7 HMS5 V**	HMS5	V	E	◎
47	7	▲**35X47X7 HMSA10 RG**	HMSA10	RG	E	
47	7	**35X47X7 HMSA10 V**	HMSA10	V	E	◎
47	8	**35X47X8 HMS5 RG**	HMS5	RG	E	
47	8	**35X47X8 HMS5 V**	HMS5	V	E	◎
47	8	**35X47X8 HMSA10 RG**	HMSA10	RG	E	
47	8	**35X47X8 HMSA10 V**	HMSA10	V	E	◎
48	8	**35X48X8 CRW1 R**	CRW1	R	W	■
48	8	**35X48X8 CRW1 V**	CRW1	V	W	■
48	8	**35X48X8 HMS5 RG**	HMS5	RG	E	
48	8	**35X48X8 HMS5 V**	HMS5	V	E	◎
48	8	▲**35X48X8 HMSA10 RG**	HMSA10	RG	E	
48	8	**35X48X8 HMSA10 V**	HMSA10	V	E	◎
49	6	**35X49X6 HMS5 RG**	HMS5	RG	E	
49	6	**35X49X6 HMS5 V**	HMS5	V	E	◎
49	6	▲**35X49X6 HMSA10 RG**	HMSA10	RG	E	
49	6	**35X49X6 HMSA10 V**	HMSA10	V	E	◎
50	7	**35X50X7 HMS5 RG**	HMS5	RG	E	
50	7	**35X50X7 HMS5 V**	HMS5	V	E	◎
50	7	▲**35X50X7 HMSA10 RG**	HMSA10	RG	E	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 35 mm (1.378")						
50	7	**35X50X7 HMSA10 V**	HMSA10	V	E	◎
50	8	**35X50X8 CRW1 R**	CRW1	R	W	■
50	8	**35X50X8 CRW1 V**	CRW1	V	W	■
50	8	**35X50X8 HMS5 RG**	HMS5	RG	E	
50	8	**35X50X8 HMS5 V**	HMS5	V	E	◎
50	8	**35X50X8 HMSA10 RG**	HMSA10	RG	E	
50	8	**35X50X8 HMSA10 V**	HMSA10	V	E	◎
50	10	**35X50X10 HMS5 RG**	HMS5	RG	E	
50	10	**35X50X10 HMS5 V**	HMS5	V	E	◎
50	10	**35X50X10 HMSA10 RG**	HMSA10	RG	E	
50	10	**35X50X10 HMSA10 V**	HMSA10	V	E	◎
51	6	13760	HMS4	P	S	
52	6	35X52X6 HMSA72P2 R	HMSA72P2	R	S	◆
52	6	35X52X6 HMSA7P2 V	HMSA7P2	V	S	◆
52	7	**35X52X7 HMS5 RG**	HMS5	RG	E	
52	7	**35X52X7 HMS5 V**	HMS5	V	E	◎
52	7	▲**35X52X7 HMSA10 RG**	HMSA10	RG	E	
52	7	**35X52X7 HMSA10 V**	HMSA10	V	E	◎
52	8	**35X52X8 CRW1 R**	CRW1	R	W	■
52	8	**35X52X8 CRWA1 P**	CRWA1	P	W	■
52	8	**35X52X8 CRWA1 R**	CRWA1	R	W	
52	8	**35X52X8 HMS5 RG**	HMS5	RG	E	
52	8	**35X52X8 HMS5 V**	HMS5	V	E	◎
52	8	**35X52X8 HMSA10 RG**	HMSA10	RG	E	
52	8	**35X52X8 HMSA10 V**	HMSA10	V	E	◎
52	9	35X52X9 HMS4 R	HMS4	R	S	
52	10	**35X52X10 HMS5 RG**	HMS5	RG	E	
52	10	**35X52X10 HMS5 V**	HMS5	V	E	◎
52	10	**35X52X10 HMSA10 RG**	HMSA10	RG	E	
52	10	**35X52X10 HMSA10 V**	HMSA10	V	E	◎
54	7	▲**35X54X7 CRW1 R**	CRW1	R	W	■
54	7	**35X54X7 CRW1 V**	CRW1	V	W	■
54	8	**35X54X8 CRW1 V**	CRW1	V	W	
55	7	**35X55X7 HMS5 RG**	HMS5	RG	E	
55	7	**35X55X7 HMS5 V**	HMS5	V	E	◎
55	7	▲**35X55X7 HMSA10 RG**	HMSA10	RG	E	
55	7	**35X55X7 HMSA10 V**	HMSA10	V	E	◎
55	8	**35X55X8 CRW1 R**	CRW1	R	W	■
55	8	**35X55X8 CRW1 V**	CRW1	V	W	
55	8	**35X55X8 HMS5 RG**	HMS5	RG	E	
55	8	**35X55X8 HMS5 V**	HMS5	V	E	◎
55	8	**35X55X8 HMSA10 RG**	HMSA10	RG	E	
55	8	**35X55X8 HMSA10 V**	HMSA10	V	E	◎
55	10	**35X55X10 HMS5 RG**	HMS5	RG	E	
55	10	**35X55X10 HMS5 V**	HMS5	V	E	◎
55	10	**35X55X10 HMSA10 RG**	HMSA10	RG	E	
55	10	**35X55X10 HMSA10 V**	HMSA10	V	E	◎
55	11	35X55X11 HMSA7 R	HMSA7	R	S	
56	8	**35X56X8 CRW1 R**	CRW1	R	W	■
56	8	**35X56X8 CRW1 V**	CRW1	V	W	■
56	10	**35X56X10 HMS5 RG**	HMS5	RG	E	
56	10	**35X56X10 HMS5 V**	HMS5	V	E	◎
56	10	▲**35X56X10 HMSA10 RG**	HMSA10	RG	E	
56	10	**35X56X10 HMSA10 V**	HMSA10	V	E	◎
58	10	**35X58X10 HMS5 RG**	HMS5	RG	E	
58	10	**35X58X10 HMS5 V**	HMS5	V	E	◎
58	10	▲**35X58X10 HMSA10 RG**	HMSA10	RG	E	
58	10	**35X58X10 HMSA10 V**	HMSA10	V	E	◎
60	10	**35X60X10 HMS5 RG**	HMS5	RG	E	
60	10	**35X60X10 HMS5 V**	HMS5	V	E	◎
60	10	▲**35X60X10 HMSA10 RG**	HMSA10	RG	E	
60	10	**35X60X10 HMSA10 V**	HMSA10	V	E	◎
60	14	35X60X14 HMSA7 R	HMSA7	R	S	
62	7	**35X62X7 HMS5 RG**	HMS5	RG	E	
62	7	**35X62X7 HMS5 V**	HMS5	V	E	◎
62	7	▲**35X62X7 HMSA10 RG**	HMSA10	RG	E	
62	7	**35X62X7 HMSA10 V**	HMSA10	V	E	◎
62	7.20	**35X62X7.2 HMS5 RG**	HMS5	RG	E	
62	7.20	**35X62X7.2 HMS5 V**	HMS5	V	E	◎
62	7.20	**35X62X7.2 HMSA10 RG**	HMSA10	RG	E	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 35 mm (1.378")						
62	7.20	**35X62X7.2 HMSA10 V**	**HMSA10**	V	E	◎
62	7.95	**13810**	**CRW1**	R	W	■
62	7.95	**13812**	**CRWA1**	R	W	■
62	8	**35X62X8 CRW1 R**	**CRW1**	R	W	■
62	8	**35X62X8 CRW1 V**	**CRW1**	V	W	■
62	8	**35X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**35X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	**35X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**35X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**35X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**35X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**35X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**35X62X10 HMSA10 V**	**HMSA10**	V	E	◎
64	8	**35X64X8 CRW1 R**	**CRW1**	R	W	■
65	8	**35X65X8 CRW1 R**	**CRW1**	R	W	■
65	10	35X65X10 HMS4 R	HMS4	R	S	
68	8	**35X68X8 CRW1 R**	**CRW1**	R	W	■
68	8	**35X68X8 CRW1 V**	**CRW1**	V	W	■
68	10	35X68X10 HMS4 R	HMS4	R	S	
72	7	**35X72X7 HMS5 RG**	**HMS5**	RG	E	
72	7	**35X72X7 HMS5 V**	**HMS5**	V	E	◎
72	7	▲ **35X72X7 HMSA10 RG**	**HMSA10**	RG	E	
72	7	**35X72X7 HMSA10 V**	**HMSA10**	V	E	◎
72	7.95	**13920**	**CRW1**	R	W	■
72	7.95	**13925**	**CRWA1**	P	W	■
72	7.95	**13918**	**CRWA1**	R	W	■
72	7.95	**13926**	**CRWA1**	V	W	■◎
72	8	**35X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**35X72X8 CRW1 V**	**CRW1**	V	W	■
72	10	**35X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**35X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**35X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**35X72X10 HMSA10 V**	**HMSA10**	V	E	◎
72	12	**35X72X12 HMS5 RG**	**HMS5**	RG	E	
72	12	**35X72X12 HMS5 V**	**HMS5**	V	E	◎
72	12	**35X72X12 HMSA10 RG**	**HMSA10**	RG	E	
72	12	**35X72X12 HMSA10 V**	**HMSA10**	V	E	◎
78	8	**35X78X8 CRW1 R**	**CRW1**	R	W	■
80	8	▲ **35X80X8 CRW1 R**	**CRW1**	R	W	■
80	12	**35X80X12 HMS5 RG**	**HMS5**	RG	E	
80	12	**35X80X12 HMS5 V**	**HMS5**	V	E	◎
80	12	▲ **35X80X12 HMSA10 RG**	**HMSA10**	RG	E	
80	12	**35X80X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.399" (35.53 mm)						
1.964	0.235	▲ **538565**	**CRW1**	R	W	
INCH Shaft Diameter – 1.414" (35.92 mm)						
2.250	0.250	14035	CRSA1	R	S	■
METRIC Shaft Diameter – 36 mm (1.417")						
	17	**99146**	**SSLEEVE**			
Shaft Ø35.84-35.99mm - 'on-shaft' width 13mm - flange Ø45.24mm						
44	5	36X44X5 HMSA7 R	HMSA7	R	S	
47	7	**36X47X7 HMS5 RG**	**HMS5**	RG	E	
47	7	**36X47X7 HMS5 V**	**HMS5**	V	E	◎
47	7	▲ **36X47X7 HMSA10 RG**	**HMSA10**	RG	E	
47	7	**36X47X7 HMSA10 V**	**HMSA10**	V	E	◎
50	7	**36X50X7 CRW1 R**	**CRW1**	R	W	■
50	7	**36X50X7 HMS5 RG**	**HMS5**	RG	E	
50	7	**36X50X7 HMS5 V**	**HMS5**	V	E	◎
50	7	▲ **36X50X7 HMSA10 RG**	**HMSA10**	RG	E	
50	7	**36X50X7 HMSA10 V**	**HMSA10**	V	E	◎
50	8	**36X50X8 CRW1 R**	**CRW1**	R	W	■
52	7	**36X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**36X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲ **36X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**36X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**36X52X8 CRW1 R**	**CRW1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 36 mm (1.417")						
52	8	**36X52X8 CRW1 V**	**CRW1**	V	W	■
54	8	**36X54X8 CRW1 R**	**CRW1**	R	W	■
54	8	**36X54X8 CRW1 V**	**CRW1**	V	W	■
54	8	36X54X8 HMS4 R	HMS4	R	S	
56	10	36X56X10 HMS4 R	HMS4	R	S	
58	8	**36X58X8 CRW1 R**	**CRW1**	R	W	■
58	10	**36X58X10 HMS5 RG**	**HMS5**	RG	E	
58	10	**36X58X10 HMS5 V**	**HMS5**	V	E	◎
58	10	▲ **36X58X10 HMSA10 RG**	**HMSA10**	RG	E	
58	10	**36X58X10 HMSA10 V**	**HMSA10**	V	E	◎
58	12	36X58X12 HMS4 R	HMS4	R	S	
60	8	**36X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**36X60X8 CRW1 V**	**CRW1**	V	W	■
62	7	**36X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**36X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲ **36X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**36X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**36X62X8 CRW1 R**	**CRW1**	R	W	■
65	8	**36X65X8 CRW1 R**	**CRW1**	R	W	■
66.45	7.95	**14092**	**CRW1**	R	W	■
68	8	**36X68X8 CRW1 R**	**CRW1**	R	W	■
68	10	36X68X10 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 1.435" (36.45 mm)						
	0.688	**99143**	**SSLEEVE**			
Shaft Ø1.432-1.438" - 'on-shaft' width 0.563" - flange Ø1.781"						
	0.688	99821	GSLEEVE			
Shaft Ø1.432-1.438" - 'on-shaft' width 0.563" - flange Ø1.781"						
INCH Shaft Diameter – 1.438" (36.53 mm)						
	0.500	**99144**	**SSLEEVE**			
Shaft Ø1.435-1.441" - 'on-shaft' width 0.375" - flange Ø1.781"						
2.000	0.125	14209	HM4	R	G	
2.062	0.313	**14212**	**CRW1**	V	W	
2.062	0.313	▲ **14214**	**CRWA1**	R	W	■
2.125	0.313	▲ **14223**	**CRW1**	R	W	■
2.125	0.313	**14225**	**CRWA1**	V	W	■
2.250	0.250	**14257**	**HM14**	R	G	■
2.250	0.313	**14262**	**CRW1**	R	W	■
2.250	0.313	**14260**	**CRW1**	V	W	■
2.250	0.313	▲ **14247**	**CRWA1**	R	W	■
2.250	0.313	**14259**	**CRWA1**	V	W	■
2.374	0.313	▲ **14282**	**CRW1**	R	W	■
2.374	0.313	**14285**	**CRWA1**	R	W	■
2.437	0.250	**14359**	**HM21**	R	G	■
2.437	0.313	▲ **14363**	**CRW1**	R	W	■
2.502	0.313	▲ **14383**	**CRW1**	R	W	■
2.623	0.313	▲ **14404**	**CRW1**	R	W	■
2.686	0.313	▲ **14423**	**CRW1**	R	W	■
2.750	0.313	▲ **14458**	**CRW1**	R	W	■
METRIC Shaft Diameter – 37 mm (1.457")						
47	4	37X47X4 HM4 R	HM4	R	G	
47	4	37X47X4 HMS4 R	HMS4	R	S	
47	4	37X47X4 HMSA7 R	HMSA7	R	S	
50	6	**37X50X6 HMS5 RG**	**HMS5**	RG	E	
50	6	**37X50X6 HMS5 V**	**HMS5**	V	E	◎
50	6	▲ **37X50X6 HMSA10 RG**	**HMSA10**	RG	E	
50	6	**37X50X6 HMSA10 V**	**HMSA10**	V	E	◎
50	6	37X50X6 HMSA7 P	HMSA7	P	S	
52	8	37X52X8 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 1.469" (37.31 mm)						
2.374	0.375	14641	CRSA1	R	S	
INCH Shaft Diameter – 1.484" (37.69 mm)						
2.254	0.313	▲ **14907**	**CRW1**	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 1.491" (37.87 mm)						
2.191	0.250	14780	CRSA1	R	S	
INCH Shaft Diameter – 1.494" (37.95 mm)						
2.060	0.270	**14789**	**CRW1**	R	W	■
METRIC Shaft Diameter – 38 mm (1.496")						
	17	**99147**	**SSLEEVE**			
Shaft Ø37.85-38mm - 'on-shaft' width 13mm - flange Ø45.24mm						
48	4	38X48X4 HM4 R	HM4	R	G	
50	7	**38X50X7 CRW1 R**	**CRW1**	R	W	■
50	7	**38X50X7 CRW1 V**	**CRW1**	V	W	■
50	7	**38X50X7 HMS5 RG**	**HMS5**	RG	E	
50	7	**38X50X7 HMS5 V**	**HMS5**	V	E	◎
50	7	▲ **38X50X7 HMSA10 RG**	**HMSA10**	RG	E	
50	7	**38X50X7 HMSA10 V**	**HMSA10**	V	E	◎
52	7	**38X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**38X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲ **38X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**38X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**38X52X8 CRW1 R**	**CRW1**	R	W	■
52	8	**38X52X8 CRW1 V**	**CRW1**	V	W	■
52	8	**38X52X8 CRWA1 R**	**CRWA1**	R	W	■
52	8	**38X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**38X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	**38X52X8 HMSA10 RG**	**HMSA10**	RG	E	
52	8	**38X52X8 HMSA10 V**	**HMSA10**	V	E	◎
53	8	**38X53X8 CRW1 R**	**CRW1**	R	W	■
54	7	**38X54X7 CRW1 P**	**CRW1**	P	W	
54	10	**38X54X10 HMS5 RG**	**HMS5**	RG	E	
54	10	**38X54X10 HMS5 V**	**HMS5**	V	E	◎
54	10	▲ **38X54X10 HMSA10 RG**	**HMSA10**	RG	E	
54	10	**38X54X10 HMSA10 V**	**HMSA10**	V	E	◎
55	7	**38X55X7 HMS5 RG**	**HMS5**	RG	E	
55	7	**38X55X7 HMS5 V**	**HMS5**	V	E	◎
55	7	▲ **38X55X7 HMSA10 RG**	**HMSA10**	RG	E	
55	7	**38X55X7 HMSA10 V**	**HMSA10**	V	E	◎
55	8	**38X55X8 CRW1 R**	**CRW1**	R	W	■
55	8	**38X55X8 CRW1 V**	**CRW1**	V	W	■
55	8	**38X55X8 HMS5 RG**	**HMS5**	RG	E	
55	8	**38X55X8 HMS5 V**	**HMS5**	V	E	◎
55	8	**38X55X8 HMSA10 RG**	**HMSA10**	RG	E	
55	8	**38X55X8 HMSA10 V**	**HMSA10**	V	E	◎
55	10	**38X55X10 HMS5 RG**	**HMS5**	RG	E	
55	10	**38X55X10 HMS5 V**	**HMS5**	V	E	◎
55	10	**38X55X10 HMSA10 RG**	**HMSA10**	RG	E	
55	10	**38X55X10 HMSA10 V**	**HMSA10**	V	E	◎
56	8	**38X56X8 CRW1 R**	**CRW1**	R	W	■
56	8	**38X56X8 CRW1 V**	**CRW1**	V	W	■
56	10	38X56X10 HMS4 R	HMS4	R	S	
57.79	10.85	14958	HMSA7	P	S	
58	8	**38X58X8 CRW1 R**	**CRW1**	R	W	■
58	8	**38X58X8 CRW1 V**	**CRW1**	V	W	■
58	8	**38X58X8 HMS5 RG**	**HMS5**	RG	E	
58	8	**38X58X8 HMS5 V**	**HMS5**	V	E	◎
58	8	▲ **38X58X8 HMSA10 RG**	**HMSA10**	RG	E	
58	8	**38X58X8 HMSA10 V**	**HMSA10**	V	E	◎
58	10	**38X58X10 HMS5 RG**	**HMS5**	RG	E	
58	10	**38X58X10 HMS5 V**	**HMS5**	V	E	◎
58	10	**38X58X10 HMSA10 RG**	**HMSA10**	RG	E	
58	10	**38X58X10 HMSA10 V**	**HMSA10**	V	E	◎
60	8	▲ **38X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**38X60X8 CRW1 V**	**CRW1**	V	W	■
60	10	**38X60X10 HMS5 RG**	**HMS5**	RG	E	
60	10	**38X60X10 HMS5 V**	**HMS5**	V	E	◎
60	10	▲ **38X60X10 HMSA10 RG**	**HMSA10**	RG	E	
60	10	**38X60X10 HMSA10 V**	**HMSA10**	V	E	◎
62	7	**38X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**38X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲ **38X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**38X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**38X62X8 CRW1 R**	**CRW1**	R	W	■
62	8	**38X62X8 CRW1 V**	**CRW1**	V	W	■
62	8	**38X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**38X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	**38X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**38X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**38X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**38X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**38X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**38X62X10 HMSA10 V**	**HMSA10**	V	E	◎
65	10	**38X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**38X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **38X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**38X65X10 HMSA10 V**	**HMSA10**	V	E	◎
68	8	**38X68X8 CRW1 R**	**CRW1**	R	W	■
70	10	38X70X10 HMS4 R	HMS4	R	S	
72	10	**38X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**38X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	▲ **38X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**38X72X10 HMSA10 V**	**HMSA10**	V	E	◎
74	11	**38X74X11 CRW1 V**	**CRW1**	V	W	■
74	11	**38X74X11 CRWA1 R**	**CRWA1**	R	W	■
80	8	▲ **38X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**38X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**38X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	**38X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**38X80X8 HMSA10 V**	**HMSA10**	V	E	◎
90	8	**38X90X8 CRWA1 R**	**CRWA1**	R	W	■
90	12	**38X90X12 HMS5 RG**	**HMS5**	RG	E	
90	12	**38X90X12 HMS5 V**	**HMS5**	V	E	◎
90	12	**38X90X12 HMSA10 RG**	**HMSA10**	RG	E	
90	12	**38X90X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.500" (38.10 mm)						
	0.500	**99150**	**SSLEEVE**			
Shaft Ø1.497-1.503" - 'on-shaft' width 0.375" - flange Ø1.781"						
	0.500	99823	GSLEEVE			
Shaft Ø1.497-1.503" - 'on-shaft' width 0.375" - flange Ø1.781"						
	0.688	**99149**	**SSLEEVE**			
Shaft Ø1.497-1.503" - 'on-shaft' width 0.563" - flange Ø1.781"						
	0.688	99822	GSLEEVE			
Shaft Ø1.497-1.503" - 'on-shaft' width 0.563" - flange Ø1.781"						
1.874	0.188	**14804**	**HM14**	R	G	
1.874	0.188	**14808**	**HM14**	V	G	■
1.874	0.250	▲ **14807**	**CRW1**	R	W	◎
1.874	0.250	**14810**	**HM14**	R	G	■
1.938	0.250	**14816**	**HM14**	R	G	■
1.983	0.188	**14840**	**HM14**	R	G	
1.983	0.250	**14821**	**CRW1**	V	W	■
1.983	0.250	**14824**	**CRWA1**	R	W	■
1.983	0.250	**14834**	**CRWA1**	V	W	■
1.983	0.313	**14832**	**CRW1**	R	W	■
1.997	0.250	**14844**	**CRWA5**	V	W	■◎◆
2.000	0.250	**14857**	**HM14**	R	G	■
2.000	0.313	▲ **14855**	**CRW1**	R	W	■
2.000	0.313	**14861**	**CRW1**	V	W	■
2.000	0.313	**546953**	**CRW1**	V	W	◤◎
2.000	0.313	**14846**	**CRWA1**	R	W	■
2.048	0.313	▲ **14858**	**CRWA1**	R	W	■
2.062	0.210	**14863**	**HM14**	R	G	■
2.062	0.313	▲ **14864**	**CRW1**	R	W	■
2.062	0.313	**14867**	**CRW1**	V	W	■
2.064	0.375	**14868**	**CRWA5**	V	W	■◎◆
2.125	0.313	**14875**	**CRW1**	R	W	■
2.125	0.313	**14886**	**CRW1**	V	W	■
2.125	0.313	▲ **14876**	**CRWA1**	R	W	■
2.125	0.313	**14887**	**CRWA1**	V	W	■
2.222	0.313	**14903**	**CRW1**	R	W	■
2.250	0.250	**14960**	**HM21**	R	G	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.500" (38.10 mm)						
2.250	0.313	**14938**	**CRW1**	R	W	■
2.250	0.313	**14940**	**CRW1**	V	W	■
2.250	0.313	▲**14939**	**CRWA1**	R	W	■
2.250	0.313	**14942**	**CRWA1**	V	W	■
2.250	0.374	**14935**	**CRW1**	S	W	■
2.250	0.500	**15012**	**CRWH1**	R	W	■
2.254	0.250	**14966**	**HM21**	R	G	■
2.260	0.406	▲**14968**	**CRW1**	R	W	■
2.311	0.500	**14979**	**CRWA5**	V	W	■◎◆
2.328	0.390	**14975**	**HM18**	R	G	
2.328	0.500	**14977**	**CRWA5**	R	W	■◎◆
2.328	0.500	**14972**	**HM14**	R	G	■
2.328	0.500	**14974**	**HM18**	R	G	
2.374	0.250	**15032**	**HM21**	R	G	■
2.374	0.313	**15004**	**CRW1**	R	W	■
2.374	0.313	**14992**	**CRW1**	V	W	■
2.374	0.313	▲**15005**	**CRWA1**	R	W	■
2.374	0.313	**14994**	**CRWA1**	V	W	■
2.374	0.500	**15039**	**CRWH1**	R	W	■
2.377	0.453	▲**15041**	**CRWA1**	R	W	■
2.437	0.250	**15080**	**HM14**	R	G	■
2.437	0.313	▲**15076**	**CRW1**	R	W	■
2.441	0.313	**15092**	**CRW1**	R	W	
2.441	0.313	**15097**	**CRW1**	V	W	■
2.441	0.313	▲**15093**	**CRWA1**	R	W	■
2.502	0.250	**15160**	**HM21**	R	G	■
2.502	0.313	**15141**	**CRW1**	R	W	■
2.502	0.313	**15138**	**CRW1**	V	W	■
2.502	0.313	▲**15142**	**CRWA1**	R	W	■
2.561	0.313	▲**15176**	**CRW1**	R	W	■
2.623	0.250	**15190**	**HM21**	R	G	
2.623	0.313	▲**15194**	**CRW1**	R	W	■
2.686	0.500	▲**15207**	**CRW1**	R	W	■
2.716	0.250	**15209**	**HM21**	R	G	■
2.716	0.438	▲**15204**	**CRW1**	R	W	■
2.721	0.266	**543911**	**CRWA1**	R	W	
2.750	0.313	▲**15214**	**CRW1**	R	W	■
2.758	0.313	▲**15230**	**CRW1**	R	W	■
2.835	0.313	▲**15234**	**CRW1**	R	W	■
2.875	0.313	▲**15235**	**CRW1**	R	W	■
2.996	0.500	15240	CRSH1	R	S	
3.000	0.375	15241	CRSA1	R	S	
METRIC Shaft Diameter – 38.50 mm (1.516")						
58	7	**38.5X58X7 HMS5 RG**	**HMS5**	RG	E	
58	7	**38.5X58X7 HMS5 V**	**HMS5**	V	E	◎
58	7	**38.5X58X7 HMSA10 RG**	**HMSA10**	RG	E	
58	7	**38.5X58X7 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.523" (38.68 mm)						
	0.563	99152	SSLEEVE			
Shaft Ø1.52-1.526" - 'on-shaft' width 0.438" - flange Ø1.859"						
INCH Shaft Diameter – 1.524" (38.71 mm)						
2.374	0.375	15343	CRSH1	R	S	■
METRIC Shaft Diameter – 39 mm (1.535")						
54	5.99	15363	HMA1	R	G	
INCH Shaft Diameter – 1.552" (39.42 mm)						
	0.563	**99155**	**SSLEEVE**			
Shaft Ø1.549-1.555" - 'on-shaft' width 0.438" - flange Ø1.859"						
2.502	0.500	▲**15450**	**CRWA1**	R	W	■
2.686	0.500	▲**15460**	**CRW1**	R	W	■
2.750	0.500	**15462**	**CRWHA1**	P	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 1.563" (39.70 mm)						
	0.688	**99156**	**SSLEEVE**			
Shaft Ø1.559-1.565" - 'on-shaft' width 0.563" - flange Ø1.859"						
	0.688	99824	GSLEEVE			
Shaft Ø1.559-1.565" - 'on-shaft' width 0.563" - flange Ø1.859"						
2.047	0.276	**534958**	**CRWA1**	V	W	■
2.062	0.203	**15509**	**HM14**	R	G	■
2.062	0.250	▲**15508**	**CRW1**	R	W	■
2.062	0.250	**15506**	**CRW1**	V	W	■
2.125	0.313	▲**15517**	**CRW1**	R	W	
2.125	0.313	**15518**	**CRWA1**	P	W	■
2.250	0.250	**15532**	**HM14**	R	G	■
2.250	0.313	▲**15522**	**CRW1**	R	W	■
2.250	0.315	**543987**	**CRWA1**	R	W	
2.374	0.250	**15544**	**HM21**	R	G	■
2.374	0.313	**15540**	**CRW1**	P	W	■
2.374	0.313	▲**15542**	**CRW1**	R	W	■
2.374	0.313	**15543**	**CRWA1**	R	W	■
2.374	0.313	**15549**	**CRWA1**	V	W	■
2.437	0.313	▲**15592**	**CRW1**	R	W	
2.441	0.500	▲**15620**	**CRWA1**	R	W	■
2.460	0.374	**15662**	**CRWA1**	V	W	■
2.465	0.374	**15624**	**CRWA1**	P	W	■
2.502	0.250	**15649**	**HM21**	R	G	■
2.502	0.313	**15655**	**CRW1**	R	W	■
2.502	0.313	**15656**	**CRW1**	V	W	■
2.502	0.313	▲**15635**	**CRWA1**	R	W	■
2.561	0.313	▲**15677**	**CRW1**	R	W	■
2.623	0.313	▲**15699**	**CRW1**	R	W	■
2.686	0.313	▲**15707**	**CRW1**	R	W	■
2.686	0.375	**15730**	**HM14**	R	G	■
2.687	0.250	**15719**	**HM21**	R	G	■
2.750	0.500	▲**15761**	**CRWH1**	R	W	■
2.875	0.313	▲**15773**	**CRW1**	R	W	■
2.875	0.313	**15779**	**CRWA1**	P	W	■
INCH Shaft Diameter – 1.569" (39.85 mm)						
	0.750	**99159**	**SSLEEVE**			
Shaft Ø1.566-1.572" - 'on-shaft' width 0.625" - flange Ø1.859"						
METRIC Shaft Diameter – 40 mm (1.575")						
	12.9	**99153**	**SSLEEVE**			
Shaft Ø39.81-39.96mm - 'on-shaft' width 9.91mm - flange Ø46.99mm						
	16	**99157**	**SSLEEVE**			
Shaft Ø39.93-40.08mm - 'on-shaft' width 13mm - flange Ø46.99mm						
	16	99825	GSLEEVE			
Shaft Ø39.85-40.01mm - 'on-shaft' width 13.005mm - flange Ø46.99mm						
46	8	40X46X8 HMS4 R	HMS4	R	S	
46	8	40X46X8 HMSA7 R	HMSA7	R	S	
47	4	40X47X4 HM4 R	HM4	R	G	
50	4	40X50X4 HM4 R	HM4	R	G	
50	7	40X50X7 HMSA7 R	HMSA7	R	S	
50	8	**40X50X8 HMS5 RG**	**HMS5**	RG	E	
50	8	**40X50X8 HMS5 V**	**HMS5**	V	E	◎
50	8	▲**40X50X8 HMSA10 RG**	**HMSA10**	RG	E	
50	8	**40X50X8 HMSA10 V**	**HMSA10**	V	E	◎
52	5	40X52X5 HM4 R	HM4	R	G	
52	6	**40X52X6 HMS5 RG**	**HMS5**	RG	E	
52	6	**40X52X6 HMS5 V**	**HMS5**	V	E	◎
52	6	**40X52X6 HMSA10 RG**	**HMSA10**	RG	E	
52	6	**40X52X6 HMSA10 V**	**HMSA10**	V	E	◎
52	7	**40X52X7 CRW1 R**	**CRW1**	R	W	■
52	7	**40X52X7 CRW1 V**	**CRW1**	V	W	■◎
52	7	**40X52X7 HMS5 RG**	**HMS5**	RG	E	
52	7	**40X52X7 HMS5 V**	**HMS5**	V	E	◎
52	7	▲**40X52X7 HMSA10 RG**	**HMSA10**	RG	E	
52	7	**40X52X7 HMSA10 V**	**HMSA10**	V	E	◎
52	8	**40X52X8 HMS5 RG**	**HMS5**	RG	E	
52	8	**40X52X8 HMS5 V**	**HMS5**	V	E	◎
52	8	**40X52X8 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 40 mm (1.575")						
52	8	**40X52X8 HMSA10 V**	**HMSA10**	V	E	◎
52.88	6.35	**15510**	**CRW1**	R	W	■
54	7	▲ **40X54X7 CRW1 R**	**CRW1**	R	W	■
54	10	15881	HMSA7	P	S	
55	7	**40X55X7 HMS5 RG**	**HMS5**	RG	E	
55	7	**40X55X7 HMS5 V**	**HMS5**	V	E	◎
55	7	▲ **40X55X7 HMSA10 RG**	**HMSA10**	RG	E	
55	7	**40X55X7 HMSA10 V**	**HMSA10**	V	E	◎
55	8	**40X55X8 CRW1 R**	**CRW1**	R	W	■
55	8	**40X55X8 CRW1 V**	**CRW1**	V	W	■
55	8	**40X55X8 HMS5 RG**	**HMS5**	RG	E	
55	8	**40X55X8 HMS5 V**	**HMS5**	V	E	◎
55	8	**40X55X8 HMSA10 RG**	**HMSA10**	RG	E	
55	8	**40X55X8 HMSA10 V**	**HMSA10**	V	E	◎
56	7	**40X56X7 CRW1 V**	**CRW1**	V	W	■
56	8	**40X56X8 CRW1 R**	**CRW1**	R	W	■
56	8	**40X56X8 HMS5 RG**	**HMS5**	RG	E	
56	8	**40X56X8 HMS5 V**	**HMS5**	V	E	◎
56	8	▲ **40X56X8 HMSA10 RG**	**HMSA10**	RG	E	
56	8	**40X56X8 HMSA10 V**	**HMSA10**	V	E	◎
57	8	▲ **40X57X8 CRW1 R**	**CRW1**	R	W	■
58	6	15736	HMSA7	P	S	
58	7	**40X58X7 HMS5 RG**	**HMS5**	RG	E	
58	7	**40X58X7 HMS5 V**	**HMS5**	V	E	◎
58	7	▲ **40X58X7 HMSA10 RG**	**HMSA10**	RG	E	
58	7	**40X58X7 HMSA10 V**	**HMSA10**	V	E	◎
58	8	**40X58X8 CRW1 R**	**CRW1**	R	W	■
58	8	**40X58X8 CRW1 V**	**CRW1**	V	W	■
58	8	**40X58X8 HMS5 RG**	**HMS5**	RG	E	
58	8	**40X58X8 HMS5 V**	**HMS5**	V	E	◎
58	8	**40X58X8 HMSA10 RG**	**HMSA10**	RG	E	
58	8	**40X58X8 HMSA10 V**	**HMSA10**	V	E	◎
58	9	40X58X9 HMSA7 R	HMSA7	R	S	
58	10	**40X58X10 HMS5 RG**	**HMS5**	RG	E	
58	10	**40X58X10 HMS5 V**	**HMS5**	V	E	◎
58	10	**40X58X10 HMSA10 RG**	**HMSA10**	RG	E	
58	10	**40X58X10 HMSA10 V**	**HMSA10**	V	E	◎
59	8	**40X59X8 HMS5 RG**	**HMS5**	RG	E	
59	8	**40X59X8 HMS5 V**	**HMS5**	V	E	◎
59	8	**40X59X8 HMSA10 RG**	**HMSA10**	RG	E	
59	8	**40X59X8 HMSA10 V**	**HMSA10**	V	E	◎
60	8	**40X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**40X60X8 CRW1 V**	**CRW1**	V	W	■
60	8	**40X60X8 HMS5 RG**	**HMS5**	RG	E	
60	8	**40X60X8 HMS5 V**	**HMS5**	V	E	◎
60	8	▲ **40X60X8 HMSA10 RG**	**HMSA10**	RG	E	
60	8	**40X60X8 HMSA10 V**	**HMSA10**	V	E	◎
60	10	**40X60X10 HMS5 RG**	**HMS5**	RG	E	
60	10	**40X60X10 HMS5 V**	**HMS5**	V	E	◎
60	10	**40X60X10 HMSA10 RG**	**HMSA10**	RG	E	
60	10	**40X60X10 HMSA10 V**	**HMSA10**	V	E	◎
60	10	40X60X10 CRSA1 R	CRSA1	R	S	
60	12	40X60X12 HMS4 R	HMS4	R	S	
61.16	7.95	**15557**	**CRWHA1**	R	W	■
62	6	**40X62X6 HMS5 RG**	**HMS5**	RG	E	
62	6	**40X62X6 HMS5 V**	**HMS5**	V	E	◎
62	6	**40X62X6 HMSA10 RG**	**HMSA10**	RG	E	
62	6	**40X62X6 HMSA10 V**	**HMSA10**	V	E	◎
62	6	40X62X6 HMSA7P2 R	HMSA7P2	R	S	◆
62	7	**40X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**40X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲ **40X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**40X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**40X62X8 CRW1 R**	**CRW1**	R	W	■
62	8	**40X62X8 CRW1 V**	**CRW1**	V	W	■
62	8	**40X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**40X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	**40X62X8 HMSA10 RG**	**HMSA10**	RG	E	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 40 mm (1.575")						
62	8	**40X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**40X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**40X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**40X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**40X62X10 HMSA10 V**	**HMSA10**	V	E	◎
62	11.50	40X62X11.5 HMS4 R	HMS4	R	S	
62.51	11	15558	HMSA7	R	S	
65	8	**40X65X8 CRW1 R**	**CRW1**	R	W	■
65	10	**40X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**40X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **40X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**40X65X10 HMSA10 V**	**HMSA10**	V	E	◎
65	12	**40X65X12 HMS5 RG**	**HMS5**	RG	E	
65	12	**40X65X12 HMS5 V**	**HMS5**	V	E	◎
65	12	**40X65X12 HMSA10 RG**	**HMSA10**	RG	E	
65	12	**40X65X12 HMSA10 V**	**HMSA10**	V	E	◎
68	8	**40X68X8 CRW1 R**	**CRW1**	R	W	■
68	8	**40X68X8 HMS5 RG**	**HMS5**	RG	E	
68	8	**40X68X8 HMS5 V**	**HMS5**	V	E	◎
68	8	▲ **40X68X8 HMSA10 RG**	**HMSA10**	RG	E	
68	8	**40X68X8 HMSA10 V**	**HMSA10**	V	E	◎
68	10	**40X68X10 HMS5 RG**	**HMS5**	RG	E	
68	10	**40X68X10 HMS5 V**	**HMS5**	V	E	◎
68	10	**40X68X10 HMSA10 RG**	**HMSA10**	RG	E	
68	10	**40X68X10 HMSA10 V**	**HMSA10**	V	E	◎
70	8	**40X70X8 CRW1 R**	**CRW1**	R	W	■
70	8	**40X70X8 HMS5 RG**	**HMS5**	RG	E	
70	8	**40X70X8 HMS5 V**	**HMS5**	V	E	◎
70	8	▲ **40X70X8 HMSA10 RG**	**HMSA10**	RG	E	
70	8	**40X70X8 HMSA10 V**	**HMSA10**	V	E	◎
72	7	**40X72X7 HMS5 RG**	**HMS5**	RG	E	
72	7	**40X72X7 HMS5 V**	**HMS5**	V	E	◎
72	7	▲ **40X72X7 HMSA10 RG**	**HMSA10**	RG	E	
72	7	**40X72X7 HMSA10 V**	**HMSA10**	V	E	◎
72	8	**40X72X8 CRW1 R**	**CRW1**	R	W	■
72	10	**40X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**40X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**40X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**40X72X10 HMSA10 V**	**HMSA10**	V	E	◎
74	8	**40X74X8 CRW1 R**	**CRW1**	R	W	■
75	8	**40X75X8 CRW1 V**	**CRW1**	V	W	■
78	10	40X78X10 HMSA7 R	HMSA7	R	S	
80	7	**40X80X7 HMS5 RG**	**HMS5**	RG	E	
80	7	**40X80X7 HMS5 V**	**HMS5**	V	E	◎
80	7	▲ **40X80X7 HMSA10 RG**	**HMSA10**	RG	E	
80	7	**40X80X7 HMSA10 V**	**HMSA10**	V	E	◎
80	8	**40X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**40X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**40X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	**40X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**40X80X8 HMSA10 V**	**HMSA10**	V	E	◎
80	10	**40X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**40X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	**40X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**40X80X10 HMSA10 V**	**HMSA10**	V	E	◎
80	12	**40X80X12 HMS5 RG**	**HMS5**	RG	E	
80	12	**40X80X12 HMS5 V**	**HMS5**	V	E	◎
80	12	**40X80X12 HMSA10 RG**	**HMSA10**	RG	E	
80	12	**40X80X12 HMSA10 V**	**HMSA10**	V	E	◎
90	8	**40X90X8 CRW1 R**	**CRW1**	R	W	■
90	10	**40X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**40X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲ **40X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**40X90X10 HMSA10 V**	**HMSA10**	V	E	◎
90	12	**40X90X12 HMS5 RG**	**HMS5**	RG	E	
90	12	**40X90X12 HMS5 V**	**HMS5**	V	E	◎
90	12	**40X90X12 HMSA10 RG**	**HMSA10**	RG	E	
90	12	**40X90X12 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 1.594" (40.49 mm)						
2.125	0.313	**15915**	**CRW1**	P	W	■
2.437	0.313	**15940**	**CRW1**	P	W	■
2.437	0.313	▲**15955**	**CRW1**	R	W	■
2.502	0.313	▲**15960**	**CRW1**	R	W	■
2.623	0.313	**15968**	**CRW1**	R	W	■
2.758	0.313	▲**15975**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.605" (40.77 mm)						
	0.641	**99160**	**SSLEEVE**			
Shaft Ø1.602-1.608" - 'on-shaft' width 0.5" - flange Ø1.938"						
INCH Shaft Diameter – 1.594" (40.49 mm)						
1.906	0.250	16430	HM3	R	G	
METRIC Shaft Diameter – 41 mm (1.614")						
	15.9	**99163**	**SSLEEVE**			
Shaft Ø40.84-41mm - 'on-shaft' width 12.7mm - flange Ø49.23mm						
53	7	**41X53X7 CRW1 R**	**CRW1**	R	W	■
55	8	**41X55X8 CRW1 R**	**CRW1**	R	W	■
56	7	**41X56X7 HMS5 RG**	**HMS5**	RG	E	
56	7	**41X56X7 HMS5 V**	**HMS5**	V	E	◎
56	7	**41X56X7 HMSA10 RG**	**HMSA10**	RG	E	
56	7	**41X56X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**41X62X8 CRW1 R**	**CRW1**	R	W	■
INCH Shaft Diameter – 1.618" (41.10 mm)						
2.254	0.235	**533803**	**CRW1**	R	W	
2.531	0.438	▲**16449**	**CRWA1**	R	W	■
INCH Shaft Diameter – 1.619" (41.12 mm)						
2.000	0.250	▲**16046**	**CRW1**	R	W	■
2.000	0.250	**16039**	**CRW1**	V	W	■
INCH Shaft Diameter – 1.625" (41.28 mm)						
	0.438	**99161**	**SSLEEVE**			
Shaft Ø1.622-1.628" - 'on-shaft' width 0.313" - flange Ø1.875"						
	0.688	**99162**	**SSLEEVE**			
Shaft Ø1.622-1.628" - 'on-shaft' width 0.563" - flange Ø1.875"						
	0.688	99826	GSLEEVE			
Shaft Ø1.622-1.628" - 'on-shaft' width 0.563" - flange Ø1.875"						
2.116	0.313	▲**16047**	**CRWA1**	R	W	■
2.125	0.250	▲**16054**	**CRW1**	R	W	■
2.125	0.250	**16048**	**CRW1**	V	W	■◎
2.125	0.250	**16055**	**HM14**	R	G	■
2.248	0.313	▲**16062**	**CRWA1**	R	W	■
2.250	0.250	**16065**	**HM21**	R	G	■
2.250	0.313	**541478**	**CRW1**	R	W	■
2.250	0.313	**16078**	**CRW1**	V	W	◎
2.250	0.375	**16049**	**CRW1**	P	W	■
2.282	0.313	**16083**	**CRW1**	R	W	■
2.328	0.438	**16069**	**HM18**	R	G	■
2.371	0.500	**538037**	**CRWA1**	V	W	
2.374	0.250	**16094**	**CRW1**	R	W	
2.374	0.250	**16092**	**HM21**	R	G	■
2.374	0.313	**16084**	**CRW1**	R	W	■
2.374	0.313	**16077**	**CRW1**	V	W	■
2.374	0.313	**16091**	**CRWA1**	P	W	
2.374	0.313	▲**16085**	**CRWA1**	R	W	■
2.374	0.313	**16072**	**CRWH1**	R	W	■
2.374	0.500	**16079**	**CRWH1**	R	W	■
2.375	0.250	**16095**	**HM14**	R	G	
2.437	0.250	**16168**	**HM21**	R	G	■
2.437	0.313	▲**16113**	**CRW1**	R	W	■
2.437	0.313	**16119**	**CRW1**	V	W	■
2.437	0.313	**16128**	**CRWA1**	R	W	■
2.437	0.313	**16120**	**CRWA1**	V	W	■
2.437	0.315	**531031**	**CRW1**	P	W	■
2.437	0.374	16121	HMSA7	R	S	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.625" (41.28 mm)						
2.441	0.313	▲**16180**	**CRW1**	R	W	■
2.441	0.313	**16201**	**CRWA1**	R	W	■
2.441	0.640	16204	C8	R	W	■
2.502	0.250	**16270**	**HM21**	R	G	■
2.502	0.313	**16245**	**CRW1**	R	W	■
2.502	0.313	**16247**	**CRWA1**	P	W	
2.502	0.313	▲**16246**	**CRWA1**	R	W	■
2.502	0.313	**16243**	**CRWA1**	V	W	■
2.502	0.374	**16257**	**CRWHA1**	V	W	■
2.502	0.375	**16254**	**CRWHA1**	R	W	■
2.562	0.250	**16285**	**HM21**	R	G	■
2.562	0.313	**16290**	**CRWA1**	V	W	■
2.562	0.438	**16289**	**HM18**	R	G	■
2.623	0.250	**16322**	**HM21**	R	G	■
2.623	0.313	**16314**	**CRW1**	R	W	■
2.623	0.313	**16316**	**CRW1**	V	W	■
2.623	0.313	▲**16315**	**CRWA1**	R	W	■
2.686	0.313	▲**16337**	**CRW1**	R	W	■
2.686	0.313	**16338**	**CRW1**	V	W	■
2.750	0.250	▲**16364**	**CRW1**	R	W	■
2.750	0.250	**16362**	**HM21**	R	G	■
2.750	0.313	**16368**	**CRWH1**	R	W	■
2.781	0.313	**16384**	**HM14**	R	G	■
2.875	0.313	▲**16406**	**CRW1**	R	W	■
3.000	0.313	▲**16422**	**CRWH1**	R	W	■
3.062	0.500	16431	CRSH1	R	S	■
3.251	0.500	16440	CRSH1	R	S	
INCH Shaft Diameter – 1.645" (41.78 mm)						
2.656	0.400	16500	CRSA1	P	S	■
METRIC Shaft Diameter – 42 mm (1.654")						
	14.5	**99166**	**SSLEEVE**			
Shaft Ø41.83-41.99mm - 'on-shaft' width 11.3mm - flange Ø53.01mm						
	17.5	**99169**	**SSLEEVE**			
Shaft Ø41.83-41.99mm - 'on-shaft' width 14.3mm - flange Ø53.01mm						
50	4	42X50X4 HMS4 R	HMS4	R	S	
50	4	42X50X4 HMSA7 R	HMSA7	R	S	
52	4	42X52X4 HM4 R	HM4	R	G	
53	7	**42X53X7 HMS5 RG**	**HMS5**	RG	E	
53	7	**42X53X7 HMS5 V**	**HMS5**	V	E	◎
53	7	**42X53X7 HMSA10 RG**	**HMSA10**	RG	E	
53	7	**42X53X7 HMSA10 V**	**HMSA10**	V	E	◎
55	6	42X55X6 HM1 R	HM1	R	G	
55	7	**42X55X7 HMS5 RG**	**HMS5**	RG	E	
55	7	**42X55X7 HMS5 V**	**HMS5**	V	E	◎
55	7	▲**42X55X7 HMSA10 RG**	**HMSA10**	RG	E	
55	7	**42X55X7 HMSA10 V**	**HMSA10**	V	E	◎
55	8	**42X55X8 CRW1 R**	**CRW1**	R	W	■
55	8	**42X55X8 CRW1 V**	**CRW1**	V	W	■
55	8	**42X55X8 HMS5 RG**	**HMS5**	RG	E	
55	8	**42X55X8 HMS5 V**	**HMS5**	V	E	◎
55	8	**42X55X8 HMSA10 RG**	**HMSA10**	RG	E	
55	8	**42X55X8 HMSA10 V**	**HMSA10**	V	E	◎
55	9	42X55X9 HMSA7 R	HMSA7	R	S	
56	7	**42X56X7 CRW1 V**	**CRW1**	V	W	■
56	7	**42X56X7 HMS5 RG**	**HMS5**	RG	E	
56	7	**42X56X7 HMS5 V**	**HMS5**	V	E	◎
56	7	▲**42X56X7 HMSA10 RG**	**HMSA10**	RG	E	
56	7	**42X56X7 HMSA10 V**	**HMSA10**	V	E	◎
56	8	**42X56X8 CRW1 R**	**CRW1**	R	W	■
56.20	6	16506	HMA1	R	G	
58	7	42X58X7 HMA1 R	HMA1	R	G	
58	7	42X58X7 HMS4 R	HMS4	R	S	
58	8	**42X58X8 CRW1 R**	**CRW1**	R	W	■
58	8	**42X58X8 CRW1 V**	**CRW1**	V	W	■
58	10	42X58X10 HMS4 R	HMS4	R	S	
60	7	**42X60X7 HMS5 RG**	**HMS5**	RG	E	
60	7	**42X60X7 HMS5 V**	**HMS5**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 42 mm (1.654")						
60	7	▲ **42X60X7 HMSA10 RG**	**HMSA10**	RG	E	
60	7	**42X60X7 HMSA10 V**	**HMSA10**	V	E	◎
60	8	**42X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**42X60X8 CRW1 V**	**CRW1**	V	W	■
60	10	42X60X10 HMS4 R	HMS4	R	S	
62	7	**42X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**42X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	**42X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**42X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	8	**42X62X8 CRW1 R**	**CRW1**	R	W	■
62	8	**42X62X8 CRW1 V**	**CRW1**	V	W	■
62	8	**42X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**42X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	▲ **42X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**42X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	10	**42X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**42X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	**42X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**42X62X10 HMSA10 V**	**HMSA10**	V	E	◎
64	6	42X64X6 HMA1 R	HMA1	R	G	
65	8	**42X65X8 CRW1 R**	**CRW1**	R	W	■
65	8	**42X65X8 CRW1 V**	**CRW1**	V	W	■
65	10	**42X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**42X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **42X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**42X65X10 HMSA10 V**	**HMSA10**	V	E	◎
65	12	**42X65X12 HMS5 RG**	**HMS5**	RG	E	
65	12	**42X65X12 HMS5 V**	**HMS5**	V	E	◎
65	12	**42X65X12 HMSA10 RG**	**HMSA10**	RG	E	
65	12	**42X65X12 HMSA10 V**	**HMSA10**	V	E	◎
66	10	**42X66X10 HMS5 RG**	**HMS5**	RG	E	
66	10	**42X66X10 HMS5 V**	**HMS5**	V	E	◎
66	10	**42X66X10 HMSA10 RG**	**HMSA10**	RG	E	
66	10	**42X66X10 HMSA10 V**	**HMSA10**	V	E	◎
66	10	42X66X10 HMSA7 P	HMSA7	P	S	
66.62	9.53	**16545**	**CRWA1**	P	W	■
67	10	**42X67X10 HMS5 RG**	**HMS5**	RG	E	
67	10	**42X67X10 HMS5 V**	**HMS5**	V	E	◎
67	10	▲ **42X67X10 HMSA10 RG**	**HMSA10**	RG	E	
67	10	**42X67X10 HMSA10 V**	**HMSA10**	V	E	◎
67	10	42X67X10 HMSA7 P	HMSA7	P	S	
68	10	42X68X10 HMS4 R	HMS4	R	S	
70	10	42X70X10 HMSA7 R	HMSA7	R	S	
72	8	**42X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**42X72X8 CRW1 V**	**CRW1**	V	W	■
72	8	**42X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**42X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **42X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**42X72X8 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**42X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**42X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**42X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**42X72X10 HMSA10 V**	**HMSA10**	V	E	◎
80	10	42X80X10 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 1.656" (42.06 mm)						
	0.689	**99165**	**SSLEEVE**			
Shaft Ø1.653-1.659" - 'on-shaft' width 0.55" - flange Ø2.087"						
INCH Shaft Diameter – 1.685" (42.80 mm)						
2.165	0.433	16620	HMSA7	R	S	
INCH Shaft Diameter – 1.688" (42.88 mm)						
	0.438	**99167**	**SSLEEVE**			
Shaft Ø1.685-1.691" - 'on-shaft' width 0.313" - flange Ø1.906"						
	0.688	**99168**	**SSLEEVE**			
Shaft Ø1.684-1.69" - 'on-shaft' width 0.563" - flange Ø1.906"						
2.279	0.500	▲ **16650**	**CRWH1**	R	W	■
2.328	0.313	▲ **16657**	**CRWA1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.688" (42.88 mm)						
2.328	0.500	**16667**	**HM18**	R	G	
2.374	0.313	16669	CRSA1	R	S	
2.437	0.250	**16692**	**CRW1**	S	W	■
2.437	0.313	▲ **16679**	**CRW1**	R	W	■
2.437	0.313	**16680**	**CRWA1**	R	W	■
2.437	0.469	**16696**	**CRW1**	S	W	■
2.502	0.281	**16743**	**HM21**	R	G	■
2.502	0.313	▲ **16719**	**CRW1**	R	W	■
2.551	0.470	16735	HMSA7	R	S	
2.562	0.250	**16754**	**HM21**	R	G	■
2.605	0.250	**16757**	**HM14**	R	G	■
2.623	0.313	▲ **16814**	**CRWA1**	R	W	■
2.623	0.375	**16811**	**HM21**	R	G	■
2.623	0.500	**16816**	**CRW1**	R	W	■
2.623	0.500	**16817**	**CRWA1**	V	W	■
2.686	0.313	▲ **16842**	**CRW1**	R	W	■
2.716	0.313	**16854**	**CRW1**	R	W	■
2.750	0.313	▲ **16900**	**CRW1**	R	W	
2.750	0.375	**16903**	**CRWA1**	R	W	■
2.835	0.469	16960	CRSA1	R	S	
2.875	0.315	▲ **16999**	**CRW1**	R	W	■
3.061	0.375	**17035**	**CRW1**	R	W	■
3.125	0.375	**17038**	**CRWA1**	R	W	■
METRIC Shaft Diameter – 43 mm (1.693")						
	15.9	**99182**	**SSLEEVE**			
Shaft Ø42.85-43mm - 'on-shaft' width 12.7mm - flange Ø48.41mm						
54	7.50	43X54X7.5 CRSA1 R	CRSA1	R	S	
57	8	▲ **43X57X8 CRW1 R**	**CRW1**	R	W	■
60	8	**43X60X8 CRW1 R**	**CRW1**	R	W	■
60	10	43X60X10 HMS4 R	HMS4	R	S	
60	10	43X60X10 HMSA7 R	HMSA7	R	S	
62	8	**43X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**43X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	▲ **43X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**43X62X8 HMSA10 V**	**HMSA10**	V	E	◎
62	8	43X62X8 HMSA7 P	HMSA7	P	S	
INCH Shaft Diameter – 1.704" (43.28 mm)						
3.034	0.500	▲ 17100	CRWA1	R	W	■
INCH Shaft Diameter – 1.718" (43.64 mm)						
	0.688	**99171**	**SSLEEVE**			
Shaft Ø1.715-1.721" - 'on-shaft' width 0.563" - flange Ø2.031"						
INCH Shaft Diameter – 1.719" (43.66 mm)						
2.561	0.315	▲ **17144**	**CRWA1**	R	W	■
2.562	0.500	**17146**	**HM18**	R	G	■
2.623	0.500	17136	CRSH1	R	S	■
METRIC Shaft Diameter – 44 mm (1.732")						
60	8	▲ **44X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**44X60X8 CRW1 V**	**CRW1**	V	W	
60	10	**44X60X10 HMS5 RG**	**HMS5**	RG	E	
60	10	**44X60X10 HMS5 V**	**HMS5**	V	E	◎
60	10	▲ **44X60X10 HMSA10 RG**	**HMSA10**	RG	E	
60	10	**44X60X10 HMSA10 V**	**HMSA10**	V	E	◎
62	8	▲ **44X62X8 CRW1 R**	**CRW1**	R	W	■
62	10	**44X62X10 HMS5 RG**	**HMS5**	RG	E	
62	10	**44X62X10 HMS5 V**	**HMS5**	V	E	◎
62	10	▲ **44X62X10 HMSA10 RG**	**HMSA10**	RG	E	
62	10	**44X62X10 HMSA10 V**	**HMSA10**	V	E	◎
62.20	6.35	**17131**	**HM21**	R	G	■
65	8	**44X65X8 CRW1 R**	**CRW1**	R	W	■
65	10	**44X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**44X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **44X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**44X65X10 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 44 mm (1.732")						
68	8	**44X68X8 CRW1 V**	**CRW1**	V	W	■
69.24	13	**17145**	**HM18**	R	G	■
70	8	**44X70X8 CRW1 R**	**CRW1**	R	W	■
72	8	▲**44X72X8 CRW1 R**	**CRW1**	R	W	■
72	10	44X72X10 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 1.739" (44.17 mm)						
	0.500	**99170**	**SSLEEVE**			
Shaft Ø1.736-1.742" - 'on-shaft' width 0.375" - flange Ø2.063"						
INCH Shaft Diameter – 1.750" (44.45 mm)						
	0.500	**99172**	**SSLEEVE**			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.375" - flange Ø2.055"						
	0.625	**99180**	**SSLEEVE**			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.531" - flange Ø2.063"						
	0.688	**99174**	**SSLEEVE**			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.563" - flange Ø2.063"						
	0.688	99827	GSLEEVE			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.563" - flange Ø2.063"						
	0.875	**99175**	**SSLEEVE**			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.75" - flange Ø2.063"						
	0.875	99828	GSLEEVE			
Shaft Ø1.747-1.753" - 'on-shaft' width 0.75" - flange Ø2.063"						
2.250	0.188	**17240**	**HM14**	R	G	■
2.250	0.313	▲**17231**	**CRW1**	R	W	■
2.250	0.313	**17234**	**CRW1**	V	W	■
2.328	0.438	17257	CRS1	R	S	
2.374	0.250	**17277**	**HM21**	R	G	
2.374	0.313	**17270**	**CRW1**	R	W	■
2.374	0.313	▲**17271**	**CRWA1**	R	W	■
2.374	0.313	**17261**	**CRWA1**	V	W	■
2.374	0.315	**547658**	**CRWA1**	V	W	■
2.411	0.375	**17280**	**CRW1**	P	W	■
2.437	0.250	**17310**	**HM21**	R	G	
2.437	0.313	▲**17284**	**CRW1**	R	W	■
2.437	0.313	**17283**	**CRW1**	R	W	■◤◎
2.437	0.313	**17292**	**CRW1**	V	W	■
2.437	0.315	**547587**	**CRWA1**	H	W	■
2.437	0.315	**17285**	**CRWA1**	R	W	■
2.437	0.315	**17293**	**CRWA1**	V	W	■
2.441	0.250	**17340**	**HM21**	R	G	■
2.441	0.250	**17341**	**HM21**	R	G	■◤
2.441	0.313	▲**17315**	**CRW1**	R	W	■
2.441	0.313	**550154**	**CRWA1**	R	W	■
2.441	0.375	**17320**	**CRWA1**	V	W	■
2.441	0.469	**17359**	**HM18**	R	G	■
2.502	0.250	**17392**	**HM21**	R	G	■
2.502	0.313	**17386**	**CRW1**	R	W	■
2.502	0.313	**17379**	**CRW1**	V	W	■◎
2.502	0.313	▲**17387**	**CRWA1**	R	W	■
2.502	0.313	**17381**	**CRWA1**	V	W	■
2.502	0.375	**17395**	**CRWHA1**	V	W	■
2.502	0.500	**17374**	**CRWA5**	R	W	■◎◆
2.561	0.250	**17415**	**HM21**	R	G	■
2.561	0.313	▲**17404**	**CRW1**	R	W	■
2.562	0.500	**17406**	**HM18**	R	G	■
2.565	0.313	▲**17413**	**CRWA1**	R	W	■
2.623	0.250	**17461**	**HM21**	R	G	
2.623	0.313	**17442**	**CRW1**	R	W	■
2.623	0.313	**17444**	**CRW1**	S	W	■
2.623	0.313	▲**17443**	**CRWA1**	R	W	■
2.623	0.313	**17448**	**CRWA1**	V	W	■
2.623	0.375	**17456**	**CRWH1**	R	W	■
2.686	0.313	▲**17484**	**CRW1**	R	W	■
2.716	0.250	**17488**	**HM21**	R	G	■
2.717	0.438	▲**17607**	**CRWA1**	R	W	■
2.718	0.359	**17617**	**HM18**	R	G	■
2.750	0.250	**17544**	**HM21**	R	G	■
2.750	0.313	▲**17557**	**CRW1**	R	W	■
INCH Shaft Diameter (cont.) – 1.750" (44.45 mm)						
2.750	0.313	**17558**	**CRW1**	V	W	■
2.750	0.313	**17523**	**CRWA1**	R	W	■
2.750	0.315	**538664**	**CRWA1**	V	W	
2.750	0.484	**17599**	**HM21**	R	G	■
2.758	0.313	▲**17605**	**CRW1**	R	W	■
2.810	0.313	▲**17624**	**CRWA1**	R	W	
2.810	0.313	**17627**	**CRWA1**	V	W	■
2.830	0.375	**17633**	**HM21**	R	G	■
2.875	0.250	**17671**	**HM21**	R	G	■
2.875	0.313	▲**17653**	**CRW1**	R	W	■
2.875	0.313	**17657**	**CRW1**	V	W	■
2.875	0.375	**17645**	**CRWHA1**	R	W	■
2.981	0.438	**17675**	**CRWHA1**	R	W	
2.997	0.313	**17695**	**CRW1**	R	W	■
2.997	0.313	▲**17678**	**CRWHA1**	R	W	■
3.000	0.250	**17702**	**HM21**	R	G	■
3.000	0.313	**17707**	**CRW1**	R	W	■
3.000	0.313	**17709**	**CRW1**	V	W	■
3.000	0.313	▲**17699**	**CRWA1**	R	W	■
3.061	0.313	▲**17716**	**CRW1**	R	W	■
3.061	0.375	**17718**	**CRWA1**	R	W	■
3.154	0.313	17726	CRS1	R	S	
3.189	0.313	▲**17746**	**CRW1**	R	W	■
3.371	0.625	17751	C8	R	S	■
3.543	0.438	▲**17756**	**CRW1**	R	W	■
3.625	0.438	▲**17761**	**CRW1**	R	W	■
3.937	0.313	17771	CRSA1	R	S	
INCH Shaft Diameter – 1.764" (44.81 mm)						
	0.688	**99176**	**SSLEEVE**			
Shaft Ø1.761-1.767" - 'on-shaft' width 0.563" - flange Ø2.063"						
	0.688	99829	GSLEEVE			
Shaft Ø1.761-1.767" - 'on-shaft' width 0.563" - flange Ø2.063"						
METRIC Shaft Diameter – 45 mm (1.772")						
	17	**99177**	**SSLEEVE**			
Shaft Ø44.93-45.09mm - 'on-shaft' width 14mm - flange Ø53.01mm						
	17	99830	GSLEEVE			
Shaft Ø44.93-45.09mm - 'on-shaft' width 14mm - flange Ø53.01mm						
52	4	45X52X4 HM4 R	HM4	R	G	
55	4	45X55X4 HM4 R	HM4	R	G	
55	4	45X55X4 HMS4 R	HMS4	R	S	
55	4	45X55X4 HMSA7 R	HMSA7	R	S	
55	7	**45X55X7 HMS5 RG**	**HMS5**	RG	E	
55	7	**45X55X7 HMS5 V**	**HMS5**	V	E	◎
55	7	▲**45X55X7 HMSA10 RG**	**HMSA10**	RG	E	
55	7	**45X55X7 HMSA10 V**	**HMSA10**	V	E	◎
58	7	**45X58X7 HMS5 RG**	**HMS5**	RG	E	
58	7	**45X58X7 HMS5 V**	**HMS5**	V	E	◎
58	7	▲**45X58X7 HMSA10 RG**	**HMSA10**	RG	E	
58	7	**45X58X7 HMSA10 V**	**HMSA10**	V	E	◎
60	7	**45X60X7 HMS5 RG**	**HMS5**	RG	E	
60	7	**45X60X7 HMS5 V**	**HMS5**	V	E	◎
60	7	**45X60X7 HMSA10 RG**	**HMSA10**	RG	E	
60	7	**45X60X7 HMSA10 V**	**HMSA10**	V	E	◎
60	7.95	**17780**	**CRWHA1**	V	W	■
60	8	**45X60X8 CRW1 R**	**CRW1**	R	W	■
60	8	**45X60X8 CRW1 V**	**CRW1**	V	W	■
60	8	**45X60X8 HMS5 RG**	**HMS5**	RG	E	
60	8	**45X60X8 HMS5 V**	**HMS5**	V	E	◎
60	8	▲**45X60X8 HMSA10 RG**	**HMSA10**	RG	E	
60	8	**45X60X8 HMSA10 V**	**HMSA10**	V	E	◎
60	10	**45X60X10 HMS5 RG**	**HMS5**	RG	E	
60	10	**45X60X10 HMS5 V**	**HMS5**	V	E	◎
60	10	**45X60X10 HMSA10 RG**	**HMSA10**	RG	E	
60	10	**45X60X10 HMSA10 V**	**HMSA10**	V	E	◎
62	7	**45X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**45X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	**45X62X7 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 45 mm (1.772")						
62	7	**45X62X7 HMSA10 V**	HMSA10	V	E	◎
62	8	**45X62X8 CRW1 R**	CRW1	R	W	■
62	8	**45X62X8 CRWA1 V**	CRWA1	V	W	■
62	8	**45X62X8 HMS5 RG**	HMS5	RG	E	
62	8	**45X62X8 HMS5 V**	HMS5	V	E	◎
62	8	▲**45X62X8 HMSA10 RG**	HMSA10	RG	E	
62	8	**45X62X8 HMSA10 V**	HMSA10	V	E	◎
62	10	**45X62X10 HMS5 RG**	HMS5	RG	E	
62	10	**45X62X10 HMS5 V**	HMS5	V	E	◎
62	10	▲**45X62X10 HMSA10 RG**	HMSA10	RG	E	
62	10	**45X62X10 HMSA10 V**	HMSA10	V	E	◎
63	7.47	17788	HMSA7	R	S	
65	5	45X65X5 HM1 R	HM1	R	G	
65	7	45X65X7 HMSA7P2 R	HMSA7P2	R	S	◆
65	8	**45X65X8 CRW1 R**	CRW1	R	W	■
65	8	**45X65X8 CRW1 V**	CRW1	V	W	■
65	8	**45X65X8 HMS5 RG**	HMS5	RG	E	
65	8	**45X65X8 HMS5 V**	HMS5	V	E	◎
65	8	▲**45X65X8 HMSA10 RG**	HMSA10	RG	E	
65	8	**45X65X8 HMSA10 V**	HMSA10	V	E	◎
65	10	**45X65X10 HMS5 RG**	HMS5	RG	E	
65	10	**45X65X10 HMS5 V**	HMS5	V	E	◎
65	10	**45X65X10 HMSA10 RG**	HMSA10	RG	E	
65	10	**45X65X10 HMSA10 V**	HMSA10	V	E	◎
68	7	**45X68X7 HMS5 RG**	HMS5	RG	E	
68	7	**45X68X7 HMS5 V**	HMS5	V	E	◎
68	7	▲**45X68X7 HMSA10 RG**	HMSA10	RG	E	
68	7	**45X68X7 HMSA10 V**	HMSA10	V	E	◎
68	8	**45X68X8 CRW1 R**	CRW1	R	W	■
68	8	**45X68X8 CRW1 V**	CRW1	V	W	■
68	8	**45X68X8 CRWA1 R**	CRWA1	R	W	■
68	9	45X68X9 HMSA7 R	HMSA7	R	S	
68	10	**45X68X10 HMS5 RG**	HMS5	RG	E	
68	10	**45X68X10 HMS5 V**	HMS5	V	E	◎
68	10	**45X68X10 HMSA10 RG**	HMSA10	RG	E	
68	10	**45X68X10 HMSA10 V**	HMSA10	V	E	◎
68	12	**45X68X12 HMS5 RG**	HMS5	RG	E	
68	12	**45X68X12 HMS5 V**	HMS5	V	E	◎
68	12	**45X68X12 HMSA10 RG**	HMSA10	RG	E	
68	12	**45X68X12 HMSA10 V**	HMSA10	V	E	◎
70	10	**45X70X10 HMS5 RG**	HMS5	RG	E	
70	10	**45X70X10 HMS5 V**	HMS5	V	E	◎
70	10	▲**45X70X10 HMSA10 RG**	HMSA10	RG	E	
70	10	**45X70X10 HMSA10 V**	HMSA10	V	E	◎
70	12	45X70X12 HMSA7 R	HMSA7	R	S	
72	8	**45X72X8 CRW1 R**	CRW1	R	W	■
72	8	**45X72X8 CRW1 V**	CRW1	V	W	■
72	8	**45X72X8 HMS5 RG**	HMS5	RG	E	
72	8	**45X72X8 HMS5 V**	HMS5	V	E	◎
72	8	▲**45X72X8 HMSA10 RG**	HMSA10	RG	E	
72	8	**45X72X8 HMSA10 V**	HMSA10	V	E	◎
72	10	**45X72X10 HMS5 RG**	HMS5	RG	E	
72	10	**45X72X10 HMS5 V**	HMS5	V	E	◎
72	10	**45X72X10 HMSA10 RG**	HMSA10	RG	E	
72	10	**45X72X10 HMSA10 V**	HMSA10	V	E	◎
75	7	**45X75X7 HMS5 RG**	HMS5	RG	E	
75	7	**45X75X7 HMS5 V**	HMS5	V	E	◎
75	7	▲**45X75X7 HMSA10 RG**	HMSA10	RG	E	
75	7	**45X75X7 HMSA10 V**	HMSA10	V	E	◎
75	8	**45X75X8 CRW1 R**	CRW1	R	W	■
75	8	**45X75X8 CRW1 V**	CRW1	V	W	■
75	8	**45X75X8 HMS5 RG**	HMS5	RG	E	
75	8	**45X75X8 HMS5 V**	HMS5	V	E	◎
75	8	**45X75X8 HMSA10 RG**	HMSA10	RG	E	
75	8	**45X75X8 HMSA10 V**	HMSA10	V	E	◎
75	10	**45X75X10 HMS5 RG**	HMS5	RG	E	
75	10	**45X75X10 HMS5 V**	HMS5	V	E	◎
75	10	**45X75X10 HMSA10 RG**	HMSA10	RG	E	
75	10	**45X75X10 HMSA10 V**	HMSA10	V	E	◎
78	10	45X78X10 HMS4 R	HMS4	R	S	
METRIC Shaft Diameter (cont.) – 45 mm (1.772")						
80	8	▲**45X80X8 CRW1 R**	CRW1	R	W	■
80	10	**45X80X10 HMS5 RG**	HMS5	RG	E	
80	10	**45X80X10 HMS5 V**	HMS5	V	E	◎
80	10	▲**45X80X10 HMSA10 RG**	HMSA10	RG	E	
80	10	**45X80X10 HMSA10 V**	HMSA10	V	E	◎
80	12	**45X80X12 HMS5 RG**	HMS5	RG	E	
80	12	**45X80X12 HMS5 V**	HMS5	V	E	◎
80	12	**45X80X12 HMSA10 RG**	HMSA10	RG	E	
80	12	**45X80X12 HMSA10 V**	HMSA10	V	E	◎
85	8	**45X85X8 CRW1 R**	CRW1	R	W	■
85	10	**45X85X10 HMS5 RG**	HMS5	RG	E	
85	10	**45X85X10 HMS5 V**	HMS5	V	E	◎
85	10	▲**45X85X10 HMSA10 RG**	HMSA10	RG	E	
85	10	**45X85X10 HMSA10 V**	HMSA10	V	E	◎
100	10	**45X100X10 HMS5 RG**	HMS5	RG	E	
100	10	**45X100X10 HMS5 V**	HMS5	V	E	◎
100	10	▲**45X100X10 HMSA10 RG**	HMSA10	RG	E	
100	10	**45X100X10 HMSA10 V**	HMSA10	V	E	◎
INCH Shaft Diameter – 1.781" (45.24 mm)						
	0.800	**99179**	SSLEEVE			
Shaft Ø1.778-1.784" - 'on-shaft' width 0.664" - flange Ø2.125"						
2.126	0.250	**17802**	HM14	R	G	◤
2.252	0.313	▲**17806**	CRWA1	R	W	■
2.502	0.313	▲**17810**	CRWH1	R	W	■
2.502	0.313	**17811**	CRWH1	V	W	■
2.623	0.313	▲**17821**	CRW1	R	W	■
2.686	0.313	**17832**	CRW1	R	W	
2.750	0.500	17847	CRSH1	R	S	
INCH Shaft Diameter – 1.797" (45.64 mm)						
2.726	0.516	**17836**	HM14	R	G	■
METRIC Shaft Diameter – 46 mm (1.811")						
59	12	**46X59X12 HMS5 RG**	HMS5	RG	E	
59	12	**46X59X12 HMS5 V**	HMS5	V	E	◎
59	12	**46X59X12 HMSA10 RG**	HMSA10	RG	E	
59	12	**46X59X12 HMSA10 V**	HMSA10	V	E	◎
60	8	**46X60X8 CRW1 R**	CRW1	R	W	■
65	8	**46X65X8 CRW1 R**	CRW1	R	W	■
65	10	**46X65X10 HMS5 RG**	HMS5	RG	E	
65	10	**46X65X10 HMS5 V**	HMS5	V	E	◎
65	10	▲**46X65X10 HMSA10 RG**	HMSA10	RG	E	
65	10	**46X65X10 HMSA10 V**	HMSA10	V	E	◎
68	8	**46X68X8 CRW1 R**	CRW1	R	W	■
72	8	▲**46X72X8 CRW1 R**	CRW1	R	W	■
INCH Shaft Diameter – 1.813" (46.04 mm)						
	0.688	**99181**	SSLEEVE			
Shaft Ø1.809-1.815" - 'on-shaft' width 0.563" - flange Ø2.09"						
	0.688	99831	GSLEEVE			
Shaft Ø1.809-1.815" - 'on-shaft' width 0.563" - flange Ø2.09"						
2.279	0.313	▲**18025**	CRW1	R	W	■
2.437	0.313	▲**18039**	CRW1	R	W	■
2.562	0.313	**18049**	CRWA1	V	W	■
2.562	0.438	**18050**	HM18	R	G	■
2.623	0.313	▲**18104**	CRW1	R	W	■
2.686	0.313	**18114**	CRWA1	P	W	■
2.750	0.313	▲**18159**	CRW1	R	W	■
2.875	0.313	▲**18242**	CRW1	R	W	■
2.965	0.250	18258	HM1	R	G	
3.000	0.375	**18264**	CRWA1	P	W	■
INCH Shaft Diameter – 1.825" (46.36 mm)						
2.570	0.250	**18415**	HM21	R	G	■
2.623	0.250	**18055**	HM21	R	G	■
2.750	0.484	**18149**	HM18	R	G	■

Seal tech: W = SKF Wave E = SKF Edge F = SKF Flex S = standard oil G = grease **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 1.844" (46.84 mm)						
2.402	0.234	18408	HMA1	R	G	
2.502	0.375	18412	CRSA1	R	S	■
2.623	0.313	**18425**	**CRW1**	R	W	■
2.750	0.313	**18444**	**CRW1**	P	W	■
METRIC Shaft Diameter – 47 mm (1.850")						
60	7	**47X60X7 CRW1 R**	**CRW1**	R	W	■
62	8	**47X62X8 CRW1 R**	**CRW1**	R	W	■
65	10	**47X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**47X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **47X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**47X65X10 HMSA10 V**	**HMSA10**	V	E	◎
70	10	**47X70X10 HMS5 RG**	**HMS5**	RG	E	
70	10	**47X70X10 HMS5 V**	**HMS5**	V	E	◎
70	10	▲ **47X70X10 HMSA10 RG**	**HMSA10**	RG	E	
70	10	**47X70X10 HMSA10 V**	**HMSA10**	V	E	◎
72	8	**47X72X8 CRW1 R**	**CRW1**	R	W	■
90	10	**47X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**47X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	**47X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**47X90X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.860" (47.24 mm)						
	0.688	**99185**	**SSLEEVE**			
Shaft Ø1.857-1.863" - 'on-shaft' width 0.563" - flange Ø2.156"						
INCH Shaft Diameter – 1.869" (47.47 mm)						
	1.025	**99186**	**SSLEEVE**			
Shaft Ø1.866-1.872" - 'on-shaft' width 0.889" - flange Ø2.188"						
2.518	0.315	**18492**	**CRWA1**	P	W	■
INCH Shaft Diameter – 1.875" (47.63 mm)						
	0.295	**99190**	**SSLEEVE**			
Shaft Ø1.872-1.878" - 'on-shaft' width 0.175" - flange Ø2.203"						
	0.415	**99188**	**SSLEEVE**			
Shaft Ø1.872-1.878" - 'on-shaft' width 0.295" - flange Ø2.203"						
	0.516	**99184**	**SSLEEVE**			
Shaft Ø1.872-1.878" - 'on-shaft' width 0.375" - flange Ø2.203"						
	0.688	**99187**	**SSLEEVE**			
Shaft Ø1.872-1.878" - 'on-shaft' width 0.563" - flange Ø2.203"						
	0.688	99832	GSLEEVE			
Shaft Ø1.872-1.878" - 'on-shaft' width 0.563" - flange Ø2.203"						
2.398	0.256	▲ **18549**	**CRW1**	R	W	■
2.401	0.275	**18543**	**HM14**	R	G	■
2.441	0.315	**534957**	**CRWA1**	V	W	
2.471	0.313	▲ **18545**	**CRWA1**	R	W	■
2.500	0.313	**18555**	**CRW1**	P	W	■
2.502	0.250	**18558**	**HM21**	R	G	■
2.502	0.313	▲ **18565**	**CRW1**	R	W	■
2.562	0.313	**18562**	**CRW1**	P	W	■
2.562	0.313	**18546**	**CRWA1**	V	W	■
2.623	0.250	**18591**	**HM21**	R	G	■
2.623	0.313	**18580**	**CRW1**	R	W	■
2.623	0.313	**18582**	**CRW1**	V	W	■
2.623	0.313	▲ **18581**	**CRWA1**	R	W	■
2.623	0.313	**18584**	**CRWA1**	V	W	■
2.623	0.374	**18592**	**CRW1**	S	W	■
2.628	0.328	**18603**	**HM14**	R	G	■
2.686	0.313	▲ **18626**	**CRW1**	R	W	■
2.721	0.266	**18640**	**HM14**	R	G	
2.750	0.250	**18659**	**HM21**	R	G	■
2.750	0.313	**18666**	**CRW1**	P	W	■
2.750	0.313	▲ **18657**	**CRW1**	R	W	■
2.750	0.313	**18652**	**CRW1**	V	W	■
2.750	0.313	▲ **18658**	**CRWA1**	R	W	■
2.758	0.313	**18671**	**CRW1**	P	W	■
2.780	0.250	**18704**	**HM21**	R	G	■
2.782	0.438	**18693**	**CRWH1**	R	W	■
2.782	0.438	▲ **18695**	**CRWHA1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 1.875" (47.63 mm)						
2.830	0.391	**550185**	**HMS4**	R	S	
2.875	0.250	**18750**	**HM21**	R	G	■
2.875	0.313	▲ **18733**	**CRW1**	R	W	■
2.875	0.313	**18732**	**CRW1**	V	W	■
2.875	0.313	**18734**	**CRWA1**	R	W	■
2.875	0.313	**18737**	**CRWA1**	V	W	■
2.875	0.315	542726	CRWH1	R	W	
2.965	0.234	**18772**	**HM14**	R	G	■
2.997	0.250	▲ **18808**	**HM14**	R	G	■
2.997	0.313	**18785**	**CRW1**	R	W	■
3.000	0.250	**18823**	**HM21**	R	G	■
3.000	0.313	▲ **18817**	**CRW1**	R	W	■
3.000	0.313	**18818**	**CRW1**	V	W	■
3.061	0.313	▲ **18872**	**CRWA1**	R	W	■
3.105	0.500	▲ **18880**	**CRWA1**	R	W	■
3.125	0.313	18879	CRSA1	R	S	■
3.150	0.250	**18889**	**HM21**	R	G	■
3.189	0.469	▲ **18899**	**CRWH1**	R	W	■
3.249	0.484	▲ **18922**	**CRWA1**	R	W	■
3.371	0.438	▲ **18916**	**CRWH1**	R	W	■
3.496	0.438	▲ **18924**	**CRWA1**	R	W	■
3.500	0.438	▲ **18926**	**CRW1**	R	W	■
METRIC Shaft Diameter – 48 mm (1.890")						
	17	**99189**	**SSLEEVE**			
Shaft Ø47.93-48.08mm - 'on-shaft' width 14mm - flange Ø56.01mm						
58	4	48X58X4 HM4 R	HM4	R	G	
62	6	18864	HMA1	R	G	
62	8	**48X62X8 CRW1 P**	**CRW1**	P	W	■
62	8	**48X62X8 CRW1 R**	**CRW1**	R	W	■
62	8	**48X62X8 HMS5 RG**	**HMS5**	RG	E	
62	8	**48X62X8 HMS5 V**	**HMS5**	V	E	◎
62	8	▲ **48X62X8 HMSA10 RG**	**HMSA10**	RG	E	
62	8	**48X62X8 HMSA10 V**	**HMSA10**	V	E	◎
65	8	**48X65X8 CRW1 R**	**CRW1**	R	W	■
65	8	**48X65X8 CRW1 V**	**CRW1**	V	W	■
65	10	**48X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**48X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	▲ **48X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**48X65X10 HMSA10 V**	**HMSA10**	V	E	◎
66.65	8	18895	HMS4	S	S	
68	8	**48X68X8 CRW1 R**	**CRW1**	R	W	■
68	10	**48X68X10 HMS5 RG**	**HMS5**	RG	E	
68	10	**48X68X10 HMS5 V**	**HMS5**	V	E	◎
68	10	▲ **48X68X10 HMSA10 RG**	**HMSA10**	RG	E	
68	10	**48X68X10 HMSA10 V**	**HMSA10**	V	E	◎
70	8	**48X70X8 CRW1 R**	**CRW1**	R	W	■
70	8	**48X70X8 CRW1 V**	**CRW1**	V	W	■
70	10	**48X70X10 HMS5 RG**	**HMS5**	RG	E	
70	10	**48X70X10 HMS5 V**	**HMS5**	V	E	◎
70	10	▲ **48X70X10 HMSA10 RG**	**HMSA10**	RG	E	
70	10	**48X70X10 HMSA10 V**	**HMSA10**	V	E	◎
72	7	**48X72X7 HMS5 RG**	**HMS5**	RG	E	
72	7	**48X72X7 HMS5 V**	**HMS5**	V	E	◎
72	7	**48X72X7 HMSA10 RG**	**HMSA10**	RG	E	
72	7	**48X72X7 HMSA10 V**	**HMSA10**	V	E	◎
72	8	**48X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**48X72X8 CRW1 V**	**CRW1**	V	W	■
72	8	**48X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**48X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **48X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**48X72X8 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**48X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**48X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	▲ **48X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**48X72X10 HMSA10 V**	**HMSA10**	V	E	◎
74	10	48X74X10 HMSA7 R	HMSA7	R	S	
80	8	**48X80X8 CRW1 R**	**CRW1**	R	W	■
90	10	**48X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**48X90X10 HMS5 V**	**HMS5**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 48 mm (1.890")						
90	10	**48X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**48X90X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.893" (48.08 mm)						
2.434	0.250	▲**19000**	**CRW1**	R	W	
INCH Shaft Diameter – 1.906" (48.41 mm)						
2.752	0.375	**19017**	**CRWA1**	P	W	■
3.189	0.313	19062	CRSA1	P	S	
INCH Shaft Diameter – 1.912" (48.56 mm)						
	0.500	**99192**	**SSLEEVE**			
Shaft Ø1.909-1.915" - 'on-shaft' width 0.375" - flange Ø2.219"						
METRIC Shaft Diameter – 49 mm (1.929")						
68	7	49X68X7 HMSA7 V	HMSA7	V	S	
INCH Shaft Diameter – 1.938" (49.23 mm)						
	0.688	**99193**	**SSLEEVE**			
Shaft Ø1.934-1.94" - 'on-shaft' width 0.563" - flange Ø2.219"						
	0.688	99833	GSLEEVE			
Shaft Ø1.934-1.94" - 'on-shaft' width 0.563" - flange Ø2.219"						
2.412	0.313	▲**19215**	**CRW1**	R	W	■
2.437	0.250	▲**19210**	**CRW1**	R	W	■
2.502	0.281	**19219**	**HM14**	R	G	■
2.502	0.375	▲**19220**	**CRWA1**	R	W	■
2.563	0.313	▲**19211**	**CRW1**	R	W	■
2.623	0.313	**19226**	**CRW1**	R	W	■
2.623	0.313	▲**19229**	**CRWA1**	R	W	■
2.623	0.313	**19227**	**CRWA1**	V	W	■
2.675	0.250	**19213**	**CRWA5**	R	W	■◆
2.686	0.304	**19244**	**CRW1**	P	W	■
2.686	0.304	**19236**	**CRW1**	R	W	■
2.686	0.304	**19234**	**CRWA1**	P	W	■
2.686	0.304	▲**19237**	**CRWA1**	R	W	■
2.686	0.304	**19243**	**CRWA1**	V	W	■
2.686	0.375	**19240**	**CRW1**	S	W	■
2.750	0.313	▲**19264**	**CRW1**	R	W	■
2.750	0.313	**19267**	**CRW1**	V	W	■
2.835	0.250	**19278**	**CRWA5**	R	W	■◆
2.875	0.250	**19306**	**HM21**	R	G	■
2.875	0.313	▲**19300**	**CRW1**	R	W	■
2.875	0.313	**19301**	**CRWA1**	R	W	■
2.875	0.313	**19304**	**CRWH1**	V	W	■
2.884	0.313	**19310**	**CRWA1**	P	W	■
2.997	0.313	▲**19350**	**CRW1**	R	W	■
3.000	0.313	▲**19359**	**CRW1**	R	W	■
3.000	0.313	**19360**	**CRWA1**	R	W	
3.000	0.313	**19368**	**CRWA1**	V	W	■
3.061	0.313	▲**19380**	**CRW1**	R	W	■
3.062	0.500	**19438**	**CRW1**	S	W	■
3.125	0.500	▲**19400**	**CRW1**	R	W	■
3.189	0.313	▲**19407**	**CRW1**	R	W	■
3.251	0.313	▲**19434**	**CRW1**	R	W	■
3.251	0.313	**19433**	**CRWA1**	V	W	■
3.350	0.469	**19445**	**CRWHA1**	R	W	■
3.543	0.313	▲**19449**	**CRW1**	R	W	■
METRIC Shaft Diameter – 50 mm (1.969")						
	16.97	**99196**	**SSLEEVE**			
Shaft Ø49.91-50.06mm - 'on-shaft' width 14mm - flange Ø57mm						
	17	**99052**	**SSLEEVE**			
Shaft Ø49.91-50.06mm - 'on-shaft' width 14mm - flange Ø56.49mm						
58	4	50X58X4 HM4 R	HM4	R	G	
60	7	50X60X7 HMS4 R	HMS4	R	S	
60	7	50X60X7 HMSA7 R	HMSA7	R	S	
62	5	50X62X5 HM4 R	HM4	R	G	
62	5	50X62X5 HMS4 R	HMS4	R	S	
62	5	50X62X5 HMSA7 R	HMSA7	R	S	
62	7	**50X62X7 HMS5 RG**	**HMS5**	RG	E	
62	7	**50X62X7 HMS5 V**	**HMS5**	V	E	◎
62	7	▲**50X62X7 HMSA10 RG**	**HMSA10**	RG	E	
62	7	**50X62X7 HMSA10 V**	**HMSA10**	V	E	◎
62	7	50X62X7 CRS1 R	CRS1	R	S	
62	10	50X62X10 HMS4 R	HMS4	R	S	
64	6	**50X64X6 HMS5 RG**	**HMS5**	RG	E	
64	6	**50X64X6 HMS5 V**	**HMS5**	V	E	◎
64	6	▲**50X64X6 HMSA10 RG**	**HMSA10**	RG	E	
64	6	**50X64X6 HMSA10 V**	**HMSA10**	V	E	◎
65	8	**50X65X8 CRW1 R**	**CRW1**	R	W	■
65	8	**50X65X8 CRW1 V**	**CRW1**	V	W	■
65	8	**50X65X8 HMS5 RG**	**HMS5**	RG	E	
65	8	**50X65X8 HMS5 V**	**HMS5**	V	E	◎
65	8	▲**50X65X8 HMSA10 RG**	**HMSA10**	RG	E	
65	8	**50X65X8 HMSA10 V**	**HMSA10**	V	E	◎
65	9	50X65X9 HMSA7 R	HMSA7	R	S	
65	10	**50X65X10 HMS5 RG**	**HMS5**	RG	E	
65	10	**50X65X10 HMS5 V**	**HMS5**	V	E	◎
65	10	**50X65X10 HMSA10 RG**	**HMSA10**	RG	E	
65	10	**50X65X10 HMSA10 V**	**HMSA10**	V	E	◎
66.62	7.95	**19607**	**CRWA1**	R	W	■
68	6.50	50X68X6.5 HMSA7 R	HMSA7	R	S	
68	7	**50X68X7 HMS5 RG**	**HMS5**	RG	E	
68	7	**50X68X7 HMS5 V**	**HMS5**	V	E	◎
68	7	**50X68X7 HMSA10 RG**	**HMSA10**	RG	E	
68	7	**50X68X7 HMSA10 V**	**HMSA10**	V	E	◎
68	7	50X68X7 HMSA7P2 R	HMSA7P2	R	S	◆
68	8	**50X68X8 CRW1 R**	**CRW1**	R	W	■
68	8	**50X68X8 CRW1 V**	**CRW1**	V	W	■
68	8	**50X68X8 HMS5 RG**	**HMS5**	RG	E	
68	8	**50X68X8 HMS5 V**	**HMS5**	V	E	◎
68	8	▲**50X68X8 HMSA10 RG**	**HMSA10**	RG	E	
68	8	**50X68X8 HMSA10 V**	**HMSA10**	V	E	◎
68	9	19596	CRSHA1	R	S	
68	10	**50X68X10 HMS5 RG**	**HMS5**	RG	E	
68	10	**50X68X10 HMS5 V**	**HMS5**	V	E	◎
68	10	**50X68X10 HMSA10 RG**	**HMSA10**	RG	E	
68	10	**50X68X10 HMSA10 V**	**HMSA10**	V	E	◎
68.22	12.70	19615	CRSH1	R	S	
69.65	12.70	19620	CRSH1	P	S	
70	8	▲**50X70X8 CRW1 R**	**CRW1**	R	W	■
70	8	**50X70X8 CRW1 V**	**CRW1**	V	W	■
70	10	**50X70X10 HMS5 RG**	**HMS5**	RG	E	
70	10	**50X70X10 HMS5 V**	**HMS5**	V	E	◎
70	10	▲**50X70X10 HMSA10 RG**	**HMSA10**	RG	E	
70	10	**50X70X10 HMSA10 V**	**HMSA10**	V	E	◎
72	7	50X72X7 HMSA7P2 R	HMSA7P2	R	S	◆
72	8	**50X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**50X72X8 CRW1 V**	**CRW1**	V	W	■
72	8	**50X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**50X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲**50X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**50X72X8 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**50X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**50X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**50X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**50X72X10 HMSA10 V**	**HMSA10**	V	E	◎
72	12	**50X72X12 HMS5 RG**	**HMS5**	RG	E	
72	12	**50X72X12 HMS5 V**	**HMS5**	V	E	◎
72	12	**50X72X12 HMSA10 RG**	**HMSA10**	RG	E	
72	12	**50X72X12 HMSA10 V**	**HMSA10**	V	E	◎
73.03	11.91	19643	CRSH1	R	S	
75	8	**50X75X8 CRWA1 R**	**CRWA1**	R	W	■
75	10	**50X75X10 HMS5 RG**	**HMS5**	RG	E	
75	10	**50X75X10 HMS5 V**	**HMS5**	V	E	◎
75	10	▲**50X75X10 HMSA10 RG**	**HMSA10**	RG	E	
75	10	**50X75X10 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 1.969" (50 mm)						
2.960	0.250	19660	HD1	R	G	
METRIC Shaft Diameter – 50 mm (1.969")						
80	8	**50X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**50X80X8 CRW1 V**	**CRW1**	V	W	■
80	8	**50X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**50X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **50X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**50X80X8 HMSA10 V**	**HMSA10**	V	E	◎
80	10	**50X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**50X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	**50X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**50X80X10 HMSA10 V**	**HMSA10**	V	E	◎
82	8	**50X82X8 CRWA1 R**	**CRWA1**	R	W	■
85	8	**50X85X8 CRW1 R**	**CRW1**	R	W	■
85	10	**50X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**50X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	▲ **50X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**50X85X10 HMSA10 V**	**HMSA10**	V	E	◎
90	8	**50X90X8 CRW1 R**	**CRW1**	R	W	■
90	8	**50X90X8 CRW1 V**	**CRW1**	V	W	■
90	8	**50X90X8 HMS5 RG**	**HMS5**	RG	E	
90	8	**50X90X8 HMS5 V**	**HMS5**	V	E	◎
90	8	▲ **50X90X8 HMSA10 RG**	**HMSA10**	RG	E	
90	8	**50X90X8 HMSA10 V**	**HMSA10**	V	E	◎
90	10	**50X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**50X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	**50X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**50X90X10 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**50X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**50X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**50X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**50X100X10 HMSA10 V**	**HMSA10**	V	E	◎
110	10	**50X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**50X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	**50X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**50X110X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 1.980" (50.29 mm)						
	0.704	**99198**	**SSLEEVE**			
Shaft Ø1.977-1.983" - 'on-shaft' width 0.563" - flange Ø2.313"						
INCH Shaft Diameter – 2.000" (50.80 mm)						
	0.688	**99199**	**SSLEEVE**			
Shaft Ø1.997-2.003" - 'on-shaft' width 0.563" - flange Ø2.406"						
	0.688	99834	GSLEEVE			
Shaft Ø1.997-2.003" - 'on-shaft' width 0.563" - flange Ø2.406"						
	1.000	**99200**	**SSLEEVE**			
Shaft Ø1.997-2.003" - 'on-shaft' width 0.875" - flange Ø2.406"						
	1.000	99835	GSLEEVE			
Shaft Ø1.997-2.003" - 'on-shaft' width 0.875" - flange Ø2.406"						
2.371	0.250	**19737**	**HM14**	R	G	■
2.375	0.188	**19733**	**HM14**	R	G	
2.500	0.250	**19748**	**HM1**	R	G	
2.502	0.250	**19754**	**HM14**	R	G	■
2.502	0.313	**19745**	**CRW1**	P	W	■
2.562	0.234	**19753**	**HM14**	R	G	■
2.565	0.500	**19757**	**HM14**	R	G	■
2.623	0.250	**19763**	**HM21**	R	G	■
2.623	0.250	**19746**	**HM21**	V	G	■
2.623	0.313	**19760**	**CRW1**	R	W	■
2.623	0.313	▲ **19762**	**CRWA1**	R	W	■
2.623	0.313	**19777**	**CRWA1**	V	W	■
2.623	0.313	**19782**	**CRWA1**	V	W	■◎
2.627	0.234	**19768**	**HM14**	R	G	■
2.635	0.234	**19770**	**HM14**	R	G	■
2.686	0.250	**19783**	**HM21**	R	G	■
2.686	0.375	▲ **19778**	**CRW1**	R	W	■
2.716	0.375	**19785**	**CRW1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.000" (50.80 mm)						
2.716	0.375	▲ **19786**	**CRWA1**	R	W	■
2.745	0.234	**19803**	**HM14**	R	G	
2.746	0.375	**19807**	**CRW1**	S	W	■
2.750	0.250	**19834**	**HM21**	R	G	■
2.750	0.313	**19831**	**CRW1**	R	W	■
2.750	0.313	**19823**	**CRW1**	V	W	■
2.750	0.313	**19840**	**CRW1**	V	W	■◤◎
2.750	0.313	▲ **19832**	**CRWA1**	R	W	■
2.750	0.313	**19839**	**CRWA1**	V	W	■
2.752	0.188	**19820**	**HM14**	R	G	■
2.835	0.469	▲ **19848**	**CRWH1**	R	W	■
2.874	0.703	19876	C8	R	W	■
2.875	0.250	**19880**	**HM21**	R	G	■
2.875	0.313	▲ **19886**	**CRW1**	R	W	■
2.875	0.313	**19884**	**CRW1**	V	W	■
2.875	0.313	**19887**	**CRWA1**	R	W	■
2.875	0.375	**19896**	**CRWHA1**	R	W	■
2.875	0.500	**19900**	**CRWH1**	R	W	■◤◎
2.880	0.375	**19923**	**CRWA1**	P	W	■
2.880	0.375	▲ **19922**	**CRWA1**	R	W	■
2.965	0.313	**19940**	**HM14**	R	G	■
2.965	0.500	**19938**	**HM14**	R	G	■
2.968	0.313	**20118**	**HM14**	R	G	■
2.997	0.250	**19965**	**HM21**	R	G	
2.997	0.375	**19969**	**CRWH1**	R	W	■
2.997	0.375	**19979**	**CRWH1**	V	W	■
2.997	0.375	▲ **19970**	**CRWHA1**	R	W	■
2.997	0.375	**19974**	**CRWHA1**	V	W	■
3.000	0.250	**20006**	**HM21**	R	G	■
3.000	0.313	**19992**	**CRW1**	R	W	■
3.000	0.313	▲ **19993**	**CRWA1**	R	W	■
3.000	0.313	**19995**	**CRWA1**	V	W	■
3.000	0.375	**20004**	**CRWH1**	R	W	■
3.000	0.375	**20002**	**CRWH1**	V	W	■
3.000	0.375	**20005**	**CRWHA1**	R	W	■
3.061	0.250	**20044**	**HM21**	R	G	■
3.061	0.375	▲ **20045**	**CRW1**	R	W	■
3.061	0.500	**20055**	**CRWH1**	R	W	■
3.061	0.500	**20059**	**CRWHA1**	R	W	■
3.125	0.375	▲ **20070**	**CRW1**	R	W	■
3.148	0.250	**20078**	**HM14**	R	G	
3.150	0.375	▲ **20079**	**CRW1**	R	W	■
3.189	0.469	▲ **20098**	**CRWH1**	R	W	■
3.189	0.469	**20100**	**CRWHA1**	R	W	■
3.251	0.438	▲ **20109**	**CRWH1**	R	W	■
3.371	0.438	**20122**	**CRW1**	V	W	■
3.371	0.438	**20124**	**CRWH1**	R	W	■
3.371	0.438	**20127**	**CRWH1**	V	W	
3.371	0.438	▲ **20125**	**CRWHA1**	R	W	■
3.543	0.433	▲ **20140**	**CRWH1**	R	W	■
3.623	0.250	**20148**	**HM21**	R	G	
3.623	0.438	▲ **20144**	**CRWH1**	R	W	■
4.003	0.438	▲ **20158**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 51 mm (2.008")						
65	7	**51X65X7 CRWA1 R**	**CRWA1**	R	W	■
66	6.50	20001	HMS4	P	S	
METRIC Shaft Diameter – 52 mm (2.047")						
	15.9	**99878**	**SSLEEVE**			
Shaft Ø51.82-51.97mm - 'on-shaft' width 12.7mm - flange Ø62.71mm						
62	7	52X62X7 HMSA7 R	HMSA7	R	S	
63	8	**52X63X8 HMS5 RG**	**HMS5**	RG	E	
63	8	**52X63X8 HMS5 V**	**HMS5**	V	E	◎
63	8	**52X63X8 HMSA10 RG**	**HMSA10**	RG	E	
63	8	**52X63X8 HMSA10 V**	**HMSA10**	V	E	◎
63	8	52X63X8 HMSA7 P	HMSA7	P	S	
65	8	**20420**	**CRW1**	R	W	■
65	8	**52X65X8 HMS5 RG**	**HMS5**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 52 mm (2.047")						
65	8	**52X65X8 HMS5 V**	**HMS5**	V	E	◎
65	8	**52X65X8 HMSA10 RG**	**HMSA10**	RG	E	
65	8	**52X65X8 HMSA10 V**	**HMSA10**	V	E	◎
65	9	52X65X9 HMSA7 R	HMSA7	R	S	
66	9	52X66X9 HMS4 R	HMS4	R	S	
68	8	**52X68X8 CRW1 R**	**CRW1**	R	W	■
68	8	**52X68X8 CRW1 V**	**CRW1**	V	W	■
68	8	**52X68X8 HMS5 RG**	**HMS5**	RG	E	
68	8	**52X68X8 HMS5 V**	**HMS5**	V	E	◎
68	8	▲ **52X68X8 HMSA10 RG**	**HMSA10**	RG	E	
68	8	**52X68X8 HMSA10 V**	**HMSA10**	V	E	◎
69	10	52X69X10 HMS4 R	HMS4	R	S	
70	8	**52X70X8 CRW1 R**	**CRW1**	R	W	■
72	8	**52X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**52X72X8 CRW1 V**	**CRW1**	V	W	■
72	8	**52X72X8 CRWA1 V**	**CRWA1**	V	W	■
72	8	**52X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**52X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **52X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**52X72X8 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**52X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**52X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**52X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**52X72X10 HMSA10 V**	**HMSA10**	V	E	◎
75	12	52X75X12 HMS4 R	HMS4	R	S	
80	10	**52X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**52X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	▲ **52X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**52X80X10 HMSA10 V**	**HMSA10**	V	E	◎
85	8	▲ **52X85X8 CRW1 R**	**CRW1**	R	W	■
85	10	**52X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**52X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	▲ **52X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**52X85X10 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**52X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**52X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**52X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**52X100X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.063" (52.40 mm)						
	0.938	**99205**	**SSLEEVE**			
Shaft Ø2.057-2.063" - 'on-shaft' width 0.781" - flange Ø2.469"						
2.561	0.313	**20520**	**CRW1**	V	W	■
2.661	0.188	20525	HMS4	R	S	
2.750	0.313	▲ **20530**	**CRWH1**	R	W	
2.842	0.438	▲ **20538**	**CRWH1**	R	W	■
2.875	0.375	550085	CRSA1	R	S	■
2.875	0.438	▲ **20554**	**CRWH1**	R	W	■
2.997	0.438	▲ **20586**	**CRWH1**	R	W	■
3.000	0.313	**20608**	**HM21**	R	G	■
3.000	0.375	▲ **20594**	**CRW1**	R	W	■
3.000	0.375	**20596**	**CRWA1**	V	W	■
3.061	0.313	▲ **20643**	**CRWH1**	R	W	■
3.125	0.375	▲ **20659**	**CRW1**	R	W	■
3.149	0.250	**20669**	**HM21**	R	G	■
3.189	0.375	▲ **20702**	**CRW1**	R	W	■
3.251	0.438	▲ **20749**	**CRWH1**	R	W	■
3.251	0.438	**20747**	**CRWHA1**	R	W	■
METRIC Shaft Diameter – 53 mm (2.087")						
68	8	**53X68X8 CRW1 V**	**CRW1**	V	W	
68	10	53X68X10 HMS4 R	HMS4	R	S	
68.20	7	20906	HMSA7	R	S	
INCH Shaft Diameter – 2.090" (53.09 mm)						
2.807	0.354	20902	HMS4	R	S	
INCH Shaft Diameter – 2.094" (53.19 mm)						
2.718	0.359	**20952**	**HM18**	R	G	■
INCH Shaft Diameter (cont.) – 2.094" (53.19 mm)						
3.149	0.550	**20965**	**HM21**	R	G	■
3.154	0.250	**20975**	**HM21**	R	G	■
INCH Shaft Diameter – 2.125" (53.98 mm)						
	0.750	**99210**	**SSLEEVE**			
Shaft Ø2.123-2.129" - 'on-shaft' width 0.5" - flange Ø2.422"						
	0.938	**99212**	**SSLEEVE**			
Shaft Ø2.124-2.13" - 'on-shaft' width 0.781" - flange Ø2.422"						
	0.938	99836	GSLEEVE			
Shaft Ø2.124-2.13" - 'on-shaft' width 0.781" - flange Ø2.422"						
2.750	0.250	**21059**	**HM21**	R	G	■
2.750	0.375	**21063**	**CRW1**	V	W	■
2.750	0.500	▲ **21061**	**CRWA1**	R	W	■
2.763	0.250	▲ **21069**	**CRW1**	R	W	■
2.875	0.250	**21101**	**HM14**	R	G	■
2.875	0.375	**21103**	**CRW1**	S	W	■
2.875	0.438	**21098**	**CRW1**	R	W	■
2.875	0.438	**21091**	**CRW1**	V	W	■
2.875	0.438	▲ **21100**	**CRWA1**	R	W	■
2.875	0.438	**21108**	**CRWHA1**	R	W	■
2.875	0.438	**21115**	**CRWHA1**	V	W	
2.891	0.250	**21121**	**HM14**	R	G	■
2.997	0.438	▲ **21134**	**CRWH1**	R	W	■
2.997	0.438	**21136**	**CRWHA1**	R	W	■
3.000	0.250	**21159**	**HM21**	R	G	■
3.000	0.313	**21167**	**CRWHA1**	V	W	■
3.000	0.374	**533495**	**CRW1**	V	W	
3.000	0.375	**21163**	**CRW1**	R	W	■
3.000	0.375	▲ **21164**	**CRWA1**	R	W	■
3.000	0.438	**21172**	**CRWH1**	R	W	■
3.000	0.438	**21171**	**CRWH1**	V	W	■
3.000	0.438	**21173**	**CRWHA1**	R	W	■
3.061	0.250	**21208**	**HM21**	R	G	■
3.061	0.438	**21215**	**CRWH1**	V	W	■
3.061	0.500	**21210**	**CRW1**	R	W	■
3.061	0.500	▲ **21211**	**CRWA1**	R	W	■
3.061	0.500	**21213**	**CRWHA1**	R	W	■
3.125	0.438	▲ **21234**	**CRWH1**	R	W	■
3.125	0.438	**21245**	**CRWHA1**	P	W	■
3.251	0.438	▲ **21302**	**CRWH1**	R	W	■
3.350	0.438	▲ **21336**	**CRWH1**	R	W	■
3.371	0.375	▲ **21352**	**CRWA1**	R	W	■
3.371	0.438	**21353**	**CRWH1**	R	W	■
3.623	0.469	21379	CRSA1	P	S	
METRIC Shaft Diameter – 54 mm (2.126")						
65	8	**54X65X8 CRW1 R**	**CRW1**	R	W	■
65	8	**54X65X8 CRW1 V**	**CRW1**	V	W	■
70	8	54X70X8 HMSA7 P	HMSA7	P	S	
72	10	54X72X10 HMSA7 R	HMSA7	R	S	
73	11.13	**54X73X11 CRW1 R**	**CRW1**	R	W	■
80	10	54X80X10 CRSH1 R	CRSH1	R	S	
81	6.35	**21265**	**HM21**	R	G	■
81	9.53	**21267**	**CRWA1**	R	W	■
81	9.53	**21269**	**CRWA1**	V	W	■
81	11.91	**21270**	**CRWHA1**	S	W	■
85	10	54X85X10 HMS4 R	HMS4	R	S	
90	11.13	**21358**	**CRWH1**	R	W	■
INCH Shaft Diameter – 2.145" (54.48 mm)						
3.188	0.469	21538	CRSH1	R	S	
METRIC Shaft Diameter – 55 mm (2.165")						
	23	**99215**	**SSLEEVE**			
Shaft Ø54.91-55.07mm - 'on-shaft' width 19.99mm - flange Ø62mm						
	23	99863	GSLEEVE			
Shaft Ø54.91-55.07mm - 'on-shaft' width 19.99mm - flange Ø62mm						
68	8	**55X68X8 HMS5 RG**	**HMS5**	RG	E	
68	8	**55X68X8 HMS5 V**	**HMS5**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 55 mm (2.165")						
68	8	▲ **55X68X8 HMSA10 RG**	**HMSA10**	RG	E	
68	8	**55X68X8 HMSA10 V**	**HMSA10**	V	E	◎
70	8	**55X70X8 CRW1 R**	**CRW1**	R	W	■
70	8	**55X70X8 CRW1 V**	**CRW1**	V	W	■
70	8	**55X70X8 HMS5 RG**	**HMS5**	RG	E	
70	8	**55X70X8 HMS5 V**	**HMS5**	V	E	◎
70	8	▲ **55X70X8 HMSA10 RG**	**HMSA10**	RG	E	
70	8	**55X70X8 HMSA10 V**	**HMSA10**	V	E	◎
70	10	**55X70X10 HMS5 RG**	**HMS5**	RG	E	
70	10	**55X70X10 HMS5 V**	**HMS5**	V	E	◎
70	10	**55X70X10 HMSA10 RG**	**HMSA10**	RG	E	
70	10	**55X70X10 HMSA10 V**	**HMSA10**	V	E	◎
72	7	55X72X7 HMSA72P2 R	HMSA72P2	R	S	◆
72	8	**55X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**55X72X8 CRW1 V**	**CRW1**	V	W	■
72	8	**55X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**55X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **55X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**55X72X8 HMSA10 V**	**HMSA10**	V	E	◎
72	10	**55X72X10 HMS5 RG**	**HMS5**	RG	E	
72	10	**55X72X10 HMS5 V**	**HMS5**	V	E	◎
72	10	**55X72X10 HMSA10 RG**	**HMSA10**	RG	E	
72	10	**55X72X10 HMSA10 V**	**HMSA10**	V	E	◎
73	8	**55X73X8 CRW1 V**	**CRW1**	V	W	■
74.88	8	21550	HMSA7	P	S	
75	8	**55X75X8 CRW1 R**	**CRW1**	R	W	■
75	8	**55X75X8 CRW1 V**	**CRW1**	V	W	■
75	8	**55X75X8 HMS5 RG**	**HMS5**	RG	E	
75	8	**55X75X8 HMS5 V**	**HMS5**	V	E	◎
75	8	▲ **55X75X8 HMSA10 RG**	**HMSA10**	RG	E	
75	8	**55X75X8 HMSA10 V**	**HMSA10**	V	E	◎
75	10	**55X75X10 HMS5 RG**	**HMS5**	RG	E	
75	10	**55X75X10 HMS5 V**	**HMS5**	V	E	◎
75	10	**55X75X10 HMSA10 RG**	**HMSA10**	RG	E	
75	10	**55X75X10 HMSA10 V**	**HMSA10**	V	E	◎
78	8	55X78X8 HMS4 R	HMS4	R	S	
78	8	55X78X8 HMSA7 R	HMSA7	R	S	
78	10	**55X78X10 HMS5 RG**	**HMS5**	RG	E	
78	10	**55X78X10 HMS5 V**	**HMS5**	V	E	◎
78	10	▲ **55X78X10 HMSA10 RG**	**HMSA10**	RG	E	
78	10	**55X78X10 HMSA10 V**	**HMSA10**	V	E	◎
78	12	**55X78X12 HMS5 RG**	**HMS5**	RG	E	
78	12	**55X78X12 HMS5 V**	**HMS5**	V	E	◎
78	12	**55X78X12 HMSA10 RG**	**HMSA10**	RG	E	
78	12	**55X78X12 HMSA10 V**	**HMSA10**	V	E	◎
80	8	**55X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**55X80X8 CRW1 V**	**CRW1**	V	W	■
80	8	**55X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**55X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **55X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**55X80X8 HMSA10 V**	**HMSA10**	V	E	◎
80	10	**55X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**55X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	**55X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**55X80X10 HMSA10 V**	**HMSA10**	V	E	◎
80	12	55X80X12 HMS4 R	HMS4	R	S	
82	10	55X82X10 HM3 R	HM3	R	G	■
82	12	55X82X12 HMS4 R	HMS4	R	S	
85	8	**55X85X8 CRW1 R**	**CRW1**	R	W	■
85	8	**55X85X8 HMS5 RG**	**HMS5**	RG	E	
85	8	**55X85X8 HMS5 V**	**HMS5**	V	E	◎
85	8	▲ **55X85X8 HMSA10 RG**	**HMSA10**	RG	E	
85	8	**55X85X8 HMSA10 V**	**HMSA10**	V	E	◎
85	10	**55X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**55X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	**55X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**55X85X10 HMSA10 V**	**HMSA10**	V	E	◎
85	14	55X85X14 HMS4 R	HMS4	R	S	
90	8	**55X90X8 CRW1 R**	**CRW1**	R	W	■
90	8	**55X90X8 HMS5 RG**	**HMS5**	RG	E	
90	8	**55X90X8 HMS5 V**	**HMS5**	V	E	◎
90	8	▲ **55X90X8 HMSA10 RG**	**HMSA10**	RG	E	
90	8	**55X90X8 HMSA10 V**	**HMSA10**	V	E	◎
90	10	**55X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**55X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	**55X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**55X90X10 HMSA10 V**	**HMSA10**	V	E	◎
100	8	**55X100X8 CRW1 R**	**CRW1**	R	W	■
100	8	**55X100X8 HMS5 RG**	**HMS5**	RG	E	
100	8	**55X100X8 HMS5 V**	**HMS5**	V	E	◎
100	8	▲ **55X100X8 HMSA10 RG**	**HMSA10**	RG	E	
100	8	**55X100X8 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**55X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**55X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**55X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**55X100X10 HMSA10 V**	**HMSA10**	V	E	◎
100	12	**55X100X12 HMS5 RG**	**HMS5**	RG	E	
100	12	**55X100X12 HMS5 V**	**HMS5**	V	E	◎
100	12	**55X100X12 HMSA10 RG**	**HMSA10**	RG	E	
100	12	**55X100X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.188" (55.58 mm)						
	0.938	**99218**	**SSLEEVE**			
Shaft Ø2.186-2.192" - 'on-shaft' width 0.781" - flange Ø2.5"						
2.875	0.438	▲ **21736**	**CRWH1**	R	W	■
2.997	0.438	▲ **21749**	**CRWH1**	R	W	■
3.000	0.315	**540472**	**CRWA1**	P	W	
3.000	0.375	▲ **21759**	**CRWA1**	R	W	■
3.000	0.375	**21763**	**CRWA1**	V	W	■
3.000	0.500	**21764**	**CRWH1**	R	W	■
3.061	0.500	▲ **21787**	**CRWH1**	R	W	■
3.251	0.438	▲ **21840**	**CRWH1**	R	W	■
3.350	0.438	▲ **21890**	**CRWH1**	R	W	■
3.371	0.438	▲ **21910**	**CRWH1**	R	W	■
3.623	0.500	21950	CRSHA1	R	S	
METRIC Shaft Diameter – 56 mm (2.205")						
	15.9	**99220**	**SSLEEVE**			
Shaft Ø55.83-55.98mm - 'on-shaft' width 12.7mm - flange Ø64.29mm						
	23.8	**99224**	**SSLEEVE**			
Shaft Ø55.83-56.01mm - 'on-shaft' width 19.79mm - flange Ø64.29mm						
70	8	56X70X8 HMS4 R	HMS4	R	S	
72	8	**56X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**56X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **56X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**56X72X8 HMSA10 V**	**HMSA10**	V	E	◎
75	8	▲ **56X75X8 CRW1 R**	**CRW1**	R	W	■
80	8	56X80X8 HMS4 R	HMS4	R	S	
82	8	56X82X8 HMSA7 R	HMSA7	R	S	
85	8	56X85X8 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 2.230" (56.64 mm)						
	0.625	**99229**	**SSLEEVE**			
Shaft Ø2.227-2.233" - 'on-shaft' width 0.5" - flange Ø2.531"						
	0.625	99861	GSLEEVE			
Shaft Ø2.227-2.233" - 'on-shaft' width 0.5" - flange Ø2.531"						
	0.906	**99230**	**SSLEEVE**			
Shaft Ø2.227-2.233" - 'on-shaft' width 0.781" - flange Ø2.531"						
INCH Shaft Diameter – 2.240" (56.90 mm)						
	0.900	**99226**	**SSLEEVE**			
Shaft Ø2.237-2.243" - 'on-shaft' width 0.764" - flange Ø2.563"						
3.189	0.610	**22614**	**HM14**	R	G	■
METRIC Shaft Diameter – 57 mm (2.244")						
67	6	22225	HMSA7	R	S	
67	7	**57X67X7 HMS5 RG**	**HMS5**	RG	E	
67	7	**57X67X7 HMS5 V**	**HMS5**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 57 mm (2.244")						
67	7	**57X67X7 HMSA10 RG**	**HMSA10**	RG	E	
67	7	**57X67X7 HMSA10 V**	**HMSA10**	V	E	◎
85	13	57X85X13 HMSA7 R	HMSA7	R	S	
INCH Shaft Diameter – 2.250" (57.15 mm)						
	0.438	**99227**	**SSLEEVE**			
Shaft Ø2.249-2.255" - 'on-shaft' width 0.313" - flange Ø2.531"						
	0.438	99838	GSLEEVE			
Shaft Ø2.249-2.255" - 'on-shaft' width 0.313" - flange Ø2.531"						
	0.938	**99225**	**SSLEEVE**			
Shaft Ø2.249-2.255" - 'on-shaft' width 0.781" - flange Ø2.531"						
	0.938	99837	GSLEEVE			
Shaft Ø2.249-2.255" - 'on-shaft' width 0.781" - flange Ø2.531"						
2.625	0.188	**22306**	**HM14**	R	G	■
2.875	0.313	▲ **22328**	**CRWA1**	R	W	■
2.891	0.563	**22347**	**CRWA1**	R	W	■
2.996	0.438	▲ **22336**	**CRWH1**	R	W	■
2.997	0.438	▲ **22340**	**CRWHA1**	R	W	■
3.000	0.250	**22368**	**HM21**	R	G	■
3.000	0.375	**22353**	**CRW1**	R	W	■
3.000	0.375	**22363**	**CRW1**	V	W	■
3.000	0.375	▲ **22354**	**CRWA1**	R	W	■
3.000	0.375	**22361**	**CRWA1**	V	W	■
3.000	0.438	**22358**	**CRWH1**	R	W	■
3.000	0.438	**22367**	**CRWH1**	V	W	■
3.000	0.438	**22359**	**CRWHA1**	R	W	■
3.061	0.250	**22392**	**HM21**	R	G	
3.061	0.375	▲ **22382**	**CRW1**	R	W	■
3.061	0.438	**22390**	**CRWH1**	R	W	■
3.061	0.438	**22391**	**CRWHA1**	R	W	■
3.061	0.438	**22394**	**CRWHA1**	S	W	■
3.125	0.375	▲ **22400**	**CRWA1**	R	W	■
3.125	0.375	**22405**	**CRWA1**	V	W	■
3.125	0.500	**22407**	**CRWH1**	R	W	
3.125	0.563	**22411**	**HM18**	R	G	
3.189	0.433	**22425**	**CRWA1**	P	W	■
3.189	0.438	▲ **22424**	**CRW1**	R	W	■
3.251	0.250	**22468**	**HM21**	R	G	
3.251	0.375	▲ **22440**	**CRW1**	R	W	■
3.251	0.375	▲ **22441**	**CRWA1**	R	W	■
3.251	0.438	**22446**	**CRWH1**	R	W	■
3.251	0.438	**22449**	**CRWH1**	V	W	■
3.251	0.438	**22448**	**CRWHA1**	R	W	■
3.310	0.375	**22483**	**HM18**	R	G	■
3.350	0.375	**22484**	**CRW1**	P	W	■
3.350	0.438	▲ **22492**	**CRWH1**	R	W	
3.350	0.438	**22495**	**CRWH1**	V	W	■
3.350	0.438	**22493**	**CRWHA1**	R	W	■
3.371	0.375	**22550**	**HM14**	R	G	■
3.371	0.438	**22558**	**CRWH1**	R	W	■
3.371	0.438	**22561**	**CRWH1**	V	W	■
3.371	0.438	▲ **22532**	**CRWHA1**	R	W	■
3.440	0.250	**22565**	**HM14**	R	G	■
3.500	0.438	▲ **22583**	**CRWH1**	R	W	■
3.500	0.438	**22582**	**CRWHA1**	R	W	■
3.500	0.438	**22590**	**CRWHA1**	V	W	■
3.565	0.438	▲ **22610**	**CRWA1**	R	W	■
3.623	0.433	▲ **22619**	**CRWHA1**	R	W	■
3.623	0.438	**22618**	**CRWH1**	R	W	■
3.751	0.438	▲ **22626**	**CRWH1**	R	W	■
3.876	0.438	**22644**	**CRWH1**	R	W	■
4.003	0.438	▲ **22647**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 58 mm (2.283")						
	23.8	**99219**	**SSLEEVE**			
Shaft Ø57.91-58.06mm - 'on-shaft' width 20mm - flange Ø66mm						
72	8	**58X72X8 CRW1 R**	**CRW1**	R	W	■
72	8	**58X72X8 CRW1 S**	**CRW1**	S	W	■
72	8	**58X72X8 HMS5 RG**	**HMS5**	RG	E	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 58 mm (2.283")						
72	8	**58X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **58X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**58X72X8 HMSA10 V**	**HMSA10**	V	E	◎
75	8	▲ **58X75X8 CRW1 R**	**CRW1**	R	W	■
75	9	58X75X9 HMSA7 R	HMSA7	R	S	
75	11	58X75X11 HMS4 R	HMS4	R	S	
80	8	**58X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**58X80X8 CRW1 V**	**CRW1**	V	W	■
80	8	**58X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**58X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **58X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**58X80X8 HMSA10 V**	**HMSA10**	V	E	◎
80	10	**58X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**58X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	**58X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**58X80X10 HMSA10 V**	**HMSA10**	V	E	◎
80	12	**58X80X12 HMS5 RG**	**HMS5**	RG	E	
80	12	**58X80X12 HMS5 V**	**HMS5**	V	E	◎
80	12	**58X80X12 HMSA10 RG**	**HMSA10**	RG	E	
80	12	**58X80X12 HMSA10 V**	**HMSA10**	V	E	◎
80.11	9.53	**22835**	**HM21**	R	G	■
85	8	**58X85X8 CRW1 R**	**CRW1**	R	W	■
85	10	58X85X10 HMS4 R	HMS4	R	S	
90	8	**58X90X8 CRW1 R**	**CRW1**	R	W	■
90	10	58X90X10 HMSA7 R	HMSA7	R	S	
INCH Shaft Diameter – 2.297" (58.34 mm)						
3.148	0.359	**22870**	**HM18**	R	G	
INCH Shaft Diameter – 2.313" (58.75 mm)						
	0.938	**99231**	**SSLEEVE**			
Shaft Ø2.309-2.315" - 'on-shaft' width 0.781" - flange Ø2.688"						
2.997	0.375	▲ **23030**	**CRW1**	R	W	■
3.000	0.250	**23035**	**HM14**	R	G	■
3.000	0.438	**23040**	**CRWH1**	V	W	■
3.061	0.313	▲ **23046**	**CRW1**	R	W	■
3.065	0.281	23098	HM1	R	G	
3.125	0.375	▲ **23061**	**CRW1**	R	W	■
3.125	0.375	**23063**	**CRWA1**	V	W	■
3.251	0.438	▲ **23093**	**CRWH1**	R	W	■
3.251	0.438	**23099**	**CRWHA1**	V	W	
3.310	0.375	**23130**	**HM21**	R	G	■
3.350	0.438	**23152**	**CRWH1**	R	W	■
3.371	0.438	▲ **23167**	**CRW1**	R	W	■
3.374	0.438	▲ **23169**	**CRWHA1**	R	W	■
3.500	0.250	**23240**	**HM21**	R	G	■
3.500	0.313	▲ **23184**	**CRW1**	R	W	
3.751	0.500	**23277**	**CRW1**	R	W	■
METRIC Shaft Diameter – 59 mm (2.323")						
72	12	23228	HMSA7	R	S	
INCH Shaft Diameter – 2.328" (59.13 mm)						
3.000	0.395	**23300**	**CRW1**	P	W	■
INCH Shaft Diameter – 2.330" (59.18 mm)						
	0.875	**99233**	**SSLEEVE**			
Shaft Ø2.327-2.333" - 'on-shaft' width 0.75" - flange Ø2.75"						
INCH Shaft Diameter – 2.359" (59.92 mm)						
3.938	0.686	23590	PLUS XL	H	W	
METRIC Shaft Diameter – 60 mm (2.362")						
	11.4	**99241**	**SSLEEVE**			
Shaft Ø59.92-60.07mm - 'on-shaft' width 9.4mm - flange Ø70.74mm						
	23	**99235**	**SSLEEVE**			
Shaft Ø59.92-60.07mm - 'on-shaft' width 19.99mm - flange Ø70.74mm						

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 60 mm (2.362")						
	23	99869	GSLEEVE			
Shaft Ø59.92-60.07mm - 'on-shaft' width 20mm - flange Ø70.74mm						
70	7	60X70X7 CRS1 R	CRS1	R	S	
72	8	**60X72X8 HMS5 RG**	**HMS5**	RG	E	
72	8	**60X72X8 HMS5 V**	**HMS5**	V	E	◎
72	8	▲ **60X72X8 HMSA10 RG**	**HMSA10**	RG	E	
72	8	**60X72X8 HMSA10 V**	**HMSA10**	V	E	◎
73	11	23617	HMSA7	V	S	
75	8	**60X75X8 CRW1 R**	**CRW1**	R	W	■
75	8	**60X75X8 CRW1 V**	**CRW1**	V	W	■
75	8	**60X75X8 HMS5 RG**	**HMS5**	RG	E	
75	8	**60X75X8 HMS5 V**	**HMS5**	V	E	◎
75	8	▲ **60X75X8 HMSA10 RG**	**HMSA10**	RG	E	
75	8	**60X75X8 HMSA10 V**	**HMSA10**	V	E	◎
78	9	60X78X9 CRS1 R	CRS1	R	S	■
78	9	60X78X9 HMSA7 R	HMSA7	R	S	
80	7	**60X80X7 HMS5 RG**	**HMS5**	RG	E	
80	7	**60X80X7 HMS5 V**	**HMS5**	V	E	◎
80	7	**60X80X7 HMSA10 RG**	**HMSA10**	RG	E	
80	7	**60X80X7 HMSA10 V**	**HMSA10**	V	E	◎
80	8	**60X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**60X80X8 CRW1 V**	**CRW1**	V	W	■
80	8	**60X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**60X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **60X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**60X80X8 HMSA10 V**	**HMSA10**	V	E	◎
80	10	**60X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**60X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	**60X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**60X80X10 HMSA10 V**	**HMSA10**	V	E	◎
80	10	60X80X10 CRSHA1 R	CRSHA1	R	S	
80	12	60X80X12 HMS4 R	HMS4	R	S	
80	13	60X80X13 HMS4 R	HMS4	R	S	
82	8	▲ **60X82X8 CRWA1 R**	**CRWA1**	R	W	■
82	9	60X82X9 HMSA7 R	HMSA7	R	S	
82	12	**60X82X12 HMS5 RG**	HMS5	RG	E	
82	12	**60X82X12 HMS5 V**	HMS5	V	E	◎
82	12	▲ **60X82X12 HMSA10 RG**	HMSA10	RG	E	
82	12	**60X82X12 HMSA10 V**	HMSA10	V	E	◎
85	8	**60X85X8 CRW1 R**	CRW1	R	W	■
85	8	**60X85X8 CRW1 V**	CRW1	V	W	■
85	8	**60X85X8 HMS5 RG**	HMS5	RG	E	
85	8	**60X85X8 HMS5 V**	HMS5	V	E	◎
85	8	▲ **60X85X8 HMSA10 RG**	HMSA10	RG	E	
85	8	**60X85X8 HMSA10 V**	HMSA10	V	E	◎
85	10	**60X85X10 HMS5 RG**	HMS5	RG	E	
85	10	**60X85X10 HMS5 V**	HMS5	V	E	◎
85	10	**60X85X10 HMSA10 RG**	HMSA10	RG	E	
85	10	**60X85X10 HMSA10 V**	HMSA10	V	E	◎
90	8	**60X90X8 CRW1 R**	CRW1	R	W	■
90	8	**60X90X8 HMS5 RG**	HMS5	RG	E	
90	8	**60X90X8 HMS5 V**	HMS5	V	E	◎
90	8	▲ **60X90X8 HMSA10 RG**	HMSA10	RG	E	
90	8	**60X90X8 HMSA10 V**	HMSA10	V	E	◎
90	9	**60X90X9 HMS5 RG**	HMS5	RG	E	
90	9	**60X90X9 HMS5 V**	HMS5	V	E	◎
90	9	**60X90X9 HMSA10 RG**	HMSA10	RG	E	
90	9	**60X90X9 HMSA10 V**	HMSA10	V	E	◎
90	10	**60X90X10 HMS5 RG**	HMS5	RG	E	
90	10	**60X90X10 HMS5 V**	HMS5	V	E	◎
90	10	**60X90X10 HMSA10 RG**	HMSA10	RG	E	
90	10	**60X90X10 HMSA10 V**	HMSA10	V	E	◎
90	10	60X90X10 CRSH1 R	CRSH1	R	S	
90	14	60X90X14 HMS4 R	HMS4	R	S	
95	8	60X95X8 HMSA7 R	HMSA7	R	S	
95	10	**60X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**60X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	▲ **60X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**60X95X10 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**60X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**60X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**60X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**60X100X10 HMSA10 V**	**HMSA10**	V	E	◎
105	8	**60X105X8 CRW1 R**	**CRW1**	R	W	■
110	8	**60X110X8 CRW1 R**	**CRW1**	R	W	■
110	8	**60X110X8 HMS5 RG**	**HMS5**	RG	E	
110	8	**60X110X8 HMS5 V**	**HMS5**	V	E	◎
110	8	▲ **60X110X8 HMSA10 RG**	**HMSA10**	RG	E	
110	8	**60X110X8 HMSA10 V**	**HMSA10**	V	E	◎
110	10	**60X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**60X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	**60X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**60X110X10 HMSA10 V**	**HMSA10**	V	E	◎
110	12	**60X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**60X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	**60X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**60X110X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.375" (60.33 mm)						
	0.683	**99240**	**SSLEEVE**			
Shaft Ø2.374-2.38" - 'on-shaft' width 0.526" - flange Ø2.75"						
	0.750	**99238**	**SSLEEVE**			
Shaft Ø2.372-2.378" - 'on-shaft' width 0.594" - flange Ø2.75"						
	0.938	**99237**	**SSLEEVE**			
Shaft Ø2.374-2.38" - 'on-shaft' width 0.781" - flange Ø2.75"						
	0.938	99839	GSLEEVE			
Shaft Ø2.374-2.38" - 'on-shaft' width 0.781" - flange Ø2.75"						
2.875	0.313	▲ **538118**	**CRWA1**	R	W	
2.997	0.250	**23630**	**HM21**	R	G	■
2.997	0.438	▲ **23632**	**CRWH1**	R	W	■
3.000	0.250	**23640**	**HM21**	R	G	
3.000	0.375	**23641**	**CRW1**	V	W	■
3.061	0.438	**23645**	**CRWH1**	P	W	■
3.061	0.438	▲ **23644**	**CRWH1**	R	W	■
3.061	0.438	**23655**	**CRWH1**	V	W	■◎
3.125	0.375	▲ **23646**	**CRW1**	R	W	■
3.125	0.438	**23652**	**CRWH1**	R	W	■
3.125	0.438	**23654**	**CRWHA1**	R	W	■
3.125	0.438	**23656**	**CRWHA1**	V	W	■
3.189	0.438	▲ **23666**	**CRWH1**	R	W	■
3.251	0.433	▲ **541651**	**CRWHA1**	R	W	■
3.251	0.433	**23678**	**CRWHA1**	V	W	■
3.251	0.453	**23685**	**CRW1**	P	W	■
3.350	0.250	**23725**	**HM21**	R	G	■
3.350	0.375	**23703**	**CRW1**	P	W	■
3.350	0.375	▲ **23701**	**CRW1**	R	W	■
3.350	0.375	**23706**	**CRW1**	S	W	■
3.350	0.375	**23702**	**CRWA1**	R	W	■
3.350	0.438	**23708**	**CRWH1**	R	W	■
3.350	0.438	**23710**	**CRWHA1**	R	W	■
3.371	0.438	▲ **23742**	**CRWH1**	R	W	■
3.371	0.438	**23746**	**CRWH1**	V	W	■
3.481	0.438	▲ **23755**	**CRWH1**	R	W	■
3.481	0.438	**23756**	**CRWHA1**	R	W	
3.500	0.375	**23770**	**CRWA1**	P	W	■
3.500	0.375	▲ **23779**	**CRWH1**	R	W	■
3.500	0.375	**23771**	**CRWH1**	V	W	■
3.500	0.438	**23782**	**CRWHA1**	R	W	■
3.543	0.250	**23815**	**HM21**	R	G	■
3.543	0.438	▲ **23808**	**CRWH1**	R	W	■
3.543	0.438	**23809**	**CRWHA1**	V	W	■
3.601	0.438	**23820**	**CRW1**	R	W	■
3.623	0.438	▲ **23839**	**CRWH1**	R	W	■
3.623	0.438	**23841**	**CRWHA1**	P	W	■
3.623	0.438	**23843**	**CRWHA1**	V	W	■◎
3.876	0.438	▲ **23844**	**CRWH1**	R	W	■
INCH Shaft Diameter – 2.438" (61.93 mm)						
	0.625	**99242**	**SSLEEVE**			
Shaft Ø2.435-2.441" - 'on-shaft' width 0.5" - flange Ø2.828"						

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.438" (61.93 mm)						
	0.938	**99243**	**SSLEEVE**			
Shaft Ø2.434-2.44" - 'on-shaft' width 0.781" - flange Ø2.828"						
3.125	0.500	▲ **24255**	**CRWH1**	R	W	■
3.251	0.438	▲ **24263**	**CRWH1**	R	W	■
3.251	0.438	**547559**	**CRWH1**	V	W	
3.350	0.375	**24286**	**CRW1**	R	W	■
3.350	0.375	▲ **24287**	**CRWA1**	R	W	■
3.371	0.438	▲ **24320**	**CRWH1**	R	W	■
3.481	0.438	▲ **24340**	**CRWH1**	R	W	■
3.500	0.438	▲ **24370**	**CRWH1**	R	W	■
3.500	0.438	**24372**	**CRWH1**	V	W	■
3.543	0.438	▲ **24445**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 62 mm (2.441")						
	15.9	**99244**	**SSLEEVE**			
Shaft Ø61.82-61.98mm - 'on-shaft' width 12.7mm - flange Ø71.83mm						
75	10	62X75X10 CRS1 R	CRS1	R	S	
80	8	**62X80X8 CRW1 R**	**CRW1**	R	W	■
80	10	**62X80X10 HMS5 RG**	**HMS5**	RG	E	
80	10	**62X80X10 HMS5 V**	**HMS5**	V	E	◎
80	10	▲ **62X80X10 HMSA10 RG**	**HMSA10**	RG	E	
80	10	**62X80X10 HMSA10 V**	**HMSA10**	V	E	◎
85	8	**62X85X8 CRW1 R**	**CRW1**	R	W	■
85	10	**62X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**62X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	▲ **62X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**62X85X10 HMSA10 V**	**HMSA10**	V	E	◎
90	8	**62X90X8 CRW1 R**	**CRW1**	R	W	■
90	10	**62X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**62X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲ **62X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**62X90X10 HMSA10 V**	**HMSA10**	V	E	◎
90	12	**62X90X12 HMS5 RG**	**HMS5**	RG	E	
90	12	**62X90X12 HMS5 V**	**HMS5**	V	E	◎
90	12	**62X90X12 HMSA10 RG**	**HMSA10**	RG	E	
90	12	**62X90X12 HMSA10 V**	**HMSA10**	V	E	◎
100	12	62X100X12 HMS4 R	HMS4	R	S	
120	12	**62X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**62X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	**62X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**62X120X12 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter – 63 mm (2.480")						
78	8	**63X78X8 CRW1 R**	**CRW1**	R	W	■
80	8	▲ **63X80X8 CRW1 R**	**CRW1**	R	W	■
80	9	63X80X9 HMSA7 R	HMSA7	R	S	
85	8	**63X85X8 CRW1 R**	**CRW1**	R	W	■
85	10	**63X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**63X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	▲ **63X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**63X85X10 HMSA10 V**	**HMSA10**	V	E	◎
88	8	**63X88X8 CRW1 R**	**CRW1**	R	W	■
90	10	**63X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**63X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲ **63X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**63X90X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.492" (63.30 mm)						
	0.938	99249	SSLEEVE			
Shaft Ø2.489-2.495" - 'on-shaft' width 0.781" - flange Ø2.875"						
INCH Shaft Diameter – 2.500" (63.50 mm)						
	0.650	**99253**	**SSLEEVE**			
Shaft Ø2.497-2.504" - 'on-shaft' width 0.555" - flange Ø2.82"						
	0.656	**99248**	**SSLEEVE**			
Shaft Ø2.5-2.507" - 'on-shaft' width 0.5" - flange Ø2.828"						
	0.938	**99250**	**SSLEEVE**			
Shaft Ø2.5-2.507" - 'on-shaft' width 0.781" - flange Ø2.82"						

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.500" (63.50 mm)						
	0.938	99840	GSLEEVE			
Shaft Ø2.5-2.507" - 'on-shaft' width 0.781" - flange Ø2.82"						
3.000	0.250	**24863**	**HM14**	R	G	■
3.000	0.313	24865	HM1	R	G	
3.125	0.250	**24875**	**HM21**	R	G	■
3.150	0.250	**24880**	**HM21**	R	G	■
3.189	0.438	▲ **24881**	**CRWH1**	R	W	■
3.189	0.438	**24883**	**CRWH1**	V	W	■
3.245	0.438	▲ **24889**	**CRWH1**	R	W	■
3.250	0.350	**24892**	**CRWA5**	R	W	■◤ ◎◆
3.250	0.350	**534616**	**CRWA5**	V	W	◆
3.251	0.250	**24904**	**HM21**	R	G	■
3.251	0.375	**24897**	**CRW1**	R	W	■
3.251	0.375	▲ **24898**	**CRWA1**	R	W	■
3.251	0.375	**24899**	**CRWA1**	V	W	■
3.251	0.438	**24910**	**CRWH1**	R	W	■
3.251	0.438	**24914**	**CRWH1**	V	W	■
3.251	0.438	**24911**	**CRWHA1**	R	W	■
3.251	0.438	**24916**	**CRWHA1**	V	W	■
3.251	0.500	**24913**	**CRW1**	V	W	■
3.264	0.630	**541523**	**CRWA1**	R	W	■
3.350	0.438	▲ **24931**	**CRWH1**	R	W	■
3.350	0.438	**24932**	**CRWHA1**	R	W	■
3.371	0.375	**24934**	**CRWHA1**	R	W	
3.371	0.438	▲ **24954**	**CRWH1**	R	W	■
3.371	0.438	**24936**	**CRWHA1**	V	W	■
3.428	0.375	**24949**	**CRWA1**	P	W	■
3.428	0.375	▲ **24951**	**CRWA1**	R	W	■
3.500	0.250	**25007**	**HM21**	R	G	■
3.500	0.375	**541606**	**CRWA1**	V	W	■
3.500	0.438	**24980**	**CRW1**	R	W	■
3.500	0.438	**24982**	**CRWA1**	R	W	■
3.500	0.438	**24989**	**CRWH1**	P	W	■
3.500	0.438	**24986**	**CRWH1**	R	W	■
3.500	0.438	**24984**	**CRWH1**	V	W	■◎
3.500	0.438	▲ **24988**	**CRWHA1**	R	W	■
3.500	0.438	**24990**	**CRWHA1**	V	W	■
3.502	0.406	**25082**	**CRW1**	S	W	■
3.505	0.250	**25028**	**HM21**	R	G	■
3.543	0.438	▲ **25043**	**CRWH1**	R	W	■
3.543	0.438	**25065**	**CRWHA1**	P	W	
3.544	0.433	**25037**	**CRWHA1**	V	W	■
3.623	0.375	**25074**	**CRW1**	R	W	■
3.623	0.375	▲ **25075**	**CRWA1**	R	W	■
3.623	0.375	**25076**	**CRWA1**	V	W	■
3.623	0.438	**25071**	**CRWH1**	R	W	
3.751	0.438	▲ **25091**	**CRWH1**	R	W	
3.876	0.438	▲ **25100**	**CRWH1**	R	W	■
3.876	0.469	**25102**	**CRWHA1**	P	W	■
4.003	0.375	▲ **25108**	**CRWA1**	R	W	■
4.003	0.375	**25110**	**CRWA1**	V	W	■
INCH Shaft Diameter – 2.513" (63.83 mm)						
	0.906	**99251**	**SSLEEVE**			
Shaft Ø2.51-2.517" - 'on-shaft' width 0.781" - flange Ø2.828"						
METRIC Shaft Diameter – 64 mm (2.520")						
80	8	**64X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**64X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **64X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**64X80X8 HMSA10 V**	**HMSA10**	V	E	◎
90	13	64X90X13 HMSA7 R	HMSA7	R	S	
METRIC Shaft Diameter – 65 mm (2.559")						
	23	**99254**	**SSLEEVE**			
Shaft Ø64.92-65.1mm - 'on-shaft' width 19.99mm - flange Ø72.39mm						
	23	99841	GSLEEVE			
Shaft Ø64.92-65.1mm - 'on-shaft' width 19.99mm - flange Ø72.39mm						

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 65 mm (2.559")						
80	8	**65X80X8 CRW1 R**	**CRW1**	R	W	■
80	8	**65X80X8 CRW1 V**	**CRW1**	V	W	■
80	8	**65X80X8 HMS5 RG**	**HMS5**	RG	E	
80	8	**65X80X8 HMS5 V**	**HMS5**	V	E	◎
80	8	▲ **65X80X8 HMSA10 RG**	**HMSA10**	RG	E	
80	8	**65X80X8 HMSA10 V**	**HMSA10**	V	E	◎
82	10	65X82X10 HMS4 R	HMS4	R	S	
84	9	65X84X9 HMSA7 P	HMSA7	P	S	
85	8	**65X85X8 CRW1 R**	**CRW1**	R	W	■
85	8	**65X85X8 CRW1 V**	**CRW1**	V	W	■◎
85	8	**65X85X8 HMS5 RG**	**HMS5**	RG	E	
85	8	**65X85X8 HMS5 V**	**HMS5**	V	E	◎
85	8	▲ **65X85X8 HMSA10 RG**	**HMSA10**	RG	E	
85	8	**65X85X8 HMSA10 V**	**HMSA10**	V	E	◎
85	10	**65X85X10 HMS5 RG**	**HMS5**	RG	E	
85	10	**65X85X10 HMS5 V**	**HMS5**	V	E	◎
85	10	▲ **65X85X10 HMSA10 RG**	**HMSA10**	RG	E	
85	10	**65X85X10 HMSA10 V**	**HMSA10**	V	E	◎
85	12	**65X85X12 HMS5 RG**	**HMS5**	RG	E	
85	12	**65X85X12 HMS5 V**	**HMS5**	V	E	◎
85	12	**65X85X12 HMSA10 RG**	**HMSA10**	RG	E	
85	12	**65X85X12 HMSA10 V**	**HMSA10**	V	E	◎
88	8	**65X88X8 CRW1 R**	**CRW1**	R	W	■
88	10	65X88X10 HMSA7 R	HMSA7	R	S	
88	12	**65X88X12 HMS5 RG**	**HMS5**	RG	E	
88	12	**65X88X12 HMS5 V**	**HMS5**	V	E	◎
88	12	▲ **65X88X12 HMSA10 RG**	**HMSA10**	RG	E	
88	12	**65X88X12 HMSA10 V**	**HMSA10**	V	E	◎
90	7	**65X90X7 HMS5 RG**	**HMS5**	RG	E	
90	7	**65X90X7 HMS5 V**	**HMS5**	V	E	◎
90	7	▲ **65X90X7 HMSA10 RG**	**HMSA10**	RG	E	
90	7	**65X90X7 HMSA10 V**	**HMSA10**	V	E	◎
90	8	▲ **65X90X8 CRW1 R**	**CRW1**	R	W	■
90	8	**65X90X8 CRW1 V**	**CRW1**	V	W	■
90	10	**65X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**65X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲ **65X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**65X90X10 HMSA10 V**	**HMSA10**	V	E	◎
90	12	65X90X12 HMS4 R	HMS4	R	S	
90	13	65X90X13 HMSA7 R	HMSA7	R	S	
92	11.10	**65X92X11.1 CRWH1 R**	**CRWH1**	R	W	■
95	10	**65X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**65X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	▲ **65X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**65X95X10 HMSA10 V**	**HMSA10**	V	E	◎
100	8	▲ **65X100X8 CRW1 R**	**CRW1**	R	W	■
100	8	**65X100X8 CRW1 V**	**CRW1**	V	W	■
100	10	**65X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**65X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	▲ **65X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**65X100X10 HMSA10 V**	**HMSA10**	V	E	◎
110	10	▲ **65X110X10 CRW1 R**	**CRW1**	R	W	■
110	10	**65X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**65X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	**65X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**65X110X10 HMSA10 V**	**HMSA10**	V	E	◎
120	8	▲ **65X120X8 CRW1 R**	**CRW1**	R	W	■
120	10	**65X120X10 HMS5 RG**	**HMS5**	RG	E	
120	10	**65X120X10 HMS5 V**	**HMS5**	V	E	◎
120	10	▲ **65X120X10 HMSA10 RG**	**HMSA10**	RG	E	
120	10	**65X120X10 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**65X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**65X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	**65X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**65X120X12 HMSA10 V**	**HMSA10**	V	E	◎
140	12	**65X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**65X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	**65X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**65X140X12 HMSA10 V**	**HMSA10**	V	E	◎

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 2.562" (65.07 mm)						
3.379	0.433	**543882**	**CRW1**	R	W	
3.500	0.433	**538529**	**CRWHA1**	V	W	
INCH Shaft Diameter – 2.563" (65.10 mm)						
	0.938	**99256**	**SSLEEVE**			
Shaft Ø2.56-2.567" - 'on-shaft' width 0.781" - flange Ø2.891"						
3.481	0.500	**25561**	**CRWHA1**	R	W	■
3.500	0.438	▲ **25597**	**CRWH1**	R	W	■
3.500	0.500	25587	CRSHA1	P	S	
3.623	0.438	▲ **25641**	**CRWH1**	R	W	■
3.623	0.469	**25661**	**CRWA1**	P	W	■
3.625	0.438	**25652**	**CRWA1**	V	W	■
3.751	0.438	▲ **25713**	**CRWH1**	R	W	■
3.751	0.438	**25725**	**CRWH1**	V	W	■
3.751	0.438	**25714**	**CRWHA1**	R	W	■
3.873	0.438	▲ **25745**	**CRWHA1**	R	W	
3.876	0.438	**25748**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 66 mm (2.598")						
	23.8	**99259**	**SSLEEVE**			
Shaft Ø65.91-66.09mm - 'on-shaft' width 19.84mm - flange Ø75.95mm						
80	8.90	66X80X8.9 CRSHA1 R	CRSHA1	R	S	
85	9.50	**66X85X10 CRWHA1 R**	**CRWHA1**	R	W	■
88.42	11.13	**25970**	**CRWHA1**	P	W	■
INCH Shaft Diameter – 2.607" (66.22 mm)						
3.350	0.375	**25950**	**CRWH1**	P	W	■
INCH Shaft Diameter – 2.621" (66.57 mm)						
	0.938	**99261**	**SSLEEVE**			
Shaft Ø2.618-2.625" - 'on-shaft' width 0.781" - flange Ø3.047"						
INCH Shaft Diameter – 2.625" (66.68 mm)						
	0.625	**99260**	**SSLEEVE**			
Shaft Ø2.622-2.629" - 'on-shaft' width 0.5" - flange Ø3.047"						
	0.906	**99264**	**SSLEEVE**			
Shaft Ø2.621-2.628" - 'on-shaft' width 0.781" - flange Ø3.047"						
3.125	0.374	**533974**	**HM14**	R	G	
3.251	0.438	▲ **26110**	**CRWH1**	R	W	■
3.350	0.375	**26123**	**CRW1**	R	W	■
3.350	0.375	**26122**	**CRW1**	V	W	■
3.350	0.375	**26124**	**CRWA1**	R	W	■
3.350	0.438	**26128**	**CRW1**	R	W	
3.371	0.250	**26144**	**HM14**	R	G	■
3.371	0.438	▲ **26153**	**CRWHA1**	R	W	■
3.371	0.438	**545868**	**CRWHA1**	V	W	
3.374	0.438	▲ **26141**	**CRWHA1**	R	W	■
3.481	0.438	**26163**	**CRWH1**	R	W	■
3.500	0.375	**26177**	**CRW1**	V	W	■
3.500	0.375	▲ **26186**	**CRWA1**	R	W	■
3.500	0.438	**26191**	**CRWA1**	P	W	■
3.500	0.438	**26189**	**CRWH1**	R	W	■
3.500	0.438	**26190**	**CRWHA1**	R	W	■
3.543	0.438	**26194**	**CRWH1**	R	W	■
3.623	0.250	**26260**	**HM21**	R	G	■
3.623	0.375	**26237**	**CRW1**	R	W	■
3.623	0.375	**26204**	**CRW1**	V	W	■
3.623	0.375	**26220**	**CRWA1**	P	W	■
3.623	0.375	**26238**	**CRWA1**	R	W	■
3.623	0.438	▲ **26209**	**CRWH1**	R	W	■
3.623	0.438	26208	CRWH1	V	W	■
3.623	0.438	26211	CRWHA1	R	W	■
3.751	0.375	▲ 26284	CRWA1	R	W	■
3.751	0.438	26297	CRWH1	R	W	■
3.751	0.438	26298	CRWHA1	R	W	■
3.751	0.438	26299	CRWHA1	V	W	■
3.876	0.438	▲ 26328	CRWH1	R	W	■
3.936	0.438	26346	CRWH1	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.625" (66.68 mm)						
4.003	0.375	▲26354	CRWA1	R	W	■
4.003	0.438	26356	CRWH1	R	W	■
4.370	0.438	▲26359	CRWHA1	R	W	■
4.438	0.438	▲26368	CRWH1	R	W	■
INCH Shaft Diameter – 2.628" (66.75 mm)						
	0.938	**99262**	**SSLEEVE**			
Shaft Ø2.625-2.632" - 'on-shaft' width 0.781" - flange Ø3.047"						
	0.938	99842	GSLEEVE			
Shaft Ø2.625-2.632" - 'on-shaft' width 0.781" - flange Ø3.047"						
METRIC Shaft Diameter – 67 mm (2.638")						
88	8	67X88X8 HMS4 P	HMS4	P	S	
INCH Shaft Diameter – 2.648" (67.26 mm)						
3.812	0.500	26877	CRS1	R	S	■
INCH Shaft Diameter – 2.667" (67.74 mm)						
3.751	0.500	26620	HM1	R	G	
METRIC Shaft Diameter – 68 mm (2.677")						
	22.2	**99266**	**SSLEEVE**			
Shaft Ø67.82-68mm - 'on-shaft' width 19.05mm - flange Ø79.38mm						
85	8	**68X85X8 CRW1 R**	**CRW1**	R	W	■
85	8	68X85X8 HMS4 V	HMS4	V	S	
88	8	**68X88X8 CRW1 R**	**CRW1**	R	W	■
90	8	**68X90X8 CRW1 R**	**CRW1**	R	W	■
90	8	**68X90X8 CRW1 V**	**CRW1**	V	W	■
90	10	**68X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**68X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲**68X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**68X90X10 HMSA10 V**	**HMSA10**	V	E	◎
95	10	**68X95X10 CRW1 R**	**CRW1**	R	W	■
95	10	**68X95X10 CRW1 V**	**CRW1**	V	W	■
95	13	68X95X13 HMS4 R	HMS4	R	S	
100	10	**68X100X10 CRW1 R**	**CRW1**	R	W	■
100	10	68X100X10 HMS4 R	HMS4	R	S	
100	13	68X100X13 HMSA7 R	HMSA7	R	S	
INCH Shaft Diameter – 2.688" (68.28 mm)						
3.751	0.438	▲**26761**	**CRWH1**	R	W	■
3.876	0.438	▲**26921**	**CRWH1**	R	W	■
4.003	0.469	▲**26975**	**CRWH1**	R	W	■
)INCH Shaft Diameter – 2.730" (69.34 mm						
	0.906	**99268**	**SSLEEVE**			
Shaft Ø2.727-2.734" - 'on-shaft' width 0.781" - flange Ø3.125"						
INCH Shaft Diameter – 2.743" (69.67 mm)						
	0.938	**99273**	**SSLEEVE**			
Shaft Ø2.74-2.747" - 'on-shaft' width 0.781" - flange Ø3.065"						
INCH Shaft Diameter – 2.748" (69.80 mm)						
	0.938	**99274**	**SSLEEVE**			
Shaft Ø2.745-2.752" - 'on-shaft' width 0.781" - flange Ø3.125"						
	0.938	99843	GSLEEVE			
Shaft Ø2.745-2.752" - 'on-shaft' width 0.781" - flange Ø3.125"						
INCH Shaft Diameter – 2.750" (69.85 mm)						
	1.625	**99267**	**SSLEEVE**			
Shaft Ø2.747-2.754" - 'on-shaft' width 1.438" - flange Ø3.075"						
3.125	0.188	27210	HM1	R	G	
3.250	0.313	27225	HM1	R	G	
3.481	0.438	▲**27251**	**CRW1**	R	W	
3.500	0.250	**27271**	**HM14**	R	G	■
3.500	0.250	**546751**	**HM14**	V	G	■
3.500	0.375	**27268**	**CRW1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.750" (69.85 mm)						
3.500	0.375	▲**27269**	**CRWA1**	R	W	■
3.500	0.375	**27272**	**CRWA1**	V	W	■
3.500	0.438	**27280**	**CRWH1**	R	W	■
3.538	0.438	▲**27284**	**CRWH1**	R	W	■
3.543	0.433	**27293**	**CRWH1**	V	W	■
3.543	0.438	**27292**	**CRWH1**	P	W	■
3.543	0.438	**27295**	**CRWHA1**	P	W	■
3.623	0.438	▲**27334**	**CRWH1**	R	W	■
3.623	0.438	**27324**	**CRWH1**	V	W	■
3.751	0.250	**27394**	**HM21**	R	G	■
3.751	0.438	**27361**	**CRW1**	R	W	■
3.751	0.438	**27377**	**CRWA1**	P	W	■
3.751	0.438	**27362**	**CRWA1**	R	W	■
3.751	0.438	**27368**	**CRWH1**	R	W	■
3.751	0.438	**27365**	**CRWH1**	V	W	■
3.751	0.438	▲**27370**	**CRWHA1**	R	W	■
3.765	0.438	▲**27426**	**CRWH1**	R	W	■
3.779	0.762	27438	SCOT1	R	S	■
3.876	0.433	**27452**	**CRWHA1**	P	W	■
3.876	0.438	**27467**	**CRWA1**	R	W	■
3.876	0.438	▲**27470**	**CRWH1**	R	W	■
3.876	0.438	**27471**	**CRWHA1**	R	W	■
3.936	0.438	▲**27525**	**CRWH1**	R	W	■
3.937	0.438	**27526**	**CRWA1**	P	W	■
4.003	0.375	**27539**	**CRWA1**	V	W	■
4.003	0.438	▲**27541**	**CRWH1**	R	W	■
4.003	0.438	**27565**	**CRWHA1**	P	W	
4.125	0.438	27576	CRS1	P	S	■
4.125	0.563	27577	CRSA1	R	S	
4.249	0.438	▲**27600**	**CRWH1**	R	W	■
4.249	0.438	**27601**	**CRWHA1**	P	W	■
4.331	0.500	▲**27625**	**CRWHA1**	R	W	■
METRIC Shaft Diameter – 70 mm (2.756")						
	14.3	**99272**	**SSLEEVE**			
Shaft Ø69.85-70.03mm - 'on-shaft' width 10.31mm - flange Ø79.38mm						
	23.8	**99275**	**SSLEEVE**			
Shaft Ø69.85-70.03mm - 'on-shaft' width 19.84mm - flange Ø79.38mm						
	23.8	99844	GSLEEVE			
Shaft Ø69.85-70.03mm - 'on-shaft' width 19.84mm - flange Ø79.38mm						
	24	**99276**	**SSLEEVE**			
Shaft Ø69.93-70.1mm - 'on-shaft' width 19.99mm - flange Ø79.38mm						
	31.75	**99269**	**SSLEEVE**			
Shaft Ø69.85-70.03mm - 'on-shaft' width 28.58mm - flange Ø79.38mm						
85	7	70X85X7 HMS4 R	HMS4	R	S	
85	7	70X85X7 HMSA7 R	HMSA7	R	S	
85	8	**70X85X8 CRW1 R**	**CRW1**	R	W	■
85	8	**70X85X8 HMS5 RG**	**HMS5**	RG	E	
85	8	**70X85X8 HMS5 V**	**HMS5**	V	E	◎
85	8	▲**70X85X8 HMSA10 RG**	**HMSA10**	RG	E	
85	8	**70X85X8 HMSA10 V**	**HMSA10**	V	E	◎
88	8	▲**70X88X8 CRW1 R**	**CRW1**	R	W	■
88	8	**70X88X8 CRW1 V**	**CRW1**	V	W	■
88	12	70X88X12 HMS4 R	HMS4	R	S	
90	7	**70X90X7 HMS5 RG1**	**HMS5**	RG	E	
90	7	**70X90X7 HMS5 V1**	**HMS5**	V	E	◎
90	7	**70X90X7 HMSA10 RG1**	**HMSA10**	RG	E	
90	7	**70X90X7 HMSA10 V1**	**HMSA10**	V	E	◎
90	7	70X90X7 HMSA7P2 R	HMSA7P2	R	S	◆
90	8	**70X90X8 CRW1 R**	**CRW1**	R	W	■
90	10	**70X90X10 CRW1 H**	**CRW1**	H	W	■
90	10	**70X90X10 CRW1 V**	**CRW1**	V	W	■
90	10	**70X90X10 CRWHA1 P**	**CRWHA1**	P	W	■
90	10	**70X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**70X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲**70X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**70X90X10 HMSA10 V**	**HMSA10**	V	E	◎
90	12	**70X90X12 HMS5 RG**	**HMS5**	RG	E	
90	12	**70X90X12 HMS5 V**	**HMS5**	V	E	◎
90	12	**70X90X12 HMSA10 RG**	**HMSA10**	RG	E	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 70 mm (2.756")						
90	12	**70X90X12 HMSA10 V**	**HMSA10**	V	E	◎
90	13	70X90X13 HMS4 R	HMS4	R	S	
92	12	**70X92X12 HMS5 RG**	**HMS5**	RG	E	
92	12	**70X92X12 HMS5 V**	**HMS5**	V	E	◎
92	12	▲ **70X92X12 HMSA10 RG**	**HMSA10**	RG	E	
92	12	**70X92X12 HMSA10 V**	**HMSA10**	V	E	◎
95	10	**70X95X10 CRW1 R**	**CRW1**	R	W	■
95	10	**70X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**70X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	▲ **70X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**70X95X10 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**70X100X10 CRW1 R**	**CRW1**	R	W	■
100	10	**70X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**70X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	▲ **70X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**70X100X10 HMSA10 V**	**HMSA10**	V	E	◎
105	10	**70X105X10 CRW1 R**	**CRW1**	R	W	■
105	13	70X105X13 HMS4 R	HMS4	R	S	
110	8	**70X110X8 HMS5 RG**	**HMS5**	RG	E	
110	8	**70X110X8 HMS5 V**	**HMS5**	V	E	◎
110	8	▲ **70X110X8 HMSA10 RG**	**HMSA10**	RG	E	
110	8	**70X110X8 HMSA10 V**	**HMSA10**	V	E	◎
110	10	**70X110X10 CRW1 R**	**CRW1**	R	W	■
110	10	**70X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**70X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	**70X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**70X110X10 HMSA10 V**	**HMSA10**	V	E	◎
110	12	**70X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**70X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	**70X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**70X110X12 HMSA10 V**	**HMSA10**	V	E	◎
110	13	**70X110X13 HMS5 RG**	**HMS5**	RG	E	
110	13	**70X110X13 HMS5 V**	**HMS5**	V	E	◎
110	13	**70X110X13 HMSA10 RG**	**HMSA10**	RG	E	
110	13	**70X110X13 HMSA10 V**	**HMSA10**	V	E	◎
120	10	**70X120X10 HMS5 RG**	**HMS5**	RG	E	
120	10	**70X120X10 HMS5 V**	**HMS5**	V	E	◎
120	10	**70X120X10 HMSA10 RG**	**HMSA10**	RG	E	
120	10	**70X120X10 HMSA10 V**	**HMSA10**	V	E	◎
125	12	**70X125X12 HMS5 RG**	**HMS5**	RG	E	
125	12	**70X125X12 HMS5 V**	**HMS5**	V	E	◎
125	12	**70X125X12 HMSA10 RG**	**HMSA10**	RG	E	
125	12	**70X125X12 HMSA10 V**	**HMSA10**	V	E	◎
130	10	**70X130X10 HMS5 RG**	**HMS5**	RG	E	
130	10	**70X130X10 HMS5 V**	**HMS5**	V	E	◎
130	10	**70X130X10 HMSA10 RG**	**HMSA10**	RG	E	
130	10	**70X130X10 HMSA10 V**	**HMSA10**	V	E	◎
150	12	**70X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**70X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲ **70X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**70X150X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.813" (71.45 mm)						
	0.688	**99281**	**SSLEEVE**			
Shaft Ø2.809-2.816" - 'on-shaft' width 0.594" - flange Ø3.188"						
3.751	0.438	▲ **28035**	**CRWH1**	R	W	■
3.876	0.438	▲ **28116**	**CRWH1**	R	W	■
4.003	0.438	▲ **28175**	**CRWH1**	R	W	■
4.249	0.313	**28270**	**CRW1**	R	W	■
4.249	0.438	▲ **28275**	**CRWH1**	R	W	■
4.250	0.438	**28276**	**CRWH1**	P	W	■
METRIC Shaft Diameter – 72 mm (2.835")						
	22.2	**99284**	**SSLEEVE**			
Shaft Ø71.83-72.01mm - 'on-shaft' width 19.05mm - flange Ø81.92mm						
	22.2	99870	GSLEEVE			
Shaft Ø71.83-72.01mm - 'on-shaft' width 19.05mm - flange Ø81.92mm						
86	7.50	72X86X7.5 HMSA7 R	HMSA7	R	S	
88	8	**72X88X8 CRW1 R**	**CRW1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 72 mm (2.835")						
90	10	**72X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**72X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	▲ **72X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**72X90X10 HMSA10 V**	**HMSA10**	V	E	◎
95	10	**72X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**72X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	▲ **72X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**72X95X10 HMSA10 V**	**HMSA10**	V	E	◎
95	12	**72X95X12 HMS5 RG**	**HMS5**	RG	E	
95	12	**72X95X12 HMS5 V**	**HMS5**	V	E	◎
95	12	**72X95X12 HMSA10 RG**	**HMSA10**	RG	E	
95	12	**72X95X12 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**72X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**72X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	▲ **72X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**72X100X10 HMSA10 V**	**HMSA10**	V	E	◎
140	10	**72X140X10 HMS5 RG**	**HMS5**	RG	E	
140	10	**72X140X10 HMS5 V**	**HMS5**	V	E	◎
140	10	**72X140X10 HMSA10 RG**	**HMSA10**	RG	E	
140	10	**72X140X10 HMSA10 V**	**HMSA10**	V	E	◎
140	12	**72X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**72X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	**72X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**72X140X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.841" (72.16 mm)						
	0.656	**99282**	**SSLEEVE**			
Shaft Ø2.838-2.845" - 'on-shaft' width 0.5" - flange Ø3.225"						
	0.656	99845	GSLEEVE			
Shaft Ø2.838-2.845" - 'on-shaft' width 0.5" - flange Ø3.225"						
INCH Shaft Diameter – 2.844" (72.24 mm)						
3.939	0.500	**28425**	**CRWA1**	R	W	■
3.939	0.550	▲ **28426**	**CRWHA1**	R	W	■
4.003	0.438	▲ **28464**	**CRWH1**	R	W	■
4.003	0.500	**28474**	**CRWH1**	V	W	■◎
INCH Shaft Diameter – 2.869" (72.87 mm)						
	0.938	**99286**	**SSLEEVE**			
Shaft Ø2.866-2.873" - 'on-shaft' width 0.781" - flange Ø3.188"						
INCH Shaft Diameter – 2.875" (73.03 mm)						
	0.938	**99287**	**SSLEEVE**			
Shaft Ø2.873-2.88" - 'on-shaft' width 0.781" - flange Ø3.219"						
	0.938	99846	GSLEEVE			
Shaft Ø2.873-2.88" - 'on-shaft' width 0.781" - flange Ø3.219"						
3.434	0.294	28646	CRSA1	R	S	■
3.623	0.438	▲ **28654**	**CRWH1**	R	W	■
3.623	0.438	**28655**	**CRWHA1**	R	W	■
3.751	0.250	**28700**	**HM21**	R	G	■
3.751	0.375	▲ **28669**	**CRWA1**	R	W	■
3.751	0.375	**28670**	**CRWA1**	V	W	■
3.751	0.438	**28697**	**CRWH1**	P	W	■
3.751	0.438	▲ **28686**	**CRWH1**	R	W	■
3.751	0.438	**28698**	**CRWH1**	V	W	■
3.751	0.438	**28687**	**CRWHA1**	R	W	■
3.751	0.438	**28699**	**CRWHA1**	V	W	■
3.875	0.825	28758	SCOT1	R	S	■
3.875	0.825	28759	SCOT1	R	S	■
3.876	0.188	28725	HM1	R	G	■
3.876	0.250	**28751**	**HM21**	R	G	■
3.876	0.438	**28745**	**CRWH1**	R	W	■
3.876	0.438	▲ **28746**	**CRWHA1**	R	W	■
3.876	0.438	**28748**	**CRWHA1**	V	W	■
4.003	0.250	**28800**	**HM21**	R	G	■
4.003	0.375	**28778**	**CRWA1**	R	W	■
4.003	0.375	**28779**	**CRWA1**	V	W	■
4.003	0.438	▲ **28760**	**CRWH1**	R	W	■
4.003	0.438	**28761**	**CRWHA1**	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 2.875" (73.03 mm)						
4.003	0.750	28790	C8	R	W	
4.125	0.375	▲ **28817**	**CRWH1**	R	W	■
4.126	0.844	28820	SCOT1	R	S	■
4.176	0.844	28832	SCOT1	R	S	■
4.176	0.844	29400	SCOT1	R	S	■
4.331	0.438	**28841**	**CRWA1**	P	W	■
4.501	0.433	▲ **28848**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 74 mm (2.913")						
100	13	74X100X13 CRSH1 R	CRSH1	R	S	
INCH Shaft Diameter – 2.938" (74.63 mm)						
	0.641	**99290**	**SSLEEVE**			
Shaft Ø2.937-2.944" - 'on-shaft' width 0.5" - flange Ø3.344"						
	0.938	**99293**	**SSLEEVE**			
Shaft Ø2.937-2.944" - 'on-shaft' width 0.781" - flange Ø3.344"						
	0.938	99847	GSLEEVE			
Shaft Ø2.937-2.944" - 'on-shaft' width 0.781" - flange Ø3.344"						
3.623	0.375	▲ **29218**	**CRW1**	R	W	■
3.751	0.375	**29223**	**CRW1**	R	W	■
3.751	0.375	▲ **29224**	**CRWA1**	R	W	■
3.751	0.375	**29226**	**CRWA1**	V	W	■
3.876	0.375	▲ **29263**	**CRWHA1**	R	W	
3.876	0.375	**29262**	**CRWHA1**	V	W	■
3.937	0.438	**29273**	**CRWA1**	P	W	■
4.003	0.433	**29383**	**CRWHA1**	V	W	■
4.003	0.438	**29350**	**CRWA1**	P	W	■
4.003	0.438	▲ **29316**	**CRWH1**	R	W	■
4.003	0.438	▲ **29393**	**CRWHA1**	R	W	
4.125	0.375	▲ **29184**	**CRWH1**	R	W	■
4.125	0.375	**29385**	**CRWHA1**	R	W	■
4.501	0.438	▲ **29465**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 75 mm (2.953")						
	17.5	**99289**	**SSLEEVE**			
Shaft Ø74.93-75.11mm - 'on-shaft' width 15.09mm - flange Ø83.13mm						
	26	**99294**	**SSLEEVE**			
Shaft Ø74.93-75.11mm - 'on-shaft' width 22mm - flange Ø83.95mm						
	26	99875	GSLEEVE			
Shaft Ø74.93-75.11mm - 'on-shaft' width 22mm - flange Ø83.95mm						
90	7	**75X90X7 HMS5 RG1**	**HMS5**	RG	E	
90	7	**75X90X7 HMS5 V1**	**HMS5**	V	E	◎
90	7	▲ **75X90X7 HMSA10 RG1**	**HMSA10**	RG	E	
90	7	**75X90X7 HMSA10 V1**	**HMSA10**	V	E	◎
90	8	▲ **75X90X8 CRW1 R**	**CRW1**	R	W	■
90	8	75X90X8 HMS4 R	HMS4	R	S	
90	10	**75X90X10 HMS5 RG**	**HMS5**	RG	E	
90	10	**75X90X10 HMS5 V**	**HMS5**	V	E	◎
90	10	**75X90X10 HMSA10 RG**	**HMSA10**	RG	E	
90	10	**75X90X10 HMSA10 V**	**HMSA10**	V	E	◎
95	7	75X95X7 HMSA7P2 V	HMSA7P2	V	S	◆
95	8	75X95X8 HMSA7 R	HMSA7	R	S	
95	10	**75X95X10 CRW1 H**	**CRW1**	H	W	■
95	10	**75X95X10 CRW1 R**	**CRW1**	R	W	■
95	10	**75X95X10 CRW1 V**	**CRW1**	V	W	■
95	10	**75X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**75X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	▲ **75X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**75X95X10 HMSA10 V**	**HMSA10**	V	E	◎
95	12	**75X95X12 HMS5 RG**	**HMS5**	RG	E	
95	12	**75X95X12 HMS5 V**	**HMS5**	V	E	◎
95	12	**75X95X12 HMSA10 RG**	**HMSA10**	RG	E	
95	12	**75X95X12 HMSA10 V**	**HMSA10**	V	E	◎
100	10	**75X100X10 CRW1 R**	**CRW1**	R	W	■
100	10	**75X100X10 CRW1 V**	**CRW1**	V	W	■
100	10	**75X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**75X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	▲ **75X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**75X100X10 HMSA10 V**	**HMSA10**	V	E	◎

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 75 mm (2.953")						
100	12	**75X100X12 HMS5 RG**	**HMS5**	RG	E	
100	12	**75X100X12 HMS5 V**	**HMS5**	V	E	◎
100	12	**75X100X12 HMSA10 RG**	**HMSA10**	RG	E	
100	12	**75X100X12 HMSA10 V**	**HMSA10**	V	E	◎
100	13	75X100X13 HMS4 R	HMS4	R	S	
105	10	**75X105X10 CRW1 R**	**CRW1**	R	W	■
105	10	**75X105X10 HMS5 RG**	**HMS5**	RG	E	
105	10	**75X105X10 HMS5 V**	**HMS5**	V	E	◎
105	10	▲ **75X105X10 HMSA10 RG**	**HMSA10**	RG	E	
105	10	**75X105X10 HMSA10 V**	**HMSA10**	V	E	◎
110	10	**75X110X10 CRW1 R**	**CRW1**	R	W	■
110	12	**75X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**75X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	▲ **75X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**75X110X12 HMSA10 V**	**HMSA10**	V	E	◎
115	10	**75X115X10 HMS5 RG**	**HMS5**	RG	E	
115	10	**75X115X10 HMS5 V**	**HMS5**	V	E	◎
115	10	▲ **75X115X10 HMSA10 RG**	**HMSA10**	RG	E	
115	10	**75X115X10 HMSA10 V**	**HMSA10**	V	E	◎
115	12	**75X115X12 CRW1 R**	**CRW1**	R	W	■
115	13	**75X115X13 HMS5 RG**	**HMS5**	RG	E	
115	13	**75X115X13 HMS5 V**	**HMS5**	V	E	◎
115	13	**75X115X13 HMSA10 RG**	**HMSA10**	RG	E	
115	13	**75X115X13 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**75X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**75X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	▲ **75X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**75X120X12 HMSA10 V**	**HMSA10**	V	E	◎
130	12	**75X130X12 HMS5 RG**	**HMS5**	RG	E	
130	12	**75X130X12 HMS5 V**	**HMS5**	V	E	◎
130	12	**75X130X12 HMSA10 RG**	**HMSA10**	RG	E	
130	12	**75X130X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 2.974" (75.54 mm)						
	1.000	**99292**	**SSLEEVE**			
Shaft Ø2.972-2.979" - 'on-shaft' width 0.812" - flange Ø3.235"						
METRIC Shaft Diameter – 76 mm (2.992")						
94	9	29519	HMSA7	V	S	
INCH Shaft Diameter – 2.993" (76.02 mm)						
	0.625	**99291**	**SSLEEVE**			
Shaft Ø2.99-2.997" - 'on-shaft' width 0.484" - flange Ø3.359"						
	0.688	**99298**	**SSLEEVE**			
Shaft Ø2.99-2.997" - 'on-shaft' width 0.563" - flange Ø3.359"						
	1.000	**99299**	**SSLEEVE**			
Shaft Ø2.99-2.997" - 'on-shaft' width 0.813" - flange Ø3.35"						
INCH Shaft Diameter – 3.000" (76.28 mm)						
	0.938	**99296**	**SSLEEVE**			
Shaft Ø2.997-3.004" - 'on-shaft' width 0.813" - flange Ø3.24"						
3.500	0.313	29840	HM1	R	G	
3.500	0.375	**29841**	**CRW1**	V	W	■
3.751	0.250	**29863**	**HM21**	R	G	■
3.751	0.375	**29865**	**CRW1**	R	W	
3.751	0.375	**29868**	**CRW1**	V	W	■
3.751	0.375	**29867**	**CRWA1**	P	W	■
3.751	0.375	▲ **29866**	**CRWA1**	R	W	■
3.751	0.375	**29870**	**CRWA1**	V	W	■
3.751	0.438	**29871**	**CRWH1**	R	W	■
3.751	0.438	**29872**	**CRWHA1**	R	W	■
3.876	0.313	**29877**	**CRW1**	V	W	■
3.876	0.438	▲ **29887**	**CRWH1**	R	W	■
3.876	0.469	**29891**	**CRWH1**	V	W	■◎
4.003	0.250	**29968**	**HM21**	R	G	
4.003	0.375	**29906**	**CRW1**	R	W	■
4.003	0.375	▲ **29907**	**CRWA1**	R	W	■
4.003	0.375	**29912**	**CRWA1**	V	W	■
4.003	0.375	**29950**	**CRWH1**	P	W	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 3.000" (76.28 mm)						
4.003	0.438	**29951**	**CRWH1**	R	W	
4.003	0.438	**29958**	**CRWH1**	V	W	■
4.003	0.438	**29925**	**CRWHA1**	P	W	
4.003	0.438	**29952**	**CRWHA1**	R	W	■
4.125	0.438	▲ **30000**	**CRWH1**	R	W	■
4.125	0.438	**30003**	**CRWH1**	V	W	■
4.249	0.250	**30049**	**HM21**	R	G	■
4.249	0.438	▲ **30033**	**CRWH1**	R	W	
4.249	0.438	**30056**	**CRWHA1**	P	W	■
4.331	0.438	▲ **30060**	**CRWH1**	R	W	■
4.376	0.438	▲ **30070**	**CRWH1**	R	W	■
4.500	0.438	▲ **30087**	**CRWH1**	R	W	■
4.500	0.438	**30095**	**CRWHA1**	R	W	■
4.501	0.438	**30098**	**CRWH1**	V	W	■
4.999	0.438	▲ **30125**	**CRWH1**	R	W	■
INCH Shaft Diameter – 3.003" (76.28 mm)						
	0.813	**99048**	**SSLEEVE**			
Shaft Ø3-3.007" - 'on-shaft' width 0.625" - flange Ø3.345"						
	1.000	**99300**	**SSLEEVE**			
Shaft Ø3-3.007" - 'on-shaft' width 0.813" - flange Ø3.235"						
	1.000	99848	GSLEEVE			
Shaft Ø3-3.007" - 'on-shaft' width 0.813" - flange Ø3.235"						
INCH Shaft Diameter – 3.011" (76.48 mm)						
	0.625	**99301**	**SSLEEVE**			
Shaft Ø3.008-3.015" - 'on-shaft' width 0.5" - flange Ø3.355"						
INCH Shaft Diameter – 3.040" (77.22 mm)						
3.937	0.250	30360	HMS4	R	S	
METRIC Shaft Diameter – 78 mm (3.071")						
	22.2	**99306**	**SSLEEVE**			
Shaft Ø77.83-78mm - 'on-shaft' width 19.05mm - flange Ø88.09mm						
100	10	**78X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**78X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	▲ **78X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**78X100X10 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.125" (79.38 mm)						
	0.709	**99053**	**SSLEEVE**			
Shaft Ø3.124-3.131" - 'on-shaft' width 0.551" - flange Ø3.525"						
	0.813	**99311**	**SSLEEVE**			
Shaft Ø3.12-3.127" - 'on-shaft' width 0.688" - flange Ø3.531"						
	1.000	**99312**	**SSLEEVE**			
Shaft Ø3.12-3.127" - 'on-shaft' width 0.813" - flange Ø3.531"						
	1.000	99849	GSLEEVE			
Shaft Ø3.12-3.127" - 'on-shaft' width 0.813" - flange Ø3.531"						
3.751	0.250	31129	HMA1	R	G	■
3.811	0.355	▲ **31135**	**CRW1**	R	W	■
3.811	0.355	**31132**	**CRW1**	V	W	■
3.936	0.512	31144	CRSHA1	V	S	
4.003	0.375	**31139**	**CRWA1**	R	W	■
4.003	0.375	**31152**	**CRWHA1**	V	W	■
4.003	0.438	**31147**	**CRWH1**	R	W	■
4.003	0.438	▲ **31148**	**CRWHA1**	R	W	■
4.125	0.250	31192	HMA1	R	G	
4.125	0.375	**31177**	**CRW1**	R	W	■
4.125	0.375	**31179**	**CRWA1**	V	W	■
4.125	0.438	▲ **31189**	**CRWH1**	R	W	
4.125	0.438	**31173**	**CRWHA1**	P	W	■
4.125	0.438	**31185**	**CRWHA1**	S	W	■
4.174	0.290	31203	HMA1	R	G	
4.249	0.438	**31227**	**CRWH1**	R	W	■
4.249	0.438	▲ **31228**	**CRWHA1**	R	W	■
4.249	0.438	**31237**	**CRWHA1**	V	W	■
4.376	0.438	▲ **31250**	**CRWH1**	R	W	■
4.376	0.438	**31261**	**CRWHA1**	P	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 3.125" (79.38 mm)						
4.500	0.672	31281	SCOT1	R	S	■
4.501	0.438	▲ **31269**	**CRWH1**	R	W	■
4.626	0.438	▲ **31299**	**CRWH1**	R	W	■
4.751	0.438	**31327**	**CRWH1**	R	W	
4.999	0.438	▲ **31333**	**CRWH1**	R	W	■
5.251	0.438	▲ **31353**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 80 mm (3.150")						
	15	**99317**	**SSLEEVE**			
Shaft Ø79.91-80.09mm - 'on-shaft' width 11mm - flange Ø89.99mm						
	22.5	**99313**	**SSLEEVE**			
Shaft Ø79.81-79.98mm - 'on-shaft' width 19.05mm - flange Ø89.92mm						
	24	**99315**	**SSLEEVE**			
Shaft Ø79.91-80.09mm - 'on-shaft' width 21.01mm - flange Ø89.99mm						
95	10	**80X95X10 HMS5 RG**	**HMS5**	RG	E	
95	10	**80X95X10 HMS5 V**	**HMS5**	V	E	◎
95	10	**80X95X10 HMSA10 RG**	**HMSA10**	RG	E	
95	10	**80X95X10 HMSA10 V**	**HMSA10**	V	E	◎
100	7	**80X100X7 HMS5 RG1**	**HMS5**	RG	E	
100	7	**80X100X7 HMS5 V1**	**HMS5**	V	E	◎
100	7	**80X100X7 HMSA10 RG1**	**HMSA10**	RG	E	
100	7	**80X100X7 HMSA10 V1**	**HMSA10**	V	E	◎
100	7	80X100X7 HMSA7P2 R	HMSA7P2	R	S	◆
100	7	80X100X7 HMSA7P2 V	HMSA7P2	V	S	◆
100	10	**80X100X10 CRW1 R**	**CRW1**	R	W	■
100	10	**80X100X10 CRW1 V**	**CRW1**	V	W	■
100	10	**80X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**80X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**80X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**80X100X10 HMSA10 V**	**HMSA10**	V	E	◎
100	12	**80X100X12 HMS5 RG**	**HMS5**	RG	E	
100	12	**80X100X12 HMS5 V**	**HMS5**	V	E	◎
100	12	**80X100X12 HMSA10 RG**	**HMSA10**	RG	E	
100	12	**80X100X12 HMSA10 V**	**HMSA10**	V	E	◎
100	13	80X100X13 CRSA1 R	CRSA1	R	S	
100.22	10	**31511**	**CRW1**	V	W	■
105	10	**80X105X10 CRW1 R**	**CRW1**	R	W	■
105	10	**80X105X10 CRW1 V**	**CRW1**	V	W	■
105	10	**80X105X10 HMS5 RG**	**HMS5**	RG	E	
105	10	**80X105X10 HMS5 V**	**HMS5**	V	E	◎
105	10	▲ **80X105X10 HMSA10 RG**	**HMSA10**	RG	E	
105	10	**80X105X10 HMSA10 V**	**HMSA10**	V	E	◎
110	10	**80X110X10 CRW1 R**	**CRW1**	R	W	■
110	10	**80X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**80X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	▲ **80X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**80X110X10 HMSA10 V**	**HMSA10**	V	E	◎
110	12	**80X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**80X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	**80X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**80X110X12 HMSA10 V**	**HMSA10**	V	E	◎
115	12	**80X115X12 HMS5 RG**	**HMS5**	RG	E	
115	12	**80X115X12 HMS5 V**	**HMS5**	V	E	◎
115	12	**80X115X12 HMSA10 RG**	**HMSA10**	RG	E	
115	12	**80X115X12 HMSA10 V**	**HMSA10**	V	E	◎
120	13	80X120X13 HMS4 R	HMS4	R	S	
125	10	**80X125X10 CRW1 R**	**CRW1**	R	W	■
125	10	**80X125X10 CRW1 V**	**CRW1**	V	W	■
125	12	**80X125X12 HMS5 RG**	**HMS5**	RG	E	
125	12	**80X125X12 HMS5 V**	**HMS5**	V	E	◎
125	12	**80X125X12 HMSA10 RG**	**HMSA10**	RG	E	
125	12	**80X125X12 HMSA10 V**	**HMSA10**	V	E	◎
125	13	**80X125X13 HMS5 RG**	**HMS5**	RG	E	
125	13	**80X125X13 HMS5 V**	**HMS5**	V	E	◎
125	13	**80X125X13 HMSA10 RG**	**HMSA10**	RG	E	
125	13	**80X125X13 HMSA10 V**	**HMSA10**	V	E	◎
125	13	80X125X13 CRSH1 R	CRSH1	R	S	
130	12	**80X130X12 CRWA1 R**	**CRWA1**	R	W	■
140	12	**80X140X12 CRW1 R**	**CRW1**	R	W	■
140	13	**80X140X13 HMS5 RG**	**HMS5**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 80 mm (3.150")						
140	13	**80X140X13 HMS5 V**	**HMS5**	V	E	◎
140	13	**80X140X13 HMSA10 RG**	**HMSA10**	RG	E	
140	13	**80X140X13 HMSA10 V**	**HMSA10**	V	E	◎
170	13	**80X170X13 HMS5 RG**	**HMS5**	RG	E	
170	13	**80X170X13 HMS5 V**	**HMS5**	V	E	◎
170	13	**80X170X13 HMSA10 RG**	**HMSA10**	RG	E	
170	13	**80X170X13 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.188" (80.98 mm)						
4.249	0.438	▲ **31758**	**CRWH1**	R	W	■
4.376	0.438	▲ **31825**	**CRWH1**	R	W	■
4.501	0.438	▲ **31855**	**CRWH1**	R	W	■
4.626	0.438	▲ **31870**	**CRWH1**	R	W	■
4.999	0.438	▲ **31955**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 82 mm (3.228")						
	21.5	**99328**	**SSLEEVE**			
Shaft Ø81.92-82.09mm - 'on-shaft' width 16.76mm - flange Ø91.06mm						
105	12	82X105X12 HMS4 R	HMS4	R	S	
110	12	82X110X12 HMS4 R	HMS4	R	S	
110	12	82X110X12 HMSA7 R	HMSA7	R	S	
120	12	**82X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**82X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	**82X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**82X120X12 HMSA10 V**	**HMSA10**	V	E	◎
120	13	**82X120X13 HMS5 RG**	**HMS5**	RG	E	
120	13	**82X120X13 HMS5 V**	**HMS5**	V	E	◎
120	13	**82X120X13 HMSA10 RG**	**HMSA10**	RG	E	
120	13	**82X120X13 HMSA10 V**	**HMSA10**	V	E	◎
160	12	**82X160X12 HMS5 RG**	**HMS5**	RG	E	
160	12	**82X160X12 HMS5 V**	**HMS5**	V	E	◎
160	12	**82X160X12 HMSA10 RG**	**HMSA10**	RG	E	
160	12	**82X160X12 HMSA10 V**	**HMSA10**	V	E	◎
160	15	**82X160X15 HMS5 RG**	**HMS5**	RG	E	
160	15	**82X160X15 HMS5 V**	**HMS5**	V	E	◎
160	15	**82X160X15 HMSA10 RG**	**HMSA10**	RG	E	
160	15	**82X160X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.250" (82.55 mm)						
	0.719	**99324**	**SSLEEVE**			
Shaft Ø3.25-3.257" - 'on-shaft' width 0.595" - flange Ø3.575"						
	0.719	99850	GSLEEVE			
Shaft Ø3.25-3.257" - 'on-shaft' width 0.595" - flange Ø3.575"						
	0.875	**99326**	**SSLEEVE**			
Shaft Ø3.25-3.257" - 'on-shaft' width 0.688" - flange Ø3.585"						
	1.000	**99322**	**SSLEEVE**			
Shaft Ø3.247-3.254" - 'on-shaft' width 0.813" - flange Ø3.594"						
	1.000	**99325**	**SSLEEVE**			
Shaft Ø3.25-3.257" - 'on-shaft' width 0.813" - flange Ø3.585"						
	1.000	99851	GSLEEVE			
Shaft Ø3.25-3.257" - 'on-shaft' width 0.813" - flange Ø3.585"						
3.750	0.250	32325	HMA1	R	G	■
3.876	0.375	**32330**	**CRW1**	P	W	■
4.003	0.375	▲ **32344**	**CRW1**	R	W	■
4.003	0.375	**32347**	**CRWA1**	P	W	■
4.125	0.563	32362	CRSH1	R	S	■
4.249	0.375	**32393**	**CRW1**	R	W	■
4.249	0.375	▲ **32395**	**CRWA1**	R	W	■
4.249	0.375	**32392**	**CRWA1**	V	W	■
4.249	0.438	**32380**	**CRWH1**	P	W	
4.249	0.438	**32396**	**CRWH1**	R	W	■
4.249	0.438	**32403**	**CRWH1**	V	W	■
4.249	0.438	**32385**	**CRWHA1**	P	W	■
4.249	0.438	**32397**	**CRWHA1**	R	W	■
4.376	0.438	▲ **32424**	**CRWH1**	R	W	■
4.500	0.438	**32448**	**CRWA1**	P	W	■
4.501	0.250	**32510**	**HM21**	R	G	■
4.501	0.375	**32477**	**CRW1**	R	W	■
4.501	0.438	**32501**	**CRWH1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 3.250" (82.55 mm)						
4.501	0.438	▲ **32502**	**CRWHA1**	R	W	■
4.501	0.672	32470	SCOT1	R	S	■
4.626	0.433	**32514**	**CRWHA1**	R	W	
4.626	0.438	▲ **32540**	**CRWH1**	R	W	■
4.718	0.438	**32555**	**CRWH1**	R	W	■
4.751	0.438	▲ **32560**	**CRWH1**	R	W	■
4.999	0.438	▲ **32582**	**CRWH1**	R	W	■
4.999	0.438	**32583**	**CRWHA1**	R	W	■
INCH Shaft Diameter – 3.298" (83.77 mm)						
4.125	0.563	32815	CRSA1	R	S	■
INCH Shaft Diameter – 3.310" (84.07 mm)						
	1.000	**99331**	**SSLEEVE**			
Shaft Ø3.307-3.314" - 'on-shaft' width 0.813" - flange Ø3.688"						
INCH Shaft Diameter – 3.313" (84.15 mm)						
4.125	0.438	▲ **33033**	**CRWH1**	R	W	■
4.249	0.438	▲ **33073**	**CRWH1**	R	W	■
4.500	0.438	▲ **33136**	**CRWH1**	R	W	■
4.999	0.438	▲ **33306**	**CRWH1**	R	W	■
INCH Shaft Diameter – 3.313" (84.15 mm)						
	0.827	**99332**	**SSLEEVE**			
Shaft Ø3.337-3.344" - 'on-shaft' width 0.669" - flange Ø3.7"						
	0.984	**99333**	**SSLEEVE**			
Shaft Ø3.337-3.344" - 'on-shaft' width 0.827" - flange Ø3.7"						
	0.984	99872	GSLEEVE			
Shaft Ø3.337-3.344" - 'on-shaft' width 0.827" - flange Ø3.7"						
METRIC Shaft Diameter – 85 mm (3.346")						
	12.7	**99334**	**SSLEEVE**			
Shaft Ø84.79-84.96mm - 'on-shaft' width 10.13mm - flange Ø90.93mm						
100	9	**85X100X9 HMS5 RG**	**HMS5**	RG	E	
100	9	**85X100X9 HMS5 V**	**HMS5**	V	E	◎
100	9	▲ **85X100X9 HMSA10 RG**	**HMSA10**	RG	E	
100	9	**85X100X9 HMSA10 V**	**HMSA10**	V	E	◎
100	9	85X100X9 CRS1 R	CRS1	R	S	
100	10	**85X100X10 HMS5 RG**	**HMS5**	RG	E	
100	10	**85X100X10 HMS5 V**	**HMS5**	V	E	◎
100	10	**85X100X10 HMSA10 RG**	**HMSA10**	RG	E	
100	10	**85X100X10 HMSA10 V**	**HMSA10**	V	E	◎
105	10	▲ **85X105X10 CRW1 R**	**CRW1**	R	W	■
105	10	**85X105X10 CRW1 V**	**CRW1**	V	W	■
105	12	**85X105X12 HMS5 RG**	**HMS5**	RG	E	
105	12	**85X105X12 HMS5 V**	**HMS5**	V	E	◎
105	12	▲ **85X105X12 HMSA10 RG**	**HMSA10**	RG	E	
105	12	**85X105X12 HMSA10 V**	**HMSA10**	V	E	◎
105	13	85X105X13 HMSA7 R	HMSA7	R	S	
110	10	▲ **85X110X10 CRW1 R**	**CRW1**	R	W	■
110	10	**85X110X10 CRWA1 V**	**CRWA1**	V	W	■
110	12	**85X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**85X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	▲ **85X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**85X110X12 HMSA10 V**	**HMSA10**	V	E	◎
115	12	**85X115X12 HMS5 RG**	**HMS5**	RG	E	
115	12	**85X115X12 HMS5 V**	**HMS5**	V	E	◎
115	12	▲ **85X115X12 HMSA10 RG**	**HMSA10**	RG	E	
115	12	**85X115X12 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**85X120X12 CRW1 R**	**CRW1**	R	W	■
120	12	**85X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**85X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	▲ **85X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**85X120X12 HMSA10 V**	**HMSA10**	V	E	◎
130	10	**85X130X10 HMS5 RG**	**HMS5**	RG	E	
130	10	**85X130X10 HMS5 V**	**HMS5**	V	E	◎
130	10	▲ **85X130X10 HMSA10 RG**	**HMSA10**	RG	E	
130	10	**85X130X10 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 85 mm (3.346")						
130	12	**85X130X12 CRW1 R**	**CRW1**	R	W	■
130	12	**85X130X12 HMS5 RG**	**HMS5**	RG	E	
130	12	**85X130X12 HMS5 V**	**HMS5**	V	E	◎
130	12	**85X130X12 HMSA10 RG**	**HMSA10**	RG	E	
130	12	**85X130X12 HMSA10 V**	**HMSA10**	V	E	◎
140	12	**85X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**85X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	**85X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**85X140X12 HMSA10 V**	**HMSA10**	V	E	◎
150	12	**85X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**85X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲ **85X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**85X150X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.375" (85.73 mm)						
	0.500	**99338**	**SSLEEVE**			
Shaft Ø3.373-3.38" - 'on-shaft' width 0.375" - flange Ø3.688"						
	1.000	**99337**	**SSLEEVE**			
Shaft Ø3.373-3.38" - 'on-shaft' width 0.813" - flange Ø3.695"						
3.948	0.375	33628	HMSA7	P	S	
4.125	0.375	▲ **33645**	**CRW1**	R	W	■
4.125	0.375	**34647**	**CRWA1**	V	W	■
4.249	0.438	▲ **33665**	**CRWHA1**	R	W	■
4.280	0.406	**33654**	**CRWA1**	S	W	■
4.376	0.375	**33700**	**CRW1**	R	W	■
4.376	0.375	▲ **33701**	**CRWA1**	R	W	■
4.376	0.375	**33699**	**CRWA1**	V	W	■
4.376	0.438	**33711**	**CRWH1**	R	W	■
4.376	0.438	**33712**	**CRWHA1**	R	W	■
4.501	0.438	**33733**	**CRWA1**	V	W	■
4.501	0.438	▲ **33735**	**CRWH1**	R	W	■
4.626	0.438	▲ **33772**	**CRWH1**	R	W	■
4.626	0.438	**33773**	**CRWHA1**	R	W	■
4.626	0.438	**33775**	**CRWHA1**	V	W	■
4.686	0.438	▲ **33807**	**CRWH1**	R	W	
4.999	0.438	▲ **33837**	**CRWH1**	R	W	
5.251	0.438	**33866**	**CRWHA1**	R	W	■
INCH Shaft Diameter – 3.438" (87.33 mm)						
	0.906	**99339**	**SSLEEVE**			
Shaft Ø3.435-3.442" - 'on-shaft' width 0.781" - flange Ø3.844"						
4.249	0.375	▲ **34256**	**CRW1**	R	W	■
4.501	0.375	**34279**	**CRWA1**	R	W	■
4.501	0.438	**34282**	**CRWH1**	R	W	■
4.501	0.438	**34283**	**CRWHA1**	R	W	■
4.626	0.438	▲ **34336**	**CRWH1**	R	W	■
4.626	0.438	**34338**	**CRWHA1**	R	W	■
4.751	0.438	**34379**	**CRWA1**	R	W	■
4.756	0.438	▲ **34383**	**CRWH1**	R	W	■
4.757	0.700	34384	PLUS XL	H	W	
4.757	0.859	34387	SCOT1	R	S	■
4.876	0.438	▲ **34398**	**CRWH1**	R	W	■
4.999	0.438	▲ **34407**	**CRWH1**	R	W	■
4.999	0.438	**34408**	**CRWHA1**	R	W	■
INCH Shaft Diameter – 3.441" (87.40 mm)						
4.196	0.711	34395	HMA1	R	G	
METRIC Shaft Diameter – 88 mm (3.465")						
	34.27	**99481**	**SSLEEVE**			
Shaft Ø87.91-87.99mm - 'on-shaft' width 29.2mm - flange Ø95.3mm						
110	12	88X110X12 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 3.480" (88.39 mm)						
	0.906	**99340**	**SSLEEVE**			
Shaft Ø3.477-3.484" - 'on-shaft' width 0.781" - flange Ø3.835"						

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 3.500" (88.90 mm)						
	0.813	**99346**	**SSLEEVE**			
Shaft Ø3.497-3.504" - 'on-shaft' width 0.625" - flange Ø3.844"						
4.000	0.300	34835	HM1	R	G	
4.003	0.250	**34840**	**HM14**	R	G	■
4.125	0.250	**34848**	**HM14**	R	G	
4.125	0.250	**546770**	**HM14**	V	G	■
4.249	0.438	**34857**	**CRWHA1**	V	W	■
4.376	0.375	▲ **34860**	**CRW1**	R	W	■
4.376	0.375	**34861**	**CRWA1**	R	W	■
4.376	0.375	**34866**	**CRWA1**	V	W	■
4.376	0.433	**34867**	**CRWH1**	R	W	■
4.376	0.433	**34869**	**CRWHA1**	V	W	■
4.376	0.438	**34868**	**CRWHA1**	R	W	■
4.501	0.250	**34967**	**HM21**	R	G	
4.501	0.375	**34886**	**CRW1**	R	W	■
4.501	0.375	▲ **34887**	**CRWA1**	R	W	■
4.501	0.375	**34883**	**CRWA1**	V	W	■
4.501	0.433	**536389**	**CRWHA1**	V	W	
4.501	0.438	**34888**	**CRWH1**	R	W	■
4.501	0.438	**34892**	**CRWH1**	V	W	■
4.501	0.438	**34891**	**CRWHA1**	P	W	
4.501	0.438	**34889**	**CRWHA1**	R	W	■
4.547	0.862	34975	SCOT1	R	S	■
4.547	0.900	34971	PLUS XL	H	W	
4.626	0.438	▲ **34985**	**CRWH1**	R	W	■
4.626	0.986	35000	SCOT1	R	S	■
4.750	0.706	34994	PLUS XL	H	W	
4.751	0.250	**35042**	**HM21**	R	G	■
4.751	0.375	**35040**	**CRWA1**	P	W	■
4.751	0.375	**35039**	**CRWA1**	V	W	■
4.751	0.438	**35012**	**CRWH1**	R	W	■
4.751	0.438	▲ **35020**	**CRWHA1**	R	W	■
4.751	0.625	**35029**	**CRWH1**	R	W	■
4.842	0.903	35058	PLUS XL	H	W	
4.842	0.904	35066	SCOT1	R	S	■
4.999	0.438	**35080**	**CRWA1**	V	W	■
4.999	0.438	▲ **35082**	**CRWH1**	R	W	■
4.999	0.438	**35083**	**CRWHA1**	P	W	■
5.126	0.438	▲ **35086**	**CRWH1**	R	W	■
5.126	0.438	**35095**	**CRWHA1**	R	W	■
5.251	0.438	▲ **35096**	**CRWH1**	R	W	■
5.751	0.563	**35111**	**CRSH1**	R	S	■
INCH Shaft Diameter – 3.503" (88.98 mm)						
	0.500	**99347**	**SSLEEVE**			
Shaft Ø3.5-3.507" - 'on-shaft' width 0.313" - flange Ø3.825"						
	1.000	**99350**	**SSLEEVE**			
Shaft Ø3.5-3.507" - 'on-shaft' width 0.813" - flange Ø3.844"						
	1.000	99852	GSLEEVE			
Shaft Ø3.5-3.507" - 'on-shaft' width 0.813" - flange Ø3.844"						
INCH Shaft Diameter – 3.504" (89.00 mm)						
	0.813	**99349**	**SSLEEVE**			
Shaft Ø3.501-3.508" - 'on-shaft' width 0.625" - flange Ø3.844"						
METRIC Shaft Diameter – 90 mm (3.543")						
	13.7	**99352**	**SSLEEVE**			
Shaft Ø89.92-90.09mm - 'on-shaft' width 11.13mm - flange Ø101.6mm						
	16.9	**99353**	**SSLEEVE**			
Shaft Ø89.92-90.09mm - 'on-shaft' width 13.36mm - flange Ø101.6mm						
	23	**99351**	**SSLEEVE**			
Shaft Ø89.92-90.09mm - 'on-shaft' width 18.03mm - flange Ø101.6mm						
	28	**99354**	**SSLEEVE**			
Shaft Ø89.92-90.09mm - 'on-shaft' width 23.01mm - flange Ø101.6mm						
110	7.50	**90X110X7.5 HMS5 V1**	**HMS5**	V	E	◎
110	7.50	90X110X7.50 HMSA7P2 R	HMSA7P2	R	S	◆
110	8	90X110X8 HMS4 R	HMS4	R	S	
110	10	**90X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**90X110X10 HMS5 V**	**HMS5**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 90 mm (3.543")						
110	10	**90X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**90X110X10 HMSA10 V**	**HMSA10**	V	E	◎
110	12	**90X110X12 CRW1 R**	**CRW1**	R	W	■
110	12	**90X110X12 CRW1 V**	**CRW1**	V	W	■
110	12	**90X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**90X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	▲ **90X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**90X110X12 HMSA10 V**	**HMSA10**	V	E	◎
115	12	**90X115X12 CRWA1 R**	**CRWA1**	R	W	■
115	12	**90X115X12 HMS5 RG**	**HMS5**	RG	E	
115	12	**90X115X12 HMS5 V**	**HMS5**	V	E	◎
115	12	▲ **90X115X12 HMSA10 RG**	**HMSA10**	RG	E	
115	12	**90X115X12 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**90X120X12 CRW1 R**	**CRW1**	R	W	■
120	12	**90X120X12 CRW1 V**	**CRW1**	V	W	■
120	12	**90X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**90X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	▲ **90X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**90X120X12 HMSA10 V**	**HMSA10**	V	E	◎
120	13	90X120X13 HMS4 R	HMS4	R	S	
125	12	**90X125X12 CRW1 R**	**CRW1**	R	W	■
125	12	**90X125X12 CRW1 V**	**CRW1**	V	W	■
125	13	90X125X13 HMS4 R	HMS4	R	S	
125	13	90X125X13 HMSA7 R	HMSA7	R	S	
130	12	**90X130X12 CRW1 R**	**CRW1**	R	W	■
140	12	▲ **90X140X12 CRWA1 R**	**CRWA1**	R	W	■
140	13	**90X140X13 HMS5 RG**	**HMS5**	RG	E	
140	13	**90X140X13 HMS5 V**	**HMS5**	V	E	◎
140	13	**90X140X13 HMSA10 RG**	**HMSA10**	RG	E	
140	13	**90X140X13 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.563" (90.50 mm)						
	1.000	**99356**	**SSLEEVE**			
Shaft Ø3.56-3.567" - 'on-shaft' width 0.813" - flange Ø3.9"						
4.501	0.438	▲ **35556**	**CRWH1**	R	W	■
4.626	0.438	**35593**	**CRWH1**	R	W	■
4.751	0.438	**35649**	**CRWH1**	R	W	■
4.876	0.438	▲ **35676**	**CRWH1**	R	W	■
4.999	0.438	▲ **35716**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 92 mm (3.622")						
	25.4	**99360**	SSLEEVE			
Shaft Ø91.9-92.08mm - 'on-shaft' width 20.65mm - flange Ø102.39mm						
120	12	**92X120X12 HMSA10 RG**	HMSA10	RG	E	
120	12	**92X120X12 HMSA10 V**	HMSA10	V	E	◎
120	13	92X120X13 HMS4 R	HMS4	R	S	
120	14	92X120X14 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 3.625" (92.08 mm)						
	0.625	**99363**	**SSLEEVE**			
Shaft Ø3.623-3.63" - 'on-shaft' width 0.5" - flange Ø4.025"						
	1.000	**99362**	**SSLEEVE**			
Shaft Ø3.623-3.63" - 'on-shaft' width 0.813" - flange Ø4.031"						
4.376	0.375	▲ **36155**	**CRWA1**	R	W	■
4.376	0.375	**36153**	**CRWA1**	V	W	■
4.376	0.375	**36158**	**CRWH1**	P	W	■
4.376	0.375	**36157**	**CRWH1**	R	W	■
4.501	0.375	▲ **36166**	**CRW1**	R	W	■
4.626	0.375	▲ **36177**	**CRW1**	R	W	■
4.626	0.375	**36179**	**CRWA1**	V	W	■
4.626	0.438	**36185**	**CRWH1**	R	W	■
4.626	0.438	**36186**	**CRWHA1**	R	W	■
4.751	0.438	▲ **36220**	**CRWH1**	R	W	■
4.751	0.500	**36234**	**CRWA1**	S	W	■◎
4.813	0.906	36285	SCOT1	R	S	■
4.876	0.375	36337	CRW1	R	W	
4.876	0.433	**538466**	**CRWHA1**	V	W	
4.876	0.438	▲ **36314**	**CRWH1**	R	W	■
4.876	0.750	36340	C8	R	W	
INCH Shaft Diameter (cont.) – 3.625" (92.08 mm)						
4.999	0.375	**36361**	**CRWA1**	R	W	■
4.999	0.375	**36359**	**CRWA1**	V	W	■
4.999	0.438	▲ **36363**	**CRWH1**	R	W	■
4.999	0.438	**36364**	**CRWHA1**	R	W	■
5.251	0.375	▲ **36382**	**CRWA1**	R	W	■
5.375	0.438	**36391**	**CRWHA1**	R	W	■
INCH Shaft Diameter – 3.688" (93.68 mm)						
	0.438	**99368**	**SSLEEVE**			
Shaft Ø3.684-3.691" - 'on-shaft' width 0.313" - flange Ø4.031"						
	0.938	**99365**	**SSLEEVE**			
Shaft Ø3.685-3.692" - 'on-shaft' width 0.813" - flange Ø4.025"						
4.501	0.438	▲ **36740**	**CRWHA1**	R	W	■
4.751	0.438	▲ **36770**	**CRWH1**	R	W	■
4.999	0.438	▲ **36880**	**CRWH1**	R	W	■
5.126	0.438	**36895**	**CRWA1**	R	W	■
5.626	0.438	**36910**	**CRWA1**	R	W	■
INCH Shaft Diameter – 3.730" (94.74 mm)						
	0.594	**99359**	**SSLEEVE**			
Shaft Ø3.727-3.734" - 'on-shaft' width 0.469" - flange Ø4.016"						
	0.906	**99366**	**SSLEEVE**			
Shaft Ø3.727-3.734" - 'on-shaft' width 0.781" - flange Ø4.025"						
METRIC Shaft Diameter – 95 mm (3.740")						
	12.7	**99374**	SSLEEVE			
Shaft Ø95-95.17mm - 'on-shaft' width 8.74mm - flange Ø102.39mm						
	15.1	**99364**	SSLEEVE			
Shaft Ø95-95.17mm - 'on-shaft' width 11.91mm - flange Ø102.49mm						
	24	**99369**	SSLEEVE			
Shaft Ø94.92-95.1mm - 'on-shaft' width 21.01mm - flange Ø102.24mm						
110	9	95X110X9 HMS4 R	HMS4	R	S	
110	9	95X110X9 HMSA7 R	HMSA7	R	S	
110	10	**95X110X10 CRW1 R**	**CRW1**	R	W	■
110	10	**95X110X10 HMS5 RG**	**HMS5**	RG	E	
110	10	**95X110X10 HMS5 V**	**HMS5**	V	E	◎
110	10	▲ **95X110X10 HMSA10 RG**	**HMSA10**	RG	E	
110	10	**95X110X10 HMSA10 V**	**HMSA10**	V	E	◎
110	12	**95X110X12 HMS5 RG**	**HMS5**	RG	E	
110	12	**95X110X12 HMS5 V**	**HMS5**	V	E	◎
110	12	**95X110X12 HMSA10 RG**	**HMSA10**	RG	E	
110	12	**95X110X12 HMSA10 V**	**HMSA10**	V	E	◎
115	12	**95X115X12 CRW1 R**	**CRW1**	R	W	■
115	12	**95X115X12 CRW1 V**	**CRW1**	V	W	■
115	12	**95X115X12 HMS5 RG**	**HMS5**	RG	E	
115	12	**95X115X12 HMS5 V**	**HMS5**	V	E	◎
115	12	▲ **95X115X12 HMSA10 RG**	**HMSA10**	RG	E	
115	12	**95X115X12 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**95X120X12 CRW1 R**	**CRW1**	R	W	■
120	12	**95X120X12 CRW1 V**	**CRW1**	V	W	■
120	12	**95X120X12 CRWA1 V**	**CRWA1**	V	W	■
120	12	**95X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**95X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	▲ **95X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**95X120X12 HMSA10 V**	**HMSA10**	V	E	◎
120	13	95X120X13 HMSA7 R	HMSA7	R	S	
125	12	**95X125X12 CRW1 R**	**CRW1**	R	W	■
125	12	**95X125X12 HMS5 RG**	**HMS5**	RG	E	
125	12	**95X125X12 HMS5 V**	**HMS5**	V	E	◎
125	12	▲ **95X125X12 HMSA10 RG**	**HMSA10**	RG	E	
125	12	**95X125X12 HMSA10 V**	**HMSA10**	V	E	◎
130	12	▲ **95X130X12 CRW1 R**	**CRW1**	R	W	■
130	12	**95X130X12 CRW1 V**	**CRW1**	V	W	■
130	12	95X130X12 HMS4 R	HMS4	R	S	
130	15	95X130X15 HMSA7 R	HMSA7	R	S	
140	12	**95X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**95X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	**95X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**95X140X12 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 95 mm (3.740")						
145	10	**95X145X10 HMS5 RG**	**HMS5**	RG	E	
145	10	**95X145X10 HMS5 V**	**HMS5**	V	E	◎
145	10	**95X145X10 HMSA10 RG**	**HMSA10**	RG	E	
145	10	**95X145X10 HMSA10 V**	**HMSA10**	V	E	◎
145	12	**95X145X12 HMS5 RG**	**HMS5**	RG	E	
145	12	**95X145X12 HMS5 V**	**HMS5**	V	E	◎
145	12	**95X145X12 HMSA10 RG**	**HMSA10**	RG	E	
145	12	**95X145X12 HMSA10 V**	**HMSA10**	V	E	◎
145	13	**95X145X13 HMS5 RG**	**HMS5**	RG	E	
145	13	**95X145X13 HMS5 V**	**HMS5**	V	E	◎
145	13	**95X145X13 HMSA10 RG**	**HMSA10**	RG	E	
145	13	**95X145X13 HMSA10 V**	**HMSA10**	V	E	◎
170	13	**95X170X13 HMS5 RG**	**HMS5**	RG	E	
170	13	**95X170X13 HMS5 V**	**HMS5**	V	E	◎
170	13	**95X170X13 HMSA10 RG**	**HMSA10**	RG	E	
170	13	**95X170X13 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.750" (95.25 mm)						
	0.500	**99367**	**SSLEEVE**			
Shaft Ø3.75-3.757" - 'on-shaft' width 0.344" - flange Ø4.025"						
	0.688	**99376**	**SSLEEVE**			
Shaft Ø3.746-3.753" - 'on-shaft' width 0.563" - flange Ø4.025"						
	0.875	**99372**	**SSLEEVE**			
Shaft Ø3.75-3.757" - 'on-shaft' width 0.688" - flange Ø4.02"						
	0.875	99853	GSLEEVE			
Shaft Ø3.75-3.757" - 'on-shaft' width 0.688" - flange Ø4.02"						
4.376	0.250	**37320**	**HM14**	R	G	■
4.376	0.250	**37325**	**HM14**	V	G	■
4.501	0.375	**37327**	**CRW1**	R	W	
4.501	0.375	**37328**	**CRW1**	V	W	■
4.501	0.469	**37330**	**CRWHA1**	P	W	■
4.502	0.469	**37332**	**CRWHA1**	V	W	■
4.718	0.484	521257	HS6	R	F	◇
4.751	0.375	**37387**	**CRW1**	P	W	■
4.751	0.375	**37388**	**CRW1**	R	W	■
4.751	0.375	▲**37389**	**CRWA1**	R	W	■
4.751	0.438	**37390**	**CRWA1**	P	W	■
4.751	0.438	**37396**	**CRWH1**	R	W	■
4.751	0.438	**37405**	**CRWH1**	V	W	■
4.751	0.438	**37403**	**CRWHA1**	P	W	■
4.751	0.438	**37395**	**CRWHA1**	S	W	■
4.876	0.438	▲**37433**	**CRWH1**	R	W	■
4.999	0.375	**37525**	**CRW1**	R	W	■
4.999	0.375	**37524**	**CRW1**	V	W	■
4.999	0.375	**37526**	**CRWA1**	R	W	■
4.999	0.438	**37532**	**CRWH1**	R	W	■
4.999	0.438	▲**37533**	**CRWHA1**	R	W	■
5.251	0.438	▲**37574**	**CRWH1**	R	W	■
5.251	0.438	**37577**	**CRWH1**	V	W	■◎
INCH Shaft Diameter – 3.813" (96.85 mm)						
4.501	0.250	38040	HD1	R	G	■
4.501	0.250	38041	HD1	V	G	■
4.999	0.469	38160	CRSH1	R	S	
5.251	0.469	38220	CRSH1	R	S	
METRIC Shaft Diameter – 98 mm (3.858")						
120	12	**98X120X12 CRW1 V**	**CRW1**	V	W	■
120	13	98X120X13 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 3.875" (98.43 mm)						
	1.000	**99386**	**SSLEEVE**			
Shaft Ø3.868-3.875" - 'on-shaft' width 0.813" - flange Ø4.185"						
	1.000	**99387**	**SSLEEVE**			
Shaft Ø3.873-3.88" - 'on-shaft' width 0.813" - flange Ø4.219"						
4.751	0.375	**38646**	**CRW1**	R	W	■◤◎
4.751	0.375	**38647**	**CRWA1**	R	W	■
4.751	0.375	**38649**	**CRWA1**	V	W	■
4.751	0.438	▲**38653**	**CRWH1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 3.875" (98.43 mm)						
4.876	0.438	**38673**	**CRWHA1**	R	W	■
4.876	0.500	▲**38669**	**CRWH1**	R	W	■
4.876	0.500	**38678**	**CRWHA1**	V	W	■
4.999	0.375	**38691**	**CRW1**	R	W	■
4.999	0.375	▲**38692**	**CRWA1**	R	W	■
4.999	0.375	**38694**	**CRWA1**	V	W	■
5.126	0.438	**38713**	**CRWHA1**	R	W	■
5.126	0.438	▲**38703**	**CRWH1**	R	W	■
5.126	0.438	**38702**	**CRWHA1**	V	W	■
5.129	0.844	**38709**	**SCOT1**	R	S	■
5.251	0.438	**38730**	**CRWH1**	R	W	■
5.251	0.438	**38739**	**CRWHA1**	P	W	■
5.251	0.438	▲**38731**	**CRWHA1**	R	W	■
5.376	0.438	▲**38745**	**CRWH1**	R	W	■
5.501	0.500	**38749**	**CRSHA1**	R	S	■
5.501	0.938	38750	SCOT1	R	S	■
5.626	0.433	**38758**	**CRWHA1**	R	W	■
5.690	0.500	▲**38774**	**CRWH1**	R	W	■
5.691	0.892	38780	PLUS XL	H	W	
5.691	0.892	38776	PLUS XL	H	W	
5.751	0.563	38810	CRSH1	R	S	
6.000	0.625	38845	CRSA1	R	S	
METRIC Shaft Diameter – 100 mm (3.937")						
115	9	100X115X9 HMS4 R	HMS4	R	S	
120	7	**100X120X7 HMS5 V1**	**HMS5**	V	E	◎
120	10	**100X120X10 HMS5 RG**	**HMS5**	RG	E	
120	10	**100X120X10 HMS5 V**	**HMS5**	V	E	◎
120	10	**100X120X10 HMSA10 RG**	**HMSA10**	RG	E	
120	10	**100X120X10 HMSA10 V**	**HMSA10**	V	E	◎
120	12	**100X120X12 CRW1 R**	**CRW1**	R	W	■
120	12	**100X120X12 CRW1 V**	**CRW1**	V	W	■
120	12	**100X120X12 HMS5 RG**	**HMS5**	RG	E	
120	12	**100X120X12 HMS5 V**	**HMS5**	V	E	◎
120	12	▲**100X120X12 HMSA10 RG**	**HMSA10**	RG	E	
120	12	**100X120X12 HMSA10 V**	**HMSA10**	V	E	◎
120	13	100X120X13 CRSH1 R	CRSH1	R	S	
125	12	**100X125X12 CRW1 R**	**CRW1**	R	W	■
125	12	**100X125X12 CRW1 V**	**CRW1**	V	W	■
125	12	**100X125X12 HMS5 RG**	**HMS5**	RG	E	
125	12	**100X125X12 HMS5 V**	**HMS5**	V	E	◎
125	12	▲**100X125X12 HMSA10 RG**	**HMSA10**	RG	E	
125	12	**100X125X12 HMSA10 V**	**HMSA10**	V	E	◎
125	13	100X125X13 HMS4 R	HMS4	R	S	
130	12	**100X130X12 CRW1 R**	**CRW1**	R	W	
130	12	**100X130X12 HMS5 RG**	**HMS5**	RG	E	
130	12	**100X130X12 HMS5 V**	**HMS5**	V	E	◎
130	12	▲**100X130X12 HMSA10 RG**	**HMSA10**	RG	E	
130	12	**100X130X12 HMSA10 V**	**HMSA10**	V	E	◎
135	12	**100X135X12 CRWA1 R**	**CRWA1**	R	W	■
140	12	**100X140X12 CRWA1 R**	**CRWA1**	R	W	■
140	12	**100X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**100X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	▲**100X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**100X140X12 HMSA10 V**	**HMSA10**	V	E	◎
145	12	**100X145X12 HMS5 RG**	**HMS5**	RG	E	
145	12	**100X145X12 HMS5 V**	**HMS5**	V	E	◎
145	12	**100X145X12 HMSA10 RG**	**HMSA10**	RG	E	
145	12	**100X145X12 HMSA10 V**	**HMSA10**	V	E	◎
150	12	**100X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**100X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲**100X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**100X150X12 HMSA10 V**	**HMSA10**	V	E	◎
150	13	**100X150X13 HMS5 RG**	**HMS5**	RG	E	
150	13	**100X150X13 HMS5 V**	**HMS5**	V	E	◎
150	13	**100X150X13 HMSA10 RG**	**HMSA10**	RG	E	
150	13	**100X150X13 HMSA10 V**	**HMSA10**	V	E	◎
160	14	**100X160X14 HMS5 RG**	**HMS5**	RG	E	
160	14	**100X160X14 HMS5 V**	**HMS5**	V	E	◎
160	14	**100X160X14 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 100 mm (3.937")						
160	14	**100X160X14 HMSA10 V**	**HMSA10**	V	E	◎
180	12	**100X180X12 HMS5 RG**	**HMS5**	RG	E	
180	12	**100X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	**100X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**100X180X12 HMSA10 V**	**HMSA10**	V	E	◎
190	15	**100X190X15 HMS5 RG**	**HMS5**	RG	E	
190	15	**100X190X15 HMS5 V**	**HMS5**	V	E	◎
190	15	**100X190X15 HMSA10 RG**	**HMSA10**	RG	E	
190	15	**100X190X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 3.938" (100.03 mm)						
	1.000	**99393**	**SSLEEVE**			
Shaft Ø3.935-3.942" - 'on-shaft' width 0.813" - flange Ø4.313"						
	1.000	99854	GSLEEVE			
Shaft Ø3.935-3.942" - 'on-shaft' width 0.813" - flange Ø4.313"						
4.876	0.438	▲ **39245**	**CRWH1**	R	W	■
4.906	0.484	511853	HS6	R	F	◇
4.938	0.484	511658	HS6	R	F	◇
4.999	0.438	▲ **39275**	**CRWH1**	R	W	■
4.999	0.438	**39277**	**CRWH1**	R	W	■◤◎
4.999	0.438	**39276**	**CRWH1**	V	W	■
5.126	0.472	**39304**	**CRWHA1**	V	W	■
5.251	0.438	▲ **39320**	**CRWH1**	R	W	■
5.374	1.016	39380	SCOT1	R	S	■
5.375	0.438	▲ **39350**	**CRWH1**	R	W	■
5.501	0.438	▲ **39423**	**CRWH1**	R	W	■
5.501	0.938	39420	SCOT1	R	S	■
INCH Shaft Diameter – 4.000" (101.60 mm)						
	0.625	**99401**	**SSLEEVE**			
Shaft Ø3.998-4.006" - 'on-shaft' width 0.5" - flange Ø4.375"						
	0.725	**99395**	**SSLEEVE**			
Shaft Ø3.998-4.006" - 'on-shaft' width 0.6" - flange Ø4.375"						
	0.775	**99400**	**SSLEEVE**			
Shaft Ø3.998-4.006" - 'on-shaft' width 0.65" - flange Ø4.375"						
	1.000	**99399**	**SSLEEVE**			
Shaft Ø3.998-4.006" - 'on-shaft' width 0.813" - flange Ø4.375"						
	1.000	99855	GSLEEVE			
Shaft Ø3.998-4.006" - 'on-shaft' width 0.813" - flange Ø4.375"						
4.501	0.250	**39835**	**HM14**	R	G	■
4.876	0.250	**39860**	**HM21**	R	G	■
4.876	0.438	▲ **39851**	**CRW1**	R	W	■
4.999	0.250	**39961**	**HM21**	R	G	■
4.999	0.375	**39895**	**CRW1**	P	W	■
4.999	0.375	**39922**	**CRW1**	R	W	■
4.999	0.375	▲ **39923**	**CRWA1**	R	W	■
4.999	0.375	**39921**	**CRWA1**	V	W	■
4.999	0.438	**39933**	**CRWH1**	R	W	■
4.999	0.438	**39935**	**CRWH1**	S	W	■
4.999	0.438	**39932**	**CRWH1**	V	W	■
4.999	0.438	**39930**	**CRWHA1**	P	W	■
4.999	0.438	**39934**	**CRWHA1**	R	W	■
5.000	0.500	597347	HS8	R	F	◇
5.122	0.953	39979	PLUS XL	H	W	
5.126	0.438	▲ **39975**	**CRWH1**	R	W	■
5.126	1.047	39988	SCOT1	R	S	■
5.251	0.438	**40000**	**CRWA1**	R	W	■
5.251	0.438	▲ **39997**	**CRWH1**	R	W	■
5.251	0.438	**39996**	**CRWH1**	V	W	■
5.310	0.500	▲ **40020**	**CRWHA1**	R	W	■
5.376	0.438	▲ **40036**	**CRWH1**	R	W	■
5.501	0.438	▲ **40049**	**CRWH1**	R	W	■
5.626	0.375	▲ **40077**	**CRWA1**	R	W	■
5.626	0.438	**40078**	**CRWH1**	R	W	■
5.751	0.438	▲ **40108**	**CRWH1**	R	W	■
5.754	0.995	40129	PLUS XL	H	W	
5.754	1.079	40136	SCOT1	R	S	■
6.001	0.500	▲ **40138**	**CRWH1**	R	W	■
6.250	0.500	▲ **40158**	**CRWH1**	R	W	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter – 102 mm (4.016")						
130	13	102X130X13 HMS4 R	HMS4	R	S	
METRIC Shaft Diameter – 104 mm (4.094")						
	24	**99409**	**SSLEEVE**			
Shaft Ø103.89-104.09mm - 'on-shaft' width 19.99mm - flange Ø112.73mm						
INCH Shaft Diameter – 4.125" (104.78 mm)						
	1.000	**99412**	**SSLEEVE**			
Shaft Ø4.122-4.13" - 'on-shaft' width 0.813" - flange Ø4.47"						
4.999	0.438	▲ **41125**	**CRWH1**	R	W	■
4.999	0.438	**41126**	**CRWH1**	V	W	
5.126	0.438	▲ **41170**	**CRWH1**	R	W	■
5.126	0.438	**41171**	**CRWH1**	V	W	■
5.251	0.438	▲ **41185**	**CRWH1**	R	W	■
5.251	0.438	**41186**	**CRWH1**	V	W	■
5.501	0.438	▲ **41265**	**CRWH1**	R	W	■
5.751	0.438	▲ **41287**	**CRWH1**	R	W	■
6.001	0.438	▲ **41305**	**CRWH1**	R	W	■
6.001	0.438	**41307**	**CRWH1**	V	W	■
METRIC Shaft Diameter – 105 mm (4.134")						
	23.2	**99413**	**SSLEEVE**			
Shaft Ø104.9-105.11mm - 'on-shaft' width 19.99mm - flange Ø113.54mm						
125	12	105X125X12 CRS1 R	CRS1	R	S	
125	13	105X125X13 HMS4 R	HMS4	R	S	
125	13	105X125X13 HMSA7 R	HMSA7	R	S	
127	11.10	**105X127X11.1 CRWH1 R**	**CRWH1**	R	W	
130	7.50	105X130X7.5 HMSA7P2 R	HMSA7P2	R	S	◆
130	12	**105X130X12 CRW1 R**	**CRW1**	R	W	■
130	12	**105X130X12 CRW1 V**	**CRW1**	V	W	■
130	12	**105X130X12 HMS5 RG**	**HMS5**	RG	E	
130	12	**105X130X12 HMS5 V**	**HMS5**	V	E	◎
130	12	▲ **105X130X12 HMSA10 RG**	**HMSA10**	RG	E	
130	12	**105X130X12 HMSA10 V**	**HMSA10**	V	E	◎
135	12	**105X135X12 CRWA1 R**	**CRWA1**	R	W	■
135	12	**105X135X12 HMS5 RG**	**HMS5**	RG	E	
135	12	**105X135X12 HMS5 V**	**HMS5**	V	E	◎
135	12	**105X135X12 HMSA10 RG**	**HMSA10**	RG	E	
135	12	**105X135X12 HMSA10 V**	**HMSA10**	V	E	◎
135	14	105X135X14 HMSA7 R	HMSA7	R	S	
140	12	**105X140X12 CRWA1 R**	**CRWA1**	R	W	■
140	12	**105X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**105X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	▲ **105X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**105X140X12 HMSA10 V**	**HMSA10**	V	E	◎
160	12	**105X160X12 CRW1 R**	**CRW1**	R	W	■
INCH Shaft Diameter – 4.187" (106.35 mm)						
	1.000	**99418**	**SSLEEVE**			
Shaft Ø4.183-4.191" - 'on-shaft' width 0.813" - flange Ø4.5"						
INCH Shaft Diameter – 4.187" (106.35 mm)						
4.999	0.469	41751	CRSHA1	R	S	
5.251	0.469	41761	CRSH1	R	S	
5.751	0.500	41833	CRSHA1	R	S	
METRIC Shaft Diameter – 107 mm (4.213")						
123	11	107X123X11 CRSA1 R	CRSA1	R	S	
INCH Shaft Diameter – 4.230" (107.44 mm)						
	0.906	**99423**	**SSLEEVE**			
Shaft Ø4.226-4.234" - 'on-shaft' width 0.781" - flange Ø4.61"						
INCH Shaft Diameter – 4.250" (107.95 mm)						
	1.000	**99424**	**SSLEEVE**			
Shaft Ø4.248-4.256" - 'on-shaft' width 0.813" - flange Ø4.61"						
4.813	0.313	**42340**	**HM14**	R	G	

Seal tech: W = SKF Wave E = SKF Edge F = SKF Flex S = standard oil G = grease **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 4.250" (107.95 mm)						
5.126	0.250	**42380**	**HM21**	R	G	■
5.250	0.438	416-516-28 HS8 R	HS8	R	F	◇
5.251	0.250	**42470**	**HM21**	R	G	■
5.251	0.374	**42504**	**CRWA1**	V	W	■
5.251	0.375	**42422**	**CRW1**	S	W	■
5.251	0.375	▲**42419**	**CRWA1**	R	W	■
5.251	0.438	**42426**	**CRWH1**	R	W	■
5.251	0.438	**42433**	**CRWH1**	V	W	■
5.251	0.438	**42427**	**CRWHA1**	R	W	■
5.373	0.438	**42474**	**CRWA1**	V	W	■
5.376	0.438	▲**42475**	**CRWH1**	R	W	■
5.501	0.438	▲**42528**	**CRWH1**	R	W	■
5.501	0.750	42540	C8	R	W	
5.501	0.938	42550	SCOT1	R	S	■
5.626	0.438	**42557**	**CRWA1**	R	W	■
5.751	0.438	▲**42573**	**CRWH1**	R	W	■
5.876	0.500	**42592**	**CRWH1**	V	W	■◎
6.001	0.500	▲**42616**	**CRWH1**	R	W	■
6.009	0.971	42627	PLUS XL	H	W	
6.009	0.984	42623	SCOT1	R	S	■
6.126	0.500	▲**42635**	**CRWH1**	R	W	■
6.250	0.500	▲**42644**	**CRWH1**	R	W	■
6.254	1.245	42673	PLUS XL	H	W	
6.254	1.250	42672	SCOT1	R	S	■
METRIC Shaft Diameter – 108 mm (4.252")						
140	15	**108X140X15 HMS5 RG**	**HMS5**	RG	E	
140	15	**108X140X15 HMS5 V**	**HMS5**	V	E	◎
140	15	**108X140X15 HMSA10 RG**	**HMSA10**	RG	E	
140	15	**108X140X15 HMSA10 V**	**HMSA10**	V	E	◎
170	15	**108X170X15 HMS5 RG**	**HMS5**	RG	E	
170	15	**108X170X15 HMS5 V**	**HMS5**	V	E	◎
170	15	**108X170X15 HMSA10 RG**	**HMSA10**	RG	E	
170	15	**108X170X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 4.313" (109.55 mm)						
5.501	0.433	**43072**	**CRWHA1**	P	W	■
5.501	0.438	▲**43073**	**CRWHA1**	R	W	■
5.751	0.500	43231	CRSH1	R	S	
METRIC Shaft Diameter – 110 mm (4.331")						
	15	**99434**	**SSLEEVE**			
Shaft Ø109.78-109.98mm - 'on-shaft' width 11.38mm - flange Ø124.99mm						
	16.5	**99435**	**SSLEEVE**			
Shaft Ø109.91-110.11mm - 'on-shaft' width 12.93mm - flange Ø124.99mm						
130	10	43306	HMSA7	V	S	
130	12	**110X130X12 CRW1 R**	**CRW1**	R	W	■
130	12	**110X130X12 CRW1 V**	**CRW1**	V	W	■
130	12	**110X130X12 HMS5 RG**	**HMS5**	RG	E	
130	12	**110X130X12 HMS5 V**	**HMS5**	V	E	◎
130	12	▲**110X130X12 HMSA10 RG**	**HMSA10**	RG	E	
130	12	**110X130X12 HMSA10 V**	**HMSA10**	V	E	◎
130	13	**110X130X13 HMS5 RG**	**HMS5**	RG	E	
130	13	**110X130X13 HMS5 V**	**HMS5**	V	E	◎
130	13	**110X130X13 HMSA10 RG**	**HMSA10**	RG	E	
130	13	**110X130X13 HMSA10 V**	**HMSA10**	V	E	◎
135	12	**110X135X12 CRW1 V**	**CRW1**	V	W	
135	12	110X135X12 HMS4 R	HMS4	R	S	
140	12	**110X140X12 CRW1 R**	**CRW1**	R	W	
140	12	**110X140X12 CRW1 V**	**CRW1**	V	W	■
140	12	**110X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**110X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	▲**110X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**110X140X12 HMSA10 V**	**HMSA10**	V	E	◎
142.88	12	**566635**	**HDS2**	H	F	
142.90	12	**43345**	**CRWHA1**	V	W	■
142.90	12	566562	HS5	V	F	◇
145	12	▲**110X145X12 CRW1 R**	**CRW1**	R	W	■
145	15	110X145X15 HMSA7 R	HMSA7	R	S	
METRIC Shaft Diameter (cont.) – 110 mm (4.331")						
150	12	**110X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**110X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	**110X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**110X150X12 HMSA10 V**	**HMSA10**	V	E	◎
160	12	**110X160X12 CRWH1 R**	**CRWH1**	R	W	■
170	15	**110X170X15 HMS5 RG**	**HMS5**	RG	E	
170	15	**110X170X15 HMS5 V**	**HMS5**	V	E	◎
170	15	**110X170X15 HMSA10 RG**	**HMSA10**	RG	E	
170	15	**110X170X15 HMSA10 V**	**HMSA10**	V	E	◎
200	13	**110X200X13 HMS5 RG**	**HMS5**	RG	E	
200	13	**110X200X13 HMS5 V**	**HMS5**	V	E	◎
200	13	**110X200X13 HMSA10 RG**	**HMSA10**	RG	E	
200	13	**110X200X13 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 4.375" (111.13 mm)						
	1.000	**99437**	**SSLEEVE**			
Shaft Ø4.37-4.378" - 'on-shaft' width 0.813" - flange Ø4.75"						
5.376	0.438	▲**43650**	**CRWH1**	R	W	■
5.501	0.438	▲**43691**	**CRWH1**	R	W	■
5.751	0.438	▲**43751**	**CRWH1**	R	W	■
5.751	0.995	43754	PLUS XL	H	W	
5.751	1.016	43752	SCOT1	R	S	■
5.900	1.000	43764	PLUS XL	H	W	
5.900	1.000	43761	PLUS XL	H	W	
6.001	0.500	▲**43771**	**CRWH1**	R	W	■
6.063	0.500	**541974**	**CRWH1**	R	W	
6.250	0.500	▲**43820**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 112 mm (4.409")						
	22.5	**99438**	**SSLEEVE**			
Shaft Ø111.79-111.99mm - 'on-shaft' width 19.05mm - flange Ø120.65mm						
INCH Shaft Diameter – 4.438" (112.73 mm)						
	1.142	**99439**	**SSLEEVE**			
Shaft Ø4.434-4.442" - 'on-shaft' width 1" - flange Ø4.813"						
5.501	0.500	▲**44275**	**CRWH1**	R	W	■
5.501	0.500	**44276**	**CRWH1**	V	W	■
5.751	0.500	▲**44295**	**CRWH1**	R	W	■
5.891	0.484	428-557-31 HS8 R	HS8	R	F	◇
5.891	0.500	428-557-32 HS8 R	HS8	R	F	◇
6.001	0.500	▲44320	CRWH1	R	W	■
6.250	0.500	▲44350	CRWH1	R	W	■
METRIC Shaft Diameter – 113 mm (4.449")						
140	13	113X140X13 CRSH1 R	CRSH1	R	S	
INCH Shaft Diameter – 4.477" (113.72 mm)						
6.250	0.500	**44630**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 114 mm (4.488")						
140	13	114X140X13 HMSA7 R	HMSA7	R	S	
INCH Shaft Diameter – 4.500" (114.30 mm)						
	1.000	**99450**	**SSLEEVE**			
Shaft Ø4.496-4.504" - 'on-shaft' width 0.813" - flange Ø4.9"						
	1.000	99856	GSLEEVE			
Shaft Ø4.496-4.504" - 'on-shaft' width 0.813" - flange Ø4.9"						
5.251	0.438	▲**44913**	**CRWH1**	R	W	■
5.251	0.438	**44917**	**CRWHA1**	V	W	■
5.375	0.984	44922	SCOT1	R	S	■
5.376	0.438	▲**44920**	**CRWH1**	R	W	■
5.376	0.438	**44926**	**CRWHA1**	V	W	■
5.500	0.500	512466	HS6	R	F	◇
5.501	0.250	**45025**	**HM14**	R	G	
5.501	0.375	**44959**	**CRW1**	R	W	■
5.501	0.375	▲**44960**	**CRWA1**	R	W	■
5.501	0.435	**44980**	**CRWH1**	V	W	■◎
5.501	0.438	**44967**	**CRWH1**	R	W	■

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 4.500" (114.30 mm)						
5.501	0.438	**44973**	**CRWH1**	V	W	■
5.501	0.438	**44968**	**CRWHA1**	R	W	■
5.626	0.438	▲**45032**	**CRWH1**	R	W	■
5.626	0.438	**45033**	**CRWHA1**	V	W	■
5.751	0.375	**45064**	**CRWA1**	V	W	■
5.751	0.438	▲**45069**	**CRWH1**	R	W	■
5.751	0.438	**45070**	**CRWHA1**	R	W	■
5.751	0.767	45093	PLUS XL	H	W	
5.751	1.016	45099	SCOT1	R	S	■
5.876	1.009	45095	PLUS XL	H	W	
6.001	0.500	**45110**	**CRWH1**	R	W	■
6.001	0.500	▲**45111**	**CRWHA1**	R	W	■
6.001	0.500	**45112**	**CRWHA1**	V	W	■
6.126	0.563	**45140**	**CRWH1**	R	W	■
6.250	0.500	▲**45150**	**CRWH1**	R	W	■
6.254	1.047	45160	SCOT1	R	S	■
METRIC Shaft Diameter – 115 mm (4.528")						
	23.8	**99452**	**SSLEEVE**			
Shaft Ø114.88-115.09mm - 'on-shaft' width 20.65mm - flange Ø127mm						
135	12	**115X135X12 CRW1 R**	**CRW1**	R	W	
140	11	115X140X11 HS8 R	HS8	R	F	◇
140	12	**115X140X12 CRW1 R**	**CRW1**	R	W	■
140	12	**115X140X12 CRW1 V**	**CRW1**	V	W	■
140	12	**115X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**115X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	▲**115X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**115X140X12 HMSA10 V**	**HMSA10**	V	E	◎
145	12	**115X145X12 CRW1 R**	**CRW1**	R	W	■
145	12	**115X145X12 HMS5 RG**	**HMS5**	RG	E	
145	12	**115X145X12 HMS5 V**	**HMS5**	V	E	◎
145	12	▲**115X145X12 HMSA10 RG**	**HMSA10**	RG	E	
145	12	**115X145X12 HMSA10 V**	**HMSA10**	V	E	◎
145	14	115X145X14 HMSA7 R	HMSA7	R	S	
150	12	**115X150X12 CRW1 R**	**CRW1**	R	W	■
150	12	**115X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**115X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲**115X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**115X150X12 HMSA10 V**	**HMSA10**	V	E	◎
160	12	**115X160X12 CRW1 R**	**CRW1**	R	W	
INCH Shaft Diameter – 4.563" (115.90 mm)						
5.751	0.500	45550	CRSHA1	R	S	
6.250	0.500	45560	CRSH1	R	S	
INCH Shaft Diameter – 4.625" (117.48 mm)						
	0.625	**99465**	**SSLEEVE**			
Shaft Ø4.621-4.629" - 'on-shaft' width 0.438" - flange Ø5"						
	1.250	**99463**	**SSLEEVE**			
Shaft Ø4.621-4.629" - 'on-shaft' width 1" - flange Ø5.063"						
5.626	0.500	▲**46144**	**CRWH1**	R	W	■
5.626	0.500	**46155**	**CRWH1**	V	W	■
5.751	0.500	▲**46200**	**CRWH1**	R	W	■
5.751	0.500	**46208**	**CRWH1**	S	W	■
6.001	0.500	▲**46285**	**CRWH1**	R	W	■
6.001	0.912	46300	PLUS XL	H	W	
6.001	1.063	46305	SCOT1	R	S	■
6.250	0.500	▲**46324**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 118 mm (4.646")						
150	12	**118X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**118X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	**118X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**118X150X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 4.688" (119.08 mm)						
	1.000	**99468**	**SSLEEVE**			
Shaft Ø4.685-4.693" - 'on-shaft' width 0.813" - flange Ø5.063"						
5.751	0.250	46851	HD1	R	G	■
5.751	0.250	46852	HD1	V	G	
5.751	0.512	▲**46800**	**CRWH1**	R	W	■
5.751	0.512	**46770**	**CRWH1**	S	W	■
6.001	0.266	46920	HD1	P	G	■
6.250	0.500	**46950**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 120 mm (4.724")						
	11	**99471**	**SSLEEVE**			
Shaft Ø119.89-120.09mm - 'on-shaft' width 8mm - flange Ø129.79mm						
	25	**99473**	**SSLEEVE**			
Shaft Ø119.89-120.09mm - 'on-shaft' width 19.99mm - flange Ø129.79mm						
140	7	**120X140X7 HMS5 RG1**	**HMS5**	RG	E	
140	7.50	**120X140X7.5 HMS5 V1**	**HMS5**	V	E	◎
140	12	**120X140X12 CRWA1 R**	**CRWA1**	R	W	■
140	12	**120X140X12 HMS5 RG**	**HMS5**	RG	E	
140	12	**120X140X12 HMS5 V**	**HMS5**	V	E	◎
140	12	▲**120X140X12 HMSA10 RG**	**HMSA10**	RG	E	
140	12	**120X140X12 HMSA10 V**	**HMSA10**	V	E	◎
140	13	**120X140X13 HMS5 RG**	**HMS5**	RG	E	
140	13	**120X140X13 HMS5 V**	**HMS5**	V	E	◎
140	13	**120X140X13 HMSA10 RG**	**HMSA10**	RG	E	
140	13	**120X140X13 HMSA10 V**	**HMSA10**	V	E	◎
145	12	**120X145X12 CRW1 R**	**CRW1**	R	W	■
145	12	120X145X12 HMS4 R	HMS4	R	S	
150	12	**120X150X12 CRW1 R**	**CRW1**	R	W	■
150	12	**120X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**120X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲**120X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**120X150X12 HMSA10 V**	**HMSA10**	V	E	◎
150	15	**120X150X15 HMS5 RG**	**HMS5**	RG	E	
150	15	**120X150X15 HMS5 V**	**HMS5**	V	E	◎
150	15	**120X150X15 HMSA10 RG**	**HMSA10**	RG	E	
150	15	**120X150X15 HMSA10 V**	**HMSA10**	V	E	◎
150	15	120X150X15 CRSH1 R	CRSH1	R	S	
155	16	120X155X16 HMSA7 R	HMSA7	R	S	
160	12	**120X160X12 CRWH1 R**	**CRWH1**	R	W	
160	12	**120X160X12 HMS5 RG**	**HMS5**	RG	E	
160	12	**120X160X12 HMS5 V**	**HMS5**	V	E	◎
160	12	▲**120X160X12 HMSA10 RG**	**HMSA10**	RG	E	
160	12	**120X160X12 HMSA10 V**	**HMSA10**	V	E	◎
180	12	**120X180X12 HMS5 RG**	**HMS5**	RG	E	
180	12	**120X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	**120X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**120X180X12 HMSA10 V**	**HMSA10**	V	E	◎
180	15	**120X180X15 HMS5 RG**	**HMS5**	RG	E	
180	15	**120X180X15 HMS5 V**	**HMS5**	V	E	◎
180	15	**120X180X15 HMSA10 RG**	**HMSA10**	RG	E	
180	15	**120X180X15 HMSA10 V**	**HMSA10**	V	E	◎
200	14	**120X200X14 HMS5 RG**	**HMS5**	RG	E	
200	14	**120X200X14 HMS5 V**	**HMS5**	V	E	◎
200	14	**120X200X14 HMSA10 RG**	**HMSA10**	RG	E	
200	14	**120X200X14 HMSA10 V**	**HMSA10**	V	E	◎
215	12	**120X215X12 HMS5 RG**	**HMS5**	RG	E	
215	12	**120X215X12 HMS5 V**	**HMS5**	V	E	◎
215	12	**120X215X12 HMSA10 RG**	**HMSA10**	RG	E	
215	12	**120X215X12 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 4.750" (120.65 mm)						
	0.750	**99475**	**SSLEEVE**			
Shaft Ø4.746-4.754" - 'on-shaft' width 0.5" - flange Ø5"						
5.375	0.313	**47378**	**HM14**	R	G	■
5.749	0.438	**47375**	**CRW1**	P	W	■
5.750	0.500	448-548-32 HS5 V	HS5	V	F	◇
5.751	0.500	**47383**	**CRW1**	R	W	■
5.751	0.500	**47379**	**CRW1**	V	W	■
5.751	0.500	**47382**	**CRWA1**	V	W	■◎
EXTENDED DUST LIP W/WAVE MOLDED IN						
5.751	0.500	**47394**	**CRWH1**	R	W	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter (cont.) – 4.750" (120.65 mm)						
5.751	0.500	▲**47395**	**CRWHA1**	R	W	■
5.875	0.500	▲**47441**	**CRWH1**	R	W	■
6.001	0.500	**47481**	**CRW1**	V	W	■
6.001	0.500	**47474**	**CRWH1**	R	W	■
6.001	0.500	▲**47475**	**CRWHA1**	R	W	■
6.250	0.500	▲**47583**	**CRWH1**	R	W	■
6.250	0.500	**47586**	**CRWHA1**	V	W	■
INCH Shaft Diameter – 4.766" (121.06 mm)						
6.001	1.063	47691	SCOT1	R	S	■
6.254	1.047	48000	SCOT1	R	S	■
6.311	1.125	47697	SCOT1	R	S	■
METRIC Shaft Diameter – 122 mm (4.803")						
	24	**99472**	**SSLEEVE**			
Shaft Ø121.89-122.1mm - 'on-shaft' width 19.99mm - flange Ø131.5mm						
INCH Shaft Diameter – 4.813" (122.25 mm)						
5.751	0.563	**48060**	**CRWH1**	P	W	■
5.751	0.563	**48062**	**CRWH1**	V	W	■
INCH Shaft Diameter – 4.875" (123.83 mm)						
	0.750	**99487**	**SSLEEVE**			
Shaft Ø4.871-4.879" - 'on-shaft' width 0.625" - flange Ø5.25"						
5.501	0.250	**48650**	**HM14**	R	G	
6.001	0.500	▲**48693**	**CRWH1**	R	W	■
6.001	0.500	**48692**	**CRWH1**	V	W	■
6.001	0.500	**48689**	**CRWHA1**	R	W	■
6.001	0.875	48690	SCOT1	R	S	■
6.126	0.500	▲**48726**	**CRWH1**	R	W	■
6.250	0.500	▲**48769**	**CRWH1**	R	W	■
6.250	0.500	**48772**	**CRWH1**	V	W	■
6.250	0.500	**48768**	**CRWHA1**	R	W	■
METRIC Shaft Diameter – 125 mm (4.921")						
	14	**99057**	**SSLEEVE**			
Shaft Ø124.87-125.4mm - 'on-shaft' width 11mm - flange Ø137.16mm						
	14	**99490**	**SSLEEVE**			
Shaft Ø124.89-125.1mm - 'on-shaft' width 10mm - flange Ø137.16mm						
	32	**99492**	**SSLEEVE**			
Shaft Ø124.89-125.1mm - 'on-shaft' width 26.01mm - flange Ø137.16mm						
146	14	125X146X14 CRSA1 P	CRSA1	P	S	
150	12	**125X150X12 CRW1 R**	**CRW1**	R	W	■
150	12	**125X150X12 CRW1 V**	**CRW1**	V	W	■
150	12	**125X150X12 HMS5 RG**	**HMS5**	RG	E	
150	12	**125X150X12 HMS5 V**	**HMS5**	V	E	◎
150	12	▲**125X150X12 HMSA10 RG**	**HMSA10**	RG	E	
150	12	**125X150X12 HMSA10 V**	**HMSA10**	V	E	◎
155	14	125X155X14 HMSA7 R	HMSA7	R	S	
160	12	**125X160X12 CRW1 R**	**CRW1**	R	W	■
160	12	125X160X12 HMS4 R	HMS4	R	S	
160	15	**125X160X15 HMS5 RG**	**HMS5**	RG	E	
160	15	**125X160X15 HMS5 V**	**HMS5**	V	E	◎
160	15	**125X160X15 HMSA10 RG**	**HMSA10**	RG	E	
160	15	**125X160X15 HMSA10 V**	**HMSA10**	V	E	◎
161.93	12.70	**49274**	**CRWHA1**	V	W	■
170	15	125X170X15 HMSA7 R	HMSA7	R	S	
200	15	**125X200X15 HMS5 RG**	**HMS5**	RG	E	
200	15	**125X200X15 HMS5 V**	**HMS5**	V	E	◎
200	15	**125X200X15 HMSA10 RG**	**HMSA10**	RG	E	
200	15	**125X200X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 4.938" (125.43 mm)						
6.001	0.500	▲**49251**	**CRWH1**	R	W	■
6.250	0.500	▲**49301**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 126 mm (4.961")						
147	11	126X147X11 CRSA1 R	CRSA1	R	S	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 5.000" (127.00 mm)						
	0.681	**99501**	**SSLEEVE**			
Shaft Ø4.998-5.007" - 'on-shaft' width 0.54" - flange Ø5.4"						
	0.875	**99498**	**SSLEEVE**			
Shaft Ø4.998-5.007" - 'on-shaft' width 0.688" - flange Ø5.4"						
	0.875	99857	GSLEEVE			
Shaft Ø4.998-5.007" - 'on-shaft' width 0.688" - flange Ø5.4"						
	1.000	**99499**	**SSLEEVE**			
Shaft Ø4.998-5.007" - 'on-shaft' width 0.813" - flange Ø5.39"						
	1.000	99858	GSLEEVE			
Shaft Ø4.998-5.007" - 'on-shaft' width 0.813" - flange Ø5.508"						
6.000	0.500	500-600-32 HS5 V	HS5	V	F	◇
6.001	0.500	▲**49928**	**CRWH1**	R	W	■
6.001	0.500	**49929**	**CRWHA1**	R	W	■
6.001	0.500	**49927**	**CRWHA1**	V	W	■
6.125	0.500	49951	HDW1	R	W	■
6.126	0.500	**49960**	**CRW1**	V	W	■
6.250	0.250	**50070**	**HM21**	R	G	■
6.250	0.500	**49984**	**CRW1**	R	W	■
6.250	0.500	**49985**	**CRWA1**	R	W	■
6.250	0.500	**49990**	**CRWH1**	P	W	
6.250	0.500	**49966**	**CRWH1**	R	W	■
6.250	0.500	**49991**	**CRWH1**	V	W	■
6.250	0.500	▲**49998**	**CRWHA1**	R	W	■
6.250	0.500	500-616-32 HS8 R	HS8	R	F	◇
6.375	0.500	▲**50130**	**CRWH1**	R	W	■
6.375	0.500	**50138**	**CRWHA1**	R	W	■
6.500	0.500	▲**50148**	**CRWH1**	R	W	■
6.500	0.500	**50151**	**CRWH1**	V	W	■
6.750	0.500	**50168**	**CRWH1**	R	W	■
6.750	0.500	▲**50172**	**CRWHA1**	R	W	■
7.000	0.500	50185	CRSHA1	R	S	
7.125	0.500	50186	HDW1	R	W	■
7.500	0.500	50195	CRSHA1	R	S	
METRIC Shaft Diameter – 128 mm (5.039")						
	34.27	**99482**	**SSLEEVE**			
Shaft Ø127.79-128.01mm - 'on-shaft' width 29.2mm - flange Ø135.3mm						
150	15	128X150X15 HMS4 R	HMS4	R	S	■
INCH Shaft Diameter – 5.063" (128.60 mm)						
6.125	0.500	50620	HDW1	R	W	■
6.126	0.500	**50618**	**CRWH1**	R	W	■
6.375	0.500	▲**50650**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 130 mm (5.118")						
	23.8	**99494**	**SSLEEVE**			
Shaft Ø129.79-130.02mm - 'on-shaft' width 19.05mm - flange Ø139.52mm						
150	10	130X150X10 CRSA1 R	CRSA1	R	S	
150	14	130X150X14 CRSA1 R	CRSA1	R	S	
155	10	130X155X10 CRSH1 R	CRSH1	R	S	
160	12	**130X160X12 CRW1 R**	**CRW1**	R	W	■
160	12	**130X160X12 CRW1 V**	**CRW1**	V	W	■
160	12	**130X160X12 HMS5 RG**	**HMS5**	RG	E	
160	12	**130X160X12 HMS5 V**	**HMS5**	V	E	◎
160	12	▲**130X160X12 HMSA10 RG**	**HMSA10**	RG	E	
160	12	**130X160X12 HMSA10 V**	**HMSA10**	V	E	◎
160	13	130X160X13 CRSA1 R	CRSA1	R	S	
160	15	**130X160X15 HMS5 RG**	**HMS5**	RG	E	
160	15	**130X160X15 HMS5 V**	**HMS5**	V	E	◎
160	15	**130X160X15 HMSA10 RG**	**HMSA10**	RG	E	
160	15	**130X160X15 HMSA10 V**	**HMSA10**	V	E	◎
170	12	**130X170X12 CRW1 R**	**CRW1**	R	W	
170	12	**130X170X12 HMS5 RG**	**HMS5**	RG	E	
170	12	**130X170X12 HMS5 V**	**HMS5**	V	E	◎
170	12	▲**130X170X12 HMSA10 RG**	**HMSA10**	RG	E	
170	12	**130X170X12 HMSA10 V**	**HMSA10**	V	E	◎
170	15	130X170X15 HMS4 R	HMS4	R	S	
170	16	130X170X16 HS8 V	HS8	V	F	◇
180	12	**130X180X12 HMS5 RG**	**HMS5**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Fea-tures
METRIC Shaft Diameter (cont.) – 130 mm (5.118")						
180	12	**130X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	**130X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**130X180X12 HMSA10 V**	**HMSA10**	V	E	◎
190	12	**130X190X12 HMS5 RG**	**HMS5**	RG	E	
190	12	**130X190X12 HMS5 V**	**HMS5**	V	E	◎
190	12	**130X190X12 HMSA10 RG**	**HMSA10**	RG	E	
190	12	**130X190X12 HMSA10 V**	**HMSA10**	V	E	◎
200	15	**130X200X15 HMS5 RG**	**HMS5**	RG	E	
200	15	**130X200X15 HMS5 V**	**HMS5**	V	E	◎
200	15	**130X200X15 HMSA10 RG**	**HMSA10**	RG	E	
200	15	**130X200X15 HMSA10 V**	**HMSA10**	V	E	◎
230	14	**130X230X14 HMS5 RG**	**HMS5**	RG	E	
230	14	**130X230X14 HMS5 V**	**HMS5**	V	E	◎
230	14	**130X230X14 HMSA10 RG**	**HMSA10**	RG	E	
230	14	**130X230X14 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 5.125" (130.18 mm)						
	0.996	**99491**	**SSLEEVE**			
Shaft Ø5.117-5.126" - 'on-shaft' width 0.866" - flange Ø5.493"						
	1.000	**99513**	**SSLEEVE**			
Shaft Ø5.12-5.129" - 'on-shaft' width 0.813" - flange Ø5.5"						
6.125	0.500	508-608-32 HS8 R	HS8	R	F	◇
6.125	0.671	**508-608-43 HDSH2 HT**	**HDSH2**	HT	F	
6.126	0.500	▲**51247**	**CRW1**	R	W	■
6.126	0.500	**51243**	**CRW1**	V	W	■
6.126	0.500	**51240**	**CRWHA1**	R	W	■
6.250	0.500	**51253**	**CRWA1**	V	W	■
6.250	0.500	▲**51252**	**CRWHA1**	R	W	■
6.375	0.500	▲**51248**	**CRWH1**	R	W	
6.375	0.500	**51255**	**CRWH1**	V	W	■
6.500	0.500	51276	CRSHA1	R	S	
6.625	0.500	51277	HDW1	R	W	■
7.000	0.500	533929	HDW1	R	W	
INCH Shaft Diameter – 5.188" (131.78 mm)						
6.250	0.500	51800	HDW1	R	W	■
6.501	0.625	**51852**	**CRWH1**	V	W	■
INCH Shaft Diameter – 5.250" (133.35 mm)						
	1.000	**99525**	**SSLEEVE**			
Shaft Ø5.246-5.255" - 'on-shaft' width 0.813" - flange Ø5.56"						
6.001	0.375	▲**52440**	**CRW1**	R	W	■
6.001	0.500	**52443**	**CRWH1**	V	W	■
6.250	0.250	52475	HM4	R	G	
6.250	0.500	▲**52445**	**CRWH1**	R	W	■
6.250	0.500	**52447**	**CRWH1**	V	W	■
6.375	0.500	▲**52492**	**CRWHA1**	R	W	
6.375	0.500	**52498**	**CRWHA1**	V	W	■
6.420	0.625	531291	HS8	R	F	◇
6.500	0.500	▲**52488**	**CRWH1**	R	W	■
6.500	0.500	**52489**	**CRWH1**	V	W	■
6.750	0.500	▲**52648**	**CRWH1**	R	W	■
6.750	0.500	**52649**	**CRWH1**	V	W	■
6.750	0.500	52651	HDW1	R	W	■
7.125	0.500	52655	HDW1	R	W	■
INCH Shaft Diameter – 5.313" (134.95 mm)						
6.375	0.500	53100	HDW1	R	W	■
6.500	0.500	53151	CRSHA1	R	S	
6.500	0.671	**520-632-43 HDSH2 HT**	**HDSH2**	HT	F	
METRIC Shaft Diameter – 135 mm (5.315")						
	25.4	**99533**	**SSLEEVE**			
Shaft Ø134.8-135.03mm - 'on-shaft' width 20.5mm - flange Ø145.67mm						
160	12	135X160X12 HMS4 R	HMS4	R	S	
160	13	135X160X13 HMS4 R	HMS4	R	S	
160	13	135X160X13 HMSA7 R	HMSA7	R	S	
160	15	135X160X15 HMS4 R	HMS4	R	S	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Fea-tures
METRIC Shaft Diameter (cont.) – 135 mm (5.315")						
161	13	135X161X13 HS4 H	HS4	H	F	◇
165	12	**135X165X12 HMS5 RG**	**HMS5**	RG	E	
165	12	**135X165X12 HMS5 V**	**HMS5**	V	E	◎
165	12	**135X165X12 HMSA10 RG**	**HMSA10**	RG	E	
165	12	**135X165X12 HMSA10 V**	**HMSA10**	V	E	◎
165	14	135X165X14 HMSA7 R	HMSA7	R	S	
170	12	**135X170X12 HMS5 RG**	**HMS5**	RG	E	
170	12	**135X170X12 HMS5 V**	**HMS5**	V	E	◎
170	12	▲**135X170X12 HMSA10 RG**	**HMSA10**	RG	E	
170	12	**135X170X12 HMSA10 V**	**HMSA10**	V	E	◎
170	15	135X170X15 CRSH1 R	CRSH1	R	S	
INCH Shaft Diameter – 5.375" (136.53 mm)						
	1.000	**99537**	**SSLEEVE**			
Shaft Ø5.371-5.38" - 'on-shaft' width 0.813" - flange Ø5.875"						
6.374	0.500	53688	CRSHA1	R	S	■
6.499	0.563	53692	CRSH1	R	S	
6.625	0.500	▲**53701**	**CRWH1**	R	W	■
6.625	0.500	**53702**	**CRWH1**	V	W	■
6.750	0.500	▲**53775**	**CRWH1**	R	W	■
6.750	0.500	**545452**	**CRWH1**	R	W	◤◎
6.750	0.500	**53771**	**CRWH1**	V	W	■
METRIC Shaft Diameter – 138 mm (5.433")						
152	12	138X152X12 CRSA1 R	CRSA1	R	S	
INCH Shaft Diameter – 5.438" (138.13 mm)						
	1.688	**99548**	**SSLEEVE**			
Shaft Ø5.434-5.443" - 'on-shaft' width 1.5" - flange Ø5.75"						
6.625	0.500	54300	HDW1	R	W	■
6.688	0.625	521726	HS6	R	F	◇
INCH Shaft Diameter – 5.476" (139.09 mm)						
	0.750	**99547**	**SSLEEVE**			
Shaft Ø5.472-5.481" - 'on-shaft' width 0.563" - flange Ø5.9"						
INCH Shaft Diameter – 5.500" (139.70 mm)						
	0.705	**99550**	**SSLEEVE**			
Shaft Ø5.498-5.507" - 'on-shaft' width 0.518" - flange Ø5.938"						
	1.000	**99549**	**SSLEEVE**			
Shaft Ø5.498-5.507" - 'on-shaft' width 0.813" - flange Ø5.938"						
	1.000	99859	GSLEEVE			
Shaft Ø5.498-5.507" - 'on-shaft' width 0.813" - flange Ø5.938"						
6.250	0.500	▲**54925**	**CRWA1**	R	W	■
6.500	0.500	**54936**	**CRWH1**	P	W	■
6.500	0.500	▲**54931**	**CRWH1**	R	W	■
6.500	0.500	**54934**	**CRWH1**	V	W	■
6.500	0.500	597548	HS8	V	F	◇
6.626	0.563	54949	CRSHA1	R	S	
6.750	0.500	**54959**	**CRW1**	R	W	■
6.750	0.500	**54960**	**CRWA1**	R	W	■
6.750	0.500	▲**54972**	**CRWH1**	R	W	■
6.750	0.500	**54974**	**CRWH1**	V	W	■
6.750	0.500	**54971**	**CRWHA1**	R	W	■
6.750	0.500	532-648-32 HS8 R	HS8	R	F	◇
6.750	0.625	556435	HS8	R	F	◇
6.750	0.750	595055	HS7	R	F	◇
6.876	0.563	55157	CRSHA1	R	S	
METRIC Shaft Diameter – 140 mm (5.512")						
	25.4	**99552**	**SSLEEVE**			
Shaft Ø139.9-140.13mm - 'on-shaft' width 20.5mm - flange Ø151mm						
160	12	**140X160X12 CRW1 R**	**CRW1**	R	W	
160	12	**140X160X12 HMS5 RG**	**HMS5**	RG	E	
160	12	**140X160X12 HMS5 V**	**HMS5**	V	E	◎
160	12	▲**140X160X12 HMSA10 RG**	**HMSA10**	RG	E	
160	12	**140X160X12 HMSA10 V**	**HMSA10**	V	E	◎
170	12	**140X170X12 CRW1 R**	**CRW1**	R	W	■

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
METRIC Shaft Diameter (cont.) – 140 mm (5.512")						
170	12	**140X170X12 CRW1 V**	**CRW1**	V	W	
170	12	**140X170X12 HMS5 RG**	**HMS5**	RG	E	
170	12	**140X170X12 HMS5 V**	**HMS5**	V	E	◎
170	12	▲**140X170X12 HMSA10 RG**	**HMSA10**	RG	E	
170	12	**140X170X12 HMSA10 V**	**HMSA10**	V	E	◎
170	12	**140X170X12 HSS5 R**	**HSS5**	R	F	◇
170	15	**140X170X15 HDS7 H**	**HDS7**	H	F	
170	15	**140X170X15 HMS5 RG**	**HMS5**	RG	E	
170	15	**140X170X15 HMS5 V**	**HMS5**	V	E	◎
170	15	**140X170X15 HMSA10 RG**	**HMSA10**	RG	E	
170	15	**140X170X15 HMSA10 V**	**HMSA10**	V	E	◎
170	15	**140X170X15 HSS5 R**	**HSS5**	R	F	◇
170	15	140X170X15 HS8 V	HS8	V	F	◇
180	12	**140X180X12 HMS5 RG**	**HMS5**	RG	E	
180	12	**140X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	▲**140X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**140X180X12 HMSA10 V**	**HMSA10**	V	E	◎
180	15	**140X180X15 HMS5 RG**	**HMS5**	RG	E	
180	15	**140X180X15 HMS5 V**	**HMS5**	V	E	◎
180	15	**140X180X15 HMSA10 RG**	**HMSA10**	RG	E	
180	15	**140X180X15 HMSA10 V**	**HMSA10**	V	E	◎
180	16	140X180X16 HS8 R	HS8	R	F	◇
180	16	140X180X16 HS8 V	HS8	V	F	◇
180	17	**140X180X17 HDSH2 HT**	**HDSH2**	HT	F	
230	15	**140X230X15 HMS5 RG**	**HMS5**	RG	E	
230	15	**140X230X15 HMS5 V**	**HMS5**	V	E	◎
230	15	**140X230X15 HMSA10 RG**	**HMSA10**	RG	E	
230	15	**140X230X15 HMSA10 V**	**HMSA10**	V	E	◎
250	15	**140X250X15 HMS5 RG**	**HMS5**	RG	E	
250	15	**140X250X15 HMS5 V**	**HMS5**	V	E	◎
250	15	**140X250X15 HMSA10 RG**	**HMSA10**	RG	E	
250	15	**140X250X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 5.625" (142.88 mm)						
	1.000	**99560**	**SSLEEVE**			
Shaft Ø5.621-5.63" - 'on-shaft' width 0.875" - flange Ø6.188"						
6.625	0.500	▲**56101**	**CRWH1**	R	W	■
6.625	0.500	**56102**	**CRWH1**	V	W	■
6.875	0.500	▲**56136**	**CRWH1**	R	W	■
6.875	0.500	**56137**	**CRWH1**	V	W	■
7.125	0.500	▲**56160**	**CRWHA1**	R	W	■
METRIC Shaft Diameter – 143 mm (5.630")						
181	12.70	**143X181X12.7 CRWHA1 R**	**CRWHA1**	R	W	
METRIC Shaft Diameter – 144 mm (5.669")						
160	12	144X160X12 HMSA7 R	HMSA7	R	S	
METRIC Shaft Diameter – 145 mm (5.709")						
	22.2	**99571**	**SSLEEVE**			
Shaft Ø144.75-144.98mm - 'on-shaft' width 19.05mm - flange Ø154.94mm						
164	14	145X164X14 CRSA1 R	CRSA1	R	S	
170	12	145X170X12 HMSA7 R	HMSA7	R	S	
170	15	145X170X15 HMS4 R	HMS4	R	S	■
175	14	145X175X14 CRS1 R	CRS1	R	S	■
175	14	145X175X14 HMSA7 R	HMSA7	R	S	
175	14	145X175X14 HS8 R	HS8	R	F	◇
175	15	**145X175X15 HMS5 RG**	**HMS5**	RG	E	
175	15	**145X175X15 HMS5 V**	**HMS5**	V	E	◎
175	15	▲**145X175X15 HMSA10 RG**	**HMSA10**	RG	E	
175	15	**145X175X15 HMSA10 V**	**HMSA10**	V	E	◎
180	12	**145X180X12 HMS5 RG**	**HMS5**	RG	E	
180	12	**145X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	▲**145X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**145X180X12 HMSA10 V**	**HMSA10**	V	E	◎
180	15	**145X180X15 HDS2 H**	**HDS2**	H	F	
180	15	**145X180X15 HDS2 R**	**HDS2**	R	F	
180	20	**145X180X20 HDSH2 HT**	**HDSH2**	HT	F	
190	16	**145X190X16 HMS5 RG**	**HMS5**	RG	E	
METRIC Shaft Diameter (cont.) – 145 mm (5.709")						
190	16	**145X190X16 HMS5 V**	**HMS5**	V	E	◎
190	16	**145X190X16 HMSA10 RG**	**HMSA10**	RG	E	
190	16	**145X190X16 HMSA10 V**	**HMSA10**	V	E	◎
230	17	**145X230X17 HMS5 RG**	**HMS5**	RG	E	
230	17	**145X230X17 HMS5 V**	**HMS5**	V	E	◎
230	17	**145X230X17 HMSA10 RG**	**HMSA10**	RG	E	
230	17	**145X230X17 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 5.730" (145.54 mm)						
	0.750	**99562**	**SSLEEVE**			
Shaft Ø5.726-5.735" - 'on-shaft' width 0.563" - flange Ø6.1"						
INCH Shaft Diameter – 5.750" (146.05 mm)						
	1.000	**99575**	**SSLEEVE**			
Shaft Ø5.746-5.755" - 'on-shaft' width 0.813" - flange Ø6.18"						
6.375	0.250	57502	HMA1	R	G	
6.625	0.500	**57506**	**CRW1**	V	W	■
6.625	0.500	▲**57505**	**CRWH1**	R	W	■
6.750	0.500	▲**57510**	**CRWH1**	R	W	■
6.750	0.500	**57522**	**CRWH1**	V	W	■
6.751	0.500	▲**57509**	**CRWHA1**	R	W	
6.876	0.563	57519	CRSHA1	R	S	
7.000	0.500	▲**57521**	**CRWH1**	R	W	■
7.000	0.500	**57523**	**CRWH1**	V	W	■
7.000	0.500	**57531**	**CRWHA1**	R	W	■
7.126	0.563	57578	CRSHA1	R	S	
7.502	0.563	57584	CRSHA1	R	S	
METRIC Shaft Diameter – 148 mm (5.827")						
170	15	**148X170X15 HMS5 RG**	**HMS5**	RG	E	
170	15	**148X170X15 HMS5 V**	**HMS5**	V	E	◎
170	15	**148X170X15 HMSA10 RG**	**HMSA10**	RG	E	
170	15	**148X170X15 HMSA10 V**	**HMSA10**	V	E	◎
METRIC Shaft Diameter – 149 mm (5.866")						
180	13	149X180X13 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 5.875" (149.23 mm)						
	1.250	**99587**	**SSLEEVE**			
Shaft Ø5.871-5.88" - 'on-shaft' width 1" - flange Ø6.188"						
	1.250	99862	GSLEEVE			
Shaft Ø5.871-5.88" - 'on-shaft' width 1" - flange Ø6.188"						
6.875	0.500	58709	HDW1	R	W	■◎
7.000	0.500	58710	HDW1	R	W	■
7.125	0.500	▲**58716**	**CRWH1**	R	W	■
7.125	0.500	**58717**	**CRWH1**	V	W	■
7.125	0.500	**58741**	**CRWHA1**	R	W	■
7.125	0.500	**534576**	**CRWHA1**	V	W	■
7.500	0.500	▲**58760**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 150 mm (5.906")						
	30	**99595**	**SSLEEVE**			
Shaft Ø149.76-149.99mm - 'on-shaft' width 26.01mm - flange Ø159mm						
170	12	**150X170X12 HMS5 RG**	**HMS5**	RG	E	
170	12	**150X170X12 HMS5 V**	**HMS5**	V	E	◎
170	12	**150X170X12 HMSA10 RG**	**HMSA10**	RG	E	
170	12	**150X170X12 HMSA10 V**	**HMSA10**	V	E	◎
170	15	150X170X15 CRSH1 R	CRSH1	R	S	
180	8.50	150X180X8.5 HMSA72P2R	HMSA72P2	R	S	◆
180	12	**150X180X12 HMS5 RG**	**HMS5**	RG	E	
180	12	**150X180X12 HMS5 V**	**HMS5**	V	E	◎
180	12	▲**150X180X12 HMSA10 RG**	**HMSA10**	RG	E	
180	12	**150X180X12 HMSA10 V**	**HMSA10**	V	E	◎
180	13	150X180X13 CRSH1 R	CRSH1	R	S	
180	14	150X180X14 HS8 R	HS8	R	F	◇
180	15	**150X180X15 HDS2 R**	**HDS2**	R	F	
180	15	**150X180X15 HMS5 RG**	**HMS5**	RG	E	
180	15	**150X180X15 HMS5 V**	**HMS5**	V	E	◎

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 150 mm (5.906")						
180	15	**150X180X15 HMSA10 RG**	**HMSA10**	RG	E	
180	15	**150X180X15 HMSA10 V**	**HMSA10**	V	E	◎
180	15	150X180X15 HS8 V	HS8	V	F	◇
180	16	**150X180X16 HDSF2 VT9**	**HDSF2**	VT	F	◤
180	16	150X180X16 HS8 R	HS8	R	F	◇
195	16	**150X195X16 HDSF7 VT**	**HDSF7**	VT	F	
200	12	**150X200X12 HMS5 RG**	**HMS5**	RG	E	
200	12	**150X200X12 HMS5 V**	**HMS5**	V	E	◎
200	12	**150X200X12 HMSA10 RG**	**HMSA10**	RG	E	
200	12	**150X200X12 HMSA10 V**	**HMSA10**	V	E	◎
225	15	**150X225X15 HMS5 RG**	**HMS5**	RG	E	
225	15	**150X225X15 HMS5 V**	**HMS5**	V	E	◎
225	15	**150X225X15 HMSA10 RG**	**HMSA10**	RG	E	
225	15	**150X225X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 5.938" (150.83 mm)						
	1.125	**99596**	**SSLEEVE**			
	Shaft Ø5.934-5.943" - 'on-shaft' width 1" - flange Ø6.375"					
7.000	0.500	59300	HDW1	R	W	■
METRIC Shaft Diameter – 151 mm (5.945")						
183	13	151X183X13 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 6.000" (152.40 mm)						
	1.250	**99599**	**SSLEEVE**			
	Shaft Ø5.995-6.005" - 'on-shaft' width 1" - flange Ø6.375"					
6.750	0.500	**60000**	**CRW1**	V	W	■
6.750	0.500	**59999**	**CRWA1**	V	W	■
7.000	0.500	593094	HS8	R	F	◇
7.000	0.500	600-700-32 HS8 R	HS8	R	F	◇
7.002	0.500	60006	CRSHA1	R	S	■
7.008	0.500	556530	HS8	R	F	■◇
7.126	0.500	▲**60012**	**CRWHA1**	R	W	■
7.126	0.500	**60013**	**CRWHA1**	V	W	■
7.250	0.500	60009	HDW1	R	W	■
7.250	0.625	592986	HS8	R	F	◇
7.500	0.250	60075	HM4	R	G	
7.500	0.500	**60016**	**CRWA1**	R	W	■
7.500	0.500	▲**60028**	**CRWHA1**	R	W	■
7.500	0.500	**60026**	**CRWHA1**	V	W	■
7.500	0.535	60037	HS8	R	F	◇
7.750	0.625	**597623**	**HDS1**	R	F	
METRIC Shaft Diameter – 154 mm (6.063")						
	30	**99605**	**SSLEEVE**			
	Shaft Ø153.87-154.13mm - 'on-shaft' width 26.01mm - flange Ø161.93mm					
172	14	60620	CRSA1	R	S	
175	13	154X175X13 CRSA1 R	CRSA1	R	S	
195.50	12.70	60650	HDW1	R	W	■
METRIC Shaft Diameter – 155 mm (6.102")						
	30	**99606**	**SSLEEVE**			
	Shaft Ø154.74-154.99mm - 'on-shaft' width 26.01mm - flange Ø167.01mm					
180	15	**155X180X15 HMS5 RG**	**HMS5**	RG	E	
180	15	**155X180X15 HMS5 V**	**HMS5**	V	E	◎
180	15	▲**155X180X15 HMSA10 RG**	**HMSA10**	RG	E	
180	15	**155X180X15 HMSA10 V**	**HMSA10**	V	E	◎
190	13	**155X190X13 HMS5 RG**	**HMS5**	RG	E	
190	13	**155X190X13 HMS5 V**	**HMS5**	V	E	◎
190	13	**155X190X13 HMSA10 RG**	**HMSA10**	RG	E	
190	13	**155X190X13 HMSA10 V**	**HMSA10**	V	E	◎
190	15	155X190X15 HMS4 R	HMS4	R	S	
195	16	**155X195X16 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 6.125" (155.58 mm)						
7.125	0.500	61215	HDW1	R	W	■
7.125	0.625	▲**61210**	**CRWH1**	R	W	
7.250	0.500	61230	HDW1	R	W	■
7.295	0.641	592808-00	HS8	R	F	◇
7.375	0.500	61235	HDW1	R	W	■
7.375	0.625	608-724-40 HS8 V	HS8	R	F	◇
7.502	0.563	61248	CRSHA1	R	S	
7.625	0.625	**61256**	**CRWH1**	P	W	
7.625	0.625	▲**61255**	**CRWH1**	R	W	
7.625	0.625	608-740-40 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 6.188" (157.18 mm)						
7.187	0.500	**557557**	**HS8**	R	F	◇
7.500	0.563	**61740**	**CRSH1**	P	S	
INCH Shaft Diameter – 6.203" (157.56 mm)						
	1.063	**99620**	**SSLEEVE**			
	Shaft Ø6.198-6.208" - 'on-shaft' width 0.813" - flange Ø6.625"					
INCH Shaft Diameter – 6.250" (158.75 mm)						
	1.250	**99625**	**SSLEEVE**			
	Shaft Ø6.245-6.255" - 'on-shaft' width 1.031" - flange Ø6.625"					
7.250	0.500	62480	HDW1	R	W	■
7.250	0.500	616-716-32 HS5 V	HS5	V	F	◇
7.250	0.500	592541	HS8	R	F	◇
7.252	0.500	▲**62482**	**CRWH1**	R	W	
7.500	0.500	▲**62495**	**CRWH1**	R	W	
7.500	0.500	**62497**	**CRWH1**	V	W	■
7.750	0.500	▲**62535**	**CRWH1**	R	W	■
7.875	0.625	▲**62572**	**CRWH1**	R	W	■
METRIC Shaft Diameter – 160 mm (6.299")						
	31.8	**99630**	**SSLEEVE**			
	Shaft Ø159.74-159.99mm - 'on-shaft' width 25.4mm - flange Ø171.45mm					
185	10	160X185X10 HMS4 R	HMS4	R	S	
185	13	160X185X13 CRSA1 V	CRSA1	V	S	
185	15	**160X185X15 HMS5 RG**	**HMS5**	RG	E	
185	15	**160X185X15 HMS5 V**	**HMS5**	V	E	◎
185	15	▲**160X185X15 HMSA10 RG**	**HMSA10**	RG	E	
185	15	**160X185X15 HMSA10 V**	**HMSA10**	V	E	◎
190	15	**160X190X15 CRW1 V**	**CRW1**	V	W	■
190	15	**160X190X15 HMS5 RG**	**HMS5**	RG	E	
190	15	**160X190X15 HMS5 V**	**HMS5**	V	E	◎
190	15	▲**160X190X15 HMSA10 RG**	**HMSA10**	RG	E	
190	15	**160X190X15 HMSA10 V**	**HMSA10**	V	E	◎
190	20	**160X190X20 HDSH2 HT**	**HDSH2**	HT	F	
200	15	160X200X15 HMSA7 R	HMSA7	R	S	
200	17	**160X200X17 HDSH2 HT**	**HDSH2**	HT	F	
290	18	**160X290X18 HMS5 RG**	**HMS5**	RG	E	
290	18	**160X290X18 HMS5 V**	**HMS5**	V	E	◎
290	18	**160X290X18 HMSA10 RG**	**HMSA10**	RG	E	
290	18	**160X290X18 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 6.375" (161.93 mm)						
7.375	0.625	▲**63700**	**CRWH1**	R	W	■
7.375	0.672	**624-724-43 HDSH2 HT**	**HDSH2**	HT	F	
7.500	0.500	63717	HDW1	R	W	■
7.875	0.563	▲**63734**	**CRWHA1**	R	W	■
7.875	0.625	**63733**	**CRWH1**	R	W	
INCH Shaft Diameter – 6.438" (163.53 mm)						
7.500	0.500	64330	HDW1	R	W	■
7.688	0.625	596043	HS5	R	F	◇
7.688	0.625	521727	HS6	R	F	◇
7.688	0.625	594760	HS7	R	F	◇
7.688	0.625	596362	HS8	R	F	◇
METRIC Shaft Diameter – 165 mm (6.496")						
190	13	165X190X13 HMS4 R	HMS4	R	S	
190	15	**165X190X15 HMS5 RG**	**HMS5**	RG	E	
190	15	**165X190X15 HMS5 V**	**HMS5**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 165 mm (6.496")						
190	15	▲**165X190X15 HMSA10 RG**	**HMSA10**	RG	E	
190	15	**165X190X15 HMSA10 V**	**HMSA10**	V	E	◎
230	15	**165X230X15 HMS5 RG**	**HMS5**	RG	E	
230	15	**165X230X15 HMS5 V**	**HMS5**	V	E	◎
230	15	**165X230X15 HMSA10 RG**	**HMSA10**	RG	E	
230	15	**165X230X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 6.500" (165.10 mm)						
	1.250	**99650**	**SSLEEVE**			
Shaft Ø6.495-6.505" - 'on-shaft' width 1" - flange Ø7"						
7.420	0.500	531145	HS8	R	F	◇
7.500	0.500	**64993**	**CRWA1**	R	W	■
7.500	0.500	▲**64994**	**CRWH1**	R	W	
7.500	0.500	**64998**	**CRWH1**	V	W	■
7.500	0.500	**632-732-32 HSS8 R**	**HSS8**	R	F	◇
7.500	0.500	557679	HS8	V	F	◇
7.500	0.625	527301	HS7	R	F	◇
7.750	0.625	**556449**	**HDS1**	R	F	
7.750	0.625	592748	HS8	R	F	◇
8.000	0.500	**65021**	**CRW1**	R	W	■
8.000	0.500	▲**65037**	**CRWHA1**	R	W	
8.000	0.870	544260	CRWA1	V	W	■
METRIC Shaft Diameter – 168 mm (6.614")						
194	13	594536	HS8	D	F	◇
200	15	168X200X15 CRSH1 R	CRSH1	R	S	
INCH Shaft Diameter – 6.625" (168.28 mm)						
7.625	0.500	597544	HS8	R	F	◇
7.750	0.500	66219	HDW1	R	W	■
7.875	0.500	66222	HDW1	R	W	■
8.000	0.500	66230	HDW1	R	W	■
8.125	0.500	▲**66241**	**CRWH1**	R	W	
8.125	0.968	526484	HDSA2	RD	F	
METRIC Shaft Diameter – 170 mm (6.693")						
	38	**99640**	**SSLEEVE**			
Shaft Ø169.75-170mm - 'on-shaft' width 31.75mm - flange Ø182.58mm						
190	15	170X190X15 CRSH1 R	CRSH1	R	S	
200	15	**170X200X15 HDS2 R**	**HDS2**	R	F	
200	15	**170X200X15 HDS2 V**	**HDS2**	V	F	
200	15	**170X200X15 HDS7 R**	**HDS7**	R	F	
200	15	**170X200X15 HMS5 RG**	**HMS5**	RG	E	
200	15	**170X200X15 HMS5 V**	**HMS5**	V	E	◎
200	15	▲**170X200X15 HMSA10 RG**	**HMSA10**	RG	E	
200	15	**170X200X15 HMSA10 V**	**HMSA10**	V	E	◎
200	15	170X200X15 HS8 R	HS8	R	F	◇
200	15	170X200X15 HS8 V	HS8	V	F	◇
200	16	170X200X16 HS8 V	HS8	V	F	◇
205	16	**170X205X16 HDS7 D**	**HDS7**	D	F	
210	15	170X210X15 HMSA7 R	HMSA7	R	S	
210	16	**170X210X16 HDS1 R**	**HDS1**	R	F	
210	16	**170X210X16 HDS2 R**	**HDS2**	R	F	
210	16	**170X210X16 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 6.750" (171.15 mm)						
	1.063	**99675**	**SSLEEVE**			
Shaft Ø6.745-6.755" - 'on-shaft' width 0.813" - flange Ø7.125"						
7.750	0.500	67510	HDW1	R	W	■
7.750	0.625	**595389**	**HDS1**	R	F	
7.750	0.625	**67512**	**HDS1**	V	F	
8.000	0.500	▲**67515**	**CRWH1**	R	W	■
8.000	0.625	592519	HS8	R	F	◇
8.000	0.625	595014	HS8	V	F	◇
8.250	0.500	▲**67533**	**CRWH1**	R	W	
8.250	0.750	594890	HS8	R	F	◇
8.750	0.500	67600	HDW1	R	W	■
INCH Shaft Diameter – 6.875" (174.63 mm)						
8.125	0.625	595206	HS8	R	F	◇
8.250	0.500	68730	HDW1	R	W	■
8.375	0.500	▲**68745**	**CRWH1**	R	W	
8.500	0.500	68760	HDW1	R	W	■
METRIC Shaft Diameter – 175 mm (6.890")						
	32	**99687**	**SSLEEVE**			
Shaft Ø174.75-175.01mm - 'on-shaft' width 27.99mm - flange Ø187mm						
200	15	**175X200X15 HMS5 RG**	**HMS5**	RG	E	
200	15	**175X200X15 HMS5 V**	**HMS5**	V	E	◎
200	15	**175X200X15 HMSA10 RG**	**HMSA10**	RG	E	
200	15	**175X200X15 HMSA10 V**	**HMSA10**	V	E	◎
205	15	**175X205X15 HDS2 R**	**HDS2**	R	F	◤
205	15	**175X205X15 HDS2 V**	**HDS2**	V	F	
205	15	175X205X15 HMS4 R	HMS4	R	S	
INCH Shaft Diameter – 6.938" (176.23 mm)						
9.000	0.625	**596556**	**HDS1**	V	F	
INCH Shaft Diameter – 7.000" (176.80 mm)						
	1.250	**99700**	**SSLEEVE**			
Shaft Ø6.995-7.006" - 'on-shaft' width 1" - flange Ø7.475"						
8.000	0.500	70008	HS8	D	F	◇
8.000	0.500	597451	HS8	R	F	◇
8.000	0.500	595093	HS8	V	F	◇
8.000	0.630	▲**70016**	**CRWH1**	R	W	■
8.250	0.625	▲**70028**	**CRWH1**	R	W	
8.250	0.625	**594744**	**HDS1**	R	F	
8.250	0.625	**700-816-40 HDS2 V**	**HDS2**	V	F	
8.250	0.625	597500	HS8	R	F	◇
8.375	0.625	70034	CRSHA1	R	S	
8.452	0.609	597483	HS8	R	F	◇
8.500	0.500	**70080**	**CRWA1**	R	W	■
8.500	0.500	531502	HS6	R	F	◇
8.500	0.625	**70052**	**CRWH1**	R	W	■
8.500	0.625	▲**70053**	**CRWHA1**	R	W	■
8.500	0.625	**70054**	**CRWHA1**	V	W	■
8.500	0.625	**70055**	**HDS1**	V	F	
8.500	0.625	**595267**	**HDS2**	R	F	
8.500	0.625	526648	HS8	R	F	◇
8.500	0.750	594846	HS6	R	F	◇
METRIC Shaft Diameter – 178 mm (7.008")						
210	14	**178X210X14 HSS4G H**	**HSS4G**	H	F	◇
INCH Shaft Diameter – 7.025" (178.44 mm)						
8.500	0.625	**596076**	**HDS2**	V	F	
METRIC Shaft Diameter – 180 mm (7.087")						
	38	**99721**	**SSLEEVE**			
Shaft Ø179.76-180.04mm - 'on-shaft' width 32.99mm - flange Ø190.5mm						
200	12	180X200X12 CRS1 R	CRS1	R	S	
200	15	**180X200X15 HMS5 RG**	**HMS5**	RG	E	
200	15	**180X200X15 HMS5 V**	**HMS5**	V	E	◎
200	15	**180X200X15 HMSA10 RG**	**HMSA10**	RG	E	
200	15	**180X200X15 HMSA10 V**	**HMSA10**	V	E	◎
205	12	180X205X12 HS8 R	HS8	R	F	◇
210	15	**180X210X15 HDS2 H**	**HDS2**	H	F	
210	15	**180X210X15 HDS7 H**	**HDS7**	H	F	
210	15	**180X210X15 HMS5 RG**	**HMS5**	RG	E	
210	15	**180X210X15 HMS5 V**	**HMS5**	V	E	◎
210	15	▲**180X210X15 HMSA10 RG**	**HMSA10**	RG	E	
210	15	**180X210X15 HMSA10 V**	**HMSA10**	V	E	◎
210	15	180X210X15 HS8 V	HS8	V	F	◇
210	20	**180X210X20 HDSH7 HT**	**HDSH7**	HT	F	
215	15	**180X215X15 HMS5 RG**	**HMS5**	RG	E	
215	15	**180X215X15 HMS5 V**	**HMS5**	V	E	◎
215	15	**180X215X15 HMSA10 RG**	**HMSA10**	RG	E	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 180 mm (7.087")						
215	15	**180X215X15 HMSA10 V**	**HMSA10**	V	E	◎
215	16	180X215X16 CRS1 R	CRS1	R	S	
220	15	**180X220X15 HDS2 V**	**HDS2**	V	F	
220	16	**180X220X16 HDS1 V**	**HDS1**	V	F	
220	16	**180X220X16 HDS2 R**	**HDS2**	R	F	
220	16	**180X220X16 HDS7 H**	**HDS7**	H	F	
220	16	180X220X16 HS8 V	HS8	V	F	◇
220	20	**180X220X20 HDSH7 HT**	**HDSH7**	HT	F	
222	16	**180X222X16 HDS7 R**	**HDS7**	R	F	
222	16	180X222X16 HS7 R	HS7	R	F	◇
INCH Shaft Diameter – 7.125" (180.98 mm)						
8.045	0.500	531292	HS8	R	F	◇
8.125	0.500	595761	HS5	R	F	◇
8.125	0.591	**597407**	**HDS7**	R	F	
8.250	0.500	71220	HDW1	R	W	■
8.500	0.625	**597457**	**HDS2**	R	F	
8.625	0.625	▲ **71245**	**CRWH1**	R	W	
INCH Shaft Diameter – 7.188" (182.58 mm)						
8.640	0.625	**596128**	**HDS2**	R	F	
8.640	0.625	595643	HS5	R	F	◇
8.640	0.625	595323	HS7	R	F	◇
INCH Shaft Diameter – 7.250" (184.15 mm)						
	1.500	**99725**	**SSLEEVE**			
Shaft Ø7.244-7.255" - 'on-shaft' width 1.25" - flange Ø7.76"						
8.250	0.500	528377	HS7	R	F	◇
8.250	0.500	595012	HS8	R	F	◇
8.250	0.625	▲ **72515**	**CRW1**	R	W	
8.250	0.625	**716-816-40 HDS2 R**	**HDS2**	R	F	
8.500	0.625	**556439**	**HDS1**	R	F	
8.640	0.625	**558184**	**HDS2**	V	F	
8.750	0.625	▲ **72539**	**CRWHA1**	R	W	■
8.750	0.625	**557653**	**HDS1**	H	F	■
8.750	0.625	**72543**	**HDS1**	V	F	
8.750	0.625	**595348**	**HDS2**	R	F	
8.750	0.625	**72510**	**HDS2**	V	F	
8.750	0.625	596436	HS8	R	F	◇
8.750	0.750	**72542**	**CRWH1**	P	W	
8.750	0.875	72594	HDSA2	VD	F	
9.055	0.625	▲ **72570**	**CRWHA1**	R	W	■
METRIC Shaft Diameter – 185 mm (7.283")						
	38	**99726**	**SSLEEVE**			
Shaft Ø184.73-185.01mm - 'on-shaft' width 32mm - flange Ø197.1mm						
210	13	**185X210X13 HMS5 RG**	**HMS5**	RG	E	
210	13	**185X210X13 HMS5 V**	**HMS5**	V	E	◎
210	13	**185X210X13 HMSA10 RG**	**HMSA10**	RG	E	
210	13	**185X210X13 HMSA10 V**	**HMSA10**	V	E	◎
220	13	185X220X13 HS8 R	HS8	R	F	◇
224.79	15.88	**72805**	**HDS2**	R	F	
225	16	**185X225X16 HDS1 V**	**HDS1**	V	F	
METRIC Shaft Diameter – 186 mm (7.323")						
226	16	186X226X16 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 7.375" (187.33 mm)						
8.375	0.500	73720	HDW1	R	W	■
8.500	0.500	73730	HDW1	R	W	■
8.625	0.787	**557432**	**HDSH2**	VT	F	
8.875	0.625	▲ **73745**	**CRWH1**	R	W	
METRIC Shaft Diameter – 188 mm (7.402")						
215	16	188X215X16 CRWH1 R	CRWH1	R	W	■
INCH Shaft Diameter – 7.438" (188.93 mm)						
8.438	0.500	597452	HS8	R	F	◇
8.438	0.500	594508	HS8	V	F	◇
METRIC Shaft Diameter – 189 mm (7.441")						
215	16	189X215X16 HS8 V	HS8	V	F	◇
INCH Shaft Diameter – 7.449" (189.20 mm)						
	1.000	**99745**	**SSLEEVE**			
Shaft Ø7.444-7.455" - 'on-shaft' width 0.813" - flange Ø7.86"						
METRIC Shaft Diameter – 190 mm (7.480")						
215	16	**190X215X16 HSS5 V**	**HSS5**	V	F	◇
215	16	190X215X16 CRSH1 R	CRSH1	R	S	
220	12	**190X220X12 HMS5 RG1**	**HMS5**	RG	E	
220	12	**190X220X12 HMS5 V1**	**HMS5**	V	E	◎
220	12	▲ **190X220X12 HMSA10 RG1**	**HMSA10**	RG	E	
220	12	**190X220X12 HMSA10 V1**	**HMSA10**	V	E	◎
220	13	190X220X13 HS8 R	HS8	R	F	◇
220	15	**190X220X15 HDS1 V**	**HDS1**	V	F	
220	15	**190X220X15 HDS7 D**	**HDS7**	D	F	
220	15	**190X220X15 HDS7 H**	**HDS7**	H	F	
220	15	**190X220X15 HMS5 RG**	**HMS5**	RG	E	
220	15	**190X220X15 HMS5 V**	**HMS5**	V	E	◎
220	15	▲ **190X220X15 HMSA10 RG**	**HMSA10**	RG	E	
220	15	**190X220X15 HMSA10 V**	**HMSA10**	V	E	◎
220	15	190X220X15 HS8 R	HS8	R	F	◇
220	15	190X220X15 HS8 V	HS8	V	F	◇
220	16	190X220X16 HS8 R	HS8	R	F	◇
225	15	**190X225X15 HMS5 RG**	**HMS5**	RG	E	
225	15	**190X225X15 HMS5 V**	**HMS5**	V	E	◎
225	15	**190X225X15 HMSA10 RG**	**HMSA10**	RG	E	
225	15	**190X225X15 HMSA10 V**	**HMSA10**	V	E	◎
225	16	**190X225X16 HDS1 R**	**HDS1**	R	F	
230	16	190X230X16 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 7.500" (190.50 mm)						
	1.000	**99750**	**SSLEEVE**			
Shaft Ø7.495-7.506" - 'on-shaft' width 0.813" - flange Ø7.875"						
8.500	0.500	590714	HS7	R	F	◇
8.500	0.625	▲ **75030**	**CRWH1**	R	W	
8.500	0.625	75038	HS8	R	F	◇
8.594	0.500	511814	HS6	R	F	◇
8.750	0.500	75046	HDW1	R	W	■
8.750	0.625	**75048**	**HDS1**	V	F	
8.750	0.625	595822	HS5	D	F	◇
8.750	0.625	594018	HS8	R	F	◇
9.000	0.625	▲ **75050**	**CRWH1**	R	W	■
9.000	0.625	**75052**	**CRWHA1**	P	W	■
9.000	0.625	**75053**	**HDS1**	V	F	
9.000	0.625	**732-900-40 HDSH7 HT**	**HDSH7**	HT	F	
9.000	0.750	**75054**	**HDS2**	V	F	
9.000	0.968	526485	HDSA2	RD	F	
9.000	0.968	595912	HDSA2	VD	F	
9.125	0.625	**732-908-40 HDSH7 HT**	**HDSH7**	HT	F	
9.250	0.500	75069	HDW1	R	W	■
9.250	0.625	**75067**	**HDS1**	V	F	
9.250	0.625	**732-916-40 HDSH7 HT**	**HDSH7**	HT	F	
INCH Shaft Diameter – 7.625" (193.68 mm)						
8.625	0.563	▲ **76215**	**CRWH1**	R	W	
8.875	0.500	76225	HDW1	R	W	■
8.875	0.625	595207	HS8	R	F	◇
9.000	0.625	597467	HS8	R	F	◇
9.125	0.625	▲ **76255**	**CRWH1**	R	W	
METRIC Shaft Diameter – 195 mm (7.677")						
230	15	195X230X15 CRSH1 R	CRSH1	R	S	
250	22	**195X250X22 HDS7 R**	**HDS7**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 195 mm (7.677")						
250	22	**195X250X22 HDSH7 RT**	**HDSH7**	RT	F	
INCH Shaft Diameter – 7.750" (196.85 mm)						
	1.313	**99775**	**SSLEEVE**			
Shaft Ø7.745-7.756" - 'on-shaft' width 1" - flange Ø8.27"						
8.750	0.500	77506	HDW1	R	W	■
8.750	0.500	529601	HS8	R	F	◇
8.750	0.625	595813	HS5	D	F	◇
9.000	0.625	**77531**	**HDS1**	R	F	
9.000	0.625	**597568**	**HDS1**	V	F	
9.000	0.625	530608	HS8	R	F	◇
9.250	0.625	▲ **77540**	**CRWH1**	R	W	
9.250	0.625	**77539**	**HDS1**	V	F	
9.250	0.625	**595146**	**HDS2**	D	F	
9.375	0.625	**557937**	**HDS2**	R	F	
9.375	0.625	**557936**	**HDS2**	V	F	
INCH Shaft Diameter – 7.800" (198.12 mm)						
9.750	0.625	**556586**	**HDS2**	R	F	
METRIC Shaft Diameter – 199 mm (7.835")						
240	20	**199X240X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 7.835" (199.01 mm)						
9.500	0.625	**596080**	**HDS2**	V	F	
METRIC Shaft Diameter – 200 mm (7.835")						
	38.1	**99787**	**SSLEEVE**			
Shaft Ø199.87-200.15mm - 'on-shaft' width 34.52mm - flange Ø212.73mm						
230	13	200X230X13 HMSA72P2 R	HMSA72P2	R	S	◆
230	14	**200X230X14 HDS2 V**	**HDS2**	V	F	
230	15	**200X230X15 HDS1 V**	**HDS1**	V	F	
230	15	**200X230X15 HDS2 V**	**HDS2**	V	F	
230	15	**200X230X15 HDS7 H**	**HDS7**	H	F	
230	15	**200X230X15 HDS7 R**	**HDS7**	R	F	
230	15	**200X230X15 HDS7 V**	**HDS7**	V	F	
230	15	**200X230X15 HMS5 RG**	**HMS5**	RG	E	
230	15	**200X230X15 HMS5 V**	**HMS5**	V	E	◎
230	15	▲ **200X230X15 HMSA10 RG**	**HMSA10**	RG	E	
230	15	**200X230X15 HMSA10 V**	**HMSA10**	V	E	◎
230	15	557309	HS8	R	F	◇
230	15	200X230X15 HS8 R	HS8	R	F	◇
230	15	200X230X15 HS8 V	HS8	V	F	◇
230	15.90	**200X230X15.9 HDS1 R**	**HDS1**	R	F	
230	16	**200X230X16 HDS2 D**	**HDS2**	D	F	
		W/LIGHT LOAD SPRING				
230	16	**200X230X16 HDSF2 VT9**	**HDSF2**	VT	F	◤
230	16	200X230X16 HS6 V	HS6	V	F	◇
235	15	200X235X15 HMSA7 R	HMSA7	R	S	
235	16	**200X235X16 HDS7 R**	**HDS7**	R	F	
235	18	200X235X18 HS7 R	HS7	R	F	◇
235	18	200X235X18 HS8 R	HS8	R	F	◇
238	19	**200X238X19 HDS1 V**	**HDS1**	V	F	
238	19	200X238X19 HS6 R	HS6	R	F	◇
240	15	**200X240X15 HMS5 RG**	**HMS5**	RG	E	
240	15	**200X240X15 HMS5 V**	**HMS5**	V	E	◎
240	15	▲ **200X240X15 HMSA10 RG**	**HMSA10**	RG	E	
240	15	**200X240X15 HMSA10 V**	**HMSA10**	V	E	◎
240	16	**200X240X16 HDS1 H**	**HDS1**	H	F	
240	16	**200X240X16 HDS1 V**	**HDS1**	V	F	
240	16	**200X240X16 HDS2 R**	**HDS2**	R	F	
240	17.50	**200X240X17.5 HDS2 V**	**HDS2**	V	F	
240	17.50	**200X240X17.5 HDS7 V**	**HDS7**	V	F	
240	18	**200X240X18 HDS2 R**	**HDS2**	R	F	
240	20	**200X240X20 HDS2 R**	**HDS2**	R	F	
240	20	200X240X20 HS8 V	HS8	V	F	◇
255	22	**200X255X22 HDS2 R**	**HDS2**	R	F	
310	18	**200X310X18 HMS5 RG**	**HMS5**	RG	E	
METRIC Shaft Diameter (cont.) – 200 mm (7.835")						
310	18	**200X310X18 HMS5 V**	**HMS5**	V	E	◎
310	18	**200X310X18 HMSA10 RG**	**HMSA10**	RG	E	
310	18	**200X310X18 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 7.875" (200.03 mm)						
	1.500	**99787**	**SSLEEVE**			
Shaft Ø7.869-7.88" - 'on-shaft' width 1.359" - flange Ø8.375"						
8.875	0.500	78710	HDW1	R	W	■
9.125	0.625	593329	HS8	R	F	◇
9.250	1.000	▲ **78725**	**CRWHA1**	R	W	
9.375	0.625	▲ **78738**	**CRWH1**	R	W	
9.375	0.625	**595145**	**HDS2**	D	F	
9.375	0.687	**557976**	**HDS2**	V	F	
9.375	0.687	**557977**	**HDS7**	V	F	
9.500	0.625	**596079**	**HDS2**	V	F	
10.234	0.625	**78790**	**HDS2**	R	F	
INCH Shaft Diameter – 7.938" (201.63 mm)						
	1.250	**99799**	**SSLEEVE**			
Shaft Ø7.933-7.944" - 'on-shaft' width 1" - flange Ø8.375"						
8.750	0.344	**79302**	**HM14**	R	G	
9.125	0.500	79620	HDW1	R	W	■
9.125	0.500	557986	HS8	R	F	◇
9.438	0.609	526853	HS6	R	F	◇
9.500	0.625	**596207**	**HDS2**	R	F	
9.500	0.625	**596078**	**HDS2**	V	F	
INCH Shaft Diameter – 8.000" (203.20 mm)						
	1.250	**99800**	**SSLEEVE**			
Shaft Ø7.995-8.006" - 'on-shaft' width 1" - flange Ø8.375"						
9.000	0.500	595022	HS8	V	F	◇
9.000	0.625	▲ **79960**	**CRWH1**	R	W	
9.000	0.625	**79961**	**CRWHA1**	R	W	
9.000	0.625	**597534**	**HDS7**	R	F	
9.000	0.625	**800-900-40 HSS8 R**	**HSS8**	R	F	◇
9.000	0.625	594935	HS8	V	F	◇
9.250	0.625	▲ **79997**	**CRWH1**	R	W	
9.250	0.625	**79998**	**CRWHA1**	R	W	■
9.250	0.625	**77996**	**HDS1**	V	F	
9.250	0.625	**593781**	**HDS2**	R	F	
9.250	0.625	592376	HS8	R	F	◇
9.250	0.625	531395	HS8	V	F	◇
9.375	0.750	**595732**	**HDS1**	R	F	
9.500	0.625	▲ **80010**	**CRWH1**	R	W	■
9.500	0.625	**596567**	**HDS7**	H	F	
9.500	0.625	595404	HS5	R	F	◇
9.500	0.687	**80009**	**HDS2**	V	F	
9.750	0.750	**80030**	**HDS1**	V	F	
10.000	0.625	▲ **80038**	**CRWHA1**	R	W	
10.000	0.688	**590725**	**HDS1**	R	F	
10.000	0.688	595888	HS8	R	F	◇
10.000	0.750	**593446**	**HDS2**	R	F	
10.000	0.750	**590726**	**HDS2L08**	R	F	
10.000	0.750	590326	HS7	R	F	◇
10.000	0.875	**592493**	**HDS2**	D	F	
10.000	0.906	526489	HDSA2	RD	F	
10.000	0.986	526488	HDSA2	RD	F	
10.000	1.000	**80088**	**HDS1**	R	F	
10.000	1.000	**80091**	**HDS1**	V	F	
10.000	1.125	592075	HDSA2	RD	F	
10.000	1.250	592336	HDSA1	RD	F	
10.002	1.000	590733	HDSA1	RD	F	
10.125	1.250	80092	HDSA1	RD	F	
METRIC Shaft Diameter – 205 mm (8.071")						
250	16	**205X250X16 HDS1 V**	**HDS1**	V	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 8.125" (206.38 mm)						
9.500	0.750	557504	HS8	V	F	◇
10.000	0.625	**593239**	**HDS2**	R	F	
10.125	0.625	▲**81245**	**CRWH1**	R	W	
10.125	0.625	**81246**	**CRWHA1**	R	W	
10.125	0.750	**590312**	**HDS1**	R	F	
10.125	0.750	**593439**	**HDS1**	V	F	
10.125	1.000	**81253**	**HDS1**	R	F	
10.250	0.875	**590739**	**HDS1**	R	F	
INCH Shaft Diameter – 8.188" (207.98 mm)						
10.000	0.750	**595328**	**HDS2**	R	F	
INCH Shaft Diameter – 8.250" (209.55 mm)						
9.250	0.625	▲**82510**	**CRWH1**	R	W	
9.252	0.500	▲**82527**	**CRWH1**	R	W	■
9.500	0.500	597515	HS8	R	F	◇
9.500	0.570	▲**541405**	**CRW1**	R	W	
9.500	0.625	**595675**	**HDS1**	R	F	
9.500	0.625	**592942**	**HDS2**	D	F	
9.500	0.625	**529757**	**HDS2**	R	F	
		W/LIGHT LOAD SPRING				
9.500	0.625	**82524**	**HDS2**	R	F	
9.500	0.625	**82526**	**HDS2**	V	F	
9.500	0.625	592180	HS7	R	F	◇
9.500	0.625	593342	HS8	R	F	◇
9.500	0.625	593543	HS8	V	F	◇
9.500	0.750	**816-932-48 HDS7 R**	**HDS7**	R	F	
9.750	0.609	513510	HS6	R	F	◇
9.750	0.625	**590720**	**HDS1**	R	F	
10.000	0.750	**590729**	**HDS1**	R	F	
10.000	0.750	**593511**	**HDS2**	R	F	
10.000	0.750	816-1000-48 HS8 R	HS8	R	F	◇
10.250	0.625	▲**82560**	**CRWH1**	R	W	
10.250	0.625	**82559**	**HDS2**	V	F	
10.250	0.750	**82562**	**HDS1**	R	F	
10.250	0.750	**82563**	**HDS1**	V	F	
10.250	0.750	**593644**	**HDS2**	D	F	
10.250	0.750	591929	HS7	R	F	◇
10.250	0.750	592556	HS8	R	F	◇
10.250	0.813	**82555**	**HDS2**	V	F	
10.250	1.000	**590358**	**HDS1**	R	F	
10.500	0.875	**590750**	**HDS1**	R	F	
11.500	0.750	**82570**	**HDS1**	R	F	
METRIC Shaft Diameter – 210 mm (8.268")						
240	15	**210X240X15 HDS2 V**	**HDS2**	V	F	
240	15	**210X240X15 HMS5 RG**	**HMS5**	RG	E	
240	15	**210X240X15 HMS5 V**	**HMS5**	V	E	◎
240	15	▲**210X240X15 HMSA10 RG**	**HMSA10**	RG	E	
240	15	**210X240X15 HMSA10 V**	**HMSA10**	V	E	◎
240	15	210X240X15 HS8 R	HS8	R	F	◇
240	16	**210X240X16 HDS7 R**	**HDS7**	R	F	
240	18	**210X240X18 HDS7 D**	**HDS7**	D	F	
240	20	**210X240X20 HDSH2 DT1**	**HDSH2**	DT	F	
245	16	**210X245X16 HDS1 R**	**HDS1**	R	F	
245	16	**210X245X16 HDS1 V**	**HDS1**	V	F	
250	15	**210X250X15 HDS1 V**	**HDS1**	V	F	
250	15	**210X250X15 HDS2 V**	**HDS2**	V	F	
250	15	210X250X15 HMS4 R	HMS4	R	S	
250	15	210X250X15 HS8 R	HS8	R	F	◇
250	16	**210X250X16 HSS5 V**	**HSS5**	V	F	◇
250	18	**210X250X18 HDS2 R**	**HDS2**	R	F	
250	20	**210X250X20 HDS1 R**	**HDS1**	R	F	
250	20	**210X250X20 HDS1 V**	**HDS1**	V	F	
250	20	**210X250X20 HDS2 R**	**HDS2**	R	F	
250	20	210X250X20 HS8 V	HS8	V	F	◇
260	15	**210X260X15 HDS7 D**	**HDS7**	D	F	
265	23	**210X265X23 HDS2 R**	**HDS2**	R	F	
270	15	**210X270X15 HDS1 V**	**HDS1**	V	F	
METRIC Shaft Diameter (cont.) – 210 mm (8.268")						
270	16	**210X270X16 HDS1 V**	**HDS1**	V	F	
290	20	**210X290X20 HMS5 RG**	**HMS5**	RG	E	
290	20	**210X290X20 HMS5 V**	**HMS5**	V	E	◎
290	20	**210X290X20 HMSA10 RG**	**HMSA10**	RG	E	
290	20	**210X290X20 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 8.345" (211.96 mm)						
9.750	0.750	**83701**	**HDS2**	V	F	
9.750	0.750	**596198**	**HDS7**	R	F	
9.875	0.687	**596111**	**HDS1**	R	F	
10.375	0.750	**591978**	**HDS1**	R	F	
10.375	0.750	**593346**	**HS8**	R	F	◇
10.375	1.000	590746	HDS1	R	F	
10.500	0.875	**593212**	**HDS1**	R	F	
10.625	0.875	**590765**	**HDS1**	R	F	
10.750	1.250	**594186**	**HDS1**	R	F	
INCH Shaft Diameter – 8.438" (214.33 mm)						
10.000	0.625	**84369**	**HDS1**	R	F	
10.000	0.625	**84385**	**HDS1**	V	F	
METRIC Shaft Diameter – 215 mm (8.465")						
248	15	**215X248X15 HDS1 R**	**HDS1**	R	F	
250	16	**215X250X16 HDS2 H**	**HDS2**	H	F	
250	16	**215X250X16 HDS7 H**	**HDS7**	H	F	
265	21.50	215X265X21.5 HDSA2 RD	HDSA2	RD	F	
270	23	**215X270X23 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 8.500" (215.90 mm)						
0.750	0.688	**590751**	**HDS1**	R	F	
9.438	0.638	527824	HS8	R	F	◇
9.500	0.500	594503	HS7	V	F	◇
9.500	0.500	594745	HS8	V	F	◇
9.750	0.625	▲**85002**	**CRWH1**	R	W	■
9.750	0.625	**593020**	**HDS1**	R	F	
9.750	0.625	**832-948-40 HDS1 V**	**HDS1**	V	F	
9.750	0.625	**593768**	**HDS2**	D	F	
9.750	0.625	**832-948-40 HDS7 H**	**HDS7**	H	F	
10.000	0.625	**590503**	**HDS1**	R	F	
10.000	0.625	**85019**	**HDS1**	V	F	
10.000	0.625	**593740**	**HDS2**	D	F	
10.000	0.625	**593782**	**HDS2**	R	F	
10.000	0.625	**596415**	**HDS7**	R	F	
10.000	0.625	594102	HS7	V	F	◇
10.000	0.625	594318	HS8	R	F	◇
10.000	0.625	593167	HS8	V	F	◇
10.000	0.630	▲**85009**	**CRWH1**	R	W	
10.000	0.630	**597490**	**CRWH1**	R	W	
10.000	0.688	**590730**	**HDS1**	R	F	
10.000	0.688	**85008**	**HDS1L04**	R	F	
10.000	0.750	**592480**	**HDS1**	R	F	
10.000	0.750	**85025**	**HDS2**	V	F	
10.000	0.750	832-1000-48 HS8 R	HS8	R	F	◇
10.000	1.000	**557450**	**HDS2**	V	F	
10.000	1.000	590731	HDSA1	RD	F	
10.500	0.609	557834	HS8	R	F	◇
10.500	0.625	▲**85015**	**CRWH1**	R	W	
10.500	0.625	**85024**	**CRWH1**	V	W	
10.500	0.625	**85018**	**HDS1**	V	F	
10.500	0.625	**594967**	**HDS2**	V	F	
10.500	0.625	593349	HS7	R	F	◇
10.500	0.625	592692	HS8	R	F	◇
10.500	0.688	**85017**	**HDS2L08**	R	F	
10.500	0.875	592798	HDSA1	VD	F	
10.500	0.906	526470	HDSA2	RD	F	
10.500	1.000	**590754**	**HDS1**	R	F	
10.625	0.625	▲**85085**	**CRWHA1**	R	W	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 8.540" (216.92 mm)						
9.750	0.625	**593855**	**HDS2**	D	F	
INCH Shaft Diameter – 8.625" (219.08 mm)						
0.750	0.750	**590758**	**HDS1**	R	F	
0.875	0.750	**86235**	**HDS1**	V	F	
10.000	0.625	**593907**	**HDS1**	R	F	
10.000	0.750	**590732**	**HDS1**	R	F	
10.125	0.688	**590735**	**HDS1**	R	F	
10.625	0.625	▲ **86260**	**CRWH1**	R	W	
10.625	0.750	**86240**	**HDS1**	V	F	
10.625	0.750	**592358**	**HDS2**	R	F	
10.750	0.875	**592576**	**HDS1**	R	F	
11.750	1.000	**590828**	**HDS1**	R	F	
METRIC Shaft Diameter – 220 mm (8.661")						
250	15	**220X250X15 HDS2 R**	**HDS2**	R	F	
250	15	**220X250X15 HDS7 R**	**HDS7**	R	F	
250	15	**220X250X15 HMS5 RG**	**HMS5**	RG	E	
250	15	**220X250X15 HMS5 V**	**HMS5**	V	E	◎
250	15	▲ **220X250X15 HMSA10 RG**	**HMSA10**	RG	E	
250	15	**220X250X15 HMSA10 V**	**HMSA10**	V	E	◎
250	15	220X250X15 HS5 R	HS5	R	F	◇
250	15	220X250X15 HS8 H	HS8	H	F	◇
250	15	220X250X15 HS8 R	HS8	R	F	◇
250	15	220X250X15 HS8 V	HS8	V	F	◇
250	16	**220X250X16 CRWH1 R**	**CRWH1**	R	W	
250	16	**220X250X16 HDS2 R**	**HDS2**	R	F	
250	20	**220X250X20 HDSH2 DT1**	**HDSH2**	DT	F	
250	20	**220X250X20 HDSH7 HT**	**HDSH7**	HT	F	
255	16	**220X255X16 HDS1 R1**	**HDS1**	R	F	
255	18	**220X255X18 HDS2 V**	**HDS2**	V	F	
255	18	**220X255X18 HDS7 R**	**HDS7**	R	F	
259.79	15.88	**86610**	**HDS2**	R	F	
260	14.30	220X260X14.3 HS8 R	HS8	R	F	◇
260	15	**220X260X15 HDS1 V**	**HDS1**	V	F	
260	15	220X260X15 HS8 R	HS8	R	F	◇
260	16	**220X260X16 HDS1 R**	**HDS1**	R	F	
260	16	**220X260X16 HDS1 V**	**HDS1**	V	F	
260	16	**220X260X16 HDS7 V**	**HDS7**	V	F	
260	16	220X260X16 HS8 R	HS8	R	F	◇
260	20	**220X260X20 HDS1 R**	**HDS1**	R	F	
260	20	220X260X20 HS8 H	HS8	H	F	◇
260	20	220X260X20 HS8 V	HS8	V	F	◇
260	22	**220X260X22 HDS2 D**	**HDS2**	D	F	
260	22	**220X260X22 HDS2 R**	**HDS2**	R	F	
260	22	**220X260X22 HDS2 V**	**HDS2**	V	F	
260	22	**220X260X22 HDS7 R**	**HDS7**	R	F	
260	22	**220X260X22 HDS7 V**	**HDS7**	V	F	
260	22	220X260X22 HDSA2 RD	HDSA2	RD	F	
274.80	23	**590778**	**HDS1**	R	F	
INCH Shaft Diameter – 8.668" (220.68 mm)						
10.000	0.625	557821	HS7	V	F	◇
10.000	0.750	557979	HS7	V	F	◇
INCH Shaft Diameter – 8.750" (222.25 mm)						
0.875	0.750	**590448**	**HDS1**	R	F	
9.750	0.500	558004	HS8	D	F	◇
9.750	0.500	597459	HS8	R	F	◇
9.750	0.500	87440	HS8	V	F	◇
10.000	0.625	**590408**	**HDS1**	R	F	
10.000	0.625	**592626**	**HDS2**	R	F	
10.000	0.625	590723	HS7	R	F	◇
10.000	0.625	592627	HS8	R	F	◇
10.250	0.609	518386	HS6	R	F	◇
10.250	0.625	**87492**	**HDS2**	V	F	
10.250	0.688	**87491**	**HDS1**	R	F	
10.250	0.688	**87493**	**HDS1**	V	F	
10.250	0.750	**590546**	**HDS1**	R	F	
INCH Shaft Diameter (cont.) – 8.750" (222.25 mm)						
10.625	0.750	**593975**	**HDS2**	R	F	
10.750	0.625	▲ **87541**	**CRWH1**	R	W	
10.750	0.750	**592483**	**HDS1**	R	F	
10.750	0.750	**87499**	**HDS1**	V	F	
10.750	0.750	597553	HS7	R	F	◇
10.750	1.000	**590770**	**HDS1**	R	F	
METRIC Shaft Diameter – 224 mm (8.819")						
260	16	**224X260X16 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter – 225 mm (8.858")						
250	15	**225X250X15 HDS1 R**	**HDS1**	R	F	
250	16	**225X250X16 HDS7 H**	**HDS7**	H	F	
257	16	**225X257X16 HDS1 R**	**HDS1**	R	F	
260	20	**225X260X20 HDS1 R**	**HDS1**	R	F	
260	22	**225X260X22 HDS1 R**	**HDS1**	R	F	
290	16	**225X290X16 HDS2 D**	**HDS2**	D	F	
INCH Shaft Diameter – 8.875" (225.43 mm)						
10.125	0.625	▲ **88710**	**CRWH1**	R	W	
10.125	0.625	**597592**	**HDS1**	H	F	
10.125	0.625	**592289**	**HDS1**	R	F	
10.125	0.625	**593779**	**HDS2**	D	F	
10.125	0.625	592459	HS8	R	F	◇
10.125	0.750	**88702**	**HDS1**	R	F	
10.125	0.750	**597583**	**HDS2**	H	F	
10.375	0.750	592991	HS8	R	F	◇
10.875	0.625	▲ **88760**	**CRWH1**	R	W	
10.875	0.750	**590780**	**HDS1**	R	F	
10.875	1.000	**590781**	**HDS1**	R	F	
11.000	0.875	**592650**	**HDS1**	R	F	
INCH Shaft Diameter – 8.938" (227.03 mm)						
9.938	0.625	595004	HS7	R	F	◇
10.188	0.625	597450	HS8	R	F	◇
INCH Shaft Diameter – 9.000" (228.60 mm)						
0.625	0.625	**90023**	**HDS1**	R	F	
0.703	0.750	**90024**	**HDS1**	R	F	
0.750	0.625	**90022**	**HDS1**	V	F	
9.920	0.500	592851	HS8	R	F	◇
10.000	0.500	590724	HS7	R	F	◇
10.000	0.500	590419	HS8	R	F	◇
10.000	0.625	▲ **90006**	**CRWH1**	R	W	
10.000	0.625	**558028**	**HDS7**	R	F	
10.000	0.625	593357	HS8	R	F	◇
10.125	0.625	594829	HS8	R	F	◇
10.187	0.625	**592514**	**HDS2**	R	F	
10.187	0.625	**595485**	**HDS2**	V	F	
10.250	0.625	**90019**	**HDS1**	R	F	
10.250	0.625	**593729**	**HDS2L32**	D	F	
10.250	0.625	**900-1016-40 HDS7 H**	**HDS7**	H	F	
10.250	0.625	592581	HS7	R	F	◇
10.250	0.625	593395	HS8	R	F	◇
10.250	0.625	595248	HS8	V	F	◇
10.250	0.750	**592669**	**HDS1**	D	F	
10.250	0.750	**90017**	**HDS1**	R	F	
10.375	0.625	**590062**	**HDS1**	R	F	
10.498	0.750	**596200**	**HDS7**	R	F	
10.498	0.750	**596199**	**HDS7L16**	R	F	
10.500	0.625	**593138**	**HDS2**	D	F	
10.500	0.625	**593743**	**HDS2**	R	F	
10.500	0.625	**90020**	**HDS2**	V	F	
10.500	0.625	**597535**	**HDS7**	R	F	
10.500	0.625	**900-1032-40 HDS7 H**	**HDS7**	H	F	
10.500	0.625	528720	HS7	R	F	◇
10.500	0.625	557465	HS7	V	F	◇
10.500	0.625	593396	HS8	R	F	◇

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 9.000" (228.60 mm)						
10.500	0.750	**595718**	**HDS2L16**	R	F	
10.500	0.875	597343	HDSA1	RD	F	
10.674	0.703	592779	HS8	R	F	◇
10.750	0.750	**590774**	**HDS1**	R	F	
11.000	0.625	▲ **90036**	**CRWH1**	R	W	
11.000	0.625	**90065**	**HDS1**	V	F	
11.000	0.625	593362	HS8	R	F	◇
11.000	0.750	**90063**	**HDS1**	R	F	
11.000	0.750	**90066**	**HDS1**	V	F	
11.000	0.750	**590787**	**HDS2**	R	F	
11.000	0.750	**90067**	**HDS2**	V	F	
11.000	0.750	**556483**	**HDS7**	R	F	
11.000	0.750	**556484**	**HDSF7**	RT	F	
11.000	0.875	**590788**	**HDS2**	D	F	
11.000	1.000	**90064**	**HDS1**	R	F	
11.054	0.750	**592714**	**HDS1**	R	F	
METRIC Shaft Diameter – 229 mm (9.016")						
270	17	**229X270X17 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 9.048" (229.82 mm)						
10.630	0.625	**90056**	**HDS2**	V	F	
METRIC Shaft Diameter – 230 mm (9.055")						
260	15	**230X260X15 HDS1 R**	**HDS1**	R	F	
260	15	**230X260X15 HDS2 V**	**HDS2**	V	F	
260	15	**230X260X15 HDS7 R**	**HDS7**	R	F	
260	15	**230X260X15 HMS5 RG**	**HMS5**	RG	E	
260	15	**230X260X15 HMS5 V**	**HMS5**	V	E	◎
260	15	▲ **230X260X15 HMSA10 RG**	**HMSA10**	RG	E	
260	15	**230X260X15 HMSA10 V**	**HMSA10**	V	E	◎
260	15	230X260X15 HS8 D	HS8	D	F	◇
260	15	230X260X15 HS8 R	HS8	R	F	◇
260	15	230X260X15 HS8 V	HS8	V	F	◇
260	15.88	**230X260X15.88 HDS1 V**	**HDS1**	V	F	
260	16	**230X260X16 HDS1 R**	**HDS1**	R	F	
260	18	230X260X18 HS8 R	HS8	R	F	◇
260	20	230X260X20 HS8 V	HS8	V	F	◇
265	16	**230X265X16 HSS5 V**	**HSS5**	V	F	◇
269	22	230X269X22 HS5 R	HS5	R	F	◇
269.77	16	**592683**	**HDS1**	R	F	
270	16	**230X270X16 HDS1 R**	**HDS1**	R	F	
270	16	**230X270X16 HDS2 V**	**HDS2**	V	F	
270	16	**230X270X16 HSS6 H**	**HSS6**	H	F	◇
270	20	230X270X20 HS8 R	HS8	R	F	◇
280	16	**230X280X16 HDS2 R**	**HDS2**	R	F	
285	23	**230X285X23 HDS1 R**	**HDS1**	R	F	
285	23	**230X285X23 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 9.125" (231.78 mm)						
10.375	0.625	**592653**	**HDS1**	R	F	
10.625	0.688	**590270**	**HDS1**	R	F	
10.625	0.750	**590442**	**HDS1**	R	F	
10.750	0.750	**91256**	**HDS1**	R	F	
11.000	0.750	**590567**	**HDS1**	R	F	
11.125	0.688	**590174**	**HDS1**	R	F	
11.125	0.812	**91202**	**HDS2**	R	F	
11.125	0.812	**597472**	**HDS7**	R	F	
11.125	0.812	**597473**	**HDS7L32**	R	F	
11.125	0.813	**592345**	**HDS1**	R	F	
11.125	0.813	**529753**	**HDS2**	R	F	
11.125	1.000	**590609**	**HDS1**	R	F	
INCH Shaft Diameter – 9.188" (233.38 mm)						
10.375	0.750	**590747**	**HDS2**	D	F	
10.500	0.750	597735	HS8	R	F	◇

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 9.250" (234.95 mm)						
0.688	0.625	**590762**	**HDS1**	R	F	
1.000	0.750	**590763**	**HDS1**	R	F	
10.250	0.500	556536	HS8	R	F	◇
10.250	0.625	**597799**	**HDS1**	R	F	
10.438	0.875	92591	HDSA1	RD	F	
10.500	0.625	**596466**	**HDS2**	V	F	
10.500	0.625	916-1032-40 HDS2L32 H	HDS2L32	H	F	
10.500	0.625	591881	HS7	R	F	◇
10.500	0.625	593366	HS8	R	F	◇
10.500	0.750	**592741**	**HDS2**	R	F	
10.750	0.656	**92534**	**HDS1**	R	F	
10.750	0.688	**590775**	**HDS1**	R	F	
10.750	0.688	**591973**	**HDS1L08**	R	F	
10.750	0.750	**590093**	**HDS1**	R	F	
10.750	0.750	**592348**	**HDS2**	D	F	
10.750	0.750	597861	HS8	R	F	◇
11.000	1.375	592452	HDSA1	RD	F	
11.250	0.625	▲ **92536**	**CRWHA1**	R	W	■
11.250	0.625	**92543**	**HDS1**	V	F	
11.250	0.625	**593467**	**HDS2**	R	F	
11.250	0.625	916-1116-40 HS7 R	HS7	R	F	◇
11.250	0.750	**590797**	**HDS1**	R	F	
11.250	0.750	592858	HS8	R	F	◇
11.250	0.813	**92544**	**HDS2**	V	F	
11.250	1.000	**590798**	**HDS1**	R	F	
11.375	0.875	**590472**	**HDS1**	R	F	
12.750	0.625	**92570**	**CRWHA1**	R	W	
12.750	1.250	▲ **92574**	**CRWHA1**	R	W	
METRIC Shaft Diameter – 235 mm (9.252")						
270	16	**235X270X16 HDS2 R**	**HDS2**	R	F	
270	16	**235X270X16 HDS2 V**	**HDS2**	V	F	
270	16	**235X270X16 HDS7 H**	**HDS7**	H	F	
275	20	**235X275X20 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 9.361" (237.77 mm)						
10.751	0.750	**566136**	**HDS1**	H	F	
INCH Shaft Diameter – 9.375" (238.13 mm)						
10.625	0.625	592713	HS6	R	F	◇
10.625	0.625	590764	HS7	R	F	◇
10.625	0.625	593397	HS8	R	F	◇
10.875	0.750	**591988**	**HDS1**	R	F	
10.875	0.750	590779	HS7	R	F	◇
11.000	0.750	**590485**	**HDS1**	R	F	
11.375	0.750	**590806**	**HDS1**	R	F	
11.375	0.875	**93751**	**HDS1**	R	F	
11.375	0.875	**595130**	**HDS1**	V	F	
11.375	0.875	592651	HS8	R	F	◇
11.500	0.590	**597408**	**HDS7**	R	F	
11.500	0.875	**590812**	**HDS1**	R	F	
12.750	1.250	590688	HDSA1	RD	F	
INCH Shaft Diameter – 9.438" (239.73 mm)						
10.500	0.625	594528	HS7	R	F	◇
10.635	0.750	**593894**	**HDS1**	R	F	
10.688	0.625	592126	HS7	R	F	◇
11.250	0.625	**593129**	**HDS1**	R	F	
11.500	0.875	**590284**	**HDS1**	R	F	
METRIC Shaft Diameter – 240 mm (9.449")						
270	12.70	240X270X12.7 HS5 H	HS5	H	F	◇
270	12.70	240X270X12.7 HS8 H	HS8	H	F	◇
270	15	**240X270X15 HDS2 V**	**HDS2**	V	F	
270	15	**240X270X15 HMS5 RG**	**HMS5**	RG	E	
270	15	**240X270X15 HMS5 V**	**HMS5**	V	E	◎
270	15	▲ **240X270X15 HMSA10 RG**	**HMSA10**	RG	E	
270	15	**240X270X15 HMSA10 V**	**HMSA10**	V	E	◎

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 240 mm (9.449")						
270	15	240X270X15 HS8 R	HS8	R	F	◇
270	15	240X270X15 HS8 V	HS8	V	F	◇
270	16	**240X270X16 HDS1 R**	**HDS1**	R	F	
270	16	**240X270X16 HDS1 V**	**HDS1**	V	F	
270	16	**240X270X16 HDS2 D**	**HDS2**	D	F	
270	16	**240X270X16 HDS2 R**	**HDS2**	R	F	
270	16	**240X270X16 HDS7 R**	**HDS7**	R	F	
270	16	**240X270X16 HDS7 V**	**HDS7**	V	F	
270	18	**240X270X18 HDS1 V**	**HDS1**	V	F	
275	15	240X275X15 HS8 R	HS8	R	F	◇
275	16	**240X275X16 HDS1 R**	**HDS1**	R	F	
275	16	**240X275X16 HDS2 D**	**HDS2**	D	F	
275	16	240X275X16 HMSA7 V	HMSA7	V	S	
275	18	**240X275X18 HDS2 R**	**HDS2**	R	F	
275	18	**240X275X18 HSS4 H**	**HSS4**	H	F	◇
275	18	**240X275X18 HSS8 H**	**HSS8**	H	F	◇
279	22	240X279X22 HS5 R	HS5	R	F	◇
280	14	240X280X14 HS5 V	HS5	V	F	◇
280	14	240X280X14 HS8 V	HS8	V	F	◇
280	16	**240X280X16 HDS1 V**	**HDS1**	V	F	
280	16	**240X280X16 HDS2 D**	**HDS2**	D	F	
280	16	**240X280X16 HDS2 R**	**HDS2**	R	F	
280	16	**240X280X16 HSS5 H**	**HSS5**	H	F	◇
280	16	240X280X16 HS6 V	HS6	V	F	◇
280	18	**240X280X18 HDS7 H**	**HDS7**	H	F	
280	18	240X280X18 HS8 H	HS8	H	F	◇
280	19	**240X280X19 HDS2 V**	**HDS2**	V	F	
280	19	**240X280X19 HDS7 R**	**HDS7**	R	F	
280	19	240X280X19 HS8 V	HS8	V	F	◇
280	20	**240X280X20 HDS2 R**	**HDS2**	R	F	
280	20	240X280X20 HS7 R	HS7	R	F	◇
290	16	**240X290X16 HDS1 R**	**HDS1**	R	F	
290	20	**240X290X20 HDS1 R**	**HDS1**	R	F	
299.80	25	**590839**	**HDS1**	R	F	
300	25	**240X300X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 9.500" (241.30 mm)						
10.500	0.438	▲ **95048**	**CRW1**	R	W	■◤◎
10.500	0.500	95000	HS8	D	F	◇
10.500	0.500	593398	HS8	R	F	◇
		W/HOOK & EYE SPRING CONNECTOR				
10.500	0.500	592607	HS8	R	F	◇
10.750	0.313	**95052**	**HM21**	R	G	
10.750	0.625	**590776**	**HDS1**	R	F	
10.750	0.625	**595922**	**HDS2**	D	F	
10.750	0.625	**95045**	**HDS2**	R	F	
10.750	0.625	**95044**	**HDS2**	V	F	
10.750	0.625	592209	HS7	R	F	◇
10.750	0.625	593376	HS8	R	F	◇
11.000	0.625	**590653**	**HDS1**	R	F	
11.000	0.625	**590792**	**HDS1L08**	R	F	
11.000	0.625	**592693**	**HDS2**	R	F	
11.000	0.625	**596566**	**HDS7**	H	F	
11.000	0.625	531331	HS8	R	F	◇
11.000	0.688	**95042**	**HDS1**	V	F	
11.000	0.750	**95047**	**HDS1**	R	F	
11.000	0.844	526476	HDSA2	RD	F	
11.000	0.844	529861	HDSA2	VD	F	
11.125	0.625	**590070**	**HDS1**	R	F	
11.250	0.625	**591932**	**HDS1**	R	F	
11.500	0.625	▲ **95062**	**CRW1**	R	W	■
11.500	0.625	**526302**	**HDS1**	R	F	
11.500	0.625	**593666**	**HDS2**	D	F	
11.500	0.625	**932-1132-40 HSS5 V**	**HSS5**	V	F	◇
11.500	0.625	597507	HS8	R	F	◇
11.500	0.750	**590813**	**HDS1**	R	F	
11.500	0.813	**95068**	**HDS1**	V	F	
11.500	0.813	**594470**	**HDS2**	V	F	
11.500	0.813	**932-1132-52 HDS2 H**	**HDS2**	H	F	
11.500	0.813	556490	HS8	R	F	◇

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 9.500" (241.30 mm)						
11.500	0.875	**95071**	**HDS2**	R	F	
11.500	0.938	**590816**	**HDS1**	R	F	
11.500	0.938	**590817**	**HDS2**	R	F	
11.500	0.938	**590819**	**HDS2L16**	R	F	
11.500	1.000	**590820**	**HDS1**	R	F	
11.500	1.000	595431	HS8	R	F	◇
11.500	1.250	593667	HDSA2	DD	F	
11.500	1.250	590375	HDSA2	RD	F	
INCH Shaft Diameter – 9.563" (242.90 mm)						
10.563	0.500	594146	HS8	D	F	◇
10.563	0.500	592623	HS8	R	F	◇
10.875	0.625	**590782**	**HDS1**	R	F	
INCH Shaft Diameter – 9.620" (244.35 mm)						
10.875	0.625	**590015**	**HDS1**	R	F	
12.750	1.250	96290	HDSA1	RD	F	
INCH Shaft Diameter – 9.625" (244.48 mm)						
10.875	0.750	**590783**	**HDS1**	R	F	
10.875	0.750	**592420**	**HDS2**	R	F	
10.875	0.875	**590784**	**HDS1**	R	F	
11.625	0.625	▲ **96245**	**CRWH1**	R	W	
11.625	0.813	**96231**	**HDS2**	V	F	
11.625	1.000	**96230**	**HDS2**	V	F	
METRIC Shaft Diameter – 245 mm (9.646")						
275	15	**245X275X15 HMS5 RG**	**HMS5**	RG	E	
275	15	**245X275X15 HMS5 V**	**HMS5**	V	E	◎
275	15	**245X275X15 HMSA10 RG**	**HMSA10**	RG	E	
275	15	**245X275X15 HMSA10 V**	**HMSA10**	V	E	◎
INCH Shaft Diameter – 9.688" (246.08 mm)						
10.875	0.625	**594080**	**HDS1**	R	F	
11.000	0.688	**557503**	**HDS2**	R	F	
11.500	1.000	**96880**	**HDS2**	V	F	
INCH Shaft Diameter – 9.750" (247.65 mm)						
10.750	0.500	595530	HS6	R	F	◇
10.750	0.500	592988	HS7	R	F	◇
10.750	0.638	530058	HS8	R	F	◇
11.000	0.625	**97526**	**HDS1**	R	F	
11.000	0.625	**97528**	**HDS1**	V	F	
11.000	0.625	**593611**	**HDS2**	R	F	
11.000	0.625	**97529**	**HDS2**	V	F	
11.000	0.625	**593492**	**HDS2L24**	R	F	
11.000	0.625	**596561**	**HDS7**	R	F	■
11.000	0.625	590785	HS7	R	F	◇
11.000	0.625	593382	HS8	R	F	◇
11.000	0.750	**590133**	**HDS1**	R	F	
11.000	0.875	593053	HDSA1	RD	F	
11.125	0.630	▲ **97542**	**CRWH1**	R	W	
11.125	0.750	**590795**	**HDS1**	R	F	
11.125	0.750	**592501**	**HDS2**	R	F	
11.250	0.625	▲ **97545**	**CRWH1**	R	W	
11.250	0.625	**590655**	**HDS1**	R	F	
11.250	0.625	593385	HS7	R	F	◇
11.250	0.625	593386	HS8	R	F	◇
11.250	0.750	**590800**	**HDS1**	R	F	
11.250	0.750	593177	HS7	R	F	◇
11.250	0.750	597582	HS8	R	F	◇
11.250	0.875	595514	HDSA2	DD	F	
11.750	0.625	▲ **97550**	**CRWH1**	R	W	
11.750	0.625	**97549**	**HDS1**	V	F	
11.750	0.750	**590832**	**HDS1**	R	F	
11.750	1.000	**97548**	**HDS1**	R	F	
11.750	1.000	**97551**	**HDS2**	V	F	
11.750	1.000	595568	HDSA1	DD	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter – 250 mm (9.843")						
279.91	15	**597901**	**HS4**	R	F	◇
280	15	**250X280X15 HDS2 R**	**HDS2**	R	F	
280	15	**250X280X15 HDS7 H**	**HDS7**	H	F	
280	15	**250X280X15 HDS7 R**	**HDS7**	R	F	
280	15	**250X280X15 HMS5 RG**	**HMS5**	RG	E	
280	15	**250X280X15 HMS5 V**	**HMS5**	V	E	◎
280	15	▲ **250X280X15 HMSA10 RG**	**HMSA10**	RG	E	
280	15	**250X280X15 HMSA10 V**	**HMSA10**	V	E	◎
280	15	**566035**	**HSS5**	V	F	◇
280	15	**250X280X15 HSS5 V**	**HSS5**	V	F	◇
280	15	250X280X15 HS8 R	HS8	R	F	◇
280	15	250X280X15 HS8 V	HS8	V	F	◇
280	16	**250X280X16 HDS1 D**	**HDS1**	D	F	
280	16	**250X280X16 HDS1 V**	**HDS1**	V	F	
280	16	**250X280X16 HDS2 D**	**HDS2**	D	F	
280	16	**250X280X16 HDS2 R**	**HDS2**	R	F	
280	16	**250X280X16 HDS7 R**	**HDS7**	R	F	
280	16	**250X280X16 HDS7 V**	**HDS7**	V	F	
280	16	**250X280X16 HDSF2 VT**	**HDSF2**	VT	F	
280	20	**250X280X20 HDSH2 VT**	**HDSH2**	VT	F	
280	20	**250X280X20 HDSH7 HT**	**HDSH7**	HT	F	
285	15	**250X285X15 HMS5 RG**	**HMS5**	RG	E	
285	15	**250X285X15 HMS5 V**	**HMS5**	V	E	◎
285	15	**250X285X15 HMSA10 RG**	**HMSA10**	RG	E	
285	15	**250X285X15 HMSA10 V**	**HMSA10**	V	E	◎
285	16	**250X285X16 HDS2 D**	**HDS2**	D	F	
285	16	**250X285X16 HDS2 R**	**HDS2**	R	F	
289.79	15.88	**98444**	**HDS2**	R	F	
290	15	250X290X15 HS8 R	HS8	R	F	◇
290	16	**250X290X16 HDS1 R**	**HDS1**	R	F	
290	16	**250X290X16 HDS1 V**	**HDS1**	V	F	
290	16	**250X290X16 HDS7 H**	**HDS7**	H	F	
290	16	**250X290X16 HDS7 R**	**HDS7**	R	F	
290	18	250X290X18 HS8 R	HS8	R	F	◇
310	25	**250X310X25 HDS1 R**	**HDS1**	R	F	
310	25	250X310X25 HDSA2 VD	HDSA2	VD	F	
INCH Shaft Diameter – 9.875" (250.83 mm)						
11.375	0.750	**590363**	**HDS1**	R	F	
11.375	0.750	**592763**	**HDS2**	R	F	
11.375	0.750	**594364**	**HDS2L32**	R	F	
11.500	0.750	**592727**	**HDS1**	R	F	
11.875	0.688	**590841**	**HDS1**	R	F	
11.875	0.875	**590842**	**HDS1**	R	F	
INCH Shaft Diameter – 9.938" (252.43 mm)						
11.438	0.750	592731	HS8	R	F	◇
11.438	0.750	558284	HS8	V	F	◇
11.938	0.875	**590444**	**HDS1**	R	F	
12.000	0.625	557435	HS7	R	F	◇
12.000	0.750	**592463**	**HDS1**	D	F	
12.000	1.000	**590351**	**HDS1**	R	F	
12.000	1.000	**529752**	**HDS2**	R	F	
12.125	1.000	**592816**	**HDS1**	R	F	
INCH Shaft Diameter – 9.998" (253.95 mm)						
11.998	1.250	**597412**	**HDS7**	R	F	
INCH Shaft Diameter – 10.000" (254.00 mm)						
10.920	0.500	593630	HS8	R	F	◇
11.000	0.375	100042	HMS4	R	S	
11.000	0.500	1000-1100-32 HS5 R	HS5	R	F	◇
11.000	0.500	1000017	HS7	R	F	◇
11.000	0.500	592968	HS8	V	F	◇
11.000	0.562	1000018	HS8	R	F	◇
11.250	0.563	597545	HS8	H	F	◇
11.250	0.625	**1000110**	**HDS1**	R	F	
11.250	0.625	**1000313**	**HDS1**	V	F	
11.250	0.625	**1000111**	**HDS2**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 10.000" (254.00 mm)						
11.250	0.625	**1000114**	**HDS2**	V	F	
11.250	0.625	**1000115**	**HDS2L08**	R	F	
11.250	0.625	**1000126**	**HDS2L08**	V	F	
11.250	0.625	**1000-1116-40 HDS2L32 H**	**HDS2L32**	H	F	
11.250	0.625	**1000129**	**HDS7**	R	F	
11.250	0.625	1000117	HS7	R	F	◇
11.250	0.625	1000128	HS8	D	F	◇
11.250	0.625	1000118	HS8	R	F	◇
11.250	0.630	▲ **100044**	**CRWHA1**	R	W	
11.250	0.750	**1000130**	**HDS1**	R	F	
11.250	0.844	526487	HDSA2	RD	F	
11.250	0.875	1000910	HDSA1	RD	F	
11.250	0.875	1000914	HDSA2	VD	F	
11.370	0.750	**1000183**	**HDS2**	V	F	
11.375	0.591	**557681**	**HDS7**	V	F	
11.375	0.625	**556994**	**HDS7**	R	F	
11.500	0.625	**1000230**	**HDS1**	R	F	
11.500	0.625	**1000233**	**HDS1**	V	F	
11.500	0.625	**1000232**	**HDS2**	R	F	
11.500	0.625	1000237	HS7	R	F	◇
11.500	0.625	1000238	HS8	R	F	◇
11.500	0.630	556924	HS5	R	F	◇
11.500	0.688	**1000240**	**HDS1**	R	F	
11.500	0.688	**1000243**	**HDS2**	V	F	
11.500	0.688	**597824**	**HDS7**	R	F	
11.500	0.750	**1000250**	**HDS1**	R	F	
11.500	0.750	1000257	HS7	R	F	◇
11.500	0.750	1000258	HS8	R	F	◇
11.500	1.250	1000920	HDSA1	RD	F	
11.750	0.625	**1000360**	**HDS1**	R	F	
11.750	0.625	**557570**	**HDS1**	V	F	
11.750	0.750	**1000380**	**HDS1**	R	F	
11.750	1.000	**1000420**	**HDS1**	R	F	
11.938	0.750	597636	HS8	R	F	◇
12.000	0.625	**100075**	**CRWA1**	R	W	■
12.000	0.625	▲ **100051**	**CRWH1**	R	W	
12.000	0.625	**1000520**	**HDS1**	R	F	
12.000	0.625	1000527	HS7	R	F	◇
12.000	0.625	1000025	HS7	V	F	◇
12.000	0.625	1000528	HS8	R	F	◇
12.000	0.625	596414	HS8	V	F	◇
12.000	0.688	**1000530**	**HDS1**	R	F	
12.000	0.750	**1000543**	**HDS1**	V	F	
12.000	0.750	**1000540**	**HDS1L32**	R	F	
12.000	0.750	**1000542**	**HDS2**	R	F	
12.000	0.750	**1000523**	**HDS2**	V	F	
12.000	0.875	1000950	HDSA1	RD	F	
12.000	0.875	1000568	HS8	D	F	◇
12.000	1.000	**1000580**	**HDS1**	R	F	
12.000	1.000	**1000582**	**HDS2**	R	F	
12.000	1.250	1000952	HDSA1	RD	F	
12.250	0.875	**1000660**	**HDS1**	R	F	
12.500	1.000	1000971	HDSA1	RD	F	
METRIC Shaft Diameter – 255 mm (10.039")						
290	16	**255X290X16 HDS2 D**	**HDS2**	D	F	
315	25	**255X315X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 10.125" (257.18 mm)						
11.625	0.688	**1013240**	**HDS1**	R	F	
11.625	0.688	**1013242**	**HDS2**	R	F	
11.625	0.688	1008-1140-44 HDSA2 RD	HDSA2	VV	F	
11.625	0.750	**1013250**	**HDS1**	R	F	
11.625	0.750	1013257	HS7	R	F	◇
11.625	0.906	525623	HDSA2	RD	F	
11.625	0.906	596458	HDSA2	VD	F	
		W/LIGHT LOAD SPRING				
11.630	0.900	531038	HDSA2	VD	F	
		W/LIGHT LOAD SPRING				

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 10.125" (257.18 mm)						
11.750	0.688	**1013320**	**HDS1**	R	F	
12.000	0.750	**1013470**	**HDS1**	R	F	
12.000	1.000	**1013490**	**HDS1**	R	F	
INCH Shaft Diameter – 10.188" (258.78 mm)						
11.188	0.500	1019018	HS8	R	F	◇
11.438	0.625	**1019110**	**HDS1**	R	F	
INCH Shaft Diameter – 10.220" (259.59 mm)						
11.750	0.750	**1022300**	**HDS1**	R	F	
METRIC Shaft Diameter – 260 mm (10.236")						
285	12.70	260X285X12.7 HS8 R	HS8	R	F	◇
290	15.8	**566431**	**HDS2**	H	F	
290	16	**260X290X16 HDS1 H**	**HDS1**	H	F	
290	16	**260X290X16 HDS2 D**	**HDS2**	D	F	
290	16	**260X290X16 HDS2 H**	**HDS2**	H	F	
290	16	**260X290X16 HDS2 R**	**HDS2**	R	F	
290	16	**260X290X16 HDS2 V**	**HDS2**	V	F	
290	16	**260X290X16 HDS7 R**	**HDS7**	R	F	
290	16	**260X290X16 HDS7 V**	**HDS7**	V	F	
290	16	**260X290X16 HDSF2 VT**	**HDSF2**	VT	F	
290	16	**260X290X16 HDSF7 VT**	**HDSF7**	VT	F	
290	16	**260X290X16 HSS4 H**	**HSS4**	H	F	◇
290	16	**260X290X16 HSS8 H**	**HSS8**	H	F	◇
290	16	260X290X16 HS8 R	HS8	R	F	◇
290	16	260X290X16 HS8 V	HS8	V	F	◇
290	19	**260X290X19 HDS2 V**	**HDS2**	V	F	
292	15.88	**1023132**	**HDS2**	H	F	
300	15	**260X300X15 HDS1 V**	**HDS1**	V	F	
300	15	**260X300X15 HDS2 R**	**HDS2**	R	F	
300	15	260X300X15 HS8 R	HS8	R	F	◇
300	16	**260X300X16 HDS1 V**	**HDS1**	V	F	
300	16	**260X300X16 HDS2 R**	**HDS2**	R	F	
300	16	**260X300X16 HDS2 V**	**HDS2**	V	F	
300	16	**260X300X16 HDS2L6 R**	**HDS2L6**	R	F	
300	16	**260X300X16 HDS7 R**	**HDS7**	R	F	
300	16	260X300X16 HS8 V	HS8	V	F	◇
300	18	260X300X18 HS8 V	HS8	V	F	◇
300	20	**260X300X20 HDS1 R**	**HDS1**	R	F	
300	20	**260X300X20 HDS1 V**	**HDS1**	V	F	
300	20	**260X300X20 HDS2 D**	**HDS2**	D	F	
300	20	**260X300X20 HDS2 R**	**HDS2**	R	F	
300	20	**260X300X20 HDS2 V**	**HDS2**	V	F	
300	20	260X300X20 CRS1 R	CRS1	R	S	
300	20	260X300X20 HS5 V	HS5	V	F	■◇
300	20	260X300X20 HS8 R	HS8	R	F	◇
300	20	260X300X20 HS8 V	HS8	V	F	◇
304	20	**260X304X20 HDS2 R**	**HDS2**	R	F	
304	20	260X304X20 HS4 R	HS4	R	F	◇
305	22	**260X305X22 HDS2 R**	**HDS2**	R	F	
305	22	**260X305X22 HDS7 R**	**HDS7**	R	F	
319.80	25	**1024690**	**HDS1**	R	F	
320	25	**260X320X25 HDS1 V**	**HDS1**	V	F	■
320	25	**260X320X25 HDS2 R**	**HDS2**	R	F	
320	25	260X320X25 HDSA2 RD	HDSA2	RD	F	
INCH Shaft Diameter – 10.250" (260.35 mm)						
11.250	0.563	**102520**	**CRWH1**	R	W	
11.250	0.625	1025017	HS7	R	F	◇
11.250	0.625	1025018	HS8	V	F	◇
11.500	0.625	**1025112**	**HDS2**	D	F	
11.500	0.625	1025117	HS7	R	F	◇
11.500	0.625	1025118	HS8	R	F	◇
11.750	0.625	1025527	HS7	R	F	◇
11.750	0.688	**1025240**	**HDS1**	R	F	
11.750	0.688	**1025244**	**HDS2**	V	F	
11.750	0.750	**1025250**	**HDS1**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 10.250" (260.35 mm)						
11.750	0.750	**1025252**	**HDS2**	R	F	
12.000	0.750	**1025380**	**HDS1**	R	F	
12.017	0.750	1025435	HS5	R	F	◇
12.250	0.625	▲**102540**	**CRWH1**	R	W	
12.250	0.625	**1025520**	**HDS1**	R	F	
12.250	0.625	1025528	HS8	R	F	◇
12.250	0.750	**1025540**	**HDS1**	R	F	
12.250	0.750	**1025543**	**HDS1**	V	F	
12.250	0.875	**1025560**	**HDS1**	R	F	
12.250	1.000	**1025580**	**HDS1**	R	F	
12.250	1.000	**1025582**	**HDS2**	D	F	
12.375	0.874	**1025620**	**HDS1**	R	F	
12.500	0.750	**1025133**	**HDS2**	R	F	
12.500	0.875	**1025660**	**HDS1**	R	F	
INCH Shaft Diameter – 10.375" (263.53 mm)						
11.625	0.875	**1038140**	**HDS1**	R	F	
11.625	0.875	**1037143**	**HDS1**	V	F	
11.625	0.875	**1038143**	**HDS2**	D	F	
11.625	0.875	**1038142**	**HDS2**	R	F	
11.625	0.875	1037912	HDSA2	DD	F	
12.375	0.875	**1038560**	**HDS1**	R	F	
12.375	0.875	**1038563**	**HDS2**	D	F	
INCH Shaft Diameter – 10.420" (264.67 mm)						
11.826	0.766	594127	HS8	R	F	◇
INCH Shaft Diameter – 10.422" (264.72 mm)						
11.625	0.625	**1027-1140-40 HDS7 R**	**HDS7**	R	F	
METRIC Shaft Diameter – 265 mm (10.433")						
300	15	**265X300X15 HDS1 R**	**HDS1**	R	F	
305	18	**265X305X18 HDS1 R**	**HDS1**	R	F	
310	16	**265X310X16 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 10.438" (265.13 mm)						
11.679	0.875	**1044140**	**HDS1**	R	F	
11.688	0.875	1043148	HS8	R	F	◇
12.438	0.875	**1044560**	**HDS1**	R	F	
12.500	1.000	**1044600**	**HDS1**	R	F	
METRIC Shaft Diameter – 266 mm (10.472")						
310	20	**266X310X20 HS8 R**	**HS8**	R	F	◇
INCH Shaft Diameter – 10.495" (266.57 mm)						
11.500	0.625	**550968**	**HDS1**	H	F	
INCH Shaft Diameter – 10.500" (266.70 mm)						
11.400	0.650	593472	HS8	R	F	◇
11.500	0.500	1050017	HS7	R	F	◇
11.500	0.500	1050014	HS8	R	F	◇
11.500	0.500	594200	HS8	V	F	◇
11.500	0.625	1050038	HS8	R	F	◇
11.750	0.625	▲**105010**	**CRWH1**	R	W	
11.750	0.625	**1050110**	**HDS1**	R	F	
11.750	0.625	**1050113**	**HDS1**	V	F	
11.750	0.625	**1050112**	**HDS2**	R	F	
11.750	0.625	1050117	HS7	R	F	◇
11.750	0.625	1050127	HS7	V	F	◇
11.750	0.625	1050118	HS8	R	F	◇
11.750	0.625	1050108	HS8	V	F	◇
12.000	0.625	**1050230**	**HDS1**	R	F	
12.000	0.625	1050238	HS8	R	F	◇
12.000	0.688	**1050240**	**HDS1**	R	F	
12.000	0.688	**1050243**	**HDS2**	R	F	
12.000	0.688	**1050242**	**HDS2**	V	F	
12.000	0.688	**1050211**	**HDS7**	H	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 10.500" (266.70 mm)						
12.000	0.688	**1050229**	**HDS7L32**	H	F	
12.000	0.750	**1050250**	**HDS1**	R	F	
12.000	0.750	**1050543**	**HDS1**	V	F	
12.000	0.750	**1050254**	**HDS2**	D	F	
12.000	0.750	**1050252**	**HDS2**	R	F	
12.000	0.750	**1050251**	**HDS2**	V	F	
12.000	0.750	**1050253**	**HDS2L12**	R	F	
12.000	0.750	1050257	HS7	R	F	◇
12.000	0.750	1050258	HS8	R	F	◇
12.125	0.625	**1050312**	**HDS2**	D	F	
12.125	0.750	**1050330**	**HDS1**	R	F	
12.250	0.750	**1050380**	**HDS1**	R	F	
12.500	0.625	▲**105051**	**CRWH1**	R	W	
12.500	0.625	**1050520**	**HDS1**	R	F	
12.500	0.625	**1050523**	**HDS2**	R	F	
12.500	0.625	**1050524**	**HDS2**	V	F	
12.500	0.625	1050528	HS8	R	F	◇
12.500	0.750	**1050540**	**HDS1**	R	F	
12.500	0.750	**1050542**	**HDS2**	R	F	
12.500	0.750	**1050544**	**HDS2**	V	F	
12.500	0.750	**1032-1232-48 HDS7L12 R**	**HDS7L12**	R	F	
12.500	0.750	1050538	HS8	D	F	◇
12.500	0.813	**1050550**	**HDS1**	R	F	
12.500	1.000	**1050578**	**HDS1**	D	F	
12.500	1.000	**1050580**	**HDS1**	R	F	
12.500	1.000	**1050582**	**HDS2**	R	F	
12.500	1.000	**1050966**	**HDSF1**	VT	F	
12.500	1.000	1050958	HDSA1	RD	F	
12.625	1.000	**1050630**	**HDS1**	R	F	
METRIC Shaft Diameter – 267 mm (10.512")						
308	19	**267X308X19 HDS7 R**	**HDS7**	R	F	
308	20	**267X308X20 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 10.625" (269.88 mm)						
11.812	0.625	**1063100**	**HDS1**	R	F	
11.875	0.625	1063117	HS7	R	F	◇
12.031	0.766	531141	HS8	R	F	◇
12.125	0.750	**1063250**	**HDS1**	R	F	
12.250	0.750	**1063330**	**HDS1**	R	F	
12.375	0.750	**1063380**	**HDS1**	R	F	
13.000	0.750	**1063710**	**HDS1**	R	F	
13.000	0.750	**1063712**	**HDS2**	R	F	
METRIC Shaft Diameter – 270 mm (10.630")						
300	15	**270X300X15 HDS1 V**	**HDS1**	V	F	
300	15	270X300X15 HS8 R	HS8	R	F	◇
310	16	**270X310X16 HDS1 R**	**HDS1**	R	F	
310	16	**270X310X16 HDS1 V**	**HDS1**	V	F	
310	16	**270X310X16 HDS2 R**	**HDS2**	R	F	
310	16	**270X310X16 HDS2 V**	**HDS2**	V	F	
310	16	**270X310X16 HDS7 H**	**HDS7**	H	F	
310	16	**270X310X16 HDSF2 VT**	**HDSF2**	VT	F	
310	20	**270X310X20 HDS2 R**	**HDS2**	R	F	
310	20	**270X310X20 HDS2 V**	**HDS2**	V	F	
310	20	**270X310X20 HDSH2 VT**	**HDSH2**	VT	F	
310	20	**270X310X20 HDSH7 HT**	**HDSH7**	HT	F	
311.25	16	**1063310**	**HDS1**	R	F	
314	19	**270X314X19 HSS8 V**	**HSS8**	V	F	◇
314	20	**270X314X20 HDS1 R**	**HDS1**	R	F	
314	20	**270X314X20 HDS2 R**	**HDS2**	R	F	
320	16	**270X320X16 HDS2 V**	**HDS2**	V	F	
330	18	**270X330X18 HDS1 R**	**HDS1**	R	F	
330	25	**270X330X25 HDS2 V**	**HDS2**	V	F	
335	18	**270X335X18 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 10.688" (271.48 mm)						
12.500	0.625	**1068456**	**HDS1**	V	F	
12.500	0.625	**1044-1232-40 HDS7 V**	**HDS7**	V	F	
INCH Shaft Diameter (cont.) – 10.688" (271.48 mm)						
13.000	0.688	**1068693**	**HDS2**	V	F	
INCH Shaft Diameter – 10.710" (272.03 mm)						
12.511	0.625	1071448	HS8	R	F	◇
INCH Shaft Diameter – 10.750" (273.05 mm)						
11.750	0.500	1075018	HS8	R	F	◇
11.750	0.591	**1075020**	**HDS7**	R	F	
12.000	0.625	**1075110**	**HDS1**	R	F	
12.000	0.625	**1075112**	**HDS2**	R	F	
12.000	0.625	**1075114**	**HDS2**	V	F	
12.000	0.625	**1075115**	**HDS2L08**	R	F	
12.000	0.625	1075117	HS7	R	F	◇
12.000	0.625	557972	HS8	D	F	◇
12.000	0.625	1075118	HS8	R	F	◇
12.000	0.625	1075128	HS8	V	F	◇
12.250	0.609	508645	HS6	R	F	◇
12.250	0.625	**565617**	**HDS1**	R	F	
		SPECIAL CASE FOR VRING SURFACE				
12.250	0.625	**1075230**	**HDS1**	R	F	
12.250	0.625	1075237	HS7	R	F	◇
12.250	0.625	1075238	HS8	R	F	◇
12.250	0.750	**1075250**	**HDS1**	R	F	
12.250	0.813	1075920	HDSA1	RD	F	
12.500	0.625	**1075360**	**HDS1**	R	F	
12.500	0.625	**1075367**	**HDS1**	V	F	
12.500	0.625	**1075475**	**HDS2**	H	F	
12.500	0.625	**1048-1232-40 HDS2 V**	**HDS2**	RD	F	
12.500	0.625	**1075365**	**HDS2L08**	R	F	
12.500	0.625	**1075366**	**HDS2L08**	V	F	
12.500	0.844	526461	HDSA2	RD	F	
12.500	0.844	1075948	HDSA2	VD	F	
12.500	0.875	527611	HDSA2	RD	F	
12.500	0.875	529857	HDSA2	VD	F	
		W/LIGHT LOAD SPRING				
12.500	0.906	526472	HDSA2	RD	F	
12.625	0.750	**1075470**	**HDS1**	R	F	
12.750	0.625	▲**107551**	**CRWH1**	R	W	
12.750	0.625	**1075520**	**HDS1**	R	F	
12.750	0.625	**1075524**	**HDS2**	V	F	
12.750	0.625	**596171**	**HDS7**	R	F	
12.750	0.688	**1075539**	**HDS1**	H	F	
12.750	0.750	**527312**	**HDS1**	V	F	
12.750	0.812	**566239**	**HDSF1**	RT	F	◎
12.750	0.813	**1075550**	**HDS1**	R	F	
12.750	0.813	**1075559**	**HDS7**	R	F	
12.750	1.000	**1075580**	**HDS1**	R	F	
12.750	1.000	**1075582**	**HDS2**	R	F	
12.750	1.000	**1075584**	**HDS2**	V	F	
13.000	0.875	**1075660**	**HDS1**	R	F	
METRIC Shaft Diameter – 275 mm (10.827")						
310	16	**1082150**	**HDS1**	V	F	
310	16	**275X310X16 HDS1 R**	**HDS1**	R	F	
319	18	**275X319X18 HDS2 R1**	**HDS2**	R	F	
320	15	**275X320X15 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 10.875" (276.23 mm)						
12.125	0.625	1088118	HS8	R	F	◇
12.375	0.750	1088257	HS7	R	F	◇
12.875	0.578	527099	HS6	R	F	◇
INCH Shaft Diameter – 10.938" (277.83 mm)						
12.188	0.625	**1094110**	**HDS1**	R	F	
12.750	0.625	**1093440**	**HDS1**	R	F	
12.750	0.625	**557836**	**HDS2**	V	F	
METRIC Shaft Diameter – 275 mm (10.827")						
312	16	278X312X16 HS8 R	HS8	R	F	◇

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter – 275 mm (10.827")						
310	16	279X310X16 HS8 R	HS8	R	F	◇
310	16	279X310X16 HS8 V	HS8	V	F	◇
INCH Shaft Diameter – 11.000" (279.40 mm)						
12.000	0.500	1100017	HS7	R	F	◇
12.000	0.500	1100018	HS8	H	F	◇
12.000	0.625	1100027	HS7	R	F	◇
12.000	0.638	529777	HS8	R	F	◇
12.181	0.591	1100048	HS8	R	F	◇
12.250	0.625	▲**110030**	**CRWHA1**	R	W	
12.250	0.625	**1100110**	**HDS1**	R	F	
12.250	0.625	**1100113**	**HDS2**	D	F	
12.250	0.625	**1100112**	**HDS2**	R	F	
12.250	0.625	**1100104**	**HDS2**	V	F	
12.250	0.625	**1100115**	**HDS2L08**	R	F	
12.250	0.625	**1100120**	**HDS7**	R	F	
12.250	0.625	1100117	HS7	R	F	◇
12.250	0.625	1100118	HS8	R	F	◇
12.500	0.625	**1100230**	**HDS1**	R	F	
12.500	0.625	**1100220**	**HDS1L32**	R	F	
12.500	0.625	**1100-1232-40 HDS2 R**	**HDS2**	R	F	
12.500	0.625	**558082**	**HDS7**	R	F	
12.500	0.625	1100237	HS7	R	F	◇
12.500	0.625	1100238	HS8	R	F	◇
12.500	0.687	**1100282**	**HDS2**	H	F	
12.500	0.687	**1100269**	**HDS2**	V	F	
12.500	0.687	**1100249**	**HDS7**	H	F	
12.500	0.750	**1100250**	**HDS1**	R	F	
12.500	0.750	1100152	HS6	R	F	◇
12.500	0.750	1100257	HS7	R	F	◇
12.500	0.750	1100258	HS8	R	F	◇
12.500	0.875	**1100270**	**HDS1**	R	F	
12.500	1.250	1100918	HDSA1	RD	F	
13.000	0.625	▲**110051**	**CRWH1**	R	W	
13.000	0.625	**1100520**	**HDS1**	R	F	
13.000	0.625	**1100523**	**HDS2**	V	F	
13.000	0.625	1100527	HS7	R	F	◇
13.000	0.625	1100528	HS8	R	F	◇
13.000	0.750	**1100540**	**HDS1**	R	F	
13.000	0.750	1100538	HS8	R	F	◇
13.000	0.812	**1100555**	**HDS2L32**	R	F	
13.000	0.813	**1100553**	**HDS2**	R	F	
13.000	0.813	**1100519**	**HDS7**	R	F	
13.000	0.813	**1100510**	**HDS7L32**	R	F	
13.000	0.813	1100557	HS7	R	F	◇
13.000	0.844	1100-1300-54 HDSA2 VD	HDSA2	VD	F	
13.000	0.875	1100950	HDSA1	RD	F	
13.000	1.000	**1100580**	**HDS1**	R	F	
13.000	1.000	**1100585**	**HDS2**	R	F	
13.000	1.250	1100952	HDSA1	RD	F	
13.125	0.875	**1100620**	**HDS1**	R	F	
METRIC Shaft Diameter – 280 mm (11.024")						
309.80	16	**1102082**	**HDS2**	D	F	
310	15	280X310X15 HS8 R	HS8	R	F	◇
310	15	280X310X15 HS8 V	HS8	V	F	◇
310	16	**280X310X16 HDS1 R**	**HDS1**	R	F	
310	16	**280X310X16 HDS1 V**	**HDS1**	V	F	
310	16	**280X310X16 HDS2 D**	**HDS2**	D	F	
310	16	**280X310X16 HDS2 R**	**HDS2**	R	F	
310	16	**280X310X16 HDS2 V**	**HDS2**	V	F	
310	16	**280X310X16 HDS7 H**	**HDS7**	H	F	
310	16	**280X310X16 HDS7 R**	**HDS7**	R	F	
310	16	280X310X16 HMS4 R	HMS4	R	S	
310	16	280X310X16 HS8 R	HS8	R	F	◇
310	16	280X310X16 HS8 V	HS8	V	F	◇
320	16	**280X320X16 HDS1 R**	**HDS1**	R	F	
320	16	**280X320X16 HDS2 R**	**HDS2**	R	F	
320	16	**280X320X16 HDS2 V**	**HDS2**	V	F	
METRIC Shaft Diameter (cont.) – 280 mm (11.024")						
320	16	**280X320X16 HSS5 R**	**HSS5**	R	F	◇
320	17	**280X320X17 HDS2 D1**	**HDS2**	D	F	
320	17	**280X320X17 HDSF2 DT1**	**HDSF2**	DT	F	
320	18	**280X320X18 HDS1 R**	**HDS1**	R	F	
320	18	**280X320X18 HDS1 V**	**HDS1**	V	F	
320	18	**280X320X18 HDS2 D**	**HDS2**	D	F	
320	18	**280X320X18 HDS2 V**	**HDS2**	V	F	
320	19	280X320X19 HS8 V	HS8	V	F	◇
320	19.10	280X320X19.1 HS8 R	HS8	R	F	◇
320	19.60	**280X320X19.6 HSS8 H**	**HSS8**	H	F	◇
320	20	**280X320X20 CRWA1 R**	**CRWA1**	R	W	■
320	20	**280X320X20 CRWA1 V**	**CRWA1**	V	W	■
320	20	**280X320X20 HDS1 R**	**HDS1**	R	F	
320	20	**280X320X20 HDS2 R**	**HDS2**	R	F	
320	20	**280X320X20 HDS2 V**	**HDS2**	V	F	
320	20	**280X320X20 HDS7 R**	**HDS7**	R	F	
320	20	**280X320X20 HDSF2 DT**	**HDSF2**	DT	F	
320	20	**280X320X20 HDSH2 DT**	**HDSH2**	DT	F	
320	20	**280X320X20 HSS5 R**	**HSS5**	R	F	◇
320	20	280X320X20 HS8 R	HS8	R	F	◇
322	20	**280X322X20 HDS1 R**	**HDS1**	R	F	
324	20	**280X324X20 HDS2 D**	**HDS2**	D	F	
324	20	**280X324X20 HSS5 H**	**HSS5**	H	F	◇
325	20	**280X325X20 HDS1 R**	**HDS1**	R	F	
325	24	280X325X24 HS5 R	HS5	R	F	◇
330	20	**280X330X20 HDS7 D**	**HDS7**	D	F	
330	20.60	**280X330X20.6 HDS7 D**	**HDS7**	D	F	
330	24	**280X330X24 HDS1 R**	**HDS1**	R	F	
340	20	**280X340X20 HDS2 R**	**HDS2**	R	F	
340	25	**280X340X25 HDS1 R**	**HDS1**	R	F	
340	25	**280X340X25 HDS2 R**	**HDS2**	R	F	
340	28	**280X340X28 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 11.063" (281.00 mm)						
12.250	0.750	**1105201**	**HDS1**	R	F	
13.188	0.875	**1106620**	**HDS1**	R	F	
INCH Shaft Diameter – 11.125" (282.58 mm)						
12.125	0.500	1112018	HS8	R	F	◇
12.375	0.625	1113118	HS8	R	F	◇
13.000	1.000	**1113490**	**HDS1**	R	F	
13.250	0.875	**1113620**	**HDS1**	R	F	
12.983	0.875	1117078	HS8	V	F	◇
INCH Shaft Diameter – 11.188" (284.18 mm)						
12.500	0.625	**1118122**	**HDS2**	R	F	
12.500	0.687	**1118149**	**HDS2L10**	H	F	
12.500	0.687	**1118139**	**HDS7**	H	F	
12.500	0.750	**1118130**	**HDS1**	R	F	
13.000	0.750	**1112-1300-48 HDS2 R**	**HDS2**	R	F	
METRIC Shaft Diameter – 285 mm (11.220")						
310	13	285X310X13 HS5 V	HS5	V	F	◇
310	16	**285X310X16 HDS2 V**	**HDS2**	V	F	
320	16	**285X320X16 HDS2 R**	**HDS2**	R	F	
324	20	**285X324X20 HDS2 H**	**HDS2**	H	F	
325	16	**285X325X16 HDS1 R**	**HDS1**	R	F	
325	16	**285X325X16 HSS5 V**	**HSS5**	V	F	◇
329	20	**285X329X20 HSS5 R**	**HSS5**	R	F	◇
INCH Shaft Diameter – 11.188" (284.18 mm)						
12.188	0.638	529193	HS8	R	F	◇
12.250	0.500	1125028	HS8	R	F	◇
12.250	0.625	1125027	HS7	R	F	◇
12.500	0.625	**1125110**	**HDS1**	R	F	
12.500	0.625	**1125113**	**HDS1**	V	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 11.188" (284.18 mm)						
12.500	0.625	**1125111**	**HDS2**	R	F	
12.750	0.625	**1125230**	**HDS1**	R	F	
12.750	0.625	**1125219**	**HDS7**	H	F	
12.750	0.625	1125237	HS7	R	F	◇
12.750	0.625	1125238	HS8	R	F	◇
12.750	0.688	**1125240**	**HDS1**	R	F	
12.750	0.750	**1125250**	**HDS1**	R	F	
12.750	0.750	**1125253**	**HDS1**	V	F	
12.750	0.750	**1125252**	**HDS2**	D	F	
12.750	0.750	1125257	HS7	R	F	◇
13.250	0.625	**1125522**	**HDS2**	R	F	
13.250	0.625	**1125524**	**HDS2L24**	R	F	
13.250	0.938	**1125570**	**HDS1**	R	F	
13.250	1.000	**1125580**	**HDS1**	R	F	
13.500	0.875	**1125660**	**HDS1**	R	F	
13.500	1.000	**1125680**	**HDS1**	R	F	
13.500	1.000	**1125792**	**HDS2**	R	F	
INCH Shaft Diameter – 11.313" (287.35 mm)						
13.000	0.625	**1131340**	**HDS1**	R	F	
INCH Shaft Diameter – 11.375" (288.93 mm)						
12.375	0.500	1138017	HS7	R	F	◇
12.875	0.750	**1138250**	**HDS1**	R	F	
12.875	0.750	**1138252**	**HDS2**	R	F	
13.000	0.625	▲**113740**	**CRW1**	R	W	
13.000	0.688	**1138323**	**HDS2**	R	F	
13.000	0.750	**1138334**	**HDS1L16**	R	F	
13.000	0.813	**1137799**	**HDS7**	R	F	
13.250	0.750	1137458	HS8	R	F	◇
13.375	0.813	**1138550**	**HDS1**	R	F	
METRIC Shaft Diameter – 290 mm (11.417")						
320	18	**290X320X18 HDS2 R**	**HDS2**	R	F	
329.79	16	**592915**	**HDS1**	R	F	
330	18	**290X330X18 HDS2 D**	**HDS2**	D	F	
330	18	**290X330X18 HDS2 R**	**HDS2**	R	F	
330	18	**290X330X18 HDS2 V**	**HDS2**	V	F	
330	18	290X330X18 HS8 R	HS8	R	F	◇
330	20	**290X330X20 HDSH7 HT**	**HDSH7**	HT	F	
330	20	290X330X20 HS8 R	HS8	R	F	◇
330	22.23	**1141937**	**HDSA1**	VD	F	
333.81	19.05	**1142332**	**HDS2**	R	F	
333.81	19.05	**1142334**	**HDS2L24**	R	F	
335	24	290X335X24 HS7 R	HS7	R	F	◇
350	25	**290X350X25 HDS2 R**	**HDS2**	R	F	
350	25	**290X350X25 HDS2 V**	**HDS2**	V	F	
350	25	**290X350X25 HDS7 R**	**HDS7**	R	F	
350	25	290X350X25 HDSA2 RD	HDSA2	RD	F	
INCH Shaft Diameter – 11.438" (290.53 mm)						
13.000	0.688	**1144300**	**HDS1**	R	F	
METRIC Shaft Diameter – 292 mm (11.496")						
336	20	**292X336X20 HSS4 R**	**HSS4**	R	F	◇
336	20	**292X336X20 HSS6 R**	**HSS6**	R	F	◇
INCH Shaft Diameter – 11.500" (292.10 mm)						
12.500	0.500	595181	HS5	R	F	◇
12.500	0.500	1150019	HS8	D	F	◇
12.500	0.500	1150018	HS8	R	F	◇
12.750	0.625	**1150111**	**HDS1**	H	F	
12.750	0.625	**1150110**	**HDS1**	R	F	
12.750	0.625	**1150127**	**HDS1**	V	F	
12.750	0.625	**1150113**	**HDS2**	D	F	
12.750	0.625	**1150112**	**HDS2**	R	F	
12.750	0.625	1150117	HS7	R	F	◇
12.750	0.625	1150116	HS8	R	F	◇
INCH Shaft Diameter (cont.) – 11.500" (292.10 mm)						
12.875	0.688	**1150170**	**HDS1**	R	F	
13.000	0.625	▲**115021**	**CRWH1**	R	W	
13.000	0.625	**1150114**	**HDS2**	V	F	
13.000	0.625	1150238	HS8	R	F	◇
13.000	0.688	**1150240**	**HDS1**	R	F	
13.000	0.688	**1150243**	**HDS2**	R	F	
13.000	0.688	**1132-1300-44 HDS2 H**	**HDS2**	H	F	
13.000	0.688	**1150244**	**HDS2L16**	R	F	
13.000	0.688	**1132-1300-44 HDS7 H**	**HDS7**	H	F	
13.000	0.688	1150215	HS5	R	F	◇
13.000	0.704	**1150241**	**HDS1**	R	F	
13.000	0.750	**1150250**	**HDS1**	R	F	
13.000	0.750	**1150283**	**HDS1**	V	F	
13.000	0.750	**1150253**	**HDS2**	R	F	
13.000	0.750	115025	HDSA1	RD	F	
13.000	0.750	1150257	HS7	R	F	◇
13.000	0.750	1150259	HS8	D	F	◇
13.000	0.750	1150258	HS8	R	F	◇
13.250	0.750	**1150380**	**HDS1**	R	F	
13.375	0.750	**1150470**	**HDS1**	R	F	
13.500	0.625	▲**115041**	**CRWH1**	R	W	
13.500	0.625	**1150522**	**HDS2**	R	F	
13.500	0.625	**1150524**	**HDS2**	V	F	
13.500	0.625	1150527	HS7	R	F	◇
13.500	0.750	**1150540**	**HDS1**	R	F	
13.500	0.750	**1150546**	**HDS2L08**	R	F	
13.500	0.813	**1150550**	**HDS1**	R	F	
13.500	0.813	**1150552**	**HDS2**	V	F	
13.500	0.875	**1150560**	**HDS1**	R	F	
13.500	1.000	**1150580**	**HDS1**	R	F	
13.500	1.000	**1150582**	**HDS2**	R	F	
13.500	1.000	525669	HS6	R	F	◇
13.500	1.000	1150587	HS7	R	F	◇
METRIC Shaft Diameter – 295 mm (11.614")						
325	15	**295X325X15 HDS1 R**	**HDS1**	R	F	
330	16	**295X330X16 HDS2 R**	**HDS2**	R	F	
330	17.50	**295X330X17.5 HDS1 V**	**HDS1**	V	F	
330	17.50	**295X330X17.5 HDS2 V**	**HDS2**	V	F	
330	18	**295X330X18 HDS1 V**	**HDS1**	V	F	
330	25.40	**1161162**	**HDS2**	V	F	
335	18	**295X335X18 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 11.625" (295.28 mm)						
12.875	0.625	**1162112**	**HDS2**	R	F	
13.125	0.688	**1163244**	**HDS2**	V	F	
13.125	0.750	1162216	HS6	R	F	◇
13.125	0.750	1163257	HS7	R	F	◇
13.125	0.750	1163259	HS8	D	F	◇
13.191	0.750	**1163250**	**HDS1**	R	F	
INCH Shaft Diameter – 11.688" (296.88 mm)						
12.938	0.625	**1169110**	**HDS1**	R	F	
13.188	0.625	**1168099**	**HDS7**	V	F	
13.188	0.625	1169235	HS7	V	F	◇
INCH Shaft Diameter – 11.750" (298.45 mm)						
13.000	0.625	1175118	HS8	R	F	◇
13.188	0.875	**1175190**	**HDS1**	R	F	
13.250	0.625	1175237	HS7	R	F	◇
13.250	0.625	1175238	HS8	R	F	◇
13.250	0.688	**1175240**	**HDS1**	R	F	
13.250	0.688	**1175243**	**HDS1**	V	F	
13.250	0.688	**1175224**	**HDS2**	V	F	
13.250	0.688	**1175929**	**HDSH2**	VT	F	
13.250	0.688	1175248	HS8	R	F	◇
13.250	0.750	**1175250**	**HDS1**	R	F	
13.250	0.750	**1175252**	**HDS2**	R	F	
13.250	0.750	**1175254**	**HDS2L08**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 11.750" (298.45 mm)						
13.250	0.750	**1175255**	**HDS2L08**	V	F	
13.250	0.750	1175257	HS7	R	F	◇
13.250	0.750	1175258	HS8	V	F	◇
13.250	0.875	527709	HDSA2	RD	F	
13.250	0.875	1175924	HDSA2	VD	F	
13.250	0.906	526779	HDSA2	RD	F	
13.252	0.750	**1175300**	**HDS1**	R	F	
13.500	0.750	1175439	HS8	R	F	◇
13.750	0.875	**1175560**	**HDS1**	R	F	
13.750	0.875	**1175565**	**HDS2L08**	R	F	
13.750	1.000	**1175580**	**HDS1**	R	F	
13.750	1.000	**1175583**	**HDS1**	V	F	
13.750	1.000	**1175582**	**HDS2**	R	F	
13.750	1.093	526462	HDSA2	RD	F	
14.000	1.000	**1175680**	**HDS1**	R	F	
METRIC Shaft Diameter – 300 mm (11.811")						
330	15	300X330X15 HS5 R	HS5	R	F	◇
330	15	300X330X15 HS6 R	HS6	R	F	◇
332	16	**300X332X16 HDS2 R**	**HDS2**	R	F	
332	16	**300X332X16 HDS2 V**	**HDS2**	V	F	
335	18	**300X335X18 HDS2 R**	**HDS2**	R	F	
338.09	19.05	**1181252**	**HDS2**	R	F	
338.10	19.05	1181218	HS8	R	F	◇
339.80	18	**1181300**	**HDS1**	R	F	
340	15.88	300X340X15.88 HS8 R	HS8	R	F	◇
340	16	**300X340X16 HDS1 R**	**HDS1**	R	F	
340	16	**300X340X16 HDS1 V**	**HDS1**	V	F	
340	16	**300X340X16 HDS2 V**	**HDS2**	V	F	
340	16	**300X340X16 HSS5 H**	**HSS5**	H	F	◇
340	16	300X340X16 HMS4 R	HMS4	R	S	
340	16	300X340X16 HMSA7 R	HMSA7	R	S	
340	18	**300X340X18 HDS1 D**	**HDS1**	D	F	
340	18	**300X340X18 HDS1 V**	**HDS1**	V	F	
340	18	**300X340X18 HDS2 R**	**HDS2**	R	F	
340	18	**300X340X18 HDS2 V**	**HDS2**	V	F	
340	18	**300X340X18 HDS7 R**	**HDS7**	R	F	
340	18	300X340X18 HMS4 R	HMS4	R	S	
340	18	300X340X18 HS8 R	HS8	R	F	◇
340	18	300X340X18 HS8 V	HS8	V	F	◇
340	20	**300X340X20 HDS1 D**	**HDS1**	D	F	
340	20	**300X340X20 HDS1 R**	**HDS1**	R	F	
340	20	**300X340X20 HDS1 V**	**HDS1**	V	F	
340	20	**300X340X20 HDS2 R**	**HDS2**	R	F	
340	20	**300X340X20 HDS2 V**	**HDS2**	V	F	
340	20	**300X340X20 HDS7 R**	**HDS7**	R	F	
340	20	**300X340X20 HSS5 H**	**HSS5**	H	F	◇
340	20	300X340X20 HS5 V	HS5	V	F	◇
340	20	1181258	HS8	R	F	◇
340	20	300X340X20 HS8 R	HS8	R	F	◇
340	20	300X340X20 HS8 V	HS8	V	F	◇
344	16	**300X344X16 HDS2 V**	**HDS2**	V	F	
344	16	**300X344X16 HDS7 V1**	**HDS7**	V	F	
344	20	**300X344X20 HDS2 V**	**HDS2**	V	F	
344	20	**300X344X20 HDS7 R**	**HDS7**	R	F	
344	20	300X344X20 HS8 V	HS8	V	F	◇
345	22	**300X345X22 HDS1 R**	**HDS1**	R	F	
345	22	300X345X22 HS7 R	HS7	R	F	◇
345	25	**300X345X25 HDSF1 HT**	**HDSF1**	HT	F	
350	24	**300X350X24 HDS2 R**	**HDS2**	R	F	
350	25	**1181500**	**HDS1**	R	F	
350	25	**300X350X25 HDS1 R**	**HDS1**	R	F	
360	20	**300X360X20 HDSF2 VT**	**HDSF2**	VT	F	
360	25	**300X360X25 HDS2 R**	**HDS2**	R	F	
360	25	**300X360X25 HDS2 V**	**HDS2**	V	F	
360	25	300X360X25 HDSA2 VD	HDSA2	VD	F	
INCH Shaft Diameter – 11.813" (300.05 m)						
13.219	0.766	59340000	HS8	R	F	■◇

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 11.813" (300.05 mm)						
13.250	1.000	**1181195**	**HDS1**	R	F	
13.313	0.750	1181257	HS7	R	F	◇
13.812	0.875	**1181560**	**HDS1**	R	F	
14.000	0.750	**1180614**	**HDS2L16**	R	F	
14.000	0.875	**1181640**	**HDS1**	R	F	
INCH Shaft Diameter – 11.875" (301.63 mm)						
13.125	0.625	1188118	HS8	R	F	◇
INCH Shaft Diameter – 11.938" (303.23 mm)						
13.938	0.625	1194527	HS7	R	F	◇
INCH Shaft Diameter – 12.000" (304.80 mm)						
13.000	0.350	511200	HD1	D	G	
13.000	0.500	1200015	HS5	R	F	◇
13.000	0.500	1200017	HS7	R	F	◇
13.000	0.500	1200028	HS8	D	F	◇
13.000	0.500	1200018	HS8	R	F	◇
13.250	0.500	1200128	HS8	R	F	◇
13.250	0.625	**1200110**	**HDS1**	R	F	
13.250	0.625	594306	HS5	R	F	◇
13.250	0.625	1200117	HS7	R	F	◇
13.250	0.625	1200114	HS8	H	F	◇
13.250	0.625	1200118	HS8	R	F	◇
13.250	1.000	**1200150**	**HDS1**	R	F	
13.250	1.000	**1200100**	**HDS1**	V	F	
13.327	0.650	1200148	HS8	R	F	◇
13.386	0.787	**1199169**	**HDS2**	V	F	
13.500	0.625	**1200230**	**HDS1**	R	F	
13.500	0.625	**1200233**	**HDS1**	V	F	
13.500	0.625	**1200231**	**HDS2**	R	F	
13.500	0.625	**1200235**	**HDS2L08**	R	F	
13.500	0.625	**1213210**	**HDS7**	R	F	
13.500	0.625	**1213211**	**HDS7L20**	R	F	
13.500	0.625	1200237	HS7	R	F	◇
13.500	0.625	1200238	HS8	R	F	◇
13.500	0.688	**1200240**	**HDS1**	R	F	
13.500	0.750	**1200250**	**HDS1**	R	F	
13.500	0.750	**1200255**	**HDS2**	R	F	
13.500	0.750	1200259	HS7	V	F	◇
13.500	0.750	1200258	HS8	R	F	◇
13.500	0.787	**1200928**	**HDSH2**	RT	F	◤
13.500	0.863	528564	HS8	R	F	◇
13.500	0.875	1200920	HDSA1	RD	F	
13.625	0.688	**1200300**	**HDS1**	D	F	
13.625	0.688	**1200320**	**HDS1**	R	F	
13.625	0.750	**1200330**	**HDS1**	R	F	
13.630	0.750	1200335	HS5	R	F	◇
13.750	0.750	**1200380**	**HDS1**	R	F	
13.938	0.688	**1200500**	**HDS7**	R	F	
14.000	0.625	▲**120060**	**CRW1**	R	W	
14.000	0.625	**1200520**	**HDS1**	R	F	
14.000	0.625	**1200523**	**HDS1**	V	F	
14.000	0.625	**1200622**	**HDS2**	V	F	
14.000	0.625	1200524	HS8	R	F	◇
14.000	0.688	**1200530**	**HDS1**	R	F	
14.000	0.688	**1200533**	**HDS1**	V	F	
14.000	0.750	**1200540**	**HDS1**	R	F	
14.000	0.750	**1200541**	**HDS2**	R	F	
14.000	0.750	**1200545**	**HDS2L08**	R	F	
14.000	0.750	1200508	HS8	H	F	◇
14.000	0.812	**1200521**	**HDS7**	R	F	
14.000	0.812	**1200959**	**HDSH7**	HT	F	
14.000	0.813	**1200550**	**HDS1**	R	F	
14.000	0.813	**1200553**	**HDS2**	R	F	
14.000	0.813	1200558	HS8	R	F	◇
14.000	0.844	526463	HDSA2	RD	F	
14.000	0.844	1200962	HDSA2	VD	F	
14.000	0.875	**1200560**	**HDS1**	R	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 12.000" (304.80 mm)						
14.000	1.000	**1200580**	**HDS1**	R	F	
14.000	1.000	**1200593**	**HDS1**	V	F	
14.000	1.000	**1200585**	**HDS2**	R	F	
14.000	1.000	1200955	HDSA2	RD	F	
14.250	0.875	**1200660**	**HDS1**	R	F	
14.250	1.000	**1200680**	**HDS1**	R	F	
14.750	0.875	**1200820**	**HDS1**	R	F	
INCH Shaft Diameter – 12.125" (307.98 mm)						
13.125	0.500	1212018	HS8	R	F	◇
13.375	0.625	1212128	HS8	H	F	◇
13.375	0.625	1213118	HS8	R	F	◇
13.875	0.750	**1213382**	**HDS2**	R	F	
14.000	0.875	**1213480**	**HDS1**	R	F	
14.000	1.000	**1213490**	**HDS1**	R	F	
INCH Shaft Diameter – 12.188" (309.58 mm)						
14.000	0.625	**1218430**	**HDS2**	D	F	
METRIC Shaft Diameter – 310 mm (12.205")						
340	15	310X340X15 HS8 R	HS8	R	F	◇
340	15	310X340X15 HS8 V	HS8	V	F	◇
340	20	**310X340X20 HDS2 V**	**HDS2**	V	F	
340	20	310X340X20 HS8 R	HS8	R	F	◇
350	16	310X350X16 HS8 R	HS8	R	F	◇
350	18	**310X350X18 HDS1 R**	**HDS1**	R	F	
350	18	**310X350X18 HDS2 V**	**HDS2**	V	F	
350	18	**310X350X18 HDS7 R**	**HDS7**	R	F	
350	18	310X350X18 HS8 R	HS8	R	F	◇
350	20	**310X350X20 HDS2 D**	**HDS2**	D	F	
350	20	**310X350X20 HDS7 R**	**HDS7**	R	F	
350	20	310X350X20 HS8 D	HS8	D	F	◇
354	20	310X354X20 HS5 R	HS5	R	F	◇
355	24	310X355X24 HS8 V	HS8	V	F	◇
370	25	**310X370X25 HDS1 R1**	**HDS1**	R	F	
370	25	**310X370X25 HDS2 D**	**HDS2**	D	F	
370	25	**310X370X25 HDS2 R**	**HDS2**	R	F	
370	25	**310X370X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 12.250" (311.15 mm)						
13.375	0.625	▲**122555**	**CRWH1**	R	W	
13.500	0.625	1225118	HS8	R	F	◇
13.750	0.625	**1225230**	**HDS1**	R	F	
13.750	0.625	**1225232**	**HDS2**	V	F	
13.750	0.625	**1225221**	**HDS7L08**	D	F	
13.750	0.625	1225238	HS8	R	F	◇
13.750	0.688	**1225240**	**HDS1**	R	F	
13.750	0.688	**1225247**	**HDS1**	V	F	
13.750	0.688	**1225282**	**HDS2**	D	F	
13.750	0.688	**1225245**	**HDS2L08**	R	F	
13.750	0.750	**1225250**	**HDS1**	R	F	
13.750	0.750	**1225252**	**HDS2**	R	F	
13.750	0.750	**1225259**	**HDS7**	D	F	
13.750	0.750	1225257	HS7	R	F	◇
13.750	0.812	**1225212**	**HDS2**	H	F	
13.750	0.844	526912	HDSA2	RD	F	
13.813	0.625	▲**122580**	**CRW1**	R	W	
13.813	0.625	**1225283**	**HDS2**	V	F	
14.000	0.688	**1225379**	**HDS7**	R	F	
14.250	0.640	**1225523**	**HDS2**	D	F	
14.250	0.640	**1225525**	**HDS2**	R	F	
14.250	0.665	**1225495**	**HDS2**	R	F	
14.250	0.750	**1225542**	**HDS2**	R	F	■
14.250	0.750	**1225549**	**HDS7**	R	F	
14.250	0.812	**1225370**	**HDS7**	R	F	
14.250	0.813	**1225550**	**HDS1**	R	F	
14.250	0.813	**1225554**	**HDS2**	V	F	
14.250	0.813	1225557	HS7	R	F	◇
14.250	0.813	1225528	HS8	R	F	◇

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 12.250" (311.15 mm)						
14.250	1.000	**1225580**	**HDS1**	R	F	
14.250	1.250	**1225600**	**HDS1**	R	F	
14.250	1.250	**1225589**	**HDS7**	R	F	
14.250	1.250	1225588	HDSA2	RD	F	
14.500	0.875	**1225660**	**HDS1**	R	F	
INCH Shaft Diameter – 12.283" (311.99 mm)						
13.750	0.688	**1228172**	**HDS2**	D	F	
METRIC Shaft Diameter – 314 mm (12.362")						
355	20	**314X355X20 HSS5 R**	**HSS5**	R	F	◇
INCH Shaft Diameter – 12.373" (314.27 mm)						
13.875	0.688	**1238242**	**HDS2**	D	F	
INCH Shaft Diameter – 12.375" (314.33 mm)						
13.875	0.625	1238237	HS7	R	F	◇
13.875	0.688	**1238240**	**HDS1**	R	F	
13.875	0.750	**1238250**	**HDS1**	R	F	
13.875	0.750	1238257	HS7	R	F	◇
METRIC Shaft Diameter – 315 mm (12.402")						
345	20	315X345X20 HS8 R	HS8	R	F	◇
355	16	**315X355X16 HDS1 V**	**HDS1**	V	F	
355	16	315X355X16 HS4 V	HS4	V	F	◇
355	16	315X355X16 HS5 V	HS5	V	F	◇
355	18	**315X355X18 HDS1 R**	**HDS1**	R	F	
355	18	**315X355X18 HDS1 V**	**HDS1**	V	F	
355	18	**315X355X18 HDS7 H**	**HDS7**	H	F	
355.60	16	**315X355.6X16 HDS1 R**	**HDS1**	R	F	
365	20	**315X365X20 HDS1 R**	**HDS1**	R	F	
365	20	**315X365X20 HDSF2 VT**	**HDSF2**	VT	F	
365	20	**315X365X20 HDSH2 VT**	**HDSH2**	VT	F	
INCH Shaft Diameter – 12.438" (315.93 mm)						
14.438	0.787	1243528	HS8	R	F	◇
INCH Shaft Diameter – 12.438" (315.93 mm)						
13.400	0.650	594243	HS8	R	F	◇
13.500	0.500	1250018	HS8	R	F	◇
13.750	0.625	**1250110**	**HDS1**	R	F	
13.750	0.625	**1250113**	**HDS1**	V	F	
13.750	0.625	**1250115**	**HDS2**	V	F	
13.750	0.625	1250118	HS8	R	F	◇
13.750	0.750	**1250130**	**HDS1**	R	F	
13.750	0.906	1250912	HDSA2	RD	F	
13.906	0.766	531152	HS8	R	F	◇
14.000	0.625	**1250230**	**HDS1**	R	F	
14.000	0.625	1250238	HS8	R	F	◇
14.000	0.688	**1250240**	**HDS1**	R	F	
14.000	0.688	**1250242**	**HDS2**	R	F	
14.000	0.688	**1250239**	**HDS7**	R	F	
14.000	0.688	1250268	HS8	D	F	◇
14.000	0.750	**1250250**	**HDS1**	R	F	
14.000	0.750	**1250252**	**HDS2**	R	F	
14.000	0.750	1250257	HS7	R	F	◇
14.000	0.750	1250258	HS8	R	F	◇
14.000	0.813	**1250260**	**HDS1**	R	F	
14.000	0.906	526490	HDSA2	RD	F	
14.000	0.906	1250924	HDSA2	VD	F	
14.000	1.000	**1258283**	**HDS2**	V	F	
14.000	1.000	**1250289**	**HDS7**	R	F	
14.250	0.875	**1250350**	**HDS1**	V	F	
14.500	0.750	**1250540**	**HDS1**	R	F	
14.500	0.750	**593499**	**HDS2**	R	F	
14.500	0.750	**1250542**	**HDS2**	R	F	
14.500	0.750	1250528	HS8	H	F	◇
14.500	0.813	**1250550**	**HDS1**	R	F	

Seal tech: W = SKF Wave E = SKF Edge F = SKF Flex S = standard oil G = grease **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 12.438" (315.93 mm)						
14.500	0.813	**1250554**	**HDS2**	V	F	
14.500	0.875	**1250565**	**HDS1L24**	R	F	
14.500	1.000	**526655**	**HDS1**	R	F	
14.500	1.000	**1250580**	**HDS1**	R	F	
14.500	1.000	**1250582**	**HDS2**	R	F	
14.500	1.000	1250578	HS8	R	F	◇
14.500	1.250	1250950	HDSA1	RD	F	
14.625	1.000	**1250630**	**HDS1**	R	F	
14.750	1.000	**1250680**	**HDS1**	R	F	
15.000	0.813	**1250750**	**HDS1**	R	F	
METRIC Shaft Diameter – 318 mm (12.520")						
348	19	**318X348X19 HDS1 R**	**HDS1**	R	F	
360	20	**318X360X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 12.565" (319.15 mm)						
14.063	0.750	**1256250**	**HDS1**	R	F	
METRIC Shaft Diameter – 320 mm (12.598")						
350	16	**320X350X16 HDS1 R**	**HDS1**	R	F	
350	18	**320X350X18 HDS1 R**	**HDS1**	R	F	
350	18	**320X350X18 HDS2 H**	**HDS2**	H	F	
350	18	**320X350X18 HDS7 R**	**HDS7**	R	F	
355	16	**320X355X16 HDS1 R**	**HDS1**	R	F	
358	19	**320X358X19 HDS1 R**	**HDS1**	R	F	
360	16	**320X360X16 HDS1 R**	**HDS1**	R	F	
360	16	**320X360X16 HDS2 V**	**HDS2**	V	F	
360	18	**320X360X18 HDS1 H**	**HDS1**	H	F	
360	18	**320X360X18 HDS1 R**	**HDS1**	R	F	
360	18	**320X360X18 HDS2 H1**	**HDS2**	H	F	
360	18	**320X360X18 HDS2 R**	**HDS2**	R	F	
360	18	**320X360X18 HDS2 V**	**HDS2**	V	F	
360	18	**320X360X18 HDS7 D**	**HDS7**	D	F	
360	18	**320X360X18 HSS5 H**	**HSS5**	H	F	◇
360	18	**320X360X18 HSS6 H**	**HSS6**	H	F	◇
360	18	**320X360X18 HSS8 H**	**HSS8**	H	F	◇
360	20	**320X360X20 HDS1 R**	**HDS1**	R	F	
360	20	**320X360X20 HDS1 V**	**HDS1**	V	F	
360	20	**320X360X20 HDS2 V**	**HDS2**	V	F	
360	20	**320X360X20 HDS7 R**	**HDS7**	R	F	
360	20	**320X360X20 HDSF2 VT**	**HDSF2**	VT	F	
360	20	**320X360X20 HDSH2 VT**	**HDSH2**	VT	F	
360	20	**320X360X20 HDSH7 HT**	**HDSH7**	HT	F	
360	20	**320X360X20 HSS5 H**	**HSS5**	H	F	◇
360	20	**320X360X20 HSS8 H**	**HSS8**	H	F	◇
360	20	320X360X20 HS5 R	HS5	R	F	◇
360	20	320X360X20 HS8 H	HS8	H	F	◇
360	20	320X360X20 HS8 R	HS8	R	F	◇
360	20	320X360X20 HS8 V	HS8	V	F	◇
360	22	**320X360X22 HDS1 H**	**HDS1**	H	F	
360	22	**320X360X22 HSS6 H**	**HSS6**	H	F	◇
360	22	320X360X22 HDSA2 VD	HDSA2	VD	F	
360	25	**320X360X25 HDS1 R**	**HDS1**	R	F	
360	25	**320X360X25 HDS2 V**	**HDS2**	V	F	
364	20	**320X364X20 HDS2 D**	**HDS2**	D	F	
364	20	**320X364X20 HDS2 R1**	**HDS2**	R	F	
364	20	**320X364X20 HDS2 V**	**HDS2**	V	F	
364	20	320X364X20 HS8 R	HS8	R	F	◇
380	25	**320X380X25 HDS1 R**	**HDS1**	R	F	
380	25	**320X380X25 HDS2 R**	**HDS2**	R	F	
380	28	**320X380X28 HDS7 R**	**HDS7**	R	F	
380	28	320X380X28 HDSA2 RD	HDSA2	RD	F	
INCH Shaft Diameter – 12.625" (320.68 mm)						
14.125	0.625	1263238	HS8	R	F	◇
14.125	0.750	**1263252**	**HDS2**	D	F	
14.125	0.750	1263237	HS7	R	F	◇
14.250	0.750	**1263330**	**HDS1**	R	F	
14.250	0.750	**520179**	**HDS1L12**	R	F	■

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 12.625" (320.68 mm)						
14.625	1.000	**1263580**	**HDS1**	R	F	
14.750	0.875	**1263620**	**HDS1**	R	F	
15.000	0.875	**1263710**	**HDS1**	R	F	
INCH Shaft Diameter – 12.688" (322.28 mm)						
13.688	0.500	1268018	HS8	R	F	◇
14.250	0.750	**1269290**	**HDS1**	R	F	
14.500	0.813	**1268948**	**HDSF2**	VT	F	
14.500	0.813	**1268958**	**HDSH2**	VT	F	
14.750	1.000	**1269600**	**HDS1**	R	F	
INCH Shaft Diameter – 12.750" (323.85 mm)						
13.625	0.563	127540	HMSA7	R	S	
14.250	0.625	**1275219**	**HDS7**	H	F	
14.250	0.625	1275238	HS8	R	F	◇
14.250	0.688	**1275240**	**HDS1**	R	F	
14.250	0.688	**1275242**	**HDS2**	R	F	
14.250	0.688	**1275243**	**HDS2**	V	F	
14.250	0.688	**1275256**	**HDS2L32**	V	F	
14.250	0.750	**1275250**	**HDS1**	R	F	
14.250	0.750	**1275252**	**HDS2**	R	F	
14.250	0.750	1275255	HS7	V	F	◇
14.250	0.750	592887	HS8	R	F	◇
14.375	0.750	1275338	HS8	R	F	◇
14.500	0.688	**1275373**	**HDS2**	V	F	
14.500	0.787	**1248-1432-50 HDSH7 RT**	**HDSH7**	RT	F	
14.750	0.875	**1275560**	**HDS1**	R	F	
14.750	1.000	**1275580**	**HDS1**	R	F	
14.750	1.000	**1275582**	**HDS2**	R	F	
15.000	0.875	**1275660**	**HDS1**	R	F	
METRIC Shaft Diameter – 325 mm 325 mm (12.795")						
360	20	**325X360X20 HDS2 R**	**HDS2**	R	F	
365	16	**325X365X16 HDS1 R**	**HDS1**	R	F	
365	16	**325X365X16 HDS2 R**	**HDS2**	R	F	
365	20	**325X365X20 HDSH7 HT**	**HDSH7**	HT	F	
368	20	325X368X20 HS5 R	HS5	R	F	◇
369	20	325X369X20 HS7 R	HS7	R	F	◇
375	25	**325X375X25 HDS2 H**	**HDS2**	H	F	
375	25	**325X375X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 12.875" (327.03 mm)						
14.500	0.688	**1288322**	**HDS2**	R	F	
14.500	0.688	1287338	HS8	R	F	◇
14.750	1.000	**1288490**	**HDS1**	R	F	
15.500	0.875	**1288800**	**HDS1**	R	F	
14.250	0.688	**1293159**	**HDS2L32**	D	F	
METRIC Shaft Diameter – 330 mm (12.992")						
370	15	330X370X15 HS8 R	HS8	R	F	◇
370	16	**330X370X16 HDS2 R**	**HDS2**	R	F	
370	18	**330X370X18 HDS1 R**	**HDS1**	R	F	
370	18	**330X370X18 HDS1 R9**	**HDS1**	R	F	◤
370	18	**330X370X18 HDS2 D**	**HDS2**	D	F	
370	18	**330X370X18 HDS2 R**	**HDS2**	R	F	
370	18	**330X370X18 HDS2 V**	**HDS2**	V	F	
370	18	330X370X18 HS5 V	HS5	V	F	◇
370	18	330X370X18 HS8 R	HS8	R	F	◇
370	20	**330X370X20 HDS1 R**	**HDS1**	R	F	
370	20	**330X370X20 HDS1 V**	**HDS1**	V	F	
370	20	**330X370X20 HDS2 V**	**HDS2**	V	F	
370	20	**330X370X20 HDS2L4 R**	**HDS2L4**	R	F	
370	20	**330X370X20 HDSF2 VT1**	**HDSF2**	VT	F	
370	20	**330X370X20 HDSH2 VT**	**HDSH2**	VT	F	
370	20	330X370X20 HS8 R	HS8	R	F	◇
370	21	**330X370X21 HDSF1 HT**	**HDSF1**	HT	F	
370	25	**330X370X25 HDS2 R**	**HDS2**	R	F	
374	17	**330X374X17 HDS7L3 H**	**HDS7L3**	H	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 330 mm (12.992")						
374	19	**330X374X19 HDS2 V**	**HDS2**	V	F	
374	20	**330X374X20 HDS2 V**	**HDS2**	V	F	
380	19	330X380X19 HS8 D	HS8	D	F	◇
380	20	**330X380X20 HDS2 R9**	**HDS2**	R	F	◤
380	20	**330X380X20 HSS8 H**	**HSS8**	H	F	◇
380	20	330X380X20 HS8 R	HS8	R	F	◇
380	22	330X380X22 HS8 H	HS8	H	F	◇
384	18	**330X384X18 HDS2 R**	**HDS2**	R	F	
390	28	**330X390X28 HDS2 D**	**HDS2**	D	F	
390	28	**330X390X28 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 13.000" (330.20 mm)						
14.000	0.500	1300019	HS8	D	F	◇
14.000	0.500	1300018	HS8	R	F	◇
14.125	0.547	1300048	HS8	H	F	◇
14.125	0.547	1300-1408-35 HS8 V	HS8	V	F	◇
14.500	0.625	1300237	HS7	R	F	◇
14.500	0.625	1300219	HS8	R	F	◇
14.500	0.625	593798	HS8	V	F	◇
14.500	0.687	**596090**	**HDS7**	R	F	
14.500	0.688	**1300240**	**HDS1**	R	F	
14.500	0.688	**1300254**	**HDS1**	V	F	
14.500	0.688	**1300262**	**HDS2**	H	F	◤
14.500	0.688	**1300244**	**HDS2**	R	F	
14.500	0.688	**1300283**	**HDS2**	V	F	
14.500	0.688	**1300-1432-44 HDS2 H**	**HDS2**	H	F	
14.500	0.688	**1300-1432-44 HDS7 H**	**HDS7**	V	F	
14.500	0.750	**1300251**	**HDS1**	D	F	
14.500	0.750	**1300250**	**HDS1**	R	F	
14.500	0.750	**1300252**	**HDS2**	R	F	
14.500	0.750	1300257	HS7	R	F	◇
14.500	0.750	528189	HS8	D	F	◇
14.500	0.750	1300258	HS8	R	F	◇
14.500	0.787	**1300928**	**HDSH2**	HT	F	◤
14.500	0.875	1300900	HDSA1	RD	F	
14.500	1.000	**1300290**	**HDS1**	R	F	
14.500	1.000	1300920	HDSA1	RD	F	
14.606	0.718	513509	HS8	R	F	◇
14.625	0.750	**1300330**	**HDS1**	R	F	
14.875	0.875	**1300480**	**HDS1**	R	F	
15.000	0.625	**1300538**	**HSS8**	H	F	◇
15.000	0.625	1300527	HS7	R	F	◇
15.000	0.750	**1300540**	**HDS1**	R	F	
15.000	0.750	**1300542**	**HDS2**	R	F	
15.000	0.750	**1300578**	**HSS8**	H	F	◇
15.000	0.750	1300548	HS8	R	F	◇
15.000	0.813	1300557	HS7	R	F	◇
15.000	0.813	1300558	HS8	R	F	◇
15.000	0.938	**1300570**	**HDS1**	R	F	
15.000	0.938	**1300573**	**HDS1**	V	F	
15.000	1.000	**1300580**	**HDS1**	R	F	
15.000	1.000	**1300585**	**HDS2**	R	F	
15.000	1.000	**1300582**	**HDS2**	V	F	
15.000	1.000	**1300600**	**HDS7**	R	F	
INCH Shaft Diameter – 13.125" (333.38 mm)						
14.625	0.625	**1312219**	**HDS7**	R	F	
15.125	0.750	592920	HS8	R	F	◇
INCH Shaft Diameter – 13.187" (334.95 mm)						
14.688	0.688	**1318222**	**HDS2**	R	F	
INCH Shaft Diameter – 13.188" (334.98 mm)						
14.438	0.625	**1312-1428-40 HDS2 V**	**HDS2**	V	F	
14.500	0.750	**1318102**	**HDS2**	R	F	
METRIC Shaft Diameter – 335 mm (13.189")						
375	18	**335X375X18 HDS1 R**	**HDS1**	R	F	
375	18	**335X375X18 HDS2 V**	**HDS2**	V	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 13.250" (336.55 mm)						
14.500	0.625	**1316-1432-40 HDS2 R**	**HDS2**	R	F	
14.500	0.625	**1325148**	**HS8**	R	F	◇
14.750	0.625	**1325230**	**HDS1**	R	F	
14.750	0.625	**1325235**	**HDS1**	V	F	
14.750	0.625	**1325232**	**HDS2**	D	F	
14.750	0.625	**1325237**	**HS7**	R	F	◇
14.750	0.625	**1325228**	**HS8**	R	F	◇
14.750	0.688	**1325240**	**HDS1**	R	F	
14.750	0.688	**1325242**	**HDS2**	R	F	
14.750	0.688	**1325243**	**HDS2**	V	F	
14.750	0.688	**1325244**	**HDS2L08**	R	F	
14.750	0.750	**1325250**	**HDS1**	R	F	
14.750	0.750	**1325252**	**HDS2**	R	F	
14.750	0.906	**526464**	**HDSA2**	RD	F	
14.750	0.906	**531604**	**HDSA2**	VD	F	
14.750	0.906	**1325928**	**HDSA2**	VD	F	
14.875	0.688	**1325300**	**HDS1**	R	F	
14.875	0.750	**1325330**	**HDS1**	R	F	
14.875	0.938	**1325340**	**HDS1**	R	F	
14.875	1.000	**1325932**	**HDSA2**	DD	F	
15.000	0.750	**1325380**	**HDS1**	R	F	
15.250	0.750	**1325540**	**HDS1**	R	F	
15.250	0.750	**528356**	**HDS2**	R	F	
15.250	0.750	**1325569**	**HDS7**	R	F	
15.250	0.750	**1325518**	**HS8**	D	F	◇
15.250	1.000	**1325580**	**HDS1**	R	F	
15.250	1.125	**1325590**	**HDS1**	R	F	
15.250	1.250	**1325600**	**HDS1**	R	F	
15.375	1.000	**1325630**	**HDS1**	R	F	
15.500	0.875	**1325660**	**HDS1**	R	F	
15.750	0.812	**566405**	**HDSF1**	RT	F	
14.874	0.750	**1331300**	**HDS1**	R	F	
14.875	0.625	**1337168**	**HDS7**	V	F	
14.375	0.500	**1338017**	**HS7**	R	F	◇
14.875	0.625	**1338238**	**HS8**	R	F	◇
14.875	0.750	**1338250**	**HDS1**	R	F	
15.000	0.750	**1338330**	**HDS1**	R	F	
15.750	0.875	**1338710**	**HDS1**	R	F	
15.750	0.875	**1337712**	**HDS2L16**	R	F	
METRIC Shaft Diameter – 340 mm (13.386")						
370	16	**340X370X16 HDS2 V**	**HDS2**	V	F	
372	16	**340X372X16 HDS1 R**	**HDS1**	R	F	
372	16	**340X372X16 HDS2 V**	**HDS2**	V	F	
372	16	**340X372X16 HDS7 R**	**HDS7**	R	F	
380	16	**340X380X16 HDS2 V**	**HDS2**	V	F	
380	16	340X380X16 HS5 R	HS5	R	F	◇
380	18	**340X380X18 HDS1 R**	**HDS1**	R	F	
380	18	**340X380X18 HDS1 V**	**HDS1**	V	F	
380	18	**340X380X18 HDS2 D**	**HDS2**	D	F	
380	18	**340X380X18 HDS2 R**	**HDS2**	R	F	
380	18	**340X380X18 HDS2 V**	**HDS2**	V	F	
380	18	340X380X18 HS8 R	HS8	R	F	◇
380	18	340X380X18 HS8 V	HS8	V	F	◇
380	20	**340X380X20 HDS1 R**	**HDS1**	R	F	
380	20	**340X380X20 HDS2 H**	**HDS2**	H	F	
380	20	**340X380X20 HDS2 R**	**HDS2**	R	F	
380	20	**340X380X20 HDS2 V**	**HDS2**	V	F	
380	20	**340X380X20 HDS7 R**	**HDS7**	R	F	
380	20	**340X380X20 HDSF2 VT**	**HDSF2**	VT	F	
380	20	**340X380X20 HDSH2 VT1**	**HDSH2**	VT	F	
380	20	340X380X20 HS8 R	HS8	R	F	◇
380	20	340X380X20 HS8 V	HS8	V	F	◇
380	22	340X380X22 HDSA2 HD	HDSA2	HD	F	
380	22	340X380X22 HDSA2 VD	HDSA2	VD	F	
384	20	**340X384X20 HDS1 R**	**HDS1**	R	F	
384	20	340X384X20 HS8 R	HS8	R	F	◇
385	20	**340X385X20 HDS1 R**	**HDS1**	R	F	
390	25.40	**340X390X25.4 HDS1 R**	**HDS1**	R	F	
399.80	25	**1339690**	**HDS1**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 340 mm (13.386")						
400	25	**340X400X25 HSS4 H**	**HSS4**	H	F	◇
400	28	**340X400X28 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 13.500" (342.90 mm)						
14.500	0.500	1350018	HS8	R	F	◇
14.750	0.625	**1350112**	**HDS2**	R	F	
14.919	0.700	1350188	HS8	R	F	◇
15.000	0.625	**1350230**	**HDS1**	R	F	
15.000	0.625	**1350233**	**HDS2**	D	F	
15.000	0.625	**1350232**	**HDS2L08**	D	F	
15.000	0.625	**1350219**	**HDS7**	R	F	
15.000	0.625	1350235	HS5	D	F	◇
15.000	0.625	1350238	HS8	R	F	◇
15.000	0.625	1332-1500-40 HS8 D	HS8	D	F	◇
15.000	0.688	**1350240**	**HDS1**	R	F	
15.000	0.688	**1350245**	**HDS1**	V	F	
15.000	0.750	**1350250**	**HDS1**	R	F	
15.000	0.750	**1350252**	**HDS2**	R	F	
15.000	0.750	**1350212**	**HDS2**	V	F	
15.000	0.750	1350259	HS8	D	F	◇
15.000	0.750	1350258	HS8	R	F	◇
15.125	0.750	**1350330**	**HDS1**	R	F	
15.250	0.750	**1350380**	**HDS1**	R	F	
15.438	0.875	**1350510**	**HDS1**	R	F	
15.500	0.750	**1350540**	**HDS1**	R	F	
15.500	0.750	**1350542**	**HDS2**	R	F	
15.500	0.750	1350538	HS8	R	F	◇
15.500	0.812	**1350520**	**HDS7**	R	F	
15.500	0.812	**1350959**	**HDSH7**	HT	F	
15.500	0.813	**1350550**	**HDS1**	R	F	
15.500	0.813	**1350555**	**HDS1**	V	F	
15.500	0.813	**1350552**	**HDS2**	R	F	
15.500	0.813	**1350564**	**HDS2**	V	F	
15.500	0.813	**1350969**	**HDSF2**	VT	F	
15.500	0.813	**1350950**	**HDSH7**	HT	F	
15.500	0.813	1350557	HS7	R	F	◇
15.500	0.813	594222	HS8	R	F	◇
15.500	0.875	**1350560**	**HDS1**	R	F	
15.500	0.875	1350954	HDSA2	RD	F	
15.500	1.000	**1350580**	**HDS1**	R	F	
15.500	1.000	**1350583**	**HDS1**	V	F	
15.500	1.000	**1350532**	**HDS2**	R	F	
15.500	1.000	1332-1532-64 HDSA2 RD	HDSA2	RD	F	
15.500	1.000	1350587	HS7	R	F	◇
15.752	1.000	**1350690**	**HDS1**	R	F	
METRIC Shaft Diameter – 343 mm (13.504")						
381	21	343X381X21 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 13.611" (345.72 mm)						
15.499	0.750	**556079**	**HDS1**	H	F	
INCH Shaft Diameter – 13.625" (346.08 mm)						
15.125	0.625	1363238	HS8	R	F	◇
15.125	0.625	1362248	HS8	V	F	◇
15.625	0.813	1363557	HS7	R	F	◇
16.000	1.000	1362718	HS8	R	F	◇
16.125	1.250	**1363790**	**HDS1**	R	F	
INCH Shaft Diameter – 13.688" (347.68 mm)						
15.188	1.000	**1369290**	**HDS1**	R	F	
INCH Shaft Diameter – 13.730" (348.74 mm)						
15.730	0.750	**1373519**	**HDS1**	V	F	
INCH Shaft Diameter – 13.750" (349.25 mm)						
15.000	0.750	**565618**	**HDS1**	R	F	
		SPECIAL CASE FOR VRING SURFACE				

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 13.750" (349.25 mm)						
15.000	0.750	**1375130**	**HDS1**	R	F	
15.000	0.750	**1375133**	**HDS2L08**	R	F	
15.250	0.625	**1375230**	**HDS1**	R	F	
15.250	0.625	**1375719**	**HDS7**	H	F	
15.250	0.688	**1375240**	**HDS1**	R	F	
15.250	0.688	**1375242**	**HDS2**	R	F	
15.250	0.688	**1375224**	**HDS2**	V	F	
15.250	0.750	**1375250**	**HDS1**	R	F	
15.500	0.750	**1375380**	**HDS1**	R	F	
15.500	0.750	**1375387**	**HDS1**	V	F	
15.500	0.750	**1375382**	**HDS2**	R	F	
15.500	0.750	**1375359**	**HDS7**	V	F	
15.500	0.875	1375418	HDSA1	VD	F	
15.508	0.750	**1375430**	**HDS1**	R	F	
15.750	0.625	**1375522**	**HDS2**	R	F	
15.750	0.750	**1375540**	**HDS1**	R	F	
15.750	0.750	**1375544**	**HDS2**	V	F	
15.750	0.813	**1375550**	**HDS1**	R	F	
15.750	0.813	**1375553**	**HDS2**	V	F	
15.750	0.813	1375557	HS7	R	F	◇
15.750	0.875	**1375560**	**HDS1**	R	F	
15.750	1.000	**1375542**	**HDS2**	R	F	
15.750	1.000	1375588	HS8	R	F	◇
METRIC Shaft Diameter – 350 mm (13.780")						
380	16	**350X380X16 HDS1 R**	**HDS1**	R	F	
380	16	**350X380X16 HDS2 R**	**HDS2**	R	F	
380	16	**350X380X16 HDS2 V**	**HDS2**	V	F	
390	18	**350X390X18 HDS1 D**	**HDS1**	D	F	
390	18	**350X390X18 HDS2 D**	**HDS2**	D	F	
390	18	**350X390X18 HDS2 V**	**HDS2**	V	F	
390	18	350X390X18 HS8 R	HS8	R	F	◇
390	20	**350X390X20 HSS5 R**	**HSS5**	R	F	◇
394	20	**350X394X20 HDS7 R**	**HDS7**	R	F	
394	20	**350X394X20 HDSF2 VT9**	**HDSF2**	VT	F	
400	17	**350X400X17 HDS1 R**	**HDS1**	R	F	
400	17	350X400X17 HS8 R	HS8	R	F	◇
400	25	**350X400X25 HDS2 H**	**HDS2**	H	F	
400	25	**350X400X25 HDS2 R1**	**HDS2**	R	F	
400	25	350X400X25 HS6 V	HS6	V	F	◇
400	25.40	350X400X25.4 HS5 R	HS5	R	F	◇
INCH Shaft Diameter – 13.813" (350.85 mm)						
15.750	0.750	594138	HS8	R	F	◇
16.000	1.000	**1381600**	**HDS1**	R	F	
INCH Shaft Diameter – 13.875" (352.43 mm)						
15.375	0.625	1387238	HS8	R	F	◇
15.375	0.750	1388257	HS7	R	F	◇
15.440	0.750	**1388300**	**HDS1**	R	F	
15.440	0.750	1384246	HS8	R	F	◇
INCH Shaft Diameter – 13.938" (354.03 mm)						
15.438	0.625	**1394230**	**HDS1**	R	F	
15.438	0.750	**1394250**	**HDS1**	R	F	
16.000	0.875	**1394600**	**HDS1**	R	F	
METRIC Shaft Diameter – 355 mm (13.976")						
393	18	**355X393X18 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 13.985" (355.22 mm)						
15.500	0.625	526447	HS4	R	F	◇
INCH Shaft Diameter – 14.000" (355.60 mm)						
15.000	0.500	1400018	HS8	R	F	◇
15.000	0.625	594326	HS8	V	F	◇
15.500	0.625	**1400230**	**HDS1**	R	F	
15.500	0.625	**1400232**	**HDS2**	R	F	

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 14.000" (355.60 mm)						
15.500	0.625	**1400234**	**HDS2**	V	F	
15.500	0.625	**1400235**	**HDS2L08**	R	F	
15.500	0.625	1400227	HS7	D	F	◇
15.500	0.625	1400237	HS7	R	F	◇
15.500	0.625	1400238	HS8	R	F	◇
15.500	0.688	**1400240**	**HDS1**	R	F	
15.500	0.688	**1400010**	**HDS1**	V	F	
15.500	0.688	**1400210**	**HDS7**	R	F	
15.500	0.750	**1400250**	**HDS1**	R	F	
15.500	0.750	**1400253**	**HDS1**	V	F	
15.500	0.750	1400257	HS7	R	F	◇
15.500	0.750	1400258	HS8	R	F	◇
15.500	0.750	594261	HS8	V	F	◇
15.500	0.906	526780	HDSA2	RD	F	
15.500	0.906	1400927	HDSA2	VD	F	
15.500	0.906	1400-1532-58 HDSA2 VD	HDSA2	VD	F	
15.500	1.000	1400925	HDSA1	RD	F	
15.500	1.000	1400248	HS8	R	F	◇
15.562	0.750	**1400300**	**HDS1**	R	F	
15.625	0.625	**1400314**	**HDS1**	V	F	
15.750	0.687	**1400362**	**HDS2**	R	F	
15.750	0.688	**1400370**	**HDS1**	R	F	
15.750	0.750	**1400380**	**HDS1**	R	F	
15.750	0.750	**1400382**	**HDS2**	R	F	
15.750	0.750	**1400383**	**HDS2**	V	F	
15.750	0.750	**1400384**	**HDS2L08**	R	F	
15.750	0.875	**1400410**	**HDS1**	R	F	
16.000	0.625	1400514	HS4	R	F	◇
16.000	0.625	1400528	HS8	R	F	◇
16.000	0.750	**1400540**	**HDS1**	R	F	
16.000	0.750	**1400543**	**HDS1**	V	F	
16.000	0.750	**1400545**	**HDS2L08**	R	F	
16.000	0.812	1400508	HS8	H	F	◇
16.000	0.813	**1400550**	**HDS1**	R	F	
16.000	0.813	**1400554**	**HDS1**	V	F	
16.000	0.813	**1400553**	**HDS2**	R	F	
16.000	0.813	1400557	HS7	R	F	◇
16.000	0.969	526467	HDSA2	RD	F	
16.000	1.000	**1400580**	**HDS1**	R	F	
16.000	1.000	**1400582**	**HDS2**	D	F	
16.000	1.000	**1400585**	**HDS2**	R	F	
16.000	1.000	**1400-1600-64 HDS7 R**	**HDS7**	R	F	
16.000	1.000	**1400957**	**HDSF1**	VT	F	
16.000	1.000	1400958	HDSA1	RD	F	
16.000	1.000	1400587	HS7	R	F	◇
16.000	1.000	1400588	HS8	R	F	◇
16.000	1.375	1400950	HDSA1	RD	F	
16.250	1.000	**1400680**	**HDS1**	R	F	
16.250	1.000	**1400683**	**HDS1**	V	F	
16.250	1.000	**1400669**	**HDS7**	V	F	
16.250	1.000	1400969	HDSA1	VD	F	
16.250	1.000	1400965	HDSA2	RD	F	
16.250	1.000	528307	HDSA2	VD	F	
16.500	1.000	**1400780**	**HDS1**	R	F	
INCH Shaft Diameter – 14.125" (358.78 mm)						
15.625	0.750	1413257	HS7	R	F	◇
16.745	0.875	**1413805**	**HDS2**	D	F	
METRIC Shaft Diameter – 360 mm (14.173")						
390	15.88	360X390X15.9 HS7 R	HS7	R	F	◇
390	15.90	**360X390X15.9 HDS2 R**	**HDS2**	R	F	
390	18	360X390X18 HS5 H	HS5	H	F	◇
392	20	**360X392X20 HDS1 R**	**HDS1**	R	F	
398.09	19.05	1417257	HS7	R	F	◇
398.09	19.05	1417258	HS8	R	F	◇
400	17	**360X400X17 HDS2 R**	**HDS2**	R	F	
400	17	**360X400X17 HDS2 R1**	**HDS2**	R	F	
400	18	**360X400X18 HDS1 R**	**HDS1**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 360 mm (14.173)						
400	18	**360X400X18 HDS1 V**	**HDS1**	V	F	
400	18	**360X400X18 HSS6 H**	**HSS6**	H	F	◇
400	18	**360X400X18 HSS8 H**	**HSS8**	H	F	◇
400	18	360X400X18 HS8 V	HS8	V	F	◇
400	20	**360X400X20 HDS1 H**	**HDS1**	H	F	
400	20	**360X400X20 HDS1 R**	**HDS1**	R	F	
400	20	**360X400X20 HDS1 V**	**HDS1**	V	F	
400	20	**360X400X20 HDS2 R**	**HDS2**	R	F	
400	20	**360X400X20 HDS2 R1**	**HDS2**	R	F	
400	20	**360X400X20 HDSH2 VT1**	**HDSH2**	VT	F	■
400	20	**360X400X20 HSS8 H**	**HSS8**	H	F	◇
400	20	360X400X20 HS7 R	HS7	R	F	◇
400	22	**360X400X22 HSS6 H**	**HSS6**	H	F	◇
400	25	**360X400X25 HDS2 R**	**HDS2**	R	F	
400	25	360X400X25 HDSA1 VD	HDSA1	VD	F	
404	20	**360X404X20 HDS7 R**	**HDS7**	R	F	
405	25	360X405X25 HS8 H	HS8	H	F	◇
420	25	**360X420X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 14.188" (360.38 mm)						
15.500	0.688	**1418120**	**HDS1**	D	F	
15.750	0.750	**1419300**	**HDS1**	R	F	
15.750	0.750	1418268	HS8	R	F	◇
16.500	0.875	**1419700**	**HDS1**	R	F	
INCH Shaft Diameter – 14.250" (361.95 mm)						
15.750	0.750	**1425248**	**HDS1**	H	F	
15.750	0.750	**1425250**	**HDS1**	R	F	
15.750	0.750	**1425252**	**HDS2**	R	F	
15.750	0.750	1425257	HS7	R	F	◇
15.750	0.750	1425258	HS8	R	F	◇
16.000	0.875	**1425410**	**HDS1**	R	F	
16.250	0.813	**1425550**	**HDS1**	R	F	
16.250	0.813	**1425552**	**HDS2**	R	F	
16.250	0.813	1425557	HS7	R	F	◇
16.250	0.875	**1425560**	**HDS1**	R	F	
16.250	1.000	**1425580**	**HDS1**	R	F	
16.250	1.000	**1425585**	**HDS2**	R	F	
16.250	1.000	1425950	HDSA1	RD	F	
16.250	1.000	1425587	HS7	R	F	◇
METRIC Shaft Diameter – 362 mm (14.252")						
402	18	362X402X18 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 14.325" (363.86 mm)						
16.000	0.688	**1432343**	**HDS2**	D	F	
INCH Shaft Diameter – 14.350" (364.49 mm)						
15.748	0.787	**1435172**	**HDS2**	R	F	
METRIC Shaft Diameter – 365 mm (14.370")						
400	17	**365X400X17 HDS1 R**	**HDS1**	R	F	
405	18	**365X405X18 HDS2 R**	**HDS2**	R	F	
405	18	365X405X18 HS8 R	HS8	R	F	◇
405	18	365X405X18 HS8 V	HS8	V	F	◇
INCH Shaft Diameter – 14.375" (365.13 mm)						
15.875	0.750	1438258	HS8	R	F	◇
16.000	0.688	**1438320**	**HDS1**	R	F	
16.000	0.688	**1438321**	**HDS2**	D	F	
16.000	0.688	**1438322**	**HDS2**	R	F	
16.000	0.688	1424-1600-44 HS5 R	HS5	R	F	◇
16.000	0.781	**1424-1600-50 HDS7L24 R**	**HDS7L24**	R	F	
16.000	0.782	**1424-1600-50 HDS7 R**	**HDS7**	R	F	
16.375	0.813	593978	HS5	R	F	◇

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 14.500" (368.30 mm)						
15.500	0.500	1450018	HS7	R	F	◇
15.750	0.750	**1450140**	**HDS1**	R	F	■
15.922	0.516	513154	HS6	R	F	◇
16.000	0.625	1450228	HS8	V	F	◇
16.000	0.688	**1450240**	**HDS1**	R	F	
16.000	0.688	**1450757**	**HDS1**	V	F	
16.000	0.688	**1450242**	**HDS2**	R	F	
16.000	0.688	**1432-1600-44 HDS2 V**	**HDS2**	V	F	
16.000	0.688	**1450244**	**HDS2L08**	R	F	
16.000	0.688	**1450220**	**HDS7**	R	F	
16.000	0.750	**1450250**	**HDS1**	R	F	■
16.000	0.750	**1450252**	**HDS2**	R	F	
16.000	0.750	1450257	HS7	R	F	◇
16.000	0.750	1450268	HS8	R	F	◇
16.000	0.906	526482	HDSA2	RD	F	
16.000	1.000	**1450290**	**HDS1**	R	F	
16.250	0.625	**1450360**	**HDS1**	R	F	
16.250	1.000	**1450420**	**HDS1**	R	F	
16.500	0.750	**1450540**	**HDS1**	R	F	
16.500	0.750	**1450542**	**HDS2**	R	F	
16.500	0.813	**1450550**	**HDS1**	R	F	
16.500	0.813	**1450553**	**HDS2**	D	F	
16.500	0.813	**1450559**	**HDS7**	R	F	
16.500	1.000	**1450580**	**HDS1**	R	F	
16.500	1.000	**1450583**	**HDS1**	V	F	
16.750	0.875	**1450660**	**HDS1**	R	F	
INCH Shaft Diameter – 14.563" (369.90 mm)						
16.000	0.625	**1456200**	**HDS1**	R	F	
16.000	0.625	593612	HS8	R	F	◇
METRIC Shaft Diameter – 370 mm (14.567")						
410	15	**370X410X15 HDS2 R**	**HDS2**	R	F	
410	16	**370X410X16 HDS1 R**	**HDS1**	R	F	
410	16	**370X410X16 HDS2 R**	**HDS2**	R	F	
410	16	370X410X16 HS6 V	HS6	V	F	◇
410	18	**370X410X18 HDS1 R**	**HDS1**	R	F	
414	9.50	1456368	HS8	H	F	◇
414	13	370X414X13 HS8 H	HS8	H	F	◇
414	16	**370X414X16 HDS7 R**	**HDS7**	R	F	
420	25	**370X420X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 14.625" (371.48 mm)						
15.625	0.500	1462018	HS8	R	F	◇
16.125	0.750	**1463250**	**HDS1**	R	F	
16.125	0.750	**1463252**	**HDS2**	R	F	
16.125	0.750	1463257	HS7	R	F	◇
16.250	0.750	**1462330**	**HDS1**	V	F	
16.500	0.875	**1463480**	**HDS1**	R	F	
16.625	0.875	**1463565**	**HDS2**	R	F	
17.000	0.875	**1463710**	**HDS1**	R	F	
INCH Shaft Diameter – 14.688" (373.08 mm)						
16.000	0.688	**1468129**	**HDS2**	D	F	
16.188	0.625	**1469230**	**HDS1**	R	F	
INCH Shaft Diameter – 14.750" (374.65 mm)						
16.250	0.625	**1475230**	**HDS1**	R	F	
16.250	0.625	1475238	HS8	R	F	◇
16.250	0.688	**1475240**	**HDS1**	R	F	
16.250	0.688	**1475244**	**HDS1L08**	V	F	
16.250	0.688	**1475243**	**HDS2**	D	F	
16.250	0.688	**596214**	**HDS7**	R	F	
16.250	0.750	**1475252**	**HDS2**	R	F	
16.250	0.750	**1475253**	**HDS2**	V	F	
16.250	0.750	1475257	HS7	R	F	◇
16.250	0.750	1475258	HS8	R	F	◇
16.250	0.750	1475218	HS8	V	F	◇
INCH Shaft Diameter (cont.) – 14.750" (374.65 mm)						
16.250	0.906	526466	HDSA2	RD	F	
16.250	0.906	529859	HDSA2	VD	F	
		W/LIGHT LOAD SPRING				
16.252	0.750	**1475302**	**HDS2**	R	F	
16.500	0.688	**1475372**	**HDS2**	R	F	
16.500	0.688	**1475383**	**HDS2**	V	F	
16.500	0.688	**1475374**	**HDS2L24**	R	F	
16.500	0.688	1475377	HS7	R	F	◇
16.500	0.688	1475378	HS8	R	F	◇
16.500	0.875	**1475411**	**HDS2**	R	F	
16.500	1.000	**1475420**	**HDS1**	R	F	
17.250	0.875	**1475760**	**HDS1**	R	F	
METRIC Shaft Diameter – 375 mm (14.764")						
420	18	**375X420X18 HDS1 R**	**HDS1**	R	F	
420	18	**375X420X18 HDS1 V**	**HDS1**	V	F	
INCH Shaft Diameter – 14.875" (377.83 mm)						
16.375	0.750	**1488252**	**HDS2**	R	F	
16.500	0.750	**1488330**	**HDS1**	R	F	
16.500	0.750	**1487337**	**HDS1**	V	F	
16.500	0.750	**1488332**	**HDS2**	R	F	
16.750	0.875	**1488480**	**HDS1**	R	F	
16.875	0.813	1488557	HS7	R	F	◇
16.875	1.000	1488587	HS7	R	F	◇
INCH Shaft Diameter – 14.906" (378.61 mm)						
17.000	0.875	**1491600**	**HDS1**	R	F	
17.000	0.875	**1491603**	**HDS2**	R	F	
INCH Shaft Diameter – 14.938" (379.43 mm)						
16.438	0.750	1494257	HS7	R	F	◇
16.500	0.688	1493258	HS8	R	F	◇
METRIC Shaft Diameter – 380 mm (14.961")						
418	19	380X418X19 HS7 R	HS7	R	F	◇
418	19	380X418X19 HS8 R	HS8	R	F	◇
420	16	**380X420X16 HDS1 R**	**HDS1**	R	F	
420	18	**380X420X18 HDS2 V**	**HDS2**	V	F	
420	20	**380X420X20 HDS1 R**	**HDS1**	R	F	
420	20	**380X420X20 HDS2 D**	**HDS2**	D	F	
420	20	**380X420X20 HDS2 R**	**HDS2**	R	F	
420	20	**380X420X20 HDS2 V**	**HDS2**	V	F	
420	20	380X420X20 HS7 R	HS7	R	F	◇
420	20	380X420X20 HS8 R	HS8	R	F	◇
420	20	380X420X20 HS8 V	HS8	V	F	◇
420	25	380X420X25 HS8 V	HS8	V	F	◇
424	20	**380X424X20 HSS4 H**	**HSS4**	H	F	◇
424	20	1496384	HS8	R	F	◇
424	20	380X424X20 HS8 R	HS8	R	F	◇
425	20	**380X425X20 HDS2 R**	**HDS2**	R	F	
430	19	**380X430X19 HDS2 R**	**HDS2**	R	F	
430	20	380X430X20 HS8 R	HS8	R	F	◇
440	25	**380X440X25 HDS1 R**	**HDS1**	R	F	
440	25	**380X440X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 15.000" (381.00 mm)						
16.000	0.500	1500017	HS7	R	F	◇
16.000	0.500	1500018	HS8	R	F	◇
16.500	0.688	**565619**	**HDS1**	R	F	
		SPECIAL CASE FOR VRING SURFACE				
16.500	0.688	**1500240**	**HDS1**	R	F	
16.500	0.688	**1500244**	**HDS2**	D	F	
16.500	0.688	**1500245**	**HDS2**	R	F	
16.500	0.688	**1500243**	**HDS2**	V	F	
16.500	0.688	529889	HS8	R	F	◇
16.500	0.734	511156	HS6	R	F	◇
16.500	0.750	**1500252**	**HDS1**	D	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 15.000" (381.00 mm)						
16.500	0.750	**1500250**	**HDS1**	R	F	
16.500	0.750	**1500253**	**HDS1**	V	F	
16.500	0.750	**1500222**	**HDS2**	R	F	
16.500	0.750	**1500254**	**HDS2**	V	F	
16.500	0.750	1500257	HS7	R	F	◇
16.500	0.750	1500258	HS8	R	F	◇
16.500	1.000	**1500292**	**HDS2**	R	F	
16.750	0.750	**1500380**	**HDS1**	R	F	
16.750	0.875	**1500410**	**HDS1**	R	F	
16.882	0.855	593462	HS8	R	F	◇
17.000	0.625	1500528	HS8	R	F	◇
17.000	0.709	**1500520**	**HDS2**	R	F	
17.000	0.750	**1500540**	**HDS1**	R	F	
17.000	0.750	**1500543**	**HDS2**	R	F	
17.000	0.812	**1500510**	**HDS7**	R	F	
17.000	0.812	**1500959**	**HDSH7**	HT	F	
17.000	0.813	**1500550**	**HDS1**	R	F	
17.000	0.813	**1500552**	**HDS2**	R	F	
17.000	0.813	**1500553**	**HDS2**	V	F	
17.000	0.813	1500557	HS7	R	F	◇
17.000	0.813	1500558	HS8	R	F	◇
17.000	0.875	**1500560**	**HDS1**	R	F	
17.000	0.875	**1500564**	**HDS1**	V	F	
17.000	0.875	**1500563**	**HDS2**	R	F	
17.000	1.000	**1500580**	**HDS1**	R	F	
17.000	1.250	1500950	HDSA1	RD	F	
17.500	0.875	**1500760**	**HDS1**	R	F	
17.500	0.938	**1500770**	**HDS1**	R	F	
17.500	0.938	**1500772**	**HDS2**	R	F	
17.500	1.000	**1500780**	**HDS1**	R	F	
17.500	1.000	1500973	HDSA1	RD	F	
17.500	1.250	**1500800**	**HDS1**	R	F	
INCH Shaft Diameter – 15.100" (383.54 mm)						
17.100	1.000	**1510522**	**HDS1**	V	F	
INCH Shaft Diameter – 15.125" (384.18 mm)						
16.750	0.750	**1513330**	**HDS1**	R	F	
METRIC Shaft Diameter – 385 mm (15.157")						
421	16	**385X421X16 HDS2 R**	**HDS2**	R	F	
432	15	**385X432X15 HDS2 D**	**HDS2**	D	F	
INCH Shaft Diameter – 15.188" (385.78 m)						
16.813	0.750	**1512-1652-48 HDS1 V**	**HDS1**	V	F	
16.813	0.750	**1512-1652-48 HDS7 H**	**HDS7**	H	F	
INCH Shaft Diameter – 15.250" (387.35 mm)						
16.625	0.500	1525158	HS8	R	F	◇
16.625	0.531	1525288	HS8	D	F	◇
16.625	0.550	1525178	HS8	V	F	◇
16.625	0.593	1525168	HS8	R	F	◇
16.750	0.688	**1525228**	**HDS1**	H	F	
16.750	0.688	**1525240**	**HDS1**	R	F	
16.750	0.688	**1525242**	**HDS2**	R	F	
16.750	0.750	**1525250**	**HDS1**	R	F	
16.750	0.750	**1525252**	**HDS2**	R	F	
16.750	0.750	**1525253**	**HDS2**	V	F	
16.750	0.750	1525257	HS7	R	F	◇
16.750	0.875	1525278	HS8	R	F	◇
16.754	0.750	**1525220**	**HDS1**	R	F	
17.250	0.625	**1525525**	**HDS2L32**	R	F	
17.250	0.625	**1525511**	**HDS7**	R	F	
17.250	0.750	**1525542**	**HDS2**	R	F	
17.250	0.750	**1525528**	**HDS7**	R	F	
17.250	0.813	**1525550**	**HDS1**	R	F	
17.250	0.813	**1525554**	**HDS2**	R	F	
17.250	0.813	1525557	HS7	R	F	◇

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 15.313" (388.95 mm)						
17.313	0.688	**1531534**	**HDS1L08**	R	F	
17.313	0.750	**1531541**	**HDS1L08**	R	F	
METRIC Shaft Diameter – 390 mm (15.354")						
430	16	**390X430X16 HDS1 R**	**HDS1**	R	F	
430	16	**390X430X16 HDS2 R**	**HDS2**	R	F	
430	18	**390X430X18 HDS2 R**	**HDS2**	R	F	
430	18	**390X430X18 HDS2 V**	**HDS2**	V	F	
430	19	390X430X19 HS8 V	HS8	V	F	◇
430	19.05	1535264	HS4	R	F	◇
430	20	**390X430X20 HDS2 D**	**HDS2**	D	F	
430	20	**390X430X20 HDS2 V**	**HDS2**	V	F	
430	20	**390X430X20 HSS5 R**	**HSS5**	R	F	◇
434	18	**390X434X18 HDS1 R**	**HDS1**	R	F	
434	20	**390X434X20 HDS2 R**	**HDS2**	R	F	
434	20	390X434X20 HS5 R	HS5	R	F	◇
434	20	390X434X20 HS5 V	HS5	V	F	◇
434	20	390X434X20 HS8 R	HS8	R	F	◇
434	22	390X434X22 HDSA2 VD	HDSA2	VD	F	
450	25	**390X450X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 15.375" (390.53 mm)						
16.875	0.750	1538257	HS7	R	F	◇
17.250	0.750	**1538470**	**HDS1**	R	F	
17.375	0.813	**1538550**	**HDS1**	R	F	
17.375	0.813	**1538552**	**HDS2**	R	F	
METRIC Shaft Diameter – 392 mm (15.433")						
432	18	392X432X18 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 15.438" (392.13 mm)						
16.938	0.750	1544219	HS8	D	F	◇
METRIC Shaft Diameter – 393 mm (15.472")						
444.55	18	**1547530**	**HDS1**	R	F	
INCH Shaft Diameter – 15.500" (393.70 mm)						
16.500	0.500	1550028	HS8	D	F	◇
16.500	0.500	1550018	HS8	R	F	◇
16.875	0.625	**1550160**	**HDS1**	R	F	
16.875	0.625	**1550162**	**HDS2**	R	F	
16.875	0.625	**1550163**	**HDS2**	V	F	
17.000	0.750	**1550250**	**HDS1**	R	F	
17.000	0.750	**1550252**	**HDS1L08**	R	F	
17.000	0.750	**1550254**	**HDS1L12**	V	F	
17.000	0.750	**1550284**	**HDS2**	V	F	
17.000	0.750	**1550255**	**HDS2L08**	R	F	
17.000	0.750	1550257	HS7	R	F	◇
17.000	0.750	594103	HS7	V	F	◇
17.000	0.750	1550258	HS8	R	F	◇
17.382	0.871	592900	HS8	R	F	◇
17.500	0.750	**1550540**	**HDS1**	R	F	
17.500	0.750	**1550542**	**HDS2**	R	F	
17.500	0.813	**1550550**	**HDS1**	R	F	
17.500	0.813	**1550554**	**HDS1**	V	F	
17.500	0.813	**1550553**	**HDS2**	R	F	
17.500	0.813	**1550565**	**HDS2L16**	R	F	
17.500	0.813	**1550575**	**HDS2L24**	R	F	
17.500	0.813	**1550559**	**HDS7**	R	F	
17.500	0.813	**1550551**	**HDS7L16**	R	F	
17.500	0.813	1550557	HS7	R	F	◇
17.500	0.875	**1550560**	**HDS1**	R	F	
17.500	1.000	**1550580**	**HDS1**	R	F	
17.500	1.000	1550587	HS7	R	F	◇
17.500	1.000	1550528	HS8	R	F	◇
17.500	1.031	526475	HDSA2	RD	F	
17.500	1.031	529858	HDSA2	VD	F	
17.750	0.875	**1550660**	**HDS1**	R	F	

Seal tech: W = SKF Wave E = SKF Edge F = SKF Flex S = standard oil G = grease **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 15.500" (393.70 mm)						
18.000	1.000	**1550792**	**HDS2**	D	F	
18.000	1.000	**1550782**	**HDS2**	R	F	
METRIC Shaft Diameter – 395 mm (15.551")						
430	18	**395X430X18 HDS2 H**	**HDS2**	H	F	
430	18	**395X430X18 HDS2 R2**	**HDS2**	R	F	
430	20	**395X430X20 HDSF2 VT**	**HDSF2**	VT	F	
INCH Shaft Diameter – 15.625" (396.88 mm)						
17.125	0.750	**1563250**	**HDS1**	R	F	
17.625	0.875	**1563560**	**HDS1**	R	F	
17.625	1.000	1563588	HS8	R	F	◇
18.000	0.875	**1563710**	**HDS1**	R	F	
INCH Shaft Diameter – 15.688" (398.48 mm)						
17.000	0.750	1568157	HS7	V	F	◇
METRIC Shaft Diameter – 400 mm (15.748")						
430	20	**400X430X20 HDS2 R**	**HDS2**	R	F	
440	18	**400X440X18 HDS1 R**	**HDS1**	R	F	
440	20	**400X440X20 HDS1 R**	**HDS1**	R	F	
440	20	**400X440X20 HDS1 V**	**HDS1**	V	F	
440	20	**400X440X20 HDS2 R**	**HDS2**	R	F	
440	20	**400X440X20 HDS2 V**	**HDS2**	V	F	
440	20	400X440X20 HS7 R	HS7	R	F	◇
444	13.50	400X444X13.5 HS8 R	HS8	R	F	◇
444	13.50	400X444X13.5 HS8 V	HS8	V	F	◇
444	20	**400X444X20 HDS1 R**	**HDS1**	R	F	
444	20	**400X444X20 HDS2 R**	**HDS2**	R	F	
444	20	**400X444X20 HDS7 R**	**HDS7**	R	F	
444	20	400X444X20 HS5 R	HS5	R	F	◇
450	17.50	**400X450X17.5 HDS2 R**	**HDS2**	R	F	
450	20	**400X450X20 HDS2 R**	**HDS2**	R	F	
450	25	**400X450X25 HDS1 R**	**HDS1**	R	F	
450	25	**400X450X25 HDS7 R**	**HDS7**	R	F	
450	25	**400X450X25 HDSF2 RT**	**HDSF2**	RT	F	
450	25	**400X450X25 HSS7 R**	**HSS7**	R	F	◇
450	25	400X450X25 HS5 R	HS5	R	F	◇
450	25	400X450X25 HS8 R	HS8	R	F	◇
460	25	**400X460X25 HDS1 R**	**HDS1**	R	F	
460	28	400X460X28 HDSA2 RD	HDSA2	RD	F	
INCH Shaft Diameter – 15.750" (400.05 mm)						
17.000	0.625	**1575110**	**HDS1**	R	F	
17.250	0.688	**1575240**	**HDS1**	R	F	
17.250	0.688	**1575244**	**HDS1**	V	F	
17.250	0.688	**1575243**	**HDS2**	D	F	
17.250	0.688	**1575245**	**HDS2**	R	F	
17.250	0.688	**1575283**	**HDS2**	V	F	
17.250	0.688	**1575246**	**HDS2L16**	R	F	
17.250	0.688	1575248	HS8	R	F	◇
17.250	0.750	**521114**	**HDS1L12**	R	F	■
17.250	0.750	**1575253**	**HDS2**	R	F	
17.250	0.750	**1575210**	**HDS7**	H	F	
17.500	0.688	**1575370**	**HDS1**	R	F	
17.750	0.875	**1575560**	**HDS1**	R	F	
17.750	1.000	**1575580**	**HDS1**	R	F	
17.750	1.000	1575587	HS7	R	F	◇
17.750	1.250	1575910	HDSA1	RD	F	
18.000	0.875	**1575660**	**HDS1**	R	F	
INCH Shaft Diameter – 15.875" (403.23 mm)						
17.500	0.750	**1588332**	**HDS2**	D	F	
17.750	0.875	**1588480**	**HDS1**	R	F	
17.875	0.813	**1588550**	**HDS1**	R	F	
17.875	0.875	**1588560**	**HDS1**	R	F	
18.000	0.875	**1588620**	**HDS1**	R	F	
INCH Shaft Diameter – 15.938" (404.83 mm)						
17.313	0.625	**1594160**	**HDS1**	R	F	
INCH Shaft Diameter – 16.000" (406.40 mm)						
17.000	0.350	511202	HD1	D	G	
17.000	0.500	1600018	HS8	R	F	◇
17.500	0.625	**1600211**	**HDS7**	H	F	
17.500	0.625	1600238	HS8	R	F	◇
17.500	0.688	**1600240**	**HDS1**	R	F	
17.500	0.688	**1600283**	**HDS1**	V	F	
17.500	0.688	**1600244**	**HDS2**	D	F	
17.500	0.688	**1600242**	**HDS2**	R	F	
17.500	0.734	510871	HS6	R	F	◇
17.500	0.750	**1600250**	**HDS1**	R	F	
17.500	0.750	**1600255**	**HDS2**	R	F	
17.500	0.750	**1600-1732-48 HDS2 H**	**HDS2**	H	F	
17.500	0.750	1600257	HS7	R	F	◇
17.500	0.750	1600258	HS8	R	F	◇
17.500	0.787	**1600928**	**HDSH2**	RT	F	◤
17.500	0.875	1600926	HDSA2	RD	F	
17.500	1.000	**1600290**	**HDS1**	R	F	
17.500	1.000	**1600293**	**HDS1**	V	F	
17.988	0.812	**1600229**	**HDS7L24**	D	F	■
18.000	0.750	**1600548**	**HDS1**	R	F	
18.000	0.750	**1600549**	**HDS2**	R	F	
18.000	0.750	**1600540**	**HDS7**	R	F	
18.000	0.750	**596267**	**HDS7L20**	R	F	
18.000	0.750	1600578	HS8	R	F	◇
18.000	0.750	1600518	HS8	V	F	◇
18.000	0.812	**1600561**	**HDS7L08**	R	F	
18.000	0.813	**1600550**	**HDS1**	R	F	
18.000	0.813	**1600554**	**HDS1L12**	R	F	
18.000	0.813	**1600555**	**HDS2**	R	F	
18.000	0.813	**1600574**	**HDS2**	V	F	
18.000	0.813	**1600556**	**HDS2L16**	R	F	
18.000	0.813	**1600519**	**HDS7**	H	F	
18.000	0.813	**1600529**	**HDS7**	R	F	
18.000	0.813	**1600520**	**HDS7L16**	H	F	
18.000	0.813	**1600528**	**HDS7L16**	R	F	
18.000	0.813	1600558	HS8	R	F	◇
18.000	0.875	**1600560**	**HDS1**	R	F	
18.000	0.875	**1600-1800-56 HDSF2 HT**	**HDSF2**	HT	F	
18.000	0.875	1600526	HS6	H	F	◇
18.000	0.875	1600538	HS8	D	F	◇
18.000	0.938	1600567	HS7	R	F	◇
18.000	1.000	**1600580**	**HDS1**	R	F	
18.000	1.000	**1600583**	**HDS1**	V	F	
18.000	1.000	**1600585**	**HDS2**	R	F	
18.000	1.000	**1600-1800-64 HDS7 R**	**HDS7**	R	F	
18.000	1.000	1600955	HDSA2	RD	F	
18.000	1.000	1600587	HS7	R	F	◇
18.000	1.250	1600950	HDSA1	RD	F	
18.250	0.750	**1600650**	**HDS1**	R	F	
18.250	0.875	**1600660**	**HDS1**	R	F	
18.500	0.811	**1600750**	**HDS1**	R	F	
METRIC Shaft Diameter – 410 mm (16.142")						
450	17.50	**410X450X17.5 HDS1 V**	**HDS1**	V	F	
450	20	**410X450X20 HDS2 R**	**HDS2**	R	F	
454	20	410X454X20 HS5 R	HS5	R	F	◇
460	22	**410X460X22 HDS2 R**	**HDS2**	R	F	
460	25	410X460X25 HS6 V	HS6	V	F	◇
470	16	410X470X16 HS8 R	HS8	R	F	◇
470	25	**410X470X25 HDS1 R**	**HDS1**	R	F	
470	25	**410X470X25 HDS1 R1**	**HDS1**	R	F	
INCH Shaft Diameter – 16.188" (411.18 mm)						
18.000	0.750	1618458	HS8	V	F	◇

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 16.250" (412.75 mm)						
17.750	0.500	1625248	HS8	R	F	◇
17.750	0.625	**1625230**	**HDS1**	R	F	
17.750	0.625	1625237	HS7	R	F	◇
17.750	0.688	**1625240**	**HDS1**	R	F	
17.750	0.688	**1625242**	**HDS1L08**	R	F	
17.750	0.688	**1625243**	**HDS2**	R	F	
17.750	0.688	**1625210**	**HDS7**	R	F	
17.750	0.688	**1625249**	**HDS7L16**	R	F	
17.750	0.750	**1625250**	**HDS1**	R	F	
17.750	0.750	1625258	HS8	R	F	◇
18.000	0.625	**1625362**	**HDS2**	R	F	
18.000	0.625	**1625364**	**HDS2L04**	R	F	
18.000	0.750	**1625380**	**HDS1**	R	F	
18.000	0.750	**1625383**	**HDS1**	V	F	
18.000	0.844	526483	HDSA2	RD	F	
18.000	0.844	530060	HDSA2	VD	F	
		W/LIGHT LOAD SPRING				
18.000	1.000	**1625420**	**HDS1**	R	F	
18.000	1.000	593024	HS8	R	F	◇
METRIC Shaft Diameter – 415 mm (16.339")						
465	20	**415X465X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 16.375" (415.93 mm)						
17.562	1.000	1637901	HDSA1	RD	F	
18.375	1.000	**1638580**	**HDS1**	R	F	
METRIC Shaft Diameter – 418 mm (16.457")						
455	16	**418X455X16 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 16.500" (419.10 mm)						
17.750	0.625	**1650132**	**HDS1**	R	F	
17.750	0.750	**1650130**	**HDS1**	R	F	
17.750	0.750	1650138	HS8	R	F	◇
18.000	0.625	**1656199**	**HDS7**	V	F	
18.000	0.750	**1650250**	**HDS1**	R	F	
18.000	0.750	**1650252**	**HDS2**	R	F	
18.000	0.750	**1650202**	**HDS2**	V	F	
18.000	0.750	**1650255**	**HDS2L24**	R	F	
18.000	0.750	**1650280**	**HDS7**	R	F	
18.000	0.750	1650258	HS8	R	F	◇
18.000	0.847	527496	HS8	R	F	◇
18.000	1.000	**1650290**	**HDS1**	R	F	
18.250	0.750	**1650380**	**HDS1**	R	F	
18.250	0.787	**1632-1816-50 HDSH7 RT**	**HDSH7**	RT	F	
18.250	0.813	**1650390**	**HDS1**	R	F	
18.500	0.750	**1650540**	**HDS1**	R	F	
18.500	0.813	**1650550**	**HDS1**	R	F	
18.500	0.813	**1650573**	**HDS1**	V	F	
18.500	0.813	**1650553**	**HDS2**	R	F	
18.500	0.813	**1650552**	**HDS2**	V	F	
18.500	0.813	**1632-1832-52 HDS2 H**	**HDS2**	H	F	
18.500	0.813	**1650555**	**HDS2L16**	R	F	
18.500	0.813	**1632-1832-52 HDS7 H**	**HDS7**	H	F	
18.500	0.813	1650557	HS7	R	F	◇
18.500	1.000	**1650580**	**HDS1**	R	F	
18.500	1.000	1650579	HS8	D	F	◇
19.000	0.750	**1650770**	**HDS1**	R	F	
19.000	0.874	**1650769**	**HDS2L32**	D	F	
19.000	0.875	**1650660**	**HDS1**	R	F	
19.000	1.000	**1650780**	**HDS1**	R	F	
METRIC Shaft Diameter – 420 mm (16.535")						
460	20	**420X460X20 HDS1 R**	**HDS1**	R	F	
460	20	**420X460X20 HDS1 V**	**HDS1**	V	F	
460	20	**1653282**	**HDS2**	D	F	
460	20	**420X460X20 HDS2 R**	**HDS2**	R	F	
460	20	**420X460X20 HDS2 V**	**HDS2**	V	F	
METRIC Shaft Diameter (cont.) – 420 mm (16.535")						
460	20	**420X460X20 HDS7 R**	**HDS7**	R	F	
460	20	420X460X20 HS7 R	HS7	R	F	◇
464	20	**420X464X20 HDS2 R**	**HDS2**	R	F	
470	22	**420X470X22 HDS1 R1**	**HDS1**	R	F	
480	25	**420X480X25 HDS1 R**	**HDS1**	R	F	
480	25	**420X480X25 HDS2 V**	**HDS2**	V	F	
480	25	**420X480X25 HDSH2 VT1**	**HDSH2**	VT	F	
480	28	**420X480X28 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter – 425 mm (16.732")						
465	20	**425X465X20 HDSF2 VT1**	**HDSF2**	VT	F	
465	20	**425X465X20 HDSH2 VT**	**HDSH2**	VT	F	
INCH Shaft Diameter – 16.750" (425.45 mm)						
18.156	0.766	593425	HS8	R	F	◇
18.250	0.688	**1675240**	**HDS1**	R	F	
18.250	0.688	**1675242**	**HDS2**	R	F	
18.250	0.750	1675257	HS7	R	F	◇
18.250	0.750	1675258	HS8	R	F	◇
18.500	0.875	**1675410**	**HDS1**	R	F	
18.625	1.000	1648-1840-64 HS8 R	HS8	R	F	◇
18.626	0.813	596027	HS8	R	F	◇
18.632	0.855	530546	HS8	R	F	◇
18.750	0.875	**1675510**	**HDS2**	R	F	
19.250	1.000	**526650**	**HDS1**	R	F	
INCH Shaft Diameter – 16.875" (428.63 mm)						
18.375	0.500	1688217	HS7	R	F	◇
18.875	0.813	1688557	HS7	R	F	◇
METRIC Shaft Diameter – 430 mm (16.929")						
470	20	**430X470X20 HDS7 R1**	**HDS7**	R	F	
480	16	**430X480X16 HDS1 R**	**HDS1**	R	F	
480	16	**430X480X16 HDS2 R**	**HDS2**	R	F	
480	18	**430X480X18 HDS2 R**	**HDS2**	R	F	
480	22	**430X480X22 HDS1 V**	**HDS1**	V	F	
480	25	**430X480X25 HDS2 R**	**HDS2**	R	F	
480	25	**430X480X25 HDS2 V**	**HDS2**	V	F	
490	25	**430X490X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 16.938" (430.23 mm)						
19.291	0.906	**1694725**	**HDS2L04**	R	F	
INCH Shaft Diameter – 17.000" (431.80 mm)						
18.250	0.625	**1700110**	**HDS1**	R	F	
18.500	0.625	**1700232**	**HDS2**	R	F	
18.500	0.625	**1700202**	**HDS2**	V	F	
18.500	0.625	**1700280**	**HDS7**	R	F	
18.500	0.625	1700237	HS7	R	F	◇
18.500	0.625	1700238	HS8	R	F	◇
18.500	0.625	1700228	HS8	V	F	◇
18.500	0.688	**1700240**	**HDS1**	R	F	
18.500	0.688	**1700283**	**HDS1**	V	F	
18.500	0.688	**1700242**	**HDS1L08**	R	F	
18.500	0.688	**1700245**	**HDS2**	R	F	
18.500	0.688	**1700243**	**HDS2**	V	F	
18.500	0.688	**1700220**	**HDS7**	R	F	
18.500	0.750	**1700250**	**HDS1**	R	F	
18.500	0.750	**1700253**	**HDS1**	V	F	
18.500	0.750	**1700251**	**HDS2**	D	F	
18.500	0.750	**1700212**	**HDS2L32**	V	F	
18.500	0.750	1700257	HS7	R	F	◇
19.000	0.625	**1700528**	**HDS2**	D	F	
19.000	0.750	**1700540**	**HDS1**	R	F	
19.000	0.750	**1700541**	**HDS2**	R	F	
19.000	0.813	**1700550**	**HDS1**	R	F	
19.000	0.813	**1700553**	**HDS1**	V	F	
19.000	0.813	**1700552**	**HDS2**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 17.000" (431.80 mm)						
19.000	0.813	**1700573**	**HDS2**	V	F	
19.000	0.813	**1700579**	**HDS7**	R	F	
19.000	0.813	1700576	HS6	D	F	◇
19.000	0.813	1700557	HS7	R	F	◇
19.000	0.813	1700558	HS8	R	F	◇
19.000	0.875	**1700560**	**HDS1**	R	F	
19.000	0.906	**1700565**	**HDS2L04**	D	F	
19.000	1.000	**1700585**	**HDS1**	D	F	
19.000	1.000	**1700580**	**HDS1**	R	F	
19.000	1.000	**1700584**	**HDS2**	D	F	
19.000	1.250	1700950	HDSA1	RD	F	
19.250	1.000	**1700680**	**HDS1**	R	F	
METRIC Shaft Diameter – 435 mm (17.126")						
475	20	**435X475X20 HDS1 R**	**HDS1**	R	F	
485	22	**435X485X22 HSS5 R**	**HSS5**	R	F	◇
INCH Shaft Diameter – 17.250" (438.15 mm)						
18.750	0.625	**1725230**	**HDS1**	R	F	■
18.750	0.750	**1725250**	**HDS1**	R	F	
18.750	0.750	**1725255**	**HDS2**	R	F	
18.750	0.750	1725257	HS7	R	F	◇
18.750	0.750	1725258	HS8	R	F	◇
19.250	0.875	**1725560**	**HDS1**	R	F	
19.250	0.938	**1725570**	**HDS1**	R	F	
19.250	1.000	**1725580**	**HDS1**	R	F	
19.250	1.000	1725587	HS7	R	F	◇
19.500	0.875	**1725660**	**HDS1**	R	F	
METRIC Shaft Diameter – 440 mm (17.323")						
470	20	**440X470X20 HDS1 R**	**HDS1**	R	F	
472	16	440X472X16 HS8 R	HS8	R	F	◇
480	20	**440X480X20 HDS1 R**	**HDS1**	R	F	
480	20	**440X480X20 HDS1 V**	**HDS1**	V	F	
480	20	**440X480X20 HDS7 R**	**HDS7**	R	F	
480	20	440X480X20 HS4 R	HS4	R	F	◇
480	20	440X480X20 HS8 R	HS8	R	F	◇
480	20	440X480X20 HS8 V	HS8	V	F	◇
490	20	**440X490X20 HDS1 R**	**HDS1**	R	F	
490	20	440X490X20 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 17.375" (441.33 mm)						
18.875	0.750	**1737219**	**HDS7**	R	F	
INCH Shaft Diameter – 17.438" (442.93 mm)						
18.750	0.750	**1743182**	**HDS2**	R	F	
INCH Shaft Diameter – 17.500" (444.50 mm)						
18.500	0.500	1750017	HS7	R	F	◇
18.898	0.709	**1750172**	**HDSF2**	VU	F	
19.000	0.625	**1750230**	**HDS1**	R	F	
19.000	0.688	**1750240**	**HDS1**	R	F	
19.000	0.688	**1750245**	**HDS2**	R	F	
19.000	0.688	**1750244**	**HDS2**	V	F	
19.000	0.688	**1750221**	**HDS7**	R	F	
19.000	0.750	**1750251**	**HDS1**	D	F	
19.000	0.750	**1750250**	**HDS1**	R	F	
19.000	0.750	**1750254**	**HDS2**	V	F	
19.000	0.750	1750259	HS8	D	F	◇
19.250	0.625	1750368	HS8	R	F	◇
19.250	0.688	**1750370**	**HDS1**	R	F	
19.250	0.688	**1750372**	**HDS2**	R	F	
19.250	1.000	**1750420**	**HDS1**	R	F	
19.291	0.906	**1750422**	**HDS2**	R	F	
19.500	0.688	**1750530**	**HDS1**	R	F	
19.500	0.688	**1750533**	**HDS2**	D	F	
19.500	0.688	**1750534**	**HDS2L08**	R	F	
19.500	0.688	1750538	HS8	R	F	◇
INCH Shaft Diameter (cont.) – 17.500" (444.50 mm)						
19.500	0.750	**1750529**	**HDS7**	H	F	
19.500	0.875	1750528	HS8	R	F	◇
19.500	1.000	**1750580**	**HDS1**	R	F	
19.500	1.000	1750587	HS7	R	F	◇
19.750	0.812	**1750662**	**HDS2**	R	F	
19.750	0.813	1750667	HS7	R	F	◇
20.000	1.000	**1750780**	**HDS1**	R	F	
METRIC Shaft Diameter – 445 mm (17.520")						
485	20	**445X485X20 HDS1 R**	**HDS1**	R	F	
485	20	**445X485X20 HDS7 R1**	**HDS7**	R	F	
INCH Shaft Diameter – 17.531" (445.29 mm)						
19.125	0.719	**1753230**	**HDS1**	V	F	
INCH Shaft Diameter – 17.625" (447.68 mm)						
19.125	0.750	**1763250**	**HDS1**	R	F	
19.125	0.750	**1763217**	**HDS1**	V	F	
19.250	0.688	**1763320**	**HDS1**	R	F	
19.250	0.688	**1762332**	**HDS2**	R	F	
19.375	0.750	**1763380**	**HDS1**	R	F	
19.375	0.875	**1763412**	**HDS2**	R	F	
19.625	0.813	**1763550**	**HDS1**	R	F	
METRIC Shaft Diameter – 448 mm (17.638")						
480	16	**448X480X16 HDS2 R**	**HDS2**	R	F	
METRIC Shaft Diameter – 450 mm (17.717")						
490	20	**450X490X20 HDS1 R**	**HDS1**	R	F	
500	20	**450X500X20 HDS1 R**	**HDS1**	R	F	
500	24	**450X500X24 HDS1 V**	**HDS1**	V	F	
500	25	450X500X25 HS8 R	HS8	R	F	◇
510	25	**450X510X25 HDS2 R1**	**HDS2**	R	F	
510	25	**450X510X25 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 17.750" (450.85 mm)						
18.750	0.500	1775017	HS7	R	F	◇
19.250	0.750	1775257	HS7	R	F	◇
19.750	0.750	**1775540**	**HDS1**	R	F	
19.750	0.813	**1775550**	**HDS1**	R	F	
19.750	0.813	1775557	HS7	R	F	◇
19.750	0.813	1775518	HS8	R	F	◇
19.750	1.000	**1775580**	**HDS1**	R	F	
INCH Shaft Diameter – 17.818" (452.58 mm)						
19.750	0.750	**1781502**	**HDS2**	R	F	
INCH Shaft Diameter – 17.874" (454.00 mm)						
19.874	0.702	**1787519**	**HDS7L08**	R	F	
19.874	0.844	**1787520**	**HDS7**	R	F	
INCH Shaft Diameter – 17.875" (454.03 mm)						
19.500	0.688	**1788322**	**HDS2**	D	F	
19.875	0.750	**1788540**	**HDS1**	R	F	
19.875	0.750	**1787540**	**HDS7**	R	F	
19.875	0.813	**1788550**	**HDS1**	R	F	
19.875	0.813	**1788552**	**HDS2**	R	F	
INCH Shaft Diameter – 17.938" (455.63 mm)						
19.750	1.000	**1793442**	**HDS2**	R	F	
INCH Shaft Diameter – 18.000" (457.20 mm)						
19.000	0.500	1800018	HS8	R	F	◇
19.375	0.625	593507	HS8	R	F	◇
19.500	0.625	**1800242**	**HDS2**	V	F	
19.500	0.687	**1800224**	**HDS2**	V	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 18.000" (457.20 mm)						
19.500	0.688	**1800240**	**HDS1**	R	F	
19.500	0.688	**1800246**	**HDS2**	D	F	
19.500	0.688	**1800245**	**HDS2**	R	F	
19.500	0.688	**1800-1932-44 HDS7 H**	**HDS7**	H	F	
19.500	0.688	1800218	HS8	R	F	◇
19.500	0.750	**1800250**	**HDS1**	R	F	
19.500	0.750	**1800-1932-48 HDS2 H**	**HDS2**	H	F	
19.500	0.750	1800257	HS7	R	F	◇
19.500	0.750	1800258	HS8	R	F	◇
19.750	0.750	**1800382**	**HDS2**	R	F	
19.750	0.750	1800387	HS7	R	F	◇
20.000	0.625	**1800520**	**HDS2**	R	F	
20.000	0.750	**1800540**	**HDS1**	R	F	
20.000	0.750	**1800542**	**HDS2**	D	F	
20.000	0.813	1800557	HS7	R	F	◇
20.000	0.813	1800559	HS8	D	F	◇
20.000	0.813	1800558	HS8	R	F	◇
20.000	0.875	**1800560**	**HDS1**	R	F	
20.000	0.875	**1800563**	**HDS2**	R	F	
20.000	0.875	**1800573**	**HDS2**	V	F	
20.000	1.000	**1800580**	**HDS1**	R	F	
20.000	1.000	1800587	HS7	R	F	◇
20.000	1.250	**1800591**	**HDS1**	R	F	
20.250	1.000	**1800680**	**HDS1**	R	F	
20.250	1.000	**1800683**	**HDS1**	V	F	
20.250	1.000	**1800653**	**HDS7**	V	F	
20.250	1.000	1800969	HDSA1	VD	F	
20.250	1.000	1800965	HDSA2	RD	F	
20.250	1.000	528308	HDSA2	VD	F	
20.276	1.000	1800688	HS8	R	F	◇
21.000	0.688	**1800850**	**HDS1**	R	F	
INCH Shaft Diameter – 18.063" (458.80 mm)						
19.875	0.750	**1804-1956-48 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter – 460 mm (18.110")						
500	20	**460X500X20 HDS1 R**	**HDS1**	R	F	
500	20	**460X500X20 HDS1 V**	**HDS1**	V	F	
504	20	**460X504X20 HDS1 R**	**HDS1**	R	F	
510	20.62	**460X510X21 HDS2 R**	**HDS2**	R	F	
510	21	**460X510X21 HDS1 H**	**HDS1**	H	F	
510	22	**460X510X22 HDSF2 VT**	**HDSF2**	VT	F	
510	22	**460X510X22 HDSH2 VT1**	**HDSH2**	VT	F	
510	22	460X510X22 HS8 R	HS8	R	F	◇
510.92	20.65	**1811550**	**HDS1**	R	F	
520	25	**460X520X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 18.120" (460.25 mm)						
20.500	1.000	**1813720**	**HDS1**	R	F	
INCH Shaft Diameter – 18.175" (461.65 mm)						
19.500	0.750	1817138	HS8	R	F	◇
INCH Shaft Diameter – 18.250" (463.55 mm)						
19.750	0.750	**1825250**	**HDS1**	R	F	
19.750	0.750	**1825252**	**HDS2**	R	F	
19.750	0.750	1825258	HS8	R	F	◇
20.000	0.750	**1825379**	**HDS7**	H	F	
20.250	0.813	1825557	HS7	R	F	◇
INCH Shaft Diameter – 18.313" (465.15 mm)						
19.492	0.750	**1831070**	**HDS1**	R	F	
INCH Shaft Diameter – 18.375" (466.73 mm)						
19.875	0.688	**1838240**	**HDS1**	R	F	
19.875	0.688	**1838241**	**HDS2**	R	F	
19.875	0.688	**1824-1956-44 HDS2 H**	**HDS2**	H	F	
19.875	0.688	**1838245**	**HDS2L08**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 18.375" (466.73 mm)						
19.875	0.688	**1824-1956-44 HDS7 H**	**HDS7**	H	F	
19.938	0.625	**1838300**	**HDS1**	R	F	
20.000	0.750	**1838330**	**HDS1**	R	F	
METRIC Shaft Diameter – 467 mm (18.386")						
510	20	**467X510X20 HDS2 V**	**HDS2**	V	F	
METRIC Shaft Diameter – 468 mm (18.425")						
530	20	468X530X20 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 18.500" (469.90 mm)						
20.000	0.750	**1850250**	**HDS1**	R	F	
20.000	0.750	1850257	HS7	R	F	◇
20.000	0.750	1850248	HS8	D	F	◇
20.500	0.750	**1850540**	**HDS1**	R	F	
20.500	0.750	**1850542**	**HDS2**	R	F	
20.500	0.813	**1850552**	**HDS2**	R	F	
20.500	0.813	**1850554**	**HDS2**	V	F	
20.500	0.813	**1850520**	**HDS7**	R	F	
20.500	0.813	**1832-2032-52 HSS8 R**	**HSS8**	R	F	◇
20.500	0.813	1832-2032-52 HS7 R	HS7	R	F	◇
20.500	0.813	1832-2032-52 HS8 R	HS8	R	F	◇
20.500	0.875	**1850560**	**HDS1**	R	F	
20.500	0.875	**1850561**	**HDS2**	R	F	
20.500	0.875	**1850553**	**HDS2**	V	F	
20.500	0.906	**1850522**	**HDS2**	R	F	
20.500	0.906	**1850576**	**HDS2L16**	R	F	
20.500	0.968	526468	HDSA2	RD	F	
20.500	0.968	1850952	HDSA2	VD	F	
20.500	1.000	**1850580**	**HDS1**	R	F	
20.500	1.000	1850587	HS7	R	F	◇
METRIC Shaft Diameter – 470 mm (18.504")						
510	20	**470X510X20 HDS1 R**	**HDS1**	R	F	
510	20	**470X510X20 HDS2 V**	**HDS2**	V	F	
520	20	**470X520X20 HDS1 R**	**HDS1**	R	F	
520	20	**470X520X20 HDS2 V**	**HDS2**	V	F	
520	20.70	470X520X20.7 HS4 R	HS4	R	F	◇
530	25	**470X530X25 HDS2 R**	**HDS2**	R	F	
530	25	**470X530X25 HDS7 R**	**HDS7**	R	F	
530	26	**470X530X26 HDS2 R**	**HDS2**	R	F	
530	28	**470X530X28 HDS7 R**	**HDS7**	R	F	
505	17	475X505X17 HDSA1 RR	HDSA1	RR	F	
INCH Shaft Diameter – 18.750" (476.25 mm)						
19.750	0.500	1875017	HS7	R	F	◇
20.250	0.750	**1875250**	**HDS1**	R	F	
20.250	0.750	**1875253**	**HDS2**	R	F	
20.375	0.863	530250	HS8	R	F	◇
20.500	0.750	**1875380**	**HDS1**	R	F	
20.625	0.812	1875366	HS6	H	F	◇
20.632	0.855	593443	HS8	R	F	◇
20.750	0.750	**1875540**	**HDS1**	R	F	
20.750	0.813	**1875553**	**HDS2**	R	F	
20.750	0.916	527355	HS6	R	F	◇
INCH Shaft Diameter – 18.875" (479.43 mm)						
20.625	0.875	**1888391**	**HDS1**	R	F	
METRIC Shaft Diameter – 480 mm (18.898")						
514	15	480X514X15 HS8 H	HS8	H	F	◇
520	20	**480X520X20 HDS1 D**	**HDS1**	D	F	
520	20	**480X520X20 HDS1 R**	**HDS1**	R	F	
520	20	**480X520X20 HDS2 V**	**HDS2**	V	F	
520	20	**480X520X20 HDS7 D**	**HDS7**	D	F	
520	20	480X520X20 HS8 R	HS8	R	F	◇
520	22	480X520X22 HDSA2 VD	HDSA2	VD	F	
530	20	480X530X20 HS8 R	HS8	R	F	◇

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 480 mm (18.898")						
530	22	**480X530X22 HDS1 R**	**HDS1**	R	F	
530	25	**480X530X25 HDS2 R**	**HDS2**	R	F	
530	25	480X530X25 HS5 R	HS5	R	F	◇
540	20	**480X540X20 HDS2 R**	**HDS2**	R	F	
540	25	**480X540X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 19.000" (482.60 mm)						
20.500	0.688	**1900242**	**HDS2L08**	H	F	
20.500	0.750	**1900250**	**HDS1**	R	F	
20.500	0.750	**1900254**	**HDS2**	R	F	
20.500	0.750	**1900260**	**HDS2**	V	F	
20.500	0.750	**1900-2032-48 HDS2 H**	**HDS2**	H	F	
20.500	0.750	**1900255**	**HDS2L08**	R	F	
20.500	0.750	**1900251**	**HDS2L24**	R	F	
20.500	0.750	**1900249**	**HDS7**	H	F	
20.500	0.750	**1900211**	**HDS7**	R	F	
20.500	0.750	**1900-2032-48 HDS7 H**	**HDS7**	H	F	
20.500	0.750	1900239	HDS7K	R	F	
20.500	0.750	1900257	HS7	R	F	◇
20.500	0.750	1900258	HS8	R	F	◇
20.500	0.875	**1900274**	**HDS2**	D	F	
20.500	0.875	**1900275**	**HDS2L08**	D	F	
20.750	0.813	1900398	HS8	H	F	◇
21.000	0.709	**1900520**	**HDS2**	R	F	
21.000	0.750	**1900540**	**HDS1**	R	F	
21.000	0.750	**1900529**	**HDS1L16**	R	F	
21.000	0.750	1900548	HS8	R	F	◇
21.000	0.813	1900557	HS7	R	F	◇
21.000	0.813	1900-2100-52 HS8 H	HS8	H	F	◇
21.000	0.870	**1900954**	**HDSF2**	VT	F	
21.000	0.875	**1900560**	**HDS1**	R	F	
21.000	0.875	**1900563**	**HDS2**	R	F	
21.000	0.875	**1900562**	**HDS2**	V	F	
21.000	0.875	**1900566**	**HDS2L08**	V	F	
21.000	1.000	**1900580**	**HDS1**	R	F	
21.000	1.000	**1900512**	**HDS2**	R	F	
21.250	0.875	**1900660**	**HDS1**	R	F	
21.500	0.750	**1900740**	**HDS1**	R	F	
21.500	0.750	**1900741**	**HDS2**	R	F	
METRIC Shaft Diameter – 485 mm (19.485")						
535	22	**485X535X22 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 19.125" (485.78 mm)						
21.125	0.813	1913557	HS7	R	F	◇
INCH Shaft Diameter – 19.250" (488.95 mm)						
20.750	0.625	**596180**	**HDS7**	R	F	
20.750	0.750	**1925250**	**HDS1**	R	F	
20.750	0.750	**1925252**	**HDS2**	R	F	
20.750	0.875	1925920	HDSA1	RD	F	
21.000	0.750	**1925380**	**HDS1**	R	F	
21.250	0.938	**1925570**	**HDS1**	R	F	
21.250	1.000	**1925580**	**HDS1**	R	F	
METRIC Shaft Diameter – 490 mm (19.291")						
530	20	**490X530X20 HDS1 R**	**HDS1**	R	F	
530	20	**490X530X20 HDS1 V**	**HDS1**	V	F	
530	20.50	490X530X20.5 HS5 D	HS5	D	F	◇
540	25	490X540X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 19.375" (492.13 mm)						
21.375	0.813	1938557	HS7	R	F	◇
INCH Shaft Diameter – 19.500" (495.30 mm)						
21.000	0.750	**565621**	**HDS1**	R	F	
21.000	0.750	**1950250**	**HDS1**	R	F	
21.000	0.750	**528379**	**HDS2**	R	F	
INCH Shaft Diameter (cont.) – 19.500" (495.30 mm)						
21.500	0.750	**1950540**	**HDS1**	R	F	
21.500	0.750	**1950542**	**HDS2**	R	F	
21.500	0.750	**1932-2132-48 HDS2L24 R**	**HDS2L24**	R	F	
21.500	0.750	**1950211**	**HDS7**	R	F	
21.500	0.813	1950557	HS7	R	F	◇
21.500	0.813	1950518	HS8	R	F	◇
21.500	0.875	**1950560**	**HDS1**	R	F	
21.500	0.875	**594989**	**HDS1**	V	F	
21.500	0.875	**1950563**	**HDS2**	V	F	
21.500	1.000	**1950580**	**HDS1**	R	F	
22.000	0.875	1932-2200-56 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 19.625" (498.48 mm)						
21.625	0.813	**1963550**	**HDS1**	R	F	
METRIC Shaft Diameter – 500 mm (19.685")						
540	16	**500X540X16 HDS7 V**	**HDS7**	V	F	
540	17	**500X540X17 HDS2 V**	**HDS2**	V	F	
540	20	**500X540X20 HDS1 R**	**HDS1**	R	F	
540	20	**500X540X20 HDS1 V**	**HDS1**	V	F	
540	20	**500X540X20 HDS1 V9**	**HDS1**	V	F	◤
540	20	**500X540X20 HDS2 V**	**HDS2**	V	F	
540	20	**500X540X20 HSS5 H**	**HSS5**	H	F	◇
540	20	**500X540X20 HSS8 H**	**HSS8**	H	F	◇
540	20	**500X540X20 HSS8 R**	**HSS8**	R	F	◇
540	20	**500X540X20 HSS8 V**	**HSS8**	V	F	◇
540	20	500X540X20 HDSA1 RD	HDSA1	RD	F	
540	20	500X540X20 HS8 R	HS8	R	F	◇
550	18	**500X550X18 HDS1 D**	**HDS1**	D	F	
550	18	**500X550X18 HDS2 D**	**HDS2**	D	F	
550	18	**500X550X18 HDS2 R**	**HDS2**	R	F	
550	18	500X550X18 HS8 V	HS8	V	F	◇
550	22	**500X550X22 HSS5 R**	**HSS5**	R	F	◇
550	25	**500X550X25 HDS2 V1**	**HDS2**	V	F	
550	25	**500X550X25 HDS7 R**	**HDS7**	R	F	
550	25	**500X550X25 HDSF2 VT1**	**HDSF2**	VT	F	
550	25	**500X550X25 HDSH2 VT**	**HDSH2**	VT	F	
560	25	**1968710**	**HDS1**	R	F	
560	25	**500X560X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 19.750" (501.65 mm)						
21.125	0.875	**1975150**	**HDS1**	R	F	
21.500	1.000	**1975420**	**HDS1**	R	F	
21.632	0.855	592838	HS8	R	F	◇
21.750	0.625	1975528	HS8	R	F	◇
21.750	0.813	**1975553**	**HDS2**	V	F	
21.750	0.875	**1975560**	**HDS1**	R	F	
22.250	0.875	**1975760**	**HDS1**	R	F	
INCH Shaft Diameter – 19.875" (504.83 mm)						
21.750	0.750	**1988470**	**HDS1**	R	F	
METRIC Shaft Diameter – 505 mm (19.882")						
555	20.62	**505X555X21 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 19.938" (506.43 mm)						
21.688	0.625	**1994360**	**HDS1**	R	F	
INCH Shaft Diameter – 20.000" (508.00 mm)						
21.000	0.500	2000017	HS7	R	F	◇
21.500	0.625	**2000230**	**HDS1**	R	F	
21.500	0.625	2000238	HS8	R	F	◇
21.500	0.750	**2000250**	**HDS1**	R	F	
21.500	0.750	**2000253**	**HDS1L08**	R	F	
21.500	0.750	**2000232**	**HDS2**	R	F	
21.500	0.750	**2000262**	**HDS2**	V	F	
21.500	0.750	**2000240**	**HDS7**	R	F	
21.500	0.750	2000258	HS8	R	F	◇

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 20.000" (508.00 mm)						
21.500	0.875	593789	HDSA1	VD	F	
21.500	0.875	2000920	HDSA1	VL	F	
21.750	0.750	**2000380**	**HDS1**	R	F	
22.000	0.625	**2000520**	**HDS1**	R	F	
22.000	0.625	**2000512**	**HDS2**	R	F	
22.000	0.625	**2000522**	**HDS2**	V	F	
22.000	0.813	2000557	HS7	R	F	◇
22.000	0.813	2000558	HS8	R	F	◇
22.000	0.875	**2000560**	**HDS1**	R	F	
22.000	0.875	**2000565**	**HDS2**	R	F	
22.000	0.875	2000568	HS8	R	F	◇
22.000	0.906	**2000570**	**HDS1**	R	F	
22.000	1.000	**2000580**	**HDS1**	R	F	
22.000	1.000	**2000582**	**HDS1L16**	R	F	
22.000	1.000	**2000585**	**HDS2**	R	F	
22.000	1.000	2000587	HS7	R	F	◇
22.000	1.250	**2000592**	**HDS2**	R	F	
22.125	0.916	2000649	HS8	D	F	◇
22.125	0.916	2000648	HS8	R	F	◇
22.125	0.916	2000638	HS8	V	F	◇
22.250	0.874	**2000660**	**HDS1**	R	F	
22.625	0.750	**2000803**	**HDS2**	R	F	
METRIC Shaft Diameter – 510 mm (20.079")						
550	20	510X550X20 HS8 V	HS8	V	F	◇
560	25	**510X560X25 HDS1 D**	**HDS1**	D	F	
560	25	**510X560X25 HDS1 R**	**HDS1**	R	F	
560	25	**510X560X25 HDS1 V**	**HDS1**	V	F	
560	25	**510X560X25 HDS2 D**	**HDS2**	D	F	
560	25	**510X560X25 HDSF2 VT**	**HDSF2**	VT	F	
560	25	**510X560X25 HDSH2 VT1**	**HDSH2**	VT	F	
METRIC Shaft Diameter – 511 mm (20.118")						
561	22	511X561X22 HDSA2 VD	HDSA2	VD	F	
METRIC Shaft Diameter – 513 mm (20.197")						
543	16	**513X543X16 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 20.250" (514.35 mm)						
21.750	0.625	**2025230**	**HDS2**	R	F	
21.750	0.750	**2025250**	**HDS1**	R	F	
21.750	0.750	**2025252**	**HDS2**	R	F	
22.132	0.855	531448	HS8	R	F	◇
22.250	0.625	2025528	HS8	R	F	◇
22.250	0.875	**2025562**	**HDS2**	R	F	
22.500	0.875	**2025665**	**HDS2L32**	R	F	
METRIC Shaft Diameter – 515 mm (20.276")						
555	20	**515X555X20 HDS2 R**	**HDS2**	R	F	
555	20	**515X555X20 HDS7 R**	**HDS7**	R	F	
555	20	515X555X20 HS5 R	HS5	R	F	◇
555	20	515X555X20 HS8 R	HS8	R	F	◇
METRIC Shaft Diameter – 519 mm (20.433")						
560	25	519X560X25 HS5 D	HS5	D	F	◇
INCH Shaft Diameter – 20.438" (519.13 mm)						
22.500	0.750	**2044602**	**HDS2**	R	F	
METRIC Shaft Diameter – 520 mm (20.472")						
560	18	520X560X18 HS5 R	HS5	R	F	◇
560	20	**520X560X20 HDS1 R**	**HDS1**	R	F	
560	20	**520X560X20 HDS1 V**	**HDS1**	V	F	
560	20	**520X560X20 HDS2 V**	**HDS2**	V	F	
560	20	520X560X20 HS8 R	HS8	R	F	◇
560	20	520X560X20 HS8 V	HS8	V	F	◇
570	18	**520X570X18 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter (cont.) – 520 mm (20.472")						
570	22	**520X570X22 HDS7 R**	**HDS7**	R	F	
570	24	520X570X24 HS5 R	HS5	R	F	◇
570	25	520X570X25 HS8 R	HS8	R	F	◇
580	20	**520X580X20 HDS1 R**	**HDS1**	R	F	
580	20	**520X580X20 HDS2 R**	**HDS2**	R	F	
580	25	**520X580X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 20.500" (520.70 mm)						
22.000	0.750	**2050250**	**HDS1**	R	F	
22.000	0.750	**2050252**	**HDS2**	R	F	
22.000	0.750	**2050254**	**HDS2**	V	F	
22.000	0.750	**2032-2200-48 HDS2 H**	**HDS2**	H	F	
22.000	0.750	**2050212**	**HDS2L12**	R	F	
22.000	0.750	2050258	HS8	R	F	◇
22.500	0.625	**2050520**	**HDS1**	R	F	
22.500	0.750	**2050542**	**HDS2**	R	F	
22.500	0.812	2050558	HS8	R	F	◇
22.500	0.813	**2050553**	**HDS2**	V	F	
22.500	0.875	**2050560**	**HDS1**	R	F	
22.500	0.875	**2050563**	**HDS2**	R	F	
22.500	0.875	2050568	HS8	R	F	◇
22.500	1.250	531620	HDSA2	RD	F	
INCH Shaft Diameter – 20.625" (523.88 mm)						
22.625	0.813	2063557	HS7	R	F	◇
METRIC Shaft Diameter – 525 mm (20.669")						
575	22	525X575X22 HS7 R	HS7	R	F	◇
INCH Shaft Diameter – 20.750" (527.05 mm)						
22.250	0.864	528352	HS8	R	F	◇
22.750	0.625	2075238	HS8	R	F	◇
22.750	0.750	**2075540**	**HDS1**	R	F	
22.750	0.875	**2075560**	**HDS1**	R	F	
22.750	0.875	**2075562**	**HDS2**	D	F	
22.750	0.875	**2075563**	**HDS2**	R	F	
22.750	0.875	**2075569**	**HDS7**	D	F	
22.750	1.000	**2075580**	**HDS1**	R	F	
22.750	1.250	2075950	HDSA1	RD	F	
23.000	0.875	**2075660**	**HDS1**	R	F	
23.000	0.875	**520295**	**HDS1**	R	F	■
23.000	0.875	**2075662**	**HDS1L12**	R	F	
INCH Shaft Diameter – 20.813" (528.65 mm)						
22.390	0.578	2081418	HS8	R	F	◇
METRIC Shaft Diameter – 530 mm (20.866")						
575	20	530X575X20 HS5 R	HS5	R	F	◇
576	21	530X576X21 HS8 R	HS8	R	F	◇
580	20	**530X580X20 HDS1 R**	**HDS1**	R	F	
580	20	**530X580X20 HDS1 V**	**HDS1**	V	F	
580	20	**530X580X20 HDS7 D**	**HDS7**	D	F	
580	20	530X580X20 HS5 V	HS5	V	F	◇
580	20	530X580X20 HS8 R	HS8	R	F	◇
580	22	**530X580X22 HDS1 R**	**HDS1**	R	F	
580	22	**530X580X22 HDS1 V**	**HDS1**	V	F	
580	22	**530X580X22 HDS7 R**	**HDS7**	R	F	
580	22	**530X580X22 HDS7 V**	**HDS7**	V	F	
580	22	530X580X22 HS8 R	HS8	R	F	◇
580	25	**530X580X25 HDS1 R**	**HDS1**	R	F	
580	25	530X580X25 HS5 R	HS5	R	F	◇
580	25	530X580X25 HS8 R	HS8	R	F	◇
590	30	**530X590X30 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 20.875" (530.23 mm)						
22.875	0.750	**2088540**	**HDS1**	R	F	
23.000	0.750	**2088610**	**HDS1**	R	F	
23.228	0.906	**2088702**	**HDS1**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 21.000" (533.40 mm)						
22.500	0.750	**2100250**	**HDS1**	R	F	
22.500	0.750	**2100-2232-48 HDS2 R**	**HDS2**	R	F	
22.500	0.750	2100257	HS7	R	F	◇
22.580	0.578	2100228	HS8	R	F	◇
22.750	0.813	**2100390**	**HDS1**	R	F	
22.882	0.855	593509	HS8	R	F	◇
23.000	0.625	**2100522**	**HDS2**	R	F	
23.000	0.625	2100528	HS8	R	F	◇
23.000	0.750	**2100545**	**HDS2**	R	F	
23.000	0.750	**2100544**	**HDS2L08**	R	F	
23.000	0.750	2100518	HS8	R	F	◇
23.000	0.787	**2100958**	**HDSH2**	RT	F	◤
23.000	0.813	526719	HS4	R	F	◇
23.000	0.813	2100557	HS7	R	F	◇
23.000	0.813	2100517	HS7	V	F	◇
23.000	0.875	**2100564**	**HDS2**	R	F	
23.000	0.875	**2100562**	**HDS2L08**	R	F	
23.000	0.875	**2100575**	**HDS2L32**	R	F	
23.250	0.875	**2100660**	**HDS1**	R	F	
23.500	1.000	**2100780**	**HDS1**	R	F	
23.500	1.250	**2100800**	**HDS1**	R	F	
INCH Shaft Diameter – 21.125" (536.58 mm)						
23.125	1.000	**2112570**	**HDS1**	V	F	
INCH Shaft Diameter – 21.250" (539.75 mm)						
22.750	0.750	2125257	HS7	R	F	◇
23.000	0.750	**2125380**	**HDS1**	R	F	
23.250	0.625	**2125520**	**HDS1**	R	F	
23.250	0.750	**2125540**	**HDS1**	R	F	
23.250	0.875	**2125560**	**HDS1**	R	F	
23.250	0.875	**2125563**	**HDS2**	R	F	
23.250	0.875	**2125564**	**HDS2**	V	F	
METRIC Shaft Diameter – 540 mm (21.260")						
580	20	**540X580X20 HDS1 R**	**HDS1**	R	F	
584	20	540X584X20 HS4 R	HS4	R	F	◇
590	20	**540X590X20 HDS1 R**	**HDS1**	R	F	
590	20	**540X590X20 HDS2 D**	**HDS2**	D	F	
590	20	**540X590X20 HDS2 V**	**HDS2**	V	F	
590	22	**540X590X22 HDS1 R**	**HDS1**	R	F	
590	25	**540X590X25 HDS2 V1**	**HDS2**	V	F	
590	25	**540X590X25 HDSF2 VT1**	**HDSF2**	VT	F	
590	25	**540X590X25 HDSH2 VT**	**HDSH2**	VT	F	
INCH Shaft Diameter – 21.438" (544.53 mm)						
23.188	0.625	**2144360**	**HDS1**	R	F	
23.500	0.875	**2144600**	**HDS1**	R	F	
METRIC Shaft Diameter – 545 mm (21.457")						
595	22	**545X595X22 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 21.500" (546.10 mm)						
23.000	0.625	2150238	HS8	R	F	◇
23.250	0.750	**2150380**	**HDS1**	R	F	
23.250	0.750	**529065**	**HDS2**	R	F	
23.250	0.750	**2150384**	**HDS2**	V	F	
23.382	0.855	592950	HS8	R	F	◇
23.500	0.625	**2150520**	**HDS1**	R	F	
23.500	0.750	**2150542**	**HDS2**	R	F	
23.500	0.800	**2150574**	**HDS2**	V	F	
23.500	0.813	**2150550**	**HDS1**	R	F	
23.500	0.813	**2150538**	**HDS7**	H	F	
23.500	0.813	**2150528**	**HDS7**	R	F	
23.500	0.813	**2150519**	**HDS7L6**	R	F	
23.500	0.813	2150557	HS7	R	F	◇
23.500	0.875	**2150562**	**HDS2**	V	F	
23.500	1.000	**2150580**	**HDS1**	R	F	
24.000	1.250	**2150800**	**HDS1**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 21.625" (549.28 mm)						
23.625	0.813	2163557	HS7	R	F	◇
23.625	1.000	**2163580**	**HDS1**	R	F	
METRIC Shaft Diameter – 550 mm (21.654")						
590	20	**550X590X20 HDS1 R**	**HDS1**	R	F	
590	20	**550X590X20 HDS1 V**	**HDS1**	V	F	
600	20	**550X600X20 HDS1 R**	**HDS1**	R	F	
600	25	**550X600X25 HDS2 R**	**HDS2**	R	F	
600	25	550X600X25 HS6 R	HS6	R	F	◇
610	25	**550X610X25 HDS1 R**	**HDS1**	R	F	
610	25	**550X610X25 HDS2 R**	**HDS2**	R	F	
610	28	550X610X28 HDSA1 RD	HDSA1	R	F	
INCH Shaft Diameter – 21.745" (552.32 mm)						
23.747	1.000	**2174520**	**HDS7**	R	F	
INCH Shaft Diameter – 21.750" (552.45 mm)						
23.250	0.625	**2175230**	**HDS1**	R	F	
23.250	0.625	**2175232**	**HDS2**	R	F	
23.250	0.625	593520	HS5	R	F	◇
23.250	0.750	**2175252**	**HDS2**	R	F	
23.750	0.750	**2175542**	**HDS2**	R	F	
23.750	0.750	**2175545**	**HDS2L32**	R	F	
23.750	0.875	**2175569**	**HDS7**	R	F	
23.750	1.100	595188	HDSA2	DD	F	
23.750	1.100	593486	HDSA2	RD	F	
24.000	0.875	**2175660**	**HDS1**	R	F	
24.000	0.875	**2175664**	**HDS2L08**	R	F	
INCH Shaft Diameter – 22.000" (558.80 mm)						
23.000	0.500	2200017	HS7	R	F	◇
23.500	0.625	**2200230**	**HDS1**	R	F	
23.500	0.750	**2200250**	**HDS1**	R	F	
23.500	0.750	**2200252**	**HDS2**	R	F	
23.500	0.750	**2200213**	**HDS2**	V	F	
23.500	0.750	**2200249**	**HDS7**	H	F	
23.500	0.750	**2200-2332-48 HDS7 R**	**HDS7**	R	F	
23.500	0.875	2200920	HDSA1	RD	F	
23.732	0.866	**2200402**	**HDS2**	R	F	
23.750	0.813	**2200393**	**HDS1**	D	F	
23.750	0.813	**2200390**	**HDS1**	R	F	
24.000	0.625	2200529	HS8	D	F	◇
24.000	0.750	**2200542**	**HDS2**	R	F	
24.000	0.812	2200555	HS8	V	F	◇
24.000	0.813	**2200550**	**HDS1**	R	F	
24.000	0.813	2200557	HS7	R	F	◇
24.000	0.813	2200558	HS8	D	F	◇
24.000	0.875	**2200560**	**HDS1**	R	F	
24.000	0.875	**2200564**	**HDS2**	D	F	
24.000	0.875	**2200565**	**HDS2**	R	F	
24.000	0.875	**2200566**	**HDS2L16**	R	F	
24.000	0.875	**2200-2400-56 HDS7 R**	**HDS7**	R	F	
24.000	0.875	**2200569**	**HDS7L16**	R	F	
24.000	0.875	2200955	HDSA2	RL	F	
24.000	0.875	2200568	HS8	D	F	◇
24.000	1.000	**2200580**	**HDS1**	R	F	
24.000	1.000	**2200585**	**HDS1L08**	R	F	
24.000	1.250	**526339**	**HDS1**	D	F	
24.000	1.250	**2200590**	**HDS1**	R	F	
24.250	1.000	**2200680**	**HDS1**	R	F	
METRIC Shaft Diameter – 560 mm (22.047")						
604	20	**560X604X20 HDS7 R**	**HDS7**	R	F	
610	20	**560X610X20 HDS1 R**	**HDS1**	R	F	
610	20	**560X610X20 HDS1 V**	**HDS1**	V	F	
610	20	**560X610X20 HDS2 V**	**HDS2**	V	F	
610	20	**560X610X20 HDS7 R**	**HDS7**	R	F	
610	22	**560X610X22 HDS7 R**	**HDS7**	R	F	
620	25	**560X620X25 HDS2 V**	**HDS2**	V	F	

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter (cont.) – 560 mm (22.047")						
620	25	560X620X25 HDSA2 VD1	HDSA2	V	F	
620	29.34	**560X620X29.34 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 22.125" (561.98 mm)						
23.375	0.750	2212076	HS6	R	F	◇
23.375	0.750	2212118	HS8	R	F	◇
24.000	1.000	**2213490**	**HDS1**	R	F	
INCH Shaft Diameter – 22.250" (565.15 mm)						
23.500	0.625	**2255149**	**HDS7**	D	F	
23.500	0.787	**2225139**	**HDS7**	D	F	
23.750	0.625	**2225230**	**HDS1**	R	F	
24.000	0.750	**2225380**	**HDS1**	R	F	
24.250	0.875	**2225562**	**HDS2**	R	F	
24.250	0.875	**2225565**	**HDS2L16**	R	F	
24.250	1.000	2225588	HS8	R	F	◇
24.500	0.875	**2225660**	**HDS1**	R	F	
INCH Shaft Diameter – 22.375" (568.33 mm)						
24.368	0.875	**2237710**	**HDS2**	R	F	
24.375	0.750	**2238540**	**HDS1**	R	F	
24.375	0.750	**2237515**	**HDS1L08**	R	F	
INCH Shaft Diameter – 22.438" (569.93 mm)						
24.000	0.750	**2243303**	**HDS1**	V	F	
24.250	0.750	**2244440**	**HDS1**	R	F	
METRIC Shaft Diameter – 570 mm (22.441")						
604	15	570X604X15 HS8 H	HS8	H	F	◇
610	20	**570X610X20 HDS1 R**	**HDS1**	R	F	
620	22	**570X620X22 HDS2 R**	**HDS2**	R	F	
620	22	**570X620X22 HDS2 R1**	**HDS2**	R	F	
620	22	**570X620X22 HDS7 R**	**HDS7**	R	F	
620	22	**570X620X22 HDS7L4 R**	**HDS7L4**	R	F	
INCH Shaft Diameter – 22.500" (571.50 mm)						
24.500	0.750	**2250540**	**HDS1**	R	F	
24.500	0.813	2250557	HS7	R	F	◇
24.500	0.875	**2250560**	**HDS1**	R	F	
24.500	0.875	**2250552**	**HDS2**	V	F	
24.500	0.875	**2250958**	**HDSH7**	VT	F	
24.750	0.875	**2250660**	**HDS1**	R	F	
INCH Shaft Diameter – 22.638" (575.01 mm)						
24.638	0.750	2263548	HS8	D	F	◇
INCH Shaft Diameter – 22.750" (577.85 mm)						
24.750	0.813	2275557	HS7	R	F	◇
24.750	0.813	2275558	HS8	R	F	◇
24.750	0.875	**2275562**	**HDS2**	R	F	
25.500	0.875	**2275820**	**HDS1**	R	F	
METRIC Shaft Diameter – 578 mm (22.756")						
640	30	**578X640X30 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 22.814" (579.48 mm)						
24.814	0.813	2281558	HS8	R	F	◇
METRIC Shaft Diameter – 580 mm (22.835")						
615	20	580X615X20 HS8 R	HS8	R	F	◇
620	20	**580X620X20 HDS2 D**	**HDS2**	D	F	
630	18	**580X630X18 HDS1 R**	**HDS1**	R	F	
630	22	**580X630X22 HSS5G R**	**HSS5G**	R	F	◇
630	22	580X630X22 HDSA2 RD	HDSA2	RD	F	
630	22.60	**2283029**	**HDS2**	R	F	
630	25	**580X630X25 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter (cont.) – 580 mm (22.835")						
630	25	**580X630X25 HDS7 D**	**HDS7**	D	F	
630	25	580X630X25 HS8 V	HS8	V	F	◇
640	16	580X640X16 HS8 R	HS8	R	F	◇
640	30	580X640X30 HDSA2 RD	HDSA2	RD	F	
650	25	**580X650X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 23.000" (584.20 mm)						
24.500	0.750	**2300250**	**HDS1**	R	F	
24.500	0.750	**2300220**	**HDS1L32**	R	F	
24.500	0.750	**2300252**	**HDS2**	R	F	
24.500	0.750	**2300214**	**HDS2**	V	F	
24.500	0.750	**2300254**	**HDS2L08**	R	F	
24.500	0.750	**2300-2432-48 HDS7 H**	**HDS7**	H	F	
24.500	0.750	2300257	HS7	R	F	◇
24.500	0.750	2300258	HS8	R	F	◇
24.750	0.750	**2300380**	**HDS1**	R	F	
24.750	0.750	**2300383**	**HDS2**	D	F	
24.750	0.750	**2300382**	**HDS2**	R	F	
24.750	0.750	**2300384**	**HDS2**	V	F	
24.750	0.750	2300358	HS8	R	F	◇
25.000	0.750	**2300540**	**HDS1**	R	F	
25.000	0.750	**2300532**	**HDS2**	R	F	◤◎
25.000	0.813	2300559	HS8	D	F	◇
25.000	0.813	2300558	HS8	R	F	◇
25.000	0.875	**2300560**	**HDS1**	R	F	
25.000	0.875	**2300561**	**HDS2**	R	F	
25.000	0.938	**2300570**	**HDS1**	R	F	
25.000	1.000	**2300580**	**HDS1**	R	F	
25.000	1.000	2300952	HDSA2	RD	F	
25.250	0.875	**2300660**	**HDS1**	R	F	
25.375	0.875	**2300710**	**HDS1**	R	F	
25.375	0.875	**2300717**	**HDS1**	V	F	
25.500	0.875	**2350567**	**HDS1**	V	F	
25.500	1.250	**2300800**	**HDS1**	R	F	
METRIC Shaft Diameter – 585 mm (23.031")						
620	20	**585X620X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 23.208" (589.48 mm)						
25.208	0.813	2320558	HS8	R	F	◇
METRIC Shaft Diameter – 590 mm (23.228")						
630	20	**590X630X20 HDS1 R**	**HDS1**	R	F	
630	20	**590X630X20 HDS1 R1**	**HDS1**	R	F	
630	20	**590X630X20 HDS7 D**	**HDS7**	D	F	
639.80	20.65	528562	HS8	V	F	◇
640	22	**590X640X22 HDS2 R**	**HDS2**	R	F	
640	25	590X640X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 23.250" (590.55 mm)						
25.000	0.750	**2325380**	**HDS1**	R	F	
25.250	0.750	**2325540**	**HDS1**	R	F	
25.250	0.750	**528505**	**HDS2**	R	F	
25.250	0.813	**2325550**	**HDS1**	R	F	
INCH Shaft Diameter – 23.375" (593.73 mm)						
25.375	0.813	2338557	HS7	R	F	◇
INCH Shaft Diameter – 23.500" (596.90 mm)						
25.000	0.625	2350238	HS8	R	F	◇
25.250	0.750	**2350380**	**HDS1**	R	F	
25.250	0.750	**2350382**	**HDS2**	R	F	
25.250	0.750	**2350652**	**HDS2**	V	F	
25.500	0.813	2350557	HS7	R	F	◇
25.500	0.875	**2350560**	**HDS1**	R	F	
25.500	0.875	**2350570**	**HDS1**	V	F	
25.500	0.875	**2350562**	**HDS1L16**	R	F	
25.500	1.000	**2350580**	**HDS1**	R	F	

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 23.500" (596.90 mm)						
25.750	1.000	2350768	HS8	R	F	◇
INCH Shaft Diameter – 23.563" (598.50 mm)						
25.250	0.750	**2356340**	**HDS1**	R	F	
METRIC Shaft Diameter – 600 mm (23.622")						
640	18	**600X640X18 HSS4 R**	**HSS4**	R	F	◇
640	20	**600X640X20 HDS1 R**	**HDS1**	R	F	
640	20	**600X640X20 HDS1 V**	**HDS1**	V	F	
640	20	**600X640X20 HDS2 V**	**HDS2**	V	F	
640	20	**600X640X20 HDSF2 RT**	**HDSF2**	RT	F	
640	20	600X640X20 HS8 R	HS8	R	F	◇
640	25	**600X640X25 HDS2 V1**	**HDS2**	V	F	
640	25	**600X640X25 HDSF2 VT**	**HDSF2**	VT	F	
650	22	**600X650X22 HDS2 R**	**HDS2**	R	F	
650	22	**600X650X22 HDS7 R**	**HDS7**	R	F	
650	25	**600X650X25 HDS1 R**	**HDS1**	R	F	
650	25	**600X650X25 HDS1 V**	**HDS1**	V	F	
650	25	**600X650X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 23.625" (600.08 mm)						
25.375	0.812	**2362418**	**HDS2**	D	F	
25.625	0.813	2363557	HS7	R	F	◇
26.000	0.875	**2363710**	**HDS1**	R	F	
INCH Shaft Diameter – 23.750" (603.25 mm)						
25.750	0.813	2575558	HS8	R	F	◇
26.750	1.500	**2375902**	**HDS1**	R	F	
INCH Shaft Diameter – 23.875" (606.43 mm)						
26.000	0.875	**2388620**	**HDS1**	R	F	
26.000	0.875	2387962	HDSA2	RD	F	
26.000	0.875	2387967	HDSA2	VD	F	
INCH Shaft Diameter – 24.000" (609.60 mm)						
25.500	0.750	**565622**	**HDS1**	R	F	
		SPECIAL CASE FOR VRING SURFACE				
25.500	0.750	**2400250**	**HDS1**	R	F	
25.500	0.750	**2400239**	**HDS2**	V	F	
25.500	0.750	**2400255**	**HDS2L16**	R	F	
25.500	0.750	**558075**	**HDS7**	R	F	
25.500	0.750	593519	HS5	R	F	◇
25.500	0.750	2400258	HS8	R	F	◇
26.000	0.813	2400557	HS7	R	F	◇
26.000	0.813	2400558	HS8	R	F	◇
26.000	0.875	**2400560**	**HDS1**	R	F	
26.000	0.875	**2400529**	**HDS2**	D	F	
26.000	0.875	**2400559**	**HDS2**	R	F	
26.000	0.875	**2400577**	**HDS2**	V	F	
26.000	0.875	2400519	HS8	D	F	◇
26.000	0.875	2400528	HS8	V	F	◇
26.000	1.000	2400588	HS8	R	F	◇
26.000	1.000	2400-2600-64 HS8 D	HS8	D	F	◇
26.250	0.750	2400657	HS7	R	F	◇
26.250	1.000	**2400680**	**HDS1**	R	F	
26.250	1.000	**2400682**	**HDS1L16**	R	F	
26.250	1.000	**2400685**	**HDS2**	R	F	
26.250	1.000	**2400684**	**HDS2L16**	R	F	
26.500	1.000	**2400784**	**HDS2**	R	F	
26.500	1.000	2400767	HS7	D	F	◇
26.500	1.000	2400747	HS7	V	F	◇
METRIC Shaft Diameter – 610 mm (24.016")						
654	20	**610X654X20 HDS2 V**	**HDS2**	V	F	■
660	20	**610X660X20 HDS2 R**	**HDS2**	R	F	
660	25	**610X660X25 HDS7 R**	**HDS7**	R	F	
METRIC Shaft Diameter – 615 mm (24.213")						
645	20	615X645X20 HS8 R	HS8	R	F	◇
665	24	615X665X24 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 24.250" (615.95 mm)						
26.000	1.000	**2425419**	**HDS7**	H	F	
26.250	0.875	**2425560**	**HDS1**	R	F	
26.250	0.875	**2425562**	**HDS2**	V	F	
26.250	1.000	**2425580**	**HDS1**	R	F	
26.250	1.000	2416-2616-64 HS5 D	HS5	D	F	◇
26.250	1.000	2425588	HS8	R	F	◇
26.750	1.000	**2425780**	**HDS1**	R	F	
METRIC Shaft Diameter – 620 mm (24.409")						
660	20	**620X660X20 HDS1 R1**	**HDS1**	R	F	
670	22	**620X670X22 HDS2 R**	**HDS2**	R	F	
670	22	**620X670X22 HDS2 V**	**HDS2**	V	F	
670	22	**620X670X22 HDS7 R1**	**HDS7**	R	F	
684	25	**620X684X25 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 24.438" (620.73 mm)						
26.000	0.750	**2444300**	**HDS1**	R	F	
26.438	0.625	**2444520**	**HDS1**	R	F	
26.438	0.750	**2444540**	**HDS1**	R	F	
26.438	0.750	**2444541**	**HDS1L04**	R	F	
26.438	0.750	**2444542**	**HDS2**	R	F	
26.438	0.813	**2444550**	**HDS1**	R	F	
INCH Shaft Diameter – 24.500" (622.30 mm)						
25.500	0.500	2450017	HS7	R	F	◇
25.500	0.500	2450018	HS8	R	F	◇
25.625	0.625	2450068	HS8	R	F	◇
26.000	0.750	2450257	HS7	R	F	◇
26.500	0.813	2450557	HS7	R	F	◇
26.500	0.875	**2450560**	**HDS1**	R	F	
26.500	0.875	**2450564**	**HDS1**	V	F	
26.500	0.875	**2450563**	**HDS2**	R	F	
26.500	0.875	**2450567**	**HDS2**	V	F	
METRIC Shaft Diameter – 625 mm (24.606")						
675.80	19	625X675.80X19 HS8 D	HS8	D	F	◇
676	19	625X676X19 HS8 D	HS8	D	F	◇
INCH Shaft Diameter – 24.750" (628.65 mm)						
26.750	0.625	**2475520**	**HDS1**	R	F	
26.750	0.916	527356	HS6	R	F	◇
METRIC Shaft Diameter – 630 mm (24.803")						
670	20	**630X670X20 HDS1 R**	**HDS1**	R	F	
670	20	**630X670X20 HDS1 V**	**HDS1**	V	F	
670	20	**630X670X20 HDS2 R**	**HDS2**	R	F	
670	20	630X670X20 HS8 R	HS8	R	F	◇
670	20	630X670X20 HS8 V	HS8	V	F	◇
674	20	**630X674X20 HDS1 R**	**HDS1**	R	F	■
680	25	**630X680X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 25.000" (635.00 mm)						
26.500	0.750	**2500250**	**HDS1**	R	F	
26.500	0.750	**2500217**	**HDS1**	V	F	
26.500	0.750	**2500251**	**HDS1L08**	R	F	
26.500	0.750	**2500253**	**HDS2**	R	F	
26.500	0.750	**2500210**	**HDS7**	R	F	
26.500	0.750	2500247	HS7	D	F	◇
26.500	0.750	2500257	HS7	R	F	◇
26.500	0.750	594375	HS8	D	F	◇
26.500	0.750	2500258	HS8	R	F	◇
26.988	0.906	2500478	HS8	V	F	◇

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INCH Shaft Diameter (cont.) – 25.000" (635.00 mm)						
27.000	0.813	2500558	HS8	D	F	◇
27.000	0.875	**2500560**	**HDS1**	R	F	
27.000	0.875	**2500563**	**HDS2**	V	F	
27.000	0.875	**2500564**	**HDS2L08**	R	F	
27.000	0.875	593183	HS5	R	F	◇
27.000	0.916	2500559	HS8	D	F	◇
27.000	1.000	**2500580**	**HDS1**	R	F	
27.000	1.000	2500587	HS7	R	F	◇
27.000	1.000	2500588	HS8	R	F	◇
27.000	1.100	593484	HDSA2	RD	F	
27.250	1.000	**2500680**	**HDS1**	R	F	
27.500	1.000	**2500780**	**HDS1**	R	F	
INCH Shaft Diameter – 25.125" (638.18 mm)						
26.750	0.750	**2513330**	**HDS1**	R	F	
26.750	0.750	**528503**	**HDS2**	R	F	
INCH Shaft Diameter – 25.188" (639.78 mm)						
26.875	0.750	**2518344**	**HDS2**	V	F	
METRIC Shaft Diameter – 640 mm (25.197")						
680	20	**640X680X20 HDS1 V**	**HDS1**	V	F	
690	25	**640X690X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 25.250" (641.35 mm)						
26.750	0.750	**2525250**	**HDS1**	R	F	
27.250	0.875	**2525562**	**HDS2**	R	F	
27.250	1.000	2525588	HS8	R	F	◇
27.500	0.875	**2525660**	**HDS1**	R	F	
INCH Shaft Diameter – 25.375" (644.53 mm)						
27.375	1.000	**2537583**	**HDS1**	V	F	
INCH Shaft Diameter – 25.500" (647.70 mm)						
27.000	0.750	**2550250**	**HDS1**	R	F	
27.500	0.750	**2532-2732-48 HSS8 H**	**HSS8**	H	F	◇
27.500	0.813	2550557	HS7	R	F	◇
27.500	0.875	**2550560**	**HDS1**	R	F	
27.500	0.875	**2550565**	**HDS2**	R	F	
27.500	1.000	**2550580**	**HDS1**	R	F	
27.500	1.000	**2550585**	**HDS2**	R	F	
METRIC Shaft Diameter – 650 mm (25.591")						
700	20	650X700X20 HS8 R	HS8	R	F	◇
700	22	**650X700X22 HDS2 D**	**HDS2**	D	F	
700	22	**650X700X22 HDS2 V**	**HDS2**	V	F	
700	25	650X700X25 HS8 R	HS8	R	F	◇
710	25	**650X710X25 HDS2 R**	**HDS2**	R	F	
714	25	**650X714X25 HDS7 R**	**HDS7**	R	F	
INCH Shaft Diameter – 25.750" (654.05 mm)						
26.750	0.500	2575017	HS7	R	F	◇
26.875	0.500	2575057	HS7	R	F	◇
26.875	0.500	528623	HS8	R	F	◇
27.250	0.750	**2575250**	**HDS1**	R	F	
METRIC Shaft Diameter – 660 mm (25.984")						
690	18	**660X690X18 HDS1 R**	**HDS1**	R	F	
700	18	**660X700X18 HDS1 R**	**HDS1**	R	F	
700	18	660X700X18 HS5 R	HS5	R	F	◇
700	18	660X700X18 HS8 R	HS8	R	F	◇
700	20	**660X700X20 HSS5 H**	**HSS5**	H	F	◇
700	20	**660X700X20 HSS8 H**	**HSS8**	H	F	◇
700	25	**660X700X25 HDS2 V**	**HDS2**	V	F	
704	20	**660X704X20 HSS5 V**	**HSS5**	V	F	◇
720	22	**660X720X22 HDS1 R**	**HDS1**	R	F	
724	25	**660X724X25 HDS1 R**	**HDS1**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 26.000" (660.40 mm)						
27.000	0.500	2600017	HS7	R	F	◇
27.500	0.750	2600218	HS8	D	F	◇
27.625	0.750	**2600330**	**HDS1**	R	F	
27.625	0.750	**2600332**	**HDS2**	R	F	
27.625	0.750	**2600334**	**HDS2**	V	F	
27.984	0.953	510900	HS6	R	F	◇
28.000	0.813	**2600550**	**HDS1**	R	F	
28.000	0.813	2600557	HS7	R	F	◇
28.000	0.874	**2600563**	**HDS2**	R	F	
28.000	1.000	**2600580**	**HDS1**	R	F	
28.000	1.000	2600587	HS7	R	F	◇
28.000	1.000	2600518	HS8	V	F	◇
28.125	0.916	2600648	HS8	R	F	◇
28.500	0.875	**2600760**	**HDS1**	R	F	
28.500	0.875	**2600761**	**HDS1L08**	R	F	
INCH Shaft Diameter – 26.125" (663.58 mm)						
27.625	0.750	**2613250**	**HDS1**	R	F	
28.125	0.875	**2613560**	**HDS1**	R	F	
28.125	0.875	**2612563**	**HDS1**	V	F	
28.125	0.875	**2613562**	**HDS2**	R	F	
28.125	0.875	**2612564**	**HDS2**	V	F	
28.125	0.875	**2608-2808-56 HDS2 H**	**HDS2**	H	F	
28.125	0.875	**2608-2808-56 HDS7 H**	**HDS7**	H	F	
INCH Shaft Diameter – 26.188" (665.18 mm)						
27.625	0.750	**2612-2740-48 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 26.250" (666.75 mm)						
28.132	0.855	593021	HS8	R	F	◇
INCH Shaft Diameter – 26.375" (669.93 mm)						
27.627	0.625	2637118	HS8	R	F	◇
28.250	0.875	**2638480**	**HDS1**	R	F	
28.375	0.813	2638557	HS7	R	F	◇
METRIC Shaft Diameter – 670 mm (26.378")						
710	20	**670X710X20 HDS1 R**	**HDS1**	R	F	■
710	20	**670X710X20 HDS1 R1**	**HDS1**	R	F	
INCH Shaft Diameter – 26.500" (673.10 mm)						
28.000	0.750	**2650250**	**HDS1**	R	F	
28.000	0.750	**2650253**	**HDS2**	D	F	
28.000	0.750	**2650212**	**HDS2**	R	F	
28.000	0.750	**2650283**	**HDS2**	V	F	
28.000	0.750	**2650240**	**HDS7**	R	F	
28.000	0.750	**2650241**	**HDS7L08**	R	F	
28.000	0.750	2650257	HS7	R	F	◇
28.000	0.750	2650238	HS8	D	F	◇
28.000	0.750	2650258	HS8	R	F	◇
28.000	0.750	2632-2800-48 HS8 V	HS8	V	F	■◇
28.500	0.813	2650557	HS7	R	F	◇
28.500	0.875	**2650560**	**HDS1**	R	F	
28.500	0.875	2650538	HS8	R	F	◇
28.500	0.875	2632-2832-56 HS8 V	HS8	V	F	◇
28.750	0.875	**2650660**	**HDS1**	R	F	
METRIC Shaft Diameter – 680 mm (26.772")						
730	20	**680X730X20 HDS1 V**	**HDS1**	V	F	
730	22	680X730X22 HDSA1 VD	HDSA1	VD	F	
740	30	**680X740X30 HDS2 R**	**HDS2**	R	F	
744	25	680X744X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 26.875" (682.63 mm)						
28.875	0.813	2688557	HS7	R	F	◇

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 26.938" (684.23 mm)						
29.000	0.750	**2693612**	**HDS2**	R	F	
METRIC Shaft Diameter – 685 mm (26.696")						
720	20	**685X720X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 27.000" (685.80 mm)						
28.500	0.625	2700218	HS8	R	F	◇
29.000	0.750	**2700540**	**HDS1**	R	F	
29.000	0.750	**2700542**	**HDS2**	R	F	
29.000	0.750	**558079**	**HDS7**	R	F	
29.000	0.813	2700559	HS8	D	F	◇
29.000	0.813	2700558	HS8	R	F	◇
29.000	0.866	**2700568**	**HDS1L24**	R	F	
29.000	0.875	**2700564**	**HDS2**	R	F	
29.000	0.875	**2700574**	**HDS2**	V	F	
29.000	0.875	**59794976**	**HDS7**	R	F	
29.000	0.875	**2700529**	**HDS7**	V	F	
29.000	1.000	**2700583**	**HDS1**	V	F	
29.500	0.875	**2700519**	**HDS7**	R	F	
29.500	1.000	**2700780**	**HDS1**	R	F	
METRIC Shaft Diameter – 690 mm (27.165")						
730	20	**690X730X20 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 27.250" (692.15 mm)						
29.250	0.813	**2725550**	**HDS1**	R	F	
29.250	0.875	**2725563**	**HDS2**	R	F	
INCH Shaft Diameter – 27.500" (698.50 mm)						
28.750	0.625	2750117	HS7	R	F	◇
29.000	0.750	**2750250**	**HDS1**	R	F	
29.000	0.750	2750218	HS8	R	F	◇
29.500	0.875	**2750564**	**HDS2**	R	F	
29.500	0.875	**2750565**	**HDS2L16**	R	F	
29.500	0.875	**2750510**	**HDS7**	R	F	
29.500	0.875	**2750600**	**HDS7L16**	R	F	
29.520	0.984	**2755502**	**HDS2**	R	F	
METRIC Shaft Diameter – 700 mm (27.559")						
740	20	**700X740X20 HDS1 R**	**HDS1**	R	F	
740	20	700X740X20 HS5 D	HS5	D	F	◇
750	20	**700X750X20 HDS1 R**	**HDS1**	R	F	
750	25	**700X750X25 HDS2 V**	**HDS2**	V	F	
750	25	**700X750X25 HDSF2 VT**	**HDSF2**	VT	F	
750	25	**700X750X25 HDSH2 VT**	**HDSH2**	VT	F	
755.65	34.92	**2755962**	**HDSA2**	RL	F	
INCH Shaft Diameter – 27.625" (701.68 mm)						
29.125	0.750	**2763250**	**HDS1**	R	F	
29.625	0.750	**2763540**	**HDS1**	R	F	
INCH Shaft Diameter – 27.875" (708.03 mm)						
29.812	0.875	**2788500**	**HDS1**	R	F	
29.815	0.875	**2788600**	**HDS7**	R	F	
29.875	0.813	2788557	HS7	R	F	◇
METRIC Shaft Diameter – 710 mm (27.953")						
750	23	**710X750X23 HDS2L9.5 V**	**HDS2**	V	F	
760	20	**710X760X20 HDS1 V**	**HDS1**	V	F	
760	20	**710X760X20 HDS2 R**	**HDS2**	R	F	
760	20	**710X760X20 HDS2 V**	**HDS2**	V	F	
760	20	**710X760X20 HSS5 H**	**HSS5**	H	F	◇
760	20	**710X760X20 HSS8 H**	**HSS8**	H	F	◇
760	25	**710X760X25 HDS2 D**	**HDS2**	D	F	
760	25	**710X760X24.9 HDS2 D**	**HDS2**	D	F	
760	25	710X760X25 HS5 D	HS5	D	F	◇
774	22	**710X774X22 HDS2L4 R**	**HDS2L4**	R	F	
INCH Shaft Diameter – 28.000" (711.20 mm)						
29.500	0.750	**2800250**	**HDS1**	R	F	
29.500	0.750	**592845**	**HDS2**	R	F	
29.500	0.750	**2800240**	**HDS7**	R	F	
29.500	0.750	**2800241**	**HDS7L08**	R	F	
29.500	0.750	2800257	HS7	R	F	◇
29.625	0.750	**2800331**	**HDS2**	R	F	
30.000	0.813	2800558	HS8	R	F	◇
30.000	0.875	**2800560**	**HDS1**	R	F	
30.000	0.875	**2800573**	**HDS1**	V	F	
30.000	0.875	**2800565**	**HDS2**	R	F	
30.000	0.875	**2800566**	**HDS2L08**	R	F	
30.000	0.875	**2800590**	**HDS7**	R	F	
31.000	0.875	**2800872**	**HDS2**	R	F	
INCH Shaft Diameter – 28.038" (712.17 mm)						
31.038	1.000	596103	HDSA2	VL	F	
METRIC Shaft Diameter – 715 mm (28.150")						
779	25	**715X779X25 HDS7 D**	**HDS7**	D	F	
METRIC Shaft Diameter – 720 mm (28.346")						
770	25	**720X770X25 HDS2 R**	**HDS2**	R	F	
770	25	720X770X25 HS8 D	HS8	D	F	◇
784	23	**720X784X23 HDS7 R**	**HDS7**	R	F	
784	23	**720X784X23 HDS7 R1**	**HDS7**	R	F	
INCH Shaft Diameter – 28.500" (712.17 mm)						
30.500	0.625	**2850520**	**HDS1**	R	F	
30.500	0.750	**2850540**	**HDS1**	R	F	
30.500	0.875	**2850564**	**HDS1L16**	V	F	
30.500	0.875	**2850565**	**HDS2**	R	F	
30.500	0.875	**2850211**	**HDS7**	H	F	
31.000	0.875	**2850760**	**HDS1**	R	F	
METRIC Shaft Diameter – 725 mm (28.543")						
775	25	725X775X25 HS8 R	HS8	R	F	◇
METRIC Shaft Diameter – 730 mm (28.740")						
794	25	**730X794X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 28.750" (730.25 mm)						
30.750	0.813	2875557	HS7	R	F	◇
30.750	0.875	**2875560**	**HDS1**	R	F	
30.750	0.875	**2875567**	**HDS1**	V	F	
30.750	0.875	**2875562**	**HDS2**	R	F	
INCH Shaft Diameter – 28.937" (735.00 mm)						
31.437	0.984	**2893729**	**HDS7**	V	F	■
METRIC Shaft Diameter – 735 mm (28.937")						
799	25	**735X799X25 HDS7 H**	**HDS7**	H	F	
INCH Shaft Diameter – 28.938" (735.03 mm)						
31.437	0.984	**2893769**	**HDS7**	D	F	
INCH Shaft Diameter – 29.000" (736.60 mm)						
30.500	0.750	**2900250**	**HDS1**	R	F	
30.500	0.875	2900270	HDSA1	RL	F	
31.000	0.813	2900557	HS7	R	F	◇
31.000	0.875	**2900560**	**HDS1**	R	F	
31.000	0.875	**2900563**	**HDS2**	R	F	
31.000	0.875	**2900565**	**HDS2L16**	R	F	
31.000	0.875	**2900579**	**HDS7**	R	F	
31.000	0.875	**2900570**	**HDS7L16**	R	F	
31.000	1.000	**2900580**	**HDS1**	R	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter – 740 mm (29.134")						
780	16.50	**740X780X16.5 HDS1 R**	**HDS1**	R	F	
780	18	740X780X18 HS5 R	HS5	R	F	◇
780	18	740X780X18 HS8 R	HS8	R	F	◇
790	25	**740X790X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 29.500" (749.30 mm)						
31.219	0.734	2950438	HS8	D	F	◇
31.500	0.750	**2950540**	**HDS1**	R	F	
31.500	0.813	2950528	HS8	R	F	◇
31.500	0.875	**2950560**	**HDS1**	R	F	
31.500	0.875	**2950564**	**HDS2**	D	F	
31.500	0.875	**2950552**	**HDS2**	V	F	
31.500	1.000	2950525	HS5	R	F	◇
32.000	0.875	**2950760**	**HDS1**	R	F	
32.000	0.875	**2950765**	**HDS2**	R	F	
32.000	0.938	**2950770**	**HDS1**	R	F	
32.000	1.000	**2950783**	**HDS2**	R	F	
METRIC Shaft Diameter – 750 mm (29.528")						
780	18	**750X780X18 HDS1 R**	**HDS1**	R	F	
780	18	**750X780X18 HDS1 V**	**HDS1**	V	F	
790	23	**750X790X23 HDS1 V**	**HDS1**	V	F	
800	25	**750X800X25 HDS1 R**	**HDS1**	R	F	
800	25	**750X800X25 HDS2 R**	**HDS2**	R	F	
810	22	**750X810X22 HDSF2 RT**	**HDSF2**	RT	F	
810	25	**750X810X25 HDS1 R**	**HDS1**	R	F	
810	25	750X810X25 HS4 R	HS4	R	F	◇
814	25	**750X814X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 30.000" (762.00 mm)						
31.125	0.500	3000115	HS5	V	F	◇
31.125	0.500	3000678	HS8	V	F	◇
31.250	0.625	3000118	HS8	R	F	◇
31.500	0.750	**3000250**	**HDS1**	R	F	
31.606	0.750	**3000303**	**HDS2**	R	F	
32.000	0.813	**3000550**	**HDS1**	R	F	
32.000	0.813	**3000552**	**HDS1L08**	R	F	
32.000	0.813	3000557	HS7	R	F	◇
32.000	0.875	**3000560**	**HDS1**	R	F	
32.000	0.875	**3000529**	**HDS2**	R	F	
32.000	1.000	3000578	HS8	D	F	◇
32.000	1.000	3000519	HS8	H	F	◇
32.000	1.000	3000518	HS8	R	F	◇
32.500	0.875	**3000760**	**HDS1**	R	F	
INCH Shaft Diameter – 30.250" (768.35 mm)						
32.250	0.750	**3025540**	**HDS1**	R	F	
32.250	0.750	**3025542**	**HDS2**	V	F	
32.500	0.875	**3025660**	**HDS1**	R	F	
32.500	0.875	**3025661**	**HDS1L08**	R	F	
INCH Shaft Diameter – 30.313" (769.95 mm)						
32.375	0.875	**3031600**	**HDS1**	R	F	
33.250	1.500	**3031830**	**HDS1**	R	F	
METRIC Shaft Diameter – 770 mm (30.315")						
810	20	**770X810X20 HDS1 V**	**HDS1**	V	F	
845	27.80	**770X845X27.8 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 30.375" (771.53 mm)						
32.375	0.813	**3038550**	**HDS1**	R	F	
32.375	0.813	3038557	HS7	R	F	◇
INCH Shaft Diameter – 30.500" (774.70 mm)						
32.500	0.750	**3050542**	**HDS2**	R	F	
32.500	0.875	**3050560**	**HDS1**	R	F	
32.500	0.875	**3050563**	**HDS1L16**	R	F	
INCH Shaft Diameter (cont.) – 30.500" (774.70 mm)						
32.500	0.875	**3050565**	**HDS2**	R	F	
32.500	0.875	**3050514**	**HDS2**	V	F	
32.500	0.875	**3050566**	**HDS2L16**	V	F	
32.500	0.875	**3050511**	**HDS7**	H	F	
32.750	1.000	**3050680**	**HDS1**	R	F	
33.000	1.000	**3050780**	**HDS1**	R	F	
33.000	1.000	**3050785**	**HDS2**	R	F	
33.000	1.000	**3050759**	**HDS7**	R	F	
33.500	1.000	**3050892**	**HDS2**	R	F	
METRIC Shaft Diameter – 780 mm (30.709")						
820	18	780X820X18 HS8 R	HS8	R	F	◇
830	22	780X830X22 HS5 R	HS5	R	F	◇
INCH Shaft Diameter – 30.750" (781.05 mm)						
32.742	0.875	**522612**	**HDS1L12**	R	F	■
32.750	0.916	530106	HS8	R	F	◇
INCH Shaft Diameter – 31.000" (787.40 mm)						
32.500	0.750	**522342**	**HDS1**	D	F	
32.500	1.000	**3100290**	**HDS1**	R	F	
33.000	0.813	**3100550**	**HDS1**	R	F	
33.000	0.875	**3100560**	**HDS1**	R	F	
33.000	0.875	**3100561**	**HDS1L08**	R	F	
33.000	0.875	**3100562**	**HDS2**	D	F	
33.000	0.875	**3100563**	**HDS2**	R	F	
33.000	0.875	**3100-3300-56 HDS2 H**	**HDS2**	H	F	
33.000	0.875	**3100511**	**HDS7L08**	D	F	
33.000	0.875	3100567	HS7	R	F	◇
33.000	0.885	**3100525**	**HSS5**	V	F	◇
33.188	0.953	513184	HS6	R	F	◇
34.000	0.875	**3100870**	**HDS1**	R	F	
34.000	1.000	**3100895**	**HDS2**	R	F	
METRIC Shaft Diameter – 790 mm (31.102")						
830	23	**790X830X23 HDS1 V**	**HDS1**	V	F	
834	25	**790X834X25 HDS1 R**	**HDS1**	R	F	
840	20	790X840X20 HS8 R	HS8	R	F	◇
850	25	**790X850X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 31.250" (793.75 mm)						
33.250	0.750	**3125540**	**HDS1**	R	F	
33.250	0.750	**3125544**	**HDS2L16**	R	F	
METRIC Shaft Diameter – 800 mm (31.496")						
840	18	**800X840X18 HSS8 V**	**HSS8**	V	F	◇
840	20	**800X840X20 HDS1 R**	**HDS1**	R	F	
860	25	**800X860X25 HDS1 R**	**HDS1**	R	F	
864	25	**800X864X25 HDS1 R**	**HDS1**	R	F	
864	25	**800X864X25 HSS8 H**	**HSS8**	H	F	◇
INCH Shaft Diameter – 31.500" (800.10 mm)						
33.000	0.750	**3150210**	**HDS1**	R	F	
33.500	1.000	3150525	HS5	R	F	◇
INCH Shaft Diameter – 31.750" (806.45 mm)						
33.750	0.875	**3175560**	**HDS1**	R	F	
33.750	0.875	**3175522**	**HDS2**	H	F	
33.750	0.875	**3175562**	**HDS2**	R	F	
33.750	0.875	**3175549**	**HDS2**	V	F	
33.750	0.875	**3175529**	**HDS7**	H	F	
METRIC Shaft Diameter – 810 mm (31.890")						
850	20	**810X850X20 HDS1 V**	**HDS1**	V	F	
860	25	**810X860X25 HDS2 R**	**HDS2**	R	F	
874	25	810X874X25 HS5 R	HS5	R	F	◇

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Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 31.938" 811.23 mm)						
33.750	0.875	**3193442**	**HDS2**	V	F	
33.750	0.875	**3193429**	**HDS2L10**	H	F	
33.750	0.875	**3193449**	**HDS7**	H	F	
INCH Shaft Diameter – 32.000" (812.80 mm)						
34.000	0.750	**3200540**	**HDS1**	R	F	
34.000	0.750	**3200541**	**HDS1**	V	F	
34.000	0.875	**3200560**	**HDS1**	R	F	
34.000	0.875	**3200564**	**HDS1L16**	R	F	
34.000	0.875	**3200562**	**HDS2**	D	F	
34.000	0.875	**3200563**	**HDS2**	R	F	
34.000	1.000	**3200580**	**HDS1**	R	F	
34.500	0.875	**3200760**	**HDS1**	R	F	
INCH Shaft Diameter – 32.125" (815.98 mm)						
34.125	0.875	**3212563**	**HDS1**	V	F	
34.125	0.875	**3213564**	**HDS2L16**	R	F	
METRIC Shaft Diameter – 820 mm (32.283")						
860	18	**820X860X18 HSS8 V**	**HSS8**	V	F	◇
884	25	820X884X25 HS8 V	HS8	V	F	◇
INCH Shaft Diameter – 32.313" (820.75 mm)						
34.500	0.875	**3231642**	**HDS2**	R	F	
34.500	0.906	3231648	HS8	R	F	◇
INCH Shaft Diameter – 32.375" (822.33 mm)						
34.375	1.000	3237519	HS8	H	F	◇
34.375	1.000	3237518	HS8	R	F	◇
METRIC Shaft Diameter – 820 mm (32.283")						
860	20	**825X860X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 32.500" (825.50 mm)						
33.625	0.500	3250078	HS8	V	F	◇
33.625	0.563	3250117	HS7	R	F	◇
34.449	0.787	**3250692**	**HDS2**	V	F	◤
34.500	0.813	**3250550**	**HDS1**	R	F	
34.500	0.875	**3250560**	**HDS1**	R	F	
34.500	0.875	**3250561**	**HDS1L04**	R	F	
34.500	0.875	**3250566**	**HDS2**	R	F	
34.500	0.875	3250518	HS8	R	F	◇
34.500	0.916	3250577	HS7	R	F	◇
34.500	0.938	**3250570**	**HDS1**	R	F	
34.500	0.938	**3250574**	**HDS2**	R	F	
34.500	1.000	3250588	HS8	R	F	◇
34.921	0.787	**3250592**	**HDS2**	V	F	◤
INCH Shaft Diameter – 33.000" (838.20 mm)						
34.500	0.750	**3300250**	**HDS1**	R	F	
34.625	0.750	**3300330**	**HDS1**	R	F	
34.630	0.750	**3300342**	**HDS2**	R	F	
34.688	0.750	**3300351**	**HDS2**	R	F	
35.000	0.874	**3300515**	**HSS5**	R	F	◇
35.000	0.875	**3300560**	**HDS1**	R	F	
35.000	0.875	**3300565**	**HDS2**	R	F	
35.000	0.875	**3300562**	**HDS2L08**	R	F	
35.000	0.875	3300518	HS8	R	F	◇
35.250	0.875	**3300660**	**HDS1**	R	F	
35.500	0.750	**3300792**	**HDS2**	R	F	
35.500	0.875	**3300760**	**HDS1**	R	F	
35.500	0.938	**3300772**	**HDS2**	R	F	
36.000	1.000	**3300890**	**HDS1**	R	F	
36.000	1.000	596104	HDSA2	VD	F	
METRIC Shaft Diameter – 840 mm (33.071")						
880	23	**840X880X23 HDS2 V**	**HDS2**	V	F	
904	25	**840X904X25 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 33.250" (844.55 mm)						
35.250	0.750	529947	HS8	D	F	◇
METRIC Shaft Diameter – 850 mm (33.465")						
890	20	**850X890X20 HSS5 H**	**HSS5**	H	F	◇
900	22	850X900X22 HS8 R	HS8	R	F	◇
925	25	**850X925X25 HDS2 R**	**HDS2**	R	F	
925	27	**850X925X27 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 33.500" (850.90 mm)						
35.500	0.813	3350557	HS7	R	F	◇
35.500	0.875	**3350560**	**HDS1**	R	F	
36.000	0.875	**3350760**	**HDS1**	R	F	
36.000	0.875	**3350762**	**HDS1L16**	R	F	
36.417	0.875	**3350840**	**HDS1**	R	F	
METRIC Shaft Diameter – 860 mm (33.858")						
920	25	**860X920X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 34.000" (863.60 mm)						
36.000	0.813	**3400550**	**HDS1**	R	F	
36.000	0.813	3400557	HS7	R	F	◇
36.000	0.875	**3400560**	**HDS1**	R	F	
36.000	0.875	**3400534**	**HDS2**	R	F	
36.000	0.875	**3400565**	**HDS2L16**	R	F	
36.500	0.875	**3400760**	**HDS1**	R	F	
INCH Shaft Diameter – 34.250" (869.95 mm)						
36.250	0.875	**3425560**	**HDS1**	R	F	
36.750	0.875	**3425761**	**HDS1L24**	R	F	
INCH Shaft Diameter – 34.500" (876.30 mm)						
36.000	0.750	**3450250**	**HDS1**	R	F	
36.000	0.750	**3450253**	**HDS2**	R	F	
36.500	0.870	**3450576**	**HDS2**	V	F	
36.500	0.875	**3450560**	**HDS1**	R	F	
36.500	0.875	**3450563**	**HDS2**	D	F	
36.500	0.875	**3450518**	**HDS2**	H	F	
36.500	0.875	**3450589**	**HDS7**	R	F	
36.500	1.000	**3450582**	**HDS2**	R	F	
36.500	1.000	**3450574**	**HDS2**	V	F	
36.500	1.000	3450558	HS8	R	F	◇
METRIC Shaft Diameter – 880 mm (34.646")						
944	22	**880X944X22 HDS1 R**	**HDS1**	R	F	
944	25	**880X944X25 HDS1 V**	**HDS1**	V	F	
INCH Shaft Diameter – 34.750" (882.65 mm)						
36.750	0.875	**3475560**	**HDS1**	R	F	
36.750	0.875	**3475562**	**HDS2**	R	F	
INCH Shaft Diameter – 34.955" (887.86 mm)						
37.000	0.874	**567229**	**HDS2**	R	F	
INCH Shaft Diameter – 35.000" (889.00 mm)						
36.000	0.500	3500017	HS7	R	F	◇
37.000	0.813	**3500550**	**HDS1**	R	F	
37.000	0.874	**3500565**	**HDS2**	R	F	
37.000	0.875	**3500560**	**HDS1**	R	F	
INCH Shaft Diameter – 35.250" (895.35 mm)						
37.250	0.875	**3525567**	**HDS1**	V	F	
38.250	0.813	**3525862**	**HDS2**	R	F	
INCH Shaft Diameter – 35.375" (898.53 mm)						
37.375	0.875	**3538560**	**HDS1**	R	F	

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter – 900 mm (35.433")						
950	25	**900X950X25 HDS2 R1**	**HDS2**	R	F	
INCH Shaft Diameter – 35.500" (901.70 mm)						
37.500	0.875	**3550560**	**HDS1**	R	F	
38.000	1.000	**3550780**	**HDS1**	R	F	
INCH Shaft Diameter – 35.750" (908.05 mm)						
37.750	0.813	**3575558**	**HS8**	R	F	◇
METRIC Shaft Diameter – 910 mm (35.827")						
966	17.90	910X966X17.9 HS5 R	HS5	R	F	◇
INCH Shaft Diameter – 36.000" (914.40 mm)						
38.000	0.813	3600557	HS7	R	F	◇
38.000	0.813	3600558	HS8	R	F	◇
38.000	0.875	**3600560**	**HDS1**	R	F	
38.000	0.875	**3600562**	**HDS2**	R	F	
38.000	0.875	**3600565**	**HDS2L16**	R	F	
38.000	0.875	**3600589**	**HDS7**	R	F	
38.000	0.875	3600518	HS8	D	F	◇
38.109	0.953	512289	HS6	R	F	◇
38.500	0.875	**3600762**	**HDS2**	R	F	
METRIC Shaft Diameter – 920 mm (36.220")						
958	19	**920X958X19 HDS1 R**	**HDS1**	R	F	
980	25	**920X980X25 HDS2 R**	**HDS2**	R	F	
980	30	**920X980X30 HDS1 R**	**HDS1**	R	F	
984	25	**920X984X25 HDS1 V**	**HDS1**	V	F	
984	25	**920X984X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 36.500" (927.10 mm)						
38.500	0.875	**3650560**	**HDS1**	R	F	
39.000	0.625	**3650752**	**HDS2**	R	F	
INCH Shaft Diameter – 36.750" (933.45 mm)						
38.750	0.813	3675558	HS8	R	F	◇
38.750	0.916	527460	HS6	R	F	◇
INCH Shaft Diameter – 37.000" (939.80 mm)						
39.000	0.875	**3700560**	**HDS1**	R	F	
39.000	0.875	**3700563**	**HDS2**	R	F	
39.000	0.875	**3700564**	**HDS2L24**	R	F	
39.000	0.875	**3700579**	**HDS7**	R	F	
39.000	0.875	**3700574**	**HDS7L24**	R	F	
39.250	0.875	**3700660**	**HDS1**	R	F	
INCH Shaft Diameter – 37.250" (946.15 mm)						
39.250	0.875	**3725563**	**HDS2**	R	F	
INCH Shaft Diameter – 37.375" (949.33 mm)						
39.375	0.813	**3738557**	**HS7**	R	F	◇
METRIC Shaft Diameter – 950 mm (37.402")						
980	18	**950X980X18 HDS1 R**	**HDS1**	R	F	
1014	25	950X1014X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 37.500" (952.50 mm)						
39.000	0.875	**3750272**	**HDS2**	R	F	
39.000	0.875	**3750274**	**HDS2L08**	R	F	
39.500	0.750	**3750542**	**HDS2**	R	F	
39.500	0.875	**3750561**	**HDS1**	D	F	
39.500	0.875	**3750560**	**HDS1**	R	F	
39.500	0.875	**3750563**	**HDS2**	D	F	
39.500	0.875	**3750565**	**HDS2**	R	F	
40.000	1.000	**3732-4000-64 HDS2 V**	**HDS2**	V	F	
40.250	1.000	**3750830**	**HDS1**	R	F	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
METRIC Shaft Diameter – 960 mm (37.795")						
1000	20	**960X1000X20 HDS1 R**	**HDS1**	R	F	
1000	25	**960X1000X25 HDS1 D**	**HDS1**	D	F	
1020	25	**960X1020X25 HDS1 D1**	**HDS1**	D	F	
1020	25	**960X1020X25 HDS2 D**	**HDS2**	D	F	
1020	25	**960X1020X25 HDS2L10 D**	**HDS2**	D	F	
1020	25	**960X1020X25 HDS2 H**	**HDS2**	H	F	
1020	25	**960X1020X25 HDS2 V**	**HDS2**	V	F	
1040	23	**960X1040X23 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 38.000" (965.20 mm)						
39.500	0.750	**3800254**	**HDS2**	V	F	
39.500	0.750	3800288	HS8	D	F	◇
39.625	0.750	3800338	HS8	R	F	◇
40.000	0.813	3800557	HS7	R	F	◇
40.000	0.813	3800-4000-52 HS7 V	HS7	V	F	◇
40.000	0.875	**3800560**	**HDS1**	R	F	
40.000	0.875	**3800565**	**HDS2**	R	F	
40.000	0.875	**3800566**	**HDS2L16**	R	F	
40.000	0.875	**596088**	**HDS7**	R	F	
40.000	0.875	**596089**	**HDS7L16**	R	F	
METRIC Shaft Diameter – 970 mm (38.189")						
1020	22	**970X1020X22 HSS5 H**	**HSS5**	H	F	◇
INCH Shaft Diameter – 38.250" (971.55 mm)						
40.750	0.875	**3825761**	**HDS1L04**	R	F	
40.750	0.875	**3825552**	**HDS2L04**	R	F	
INCH Shaft Diameter – 38.500" (977.90 mm)						
40.375	0.750	529772	HS8	R	F	◇
40.500	0.813	3850557	HS7	R	F	◇
41.000	1.000	**3850782**	**HDS2**	R	F	
INCH Shaft Diameter – 38.750" (984.25 mm)						
40.750	0.813	3875557	HS7	R	F	◇
40.750	0.875	**3875563**	**HDS2**	R	F	
METRIC Shaft Diameter – 990 mm (38.976")						
1040	25	**990X1040X25 HDS2L5 R**	**HDS2L5**	R	F	
1045	25	**990X1045X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 39.000" (990.60 mm)						
41.000	0.750	**3900540**	**HDS1**	R	F	
41.000	0.750	**3900542**	**HDS2**	R	F	
41.000	0.875	**3900562**	**HDS2**	R	F	
41.000	0.875	**3900574**	**HDS2**	V	F	
41.000	0.875	**3900564**	**HDS2L16**	R	F	
41.000	0.875	**3900549**	**HDS7**	R	F	
41.250	0.875	**3900660**	**HDS1**	R	F	
METRIC Shaft Diameter – 1000 mm (39.370")						
1035	20	**1000X1035X20 HDS2 R**	**HDS2**	R	F	
1050	20	**1000X1050X20 HDS1 R**	**HDS1**	R	F	
1050	23	**1000X1050X23 HDS2 H**	**HDS2**	H	F	
1050	23	**1000X1050X23 HDS2 R**	**HDS2**	R	F	■
1050	23	**1000X1050X23 HDS2 R1**	**HDS2**	R	F	
1050	25	1000X1050X25 HS5 R	HS5	R	F	◇
1064	25	**1000X1064X25 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 39.750" (1009.65 mm)						
41.688	0.969	**3975500**	**HDS1**	R	F	
42.250	0.875	**3975760**	**HDS1**	R	F	
INCH Shaft Diameter – 40.000" (1016.00 mm)						
41.500	1.000	**4000290**	**HDS1**	R	F	
41.500	1.000	4000920	HDSA1	RL	F	
42.000	0.813	4000557	HS7	R	F	◇

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 40.000" (1016.00 mm)						
42.000	0.875	**4000560**	**HDS1**	R	F	
42.000	0.875	**4000576**	**HDS1**	V	F	
42.000	0.875	**4000561**	**HDS1L08**	R	F	
42.000	0.875	**4000562**	**HDS2**	R	F	
42.000	0.875	**4000-4200-56 HDS7 R**	**HDS7**	R	F	
42.000	1.100	593485	HDSA2	RD	F	
42.144	1.000	558188	HS7C	R	F	◇
METRIC Shaft Diameter – 1020 mm (40.157")						
1070	20	1020X1070X20 HS4 H	HS4	H	F	■◇
1070	20	1020X1070X20 HS6 H	HS6	H	F	◇
1070	25	1020X1070X25 HS4 R	HS4	R	F	◇
1084	25	**1020X1084X25 HDS1 R**	**HDS1**	R	F	
1084	25	**1020X1084X25 HSS4 H**	**HSS4**	H	F	◇
1084	25	**1020X1084X25 HSS5 H**	**HSS5**	H	F	◇
INCH Shaft Diameter – 40.250" (1022.35 mm)						
41.750	0.750	4025258	HS8	R	F	◇
METRIC Shaft Diameter – 1026 mm (40.394")						
1066	20	**1026X1066X20 HDS2 V**	**HDS2**	V	F	
1076	25	**1026X1076X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 40.500" (1028.70 mm)						
41.500	0.500	4050018	HS8	R	F	◇
41.750	0.750	**4050061**	**HDS7**	H	F	
42.500	0.875	**4050560**	**HDS1**	R	F	
43.000	0.875	**4050774**	**HDS2**	V	F	
43.000	0.875	**4050776**	**HDS2L16**	V	F	
INCH Shaft Diameter – 41.308" (1049.22 mm)						
43.836	1.000	566240	HS8	R	F	◇
METRIC Shaft Diameter – 1054 mm (41.496")						
1105	20	**1054X1105X20 HDS2 D**	**HDS2**	D	F	
INCH Shaft Diameter – 41.500" (1054.10 mm)						
43.500	0.875	**4150563**	**HDS2**	R	F	
43.566	0.825	597393	HS8C	R	F	◇
43.566	0.938	4150548	HS8	R	F	◇
43.858	0.938	558035	HSA8	D	F	◇
METRIC Shaft Diameter – 1055 mm (41.535")						
1100	25	**1055X1100X25 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter – 1060 mm (41.732")						
1100	20	**1060X1100X20 HDS2 V**	**HDS2**	V	F	
1100	20	**1060X1100X20 HDSF2 HT**	**HDSF2**	HT	F	
1100	20	**1060X1100X20 HDSH2 HT**	**HDSH2**	HT	F	
1124	25	**1060X1124X25 HSS4 V**	**HSS4**	V	F	◇
INCH Shaft Diameter – 41.813" (1062.05 mm)						
45.000	1.000	**4181900**	**HDS1**	R	F	
INCH Shaft Diameter – 41.875" (1063.63 mm)						
43.500	1.000	**4187312**	**HDS2**	R	F	
INCH Shaft Diameter – 42.000" (1066.80 mm)						
43.500	0.750	4200258	HS8	R	F	◇
43.566	0.825	557831	HS8C	R	F	◇
43.625	0.813	4200338	HS8	H	F	◇
44.000	0.813	4200-4400-52 HS8 H	HS8	H	F	◇
44.000	0.825	558142	HS8C	R	F	◇
44.144	1.000	558238	HS7C	R	F	◇
METRIC Shaft Diameter – 1070 mm (42.126")						
1120	20	1070X1120X20 HS6 R	HS6	R	F	◇
1125	25	**1070X1125X25 HDS1 R**	**HDS1**	R	F	
1140	25	**1070X1140X25 HDS1 V**	**HDS1**	V	F	
1140	25	**1070X1140X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 42.250" (1073.15 mm)						
44.250	1.000	**4225580**	**HDS1**	R	F	
INCH Shaft Diameter – 42.500" (1079.50 mm)						
44.250	0.750	**4250382**	**HDS2**	R	F	
45.000	0.875	**4250766**	**HDS1L32**	V	F	
45.000	0.875	**4250762**	**HDS2**	R	F	
METRIC Shaft Diameter – 1080 mm (42.520")						
1130	20	**1080X1130X20 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 43.000" (1092.20 mm)						
45.000	0.813	4300558	HS8	R	F	◇
45.000	1.000	**4300580**	**HDS1**	R	F	
45.500	0.875	**4300763**	**HDS2**	R	F	
INCH Shaft Diameter – 43.500" (1104.90 mm)						
45.500	0.875	**4350560**	**HDS1**	R	F	
45.500	0.875	**593047**	**HDS1L08**	R	F	
45.500	0.875	**4350565**	**HDS2**	R	F	
METRIC Shaft Diameter – 1105 mm (43.504")						
1160	25	**1105X1160X25 HDS1 R**	**HDS1**	R	F	
1169	25	**1105X1169X25 HSS5 V**	**HSS5**	V	F	◇
INCH Shaft Diameter – 44.000" (1117.60 mm)						
46.000	0.813	4400557	HS7	R	F	◇
46.000	0.875	**4400562**	**HDS2**	R	F	
46.500	0.875	**4400760**	**HDS1**	R	F	
47.000	1.125	**4400900**	**HDS1**	R	F	
INCH Shaft Diameter – 44.500" (1130.30 mm)						
46.500	0.813	**4450550**	**HDS1**	R	F	
47.000	0.875	**4450760**	**HDS1**	R	F	
47.000	0.875	**4450767**	**HDS1**	V	F	
METRIC Shaft Diameter – 1140 mm (44.882")						
1180	20	**1140X1180X20 HDS1 V**	**HDS1**	V	F	
1210	25	**1140X1210X25 HDS1 V**	**HDS1**	V	F	
1210	25	**1140X1210X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 45.000" (1143.00 mm)						
47.000	0.875	**4500560**	**HDS1**	R	F	
47.000	0.875	**4500567**	**HDS1**	V	F	
47.188	0.688	4500538	HS8	R	F	◇
INCH Shaft Diameter – 45.250" (1149.35 mm)						
47.000	1.000	**4525422**	**HDS2**	R	F	
METRIC Shaft Diameter – 1160 mm (45.669")						
1220	28	1160X1220X28 HDSA2 VD	HDSA2	VD	F	
INCH Shaft Diameter – 45.750" (1162.05 mm)						
47.768	0.875	**4575570**	**HDS1**	R	F	
INCH Shaft Diameter – 45.994" (1168.25 mm)						
48.250	1.000	**566611**	**HDS1**	V	F	
INCH Shaft Diameter – 46.000" (1168.40 mm)						
47.500	0.950	558091	HSA8	D	F	◇

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter (cont.) – 46.000" (1168.40 mm)						
47.750	1.000	**4600422**	**HDS2**	R	F	
47.984	0.953	513112	HS6	R	F	◇
48.000	1.000	**4600580**	**HDS1**	R	F	
48.250	1.000	**4600-4816-64 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 46.125" (1171.58 mm)						
48.125	1.000	**566594**	**HDSF2**	H	F	
INCH Shaft Diameter – 46.250" (1174.75 mm)						
47.750	0.750	4625258	HS8	R	F	◇
METRIC Shaft Diameter – 1180 mm (46.457")						
1230	20	1180X1230X20 HS6 R	HS6	R	F	◇
METRIC Shaft Diameter – 1184 mm (46.614")						
1248	25	1184X1248X25 HS8 H	HS8	H	F	◇
INCH Shaft Diameter – 47.000" (1193.80 mm)						
49.000	0.875	**4700560**	**HDS1**	R	F	
49.000	0.875	**4700567**	**HDS1**	V	F	
49.000	0.875	**4700565**	**HDS1L16**	R	F	
49.000	0.875	**4700566**	**HDS1L16**	V	F	
49.000	0.875	**4700511**	**HDS7**	H	F	
49.000	0.875	**595972**	**HDS7L08**	R	F	
METRIC Shaft Diameter – 1200 mm (47.244")						
1250	22	1200X1250X22 HS5 R	HS5	R	F	◇
1264	22.20	**1200X1264X22.2 HDS2 D**	**HDS2**	D	F	■
1264	22.20	**1200X1264X22.2 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 47.750" (1212.85 mm)						
50.500	1.250	**4775850**	**HDS1**	R	F	
INCH Shaft Diameter – 48.000" (1219.20 mm)						
49.500	0.750	**4800254**	**HDS2**	V	F	
50.000	1.000	**4800580**	**HDS1**	R	F	
METRIC Shaft Diameter – 1220 mm (48.031")						
1255	20	**1220X1255X20 HDS2 R**	**HDS2**	R	F	
INCH Shaft Diameter – 48.250" (1225.55 mm)						
50.250	0.875	**4825560**	**HDS1**	R	F	
50.250	0.875	**4825527**	**HDS1**	V	F	
50.250	0.875	**4825561**	**HDS1L32**	R	F	
50.250	0.875	**4825563**	**HDS2**	R	F	
50.250	0.875	**4825562**	**HDS2L24**	R	F	
50.250	0.875	**4816-5016-56 HDS7 R**	**HDS7**	R	F	
50.250	0.875	4825518	HS8	D	F	◇
METRIC Shaft Diameter – 1250 mm (49.213")						
1314	21.50	**1250X1314X21.5 HDS7 R1**	**HDS7**	R	F	
1314	21.54	**4921799**	**HDS7**	R	F	
INCH Shaft Diameter – 49.500" (1257.30 mm)						
52.250	1.000	**4950830**	**HDS1**	R	F	
52.250	1.000	**4950833**	**HDS2**	R	F	
METRIC Shaft Diameter – 1260 mm (49.606")						
1300	18	**1260X1300X18 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 49.750" (1263.65 mm)						
52.500	1.000	**4975833**	**HDS2**	R	F	
INCH Shaft Diameter – 50.000" (1270.00 mm)						
51.750	1.000	**5000420**	**HDS1**	R	F	
INCH Shaft Diameter (cont.) – 50.000" (1270.00 mm)						
52.000	0.813	5000558	HS8	R	F	◇
52.000	0.875	**5000560**	**HDS1**	R	F	
METRIC Shaft Diameter – 1270 mm (50.000")						
1320	25	**1270X1320X25 HDS1 R**	**HDS1**	R	F	
1320	25	1270X1320X25 HS5 R	HS5	R	F	◇
METRIC Shaft Diameter – 1280 mm (50.394")						
1340	25	**1280X1340X25 HSS5 H**	**HSS5**	H	F	◇
INCH Shaft Diameter – 51.000" (1295.40 mm)						
53.000	0.812	5100558	HS8	R	F	◇
53.000	0.813	**592880**	**HDS1**	R	F	
METRIC Shaft Diameter – 1320 mm (51.969")						
1380	29	**1320X1380X29 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 52.000" (1320.80 mm)						
54.000	0.813	5200558	HS8	R	F	◇
INCH Shaft Diameter – 52.250" (1327.15 mm)						
54.145	0.825	597559	HS8	R	F	◇
54.250	1.000	**566595**	**HDSF2**	H	F	
INCH Shaft Diameter – 52.500" (1333.50 mm)						
55.000	0.875	**5250760**	**HDS1**	R	F	
INCH Shaft Diameter – 53.000" (1346.20 mm)						
54.875	0.813	5300488	HS8	R	F	◇
METRIC Shaft Diameter – 1360 mm (53.543")						
1400	18	1360X1400X18 HS8 V	HS8	V	F	◇
METRIC Shaft Diameter – 1370 mm (53.937")						
1420	19.05	**1370X1420X19.05 HDS2 H**	**HDS2**	H	F	
1420	20	**1370X1420X20 HDS1 R**	**HDS1**	R	F	
INCH Shaft Diameter – 54.000" (1371.60 mm)						
56.000	0.813	5400557	HS7	R	F	◇
56.000	1.000	**566681**	**HDSF2**	P	F	
INCH Shaft Diameter – 54.250" (1377.95 mm)						
56.250	1.000	**5425583**	**HDS2**	R	F	
METRIC Shaft Diameter – 1380 mm (54.331")						
1420	18	1380X1420X18 HS8 R	HS8	R	F	◇
1420	18	1380X1420X18 HS8 V	HS8	V	F	◇
1445	25	1380X1445X25 HS5 V	HS5	V	F	◇
INCH Shaft Diameter – 54.750" (1390.65 mm)						
56.374	0.874	**5475340**	**HDS1**	R	F	
INCH Shaft Diameter – 55.500" (1409.70 mm)						
57.500	0.750	**5550540**	**HDS1**	R	F	
INCH Shaft Diameter – 57.500" (1460.50 mm)						
59.500	0.813	5750558	HS8	R	F	◇
INCH Shaft Diameter – 57.875" (1470.03 mm)						
60.000	0.938	**5787611**	**HDS7**	R	F	
60.000	0.938	**5787610**	**HDS7L08**	R	F	
INCH Shaft Diameter – 58.000" (1473.20 mm)						
60.000	0.813	5800558	HS8	R	F	◇

Seal tech: **W = SKF Wave** **E = SKF Edge** **F = SKF Flex** **S = standard oil** **G = grease** **Bold part numbers are preferred designs**

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Lip Tech	Features
INCH Shaft Diameter – 58.500" (1485.90 mm)						
60.500	0.813	5850518	HS8	R	F	◇
INCH Shaft Diameter – 59.500" (1511.30 mm)						
61.500	0.750	**5950547**	**HDS2**	V	F	
61.500	0.750	**5950546**	**HDS2L32**	V	F	
INCH Shaft Diameter – 59.750" (1517.65 mm)						
60.750	0.500	5975017	HS7	R	F	◇
METRIC Shaft Diameter – 1530 mm (60.236")						
1580	20	**1530X1580X20 HDS1 R**	**HDS1**	R	F	
METRIC Shaft Diameter – 1540 mm (60.630")						
1580	20	1540X1580X20 HS8 V	HS8	V	F	◇
METRIC Shaft Diameter – 1550 mm (61.024")						
1610	25	**1550X1610X25 HDS2 V**	**HDS2**	V	F	
INCH Shaft Diameter – 61.250" (1555.75 mm)						
63.250	1.000	**6125579**	**HDS7**	R	F	
63.250	1.000	**6125570**	**HDS7L08**	R	F	
METRIC Shaft Diameter – 1580 mm (62.205")						
1644	25	1580X1644X25 HS8 H	HS8	H	F	◇
1644	25	1580X1644X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 62.250" (1581.15 mm)						
64.000	0.625	**6225372**	**HDS2**	R	F	
INCH Shaft Diameter – 62.500" (1587.50 mm)						
64.000	0.625	**6250222**	**HDS2**	R	F	
64.000	0.875	**6250281**	**HDS1**	V	F	
64.000	0.875	**6250277**	**HDS2**	V	F	
64.000	0.875	**6250276**	**HDS2L32**	V	F	
INCH Shaft Diameter – 63.000" (1600.20 mm)						
65.000	0.813	6300558	HS8	R	F	◇
INCH Shaft Diameter – 63.250" (1606.55 mm)						
65.434	0.953	527121	HS6	R	F	◇
METRIC Shaft Diameter – 1610 mm (63.386")						
1670	25	**1610X1670X25 HSS5 H**	**HSS5**	H	F	◇
METRIC Shaft Diameter – 1650 mm (64.961")						
1700	20	1650X1700X20 HS8 V	HS8	V	F	◇
METRIC Shaft Diameter – 1660 mm (65.354")						
1708	17.50	1660X1708X17.5 HS8 R	HS8	R	F	◇
METRIC Shaft Diameter – 1675 mm (65.945")						
1725	21	1675X1725X21 HS8 D	HS8	D	F	◇
INCH Shaft Diameter – 66.141" (1679.98 mm)						
68.142	0.815	500047	HS8	R	F	◇
METRIC Shaft Diameter – 1680 mm (66.142")						
1730	20.70	557934	HS8	R	F	◇
INCH Shaft Diameter – 67.000" (1701.80 mm)						
69.000	0.813	6700557	HS8	R	F	◇
69.125	0.718	558389	HS8	R	F	◇
INCH Shaft Diameter – 69.000" (1752.60 mm)						
71.000	0.813	6900558	HS8	R	F	◇
METRIC Shaft Diameter – 1760 mm (69.291")						
1824	25.30	1760X1824X25.3 HS5 R	HS5	R	F	◇
1824	25.30	1760X1824X25.30 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 70.000" (1778.00 mm)						
72.000	0.813	592953	HS5	R	F	◇
72.000	0.813	593534	HS6	R	F	◇
72.000	0.813	7000558	HS8	R	F	◇
72.000	0.813	530228	HS8	V	F	◇
INCH Shaft Diameter – 70.500" (1790.70 mm)						
72.000	0.500	7032-7200-32 HS8 R	HS8	R	F	◇
METRIC Shaft Diameter – 1810 mm (71.260")						
1860	21	1810X1860X21 HS8 D	HS8	D	F	◇
INCH Shaft Diameter – 72.500" (1841.50 mm)						
74.500	0.813	7250558	HS8	R	F	◇
INCH Shaft Diameter – 73.171" (1858.54 mm)						
75.671	0.925	556395	HS8	H	F	◇
INCH Shaft Diameter – 75.000" (1905.00 mm)						
77.000	0.815	7500518	HS8	R	F	◇
METRIC Shaft Diameter – 1908 mm (75.118")						
1958	21	1908X1958X21 HSA8 D	HSA8	D	F	◇
METRIC Shaft Diameter – 1910 mm (75.197")						
1974	25	1910X1974X25 HS5 R	HS5	R	F	◇
INCH Shaft Diameter – 76.000" (1930.40 mm)						
78.000	0.813	594316	HS8	R	F	◇
INCH Shaft Diameter – 80.000" (2032.00 mm)						
82.000	0.813	8000528	HS8	D	F	◇
INCH Shaft Diameter – 80.500" (2044.70 mm)						
82.500	0.813	8050558	HS8	R	F	◇
INCH Shaft Diameter – 81.000" (2057.40 mm)						
83.000	0.813	8100558	HS8	R	F	◇
METRIC Shaft Diameter – 2080 mm (81.890")						
2144	25	2080X2144X25 HS4 H	HS4	H	F	◇
METRIC Shaft Diameter – 2140 mm (84.252")						
2204	25	**2140X2204X25 HSS5 H**	**HSS5**	H	F	◇
METRIC Shaft Diameter – 2320 mm (91.339")						
2384	25	2320X2384X25 HS8 R	HS8	R	F	◇
INCH Shaft Diameter – 93.750" (2381.25 mm)						
95.750	1.000	556975	HS8	R	F	◇
INCH Shaft Diameter – 121.500" (3086.10 mm)						
123.000	0.750	556981	HS8	R	F	◇
METRIC Shaft Diameter – 3170 mm (124.803")						
3234	25	**3170X3234X25 HSS8 H**	**HSS8**	H	F	◇
METRIC Shaft Diameter – 3572 mm (140.630")						
3636	25	**3572X3636X25 HSS8 H**	**HSS8**	H	F	◇

Key features: ▲ WasteWatcher ■ Bore-Tite ◤ SS Case ◎ SS Spring ◆ Pressure seal up to 50 psi ◇ Cover plate required

Don't see the size you need? SKF Flex seals are available fast in customized sizes and materials with NO tooling charges.

V-ring seals

Suitable for an extremely wide range of applications, V-ring seals keep contaminants out of many bearing types. Often they are used as secondary seals to help protect primary seals in highly contaminated environments.

Form and function

V-rings are installed on shafts and their thin, tapered lip seals against a bore perpendicular to the shaft (→ **fig. 1a**). V-rings have an interference fit on the shaft, rotate with it and act as flingers (→ **fig. 1b**).

Angular misalignment of the shaft relative to the bore can be tolerated (→ **fig. 1c**). V-rings provide reliable sealing even if the shaft is out-of-round or rotates eccentrically (→ **fig. 1d**). The amount by which the shaft can be displaced axially is governed by the permissible displacement of the V-ring relative to the bore.

Flexible installation and operation

V-rings are made entirely of elastomers without fabric or metal reinforcement. Combining a flexible seal body, a conical-shaped sealing lip and an integral, resilient "hinge" (→ **fig. 2**), v-rings can be stretched and, depending on size, easily pushed and installed over other components like flanges, pulleys or even housings.

Inherent tension from the seal body holds the lip in place as it rotates with the shaft and seals axially against a stationary housing bore. This can be the end face of a bearing, a washer, stamping, bearing housing, or even the metal case of a radial shaft seal.

The flexible lip and hinge provide adequate sealing even in applications with considerable endplay and shaft misalignment. Thanks to centrifugal force, the contact pressure of the lip decreases as speed increases, resulting in lower heat and friction losses and ultimately, improved wear resistance and extended service life.

Materials

V-rings are normally made of nitrile rubber that features good chemical resistance, resistance to wear and can be used in applications with temperatures ranging from –40 to +210 °F (*–40 to +100 °C*). For applications exposed to higher temperatures and/or aggressive media, V-rings made of fluoro rubber are available. Permissible operating conditions for V-rings made of nitrile or fluoro rubber are listed in **table 1**.

Figure 1

Installed V-ring seals

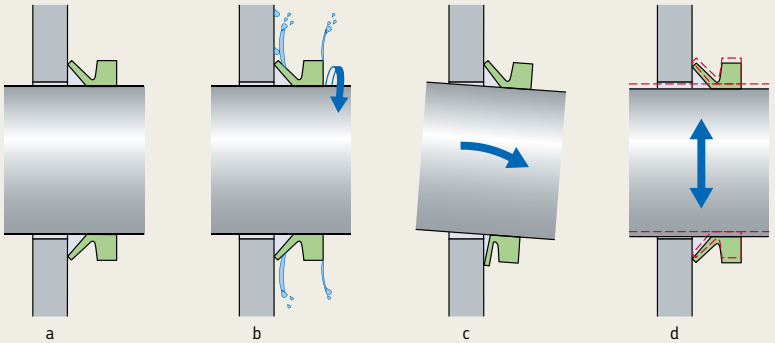
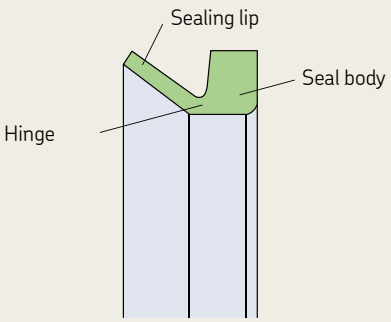


Figure 2

V-ring design



Standard designs and size range

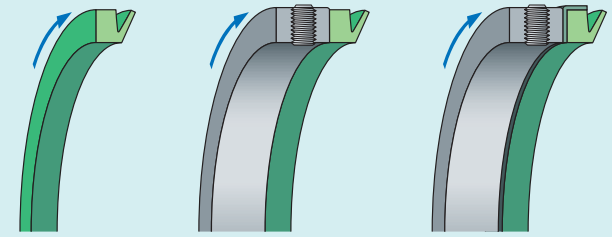
V-ring seals from SKF are available in five basic designs:

- VA/VR1 has a standard cross section and straight back sideface. Our most commonly used V-ring, VA/VR1 typically protects bearing arrangements in gearboxes, electric motors and drives.
- VS/VR2 has a standard low cross section, tapered back face and wide body; commonly used in agricultural and automotive applications.
- VL/VR3 feature a very compact axial cross section; this seal is commonly used in confined spaces to enhance labyrinth seals.
- VE/VR4 function as secondary seals for heavy-duty applications where the primary seal needs protection from water and/or solid contaminants. With the largest cross section of any V-ring, VE/VR4 permits the largest axial displacements. Available in diameters from 11.811 to 79.134 in (*300 to 2,010 mm*).

V-rings from SKF are available for the shaft diameter ranges listed in **table 2**. In addition, special sizes and designs, including split versions, can be made to order. Contact your SKF sales representative for sizes outside the standard range.

Table 1

Permissible operating conditions



1
Normal

2
Located axially [1)]

3
Axial and radial support [1)]

Operating conditions	Guideline values for V-rings of nitrile rubber	fluoro rubber
Temperature, °F (*°C*)	-40 to +210 (*-40 to +100*)	-4 to +300 (*-20 to +150*)
Circumferential speed, ft/min (*m/s*)		
normal (1)	1,280 (*up to 6.5*)	1,575 (*up to 8*)
located axially (2)	1,280 to 1,970 (*6.5 to 10*)	1,575 to 2,360 (*8 to 12*)
axial and radial support (3)	1,970 (*>10*)	2,360 (*>12*)
Pressure acting on seal, psi (*MPa*)		
static sealing or very low speed operation	4.35 (*up to 0.03*)	4.35 (*up to 0.03*)

1) Support ring by customer

Table 2

Standard V-ring designs and size ranges

Design, globally outside North America	VA	VS	VL	VE
Design, North America	VR1	VR2	VR3	VR4
–	in. (*mm*)			
min.	0.106 *2.7*	0.177 *4.5*	4.134 *105*	11.811 *300*
max.	79.257 *2,020*	8.268 *210*	79.724 *2,025*	79.134 *2,010*

V-ring seals

Applications

V-rings are suitable for both grease and oil lubricated applications. For sealing grease-lubricated bearing arrangements and protecting against contaminants, V-ring should be arranged outside the housing cover or housing wall. Dust, water spray and other contaminants can be excluded in this position (→ **fig. 3**). The V-ring can also act as a grease valve, where used grease or excess new grease can escape between the housing bore and the sealing lip (→ **fig. 4**). The installation of two opposing V-rings can be used in applications where lubricant retention and contaminant exclusion are of equal importance (→ **fig. 5**). If V-rings are used to retain oil, they should always be located axially on the shaft on the lubricant side (→ **fig. 6**). V-rings should not be submerged in the application medium.

Secondary applications

V-rings are often used as secondary seals (→ **fig. 7**) when it is necessary to protect the sealing lip and housing bore of the primary seal against contaminants or corrosion. V-rings will also enhance the sealing efficiency of labyrinth seals (→ **fig. 8**).

Figure 3

V-ring used as an excluder

Figure 4

V-ring used as a grease valve

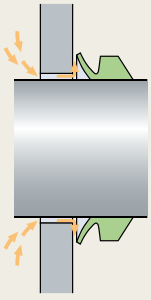


Figure 5

Two opposing V-rings

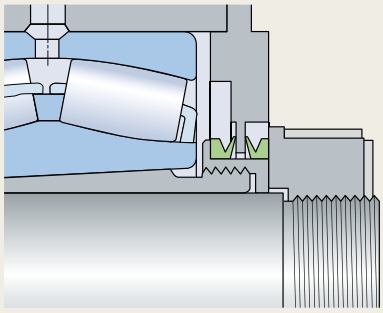


Figure 6

V-ring located axially

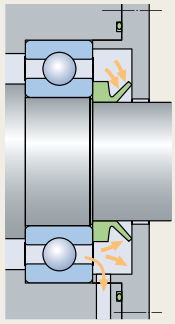


Figure 7

V-ring used as a secondary seal

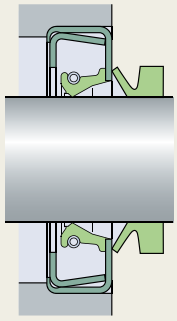
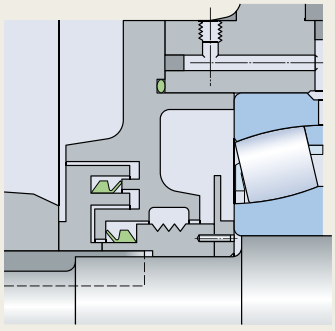


Figure 8

V-rings in a labyrinth seal



Sliding velocities

V-rings can operate under the conditions listed in Table 1. At speeds of 2,900 to 3,900 ft/min (*15 to 20 m/s*), the sealing lip lifts from the counterface and the V-ring only acts as a gap-type seal.

Coaxiality and runout

The total tolerance for the deviation from coaxiality and runout should not exceed the guideline values provided in Table 3.

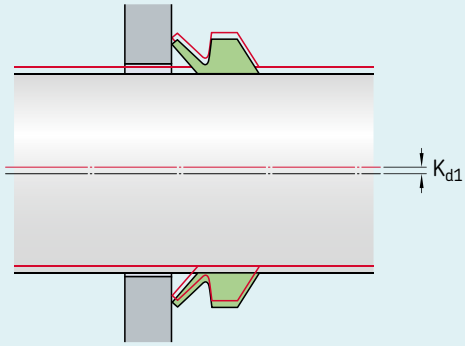
Misalignment

V-rings can tolerate misalignment between the shaft and housing, or deviations from the perpendicularity between the shaft and housing bore. **Diagram 1** provides values for the maximum permissible angular misalignment; these values apply to the V-ring designs VA/VR1 and VS/VR2, provided they are supported axially on the shaft.

The permissible misalignment values for the compact VL/VR3 seals are significantly lower than those for the VA/VR1 and VS/VR2 designs. In applications where V-rings are not supported axially on the shaft, the maximum values form **diagram 1** should be reduced.

Table 3

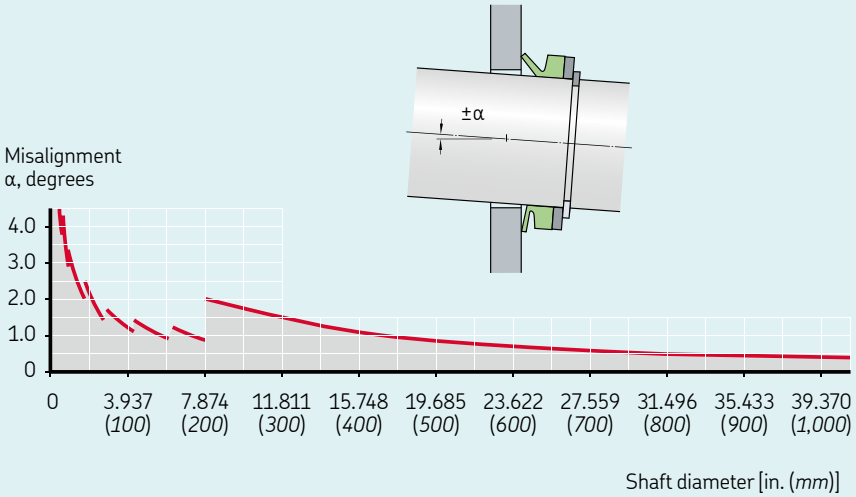
Coaxiality and runout tolerances



Shaft diameter nominal d_1 over	incl.	over	incl.	Total tolerance for coaxiality deviation and runout K_{d_1} max	
in.		mm		in	mm
V-rings, VA/VR1 and VS/VR2 designs					
	0.374		9.5	0.016	0.4
0.374	0.768	9.5	19.5	0.024	0.6
0.768	1.496	19.5	38	0.034	0.9
1.496	2.677	38	68	0.043	1.1
2.677	4.134	68	105	0.055	1.4
4.134	6.102	105	155	0.063	1.6
6.102	8.628	155	210	0.075	1.9
8.628	79.527	210	2 020	0.142	3.6
V-rings, VL/VR3 designs					
5.315	24.803	135	630	0.059	1,5
V-rings, VE/VR4 designs					
17.716	79.134	450	2 010	0.236	6

Diagram 1

Maximum permissible misalignment for V-rings of the VA/VR1 and VS/VR2 designs



V-ring seals

Bore finish and treatment

A fine-turned housing bore is adequate for V-rings. Appropriate surface roughness values vary depending on the circumferential speed (→ **table 4**). SKF recommends buffing all turned surfaces with an emery cloth to remove any sharp peaks caused during the turning operation. The surface finish should be measured at approximately 90° to the path of the groove to obtain a true reading of the surface.

When used with grease, oil or dry lubricants, V-rings do not require any special housing bore treatments. Mild steel bores exposed to water or other corrosives should be protected with zinc- or chromium-plating, or be treated with an anti-corrosive spray.

Additional bore requirements

- Aluminium surfaces should be free of scratch marks.
- Surface hardness should be > 100 HB in abrasive applications.
- Die cast aluminum can be used in the as-cast condition.
- Steel and cast iron surfaces should be free from lead and sharp tool marks.
- Cold rolled steel stampings can be used without machining.
- Plastic counterface materials are generally not acceptable due to poor heat dissipation.
- Stainless steel should not be used in dry running applications unless the speed is below 200 ft/min (*1 m/s*).

Shaft requirements

To help prevent damage to the V-ring during installation, shafts must be free from sharp edges, nicks and burrs. V-rings rotate with the shaft and only require a moderate surface roughness value, which should not exceed 252 µin (*Ra 6,3 µm*). When sealing fluids or exposed to fine, solid contaminants, the V-ring requires a surface roughness value of maximum 128 µin (*Ra 3,2 µm*). A V-ring is stretched when installed and fits all shaft diameters within the ranges listed in the product tables.

Installing V-rings

V-rings are elastic and can be stretched and pushed over other components (→ **fig. 9**). When installation involves several V-rings, a simple tool (→ **fig. 10**) can be used to push the seals to their position at a predetermined distance from the counterface. V-rings can also be cut and rejoined in the field.

General installation guidelines

- Clean the V-ring, housing bore and shaft.
- Make sure that the shaft is dry and free from grease or oil
- Lubricate the V-ring lip with a thin film of grease or silicone oil.
- In applications that demand minimal friction, coat the housing bore with a low-friction agent (do not apply grease to the lip).
- Check that the V-ring is installed with a uniform stretch around the shaft.

Table 4

Recommended counterface surface finish

Circumferential speed		Surface finish	
ft/min	m/s	Ra µin.	Ra µm
> 1,969	*> 10*	16–32	*0.4–0.8*
984–1,969	*5–10*	32–64	*0.8–1.6*
199–984	*1–5*	64–80	*1.6–2.0*
< 199	*< 1*	80–100	*2.0–2.5*

The surface finish must not be lower than R_a 2 µin. (*0,05 µm*).

Figure 9

Installing a V-ring

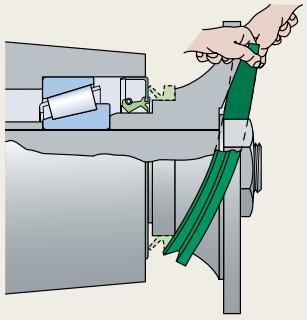
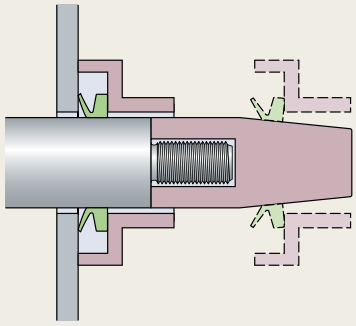
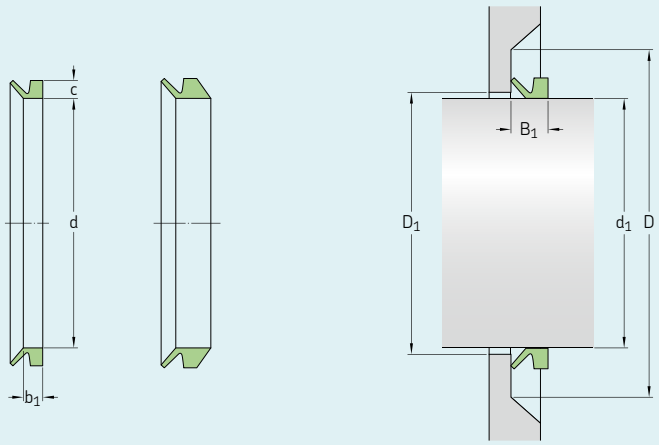


Figure 10

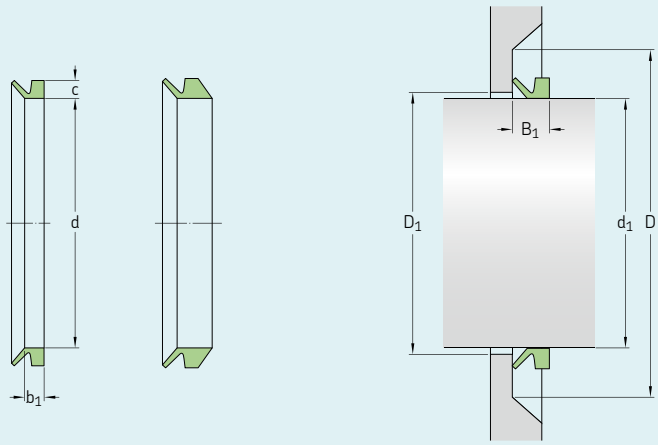
Installation tool





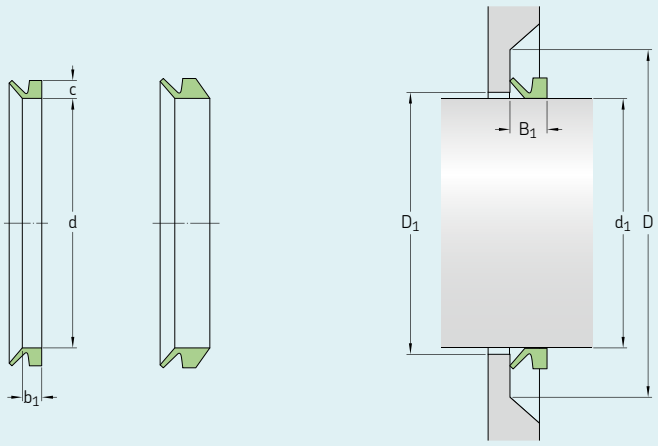
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
400030	VR1	R	0.106	0.138	0.098	0.098±.012	d1 + 0.039	d1 + 0.157	0.083	0.059
400034	VR1	V	0.106	0.138	0.098	0.098±.012	d1 + 0.039	d1 + 0.157	0.083	0.059
400040	VR1	R	0.138	0.177	0.126	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400044	VR1	V	0.138	0.177	0.126	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400050	VR1	R	0.177	0.217	0.157	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400054	VR1	V	0.177	0.217	0.157	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400051	VR2	R	0.177	0.217	0.157	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400055	VR2	V	0.177	0.217	0.157	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400060	VR1	R	0.217	0.256	0.197	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400064	VR1	V	0.217	0.256	0.197	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400061	VR2	R	0.217	0.256	0.197	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400065	VR2	V	0.217	0.256	0.197	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400070	VR1	R	0.256	0.315	0.236	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400074	VR1	V	0.256	0.315	0.236	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400071	VR2	R	0.256	0.315	0.236	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400075	VR2	V	0.256	0.315	0.236	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400080	VR1	R	0.315	0.374	0.276	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400084	VR1	V	0.315	0.374	0.276	0.118±.016	d1 + 0.039	d1 + 0.236	0.094	0.079
400081	VR2	R	0.315	0.374	0.276	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400085	VR2	V	0.315	0.374	0.276	0.177±.016	d1 + 0.039	d1 + 0.236	0.154	0.079
400100	VR1	R	0.374	0.453	0.354	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400104	VR1	V	0.374	0.453	0.354	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400101	VR2	R	0.374	0.453	0.354	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400105	VR2	V	0.374	0.453	0.354	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400120	VR1	R	0.453	0.492	0.413	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400124	VR1	V	0.453	0.492	0.413	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400121	VR2	R	0.453	0.531	0.413	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400125	VR2	V	0.453	0.531	0.413	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400130	VR1	R	0.492	0.531	0.461	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400134	VR1	V	0.492	0.531	0.461	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400140	VR1	R	0.531	0.610	0.492	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400144	VR1	V	0.531	0.610	0.492	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400141	VR2	R	0.531	0.610	0.492	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400145	VR2	V	0.531	0.610	0.492	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400160	VR1	R	0.610	0.689	0.551	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400164	VR1	V	0.610	0.689	0.551	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400161	VR2	R	0.610	0.689	0.551	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400165	VR2	V	0.610	0.689	0.551	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400180	VR1	R	0.689	0.748	0.630	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400184	VR1	V	0.689	0.748	0.630	0.177±.024	d1 + 0.039	d1 + 0.354	0.134	0.118
400181	VR2	R	0.689	0.748	0.630	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400185	VR2	V	0.689	0.748	0.630	0.264±.024	d1 + 0.039	d1 + 0.354	0.220	0.118
400200	VR1	R	0.748	0.827	0.709	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400204	VR1	V	0.748	0.827	0.709	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400201	VR2	R	0.748	0.827	0.709	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400205	VR2	V	0.748	0.827	0.709	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400220	VR1	R	0.827	0.945	0.787	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400224	VR1	V	0.827	0.945	0.787	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157



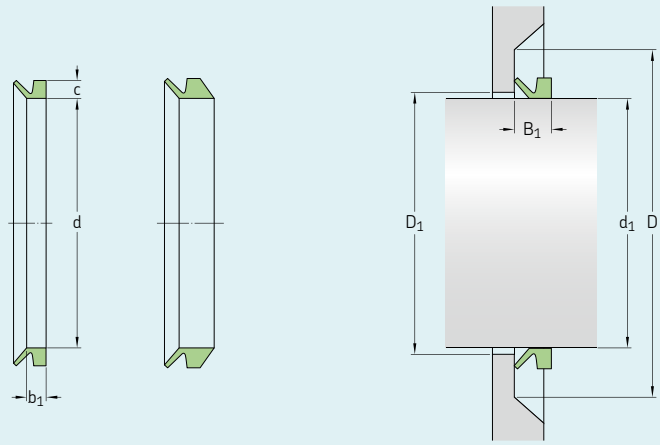
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
2.7	3.5	2.5	2.5±0.3	d1 + 1	d1 + 4	2.1	1.5	**400030**
2.7	3.5	2.5	2.5±0.3	d1 + 1	d1 + 4	2.1	1.5	**400034**
3.5	4.5	3.2	3±0.4	d1 + 1	d1 + 6	2.4	2	**400040**
3.5	4.5	3.2	3±0.4	d1 + 1	d1 + 6	2.4	2	**400044**
4.5	5.5	4	3±0.4	d1 + 1	d1 + 6	2.4	2	**400050**
4.5	5.5	4	3±0.4	d1 + 1	d1 + 6	2.4	2	**400054**
4.5	5.5	4	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400051**
4.5	5.5	4	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400055**
5.5	6.5	5	3±0.4	d1 + 1	d1 + 6	2.4	2	**400060**
5.5	6.5	5	3±0.4	d1 + 1	d1 + 6	2.4	2	**400064**
5.5	6.5	5	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400061**
5.5	6.5	5	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400065**
6.5	8	6	3±0.4	d1 + 1	d1 + 6	2.4	2	**400070**
6.5	8	6	3±0.4	d1 + 1	d1 + 6	2.4	2	**400074**
6.5	8	6	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400071**
6.5	8	6	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400075**
8	9.5	7	3±0.4	d1 + 1	d1 + 6	2.4	2	**400080**
8	9.5	7	3±0.4	d1 + 1	d1 + 6	2.4	2	**400084**
8	9.5	7	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400081**
8	9.5	7	4.5±0.4	d1 + 1	d1 + 6	3.9	2	**400085**
9.5	11.5	9	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400100**
9.5	11.5	9	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400104**
9.5	11.5	9	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400101**
9.5	11.5	9	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400105**
11.5	12.5	10.5	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400120**
11.5	12.5	10.5	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400124**
11.5	13.5	10.5	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400121**
11.5	13.5	10.5	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400125**
12.5	13.5	11.7	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400130**
12.5	13.5	11.7	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400134**
13.5	15.5	12.5	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400140**
13.5	15.5	12.5	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400144**
13.5	15.5	12.5	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400141**
13.5	15.5	12.5	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400145**
15.5	17.5	14	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400160**
15.5	17.5	14	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400164**
15.5	17.5	14	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400161**
15.5	17.5	14	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400165**
17.5	19	16	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400180**
17.5	19	16	4.5±0.6	d1 + 1	d1 + 9	3.4	3	**400184**
17.5	19	16	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400181**
17.5	19	16	6.7±0.6	d1 + 1	d1 + 9	5.6	3	**400185**
19	21	18	6±0.8	d1 + 2	d1 + 12	4.7	4	**400200**
19	21	18	6±0.8	d1 + 2	d1 + 12	4.7	4	**400204**
19	21	18	9±0.8	d1 + 2	d1 + 12	7.9	4	**400201**
19	21	18	9±0.8	d1 + 2	d1 + 12	7.9	4	**400205**
21	24	20	6±0.8	d1 + 2	d1 + 12	4.7	4	**400220**
21	24	20	6±0.8	d1 + 2	d1 + 12	4.7	4	**400224**



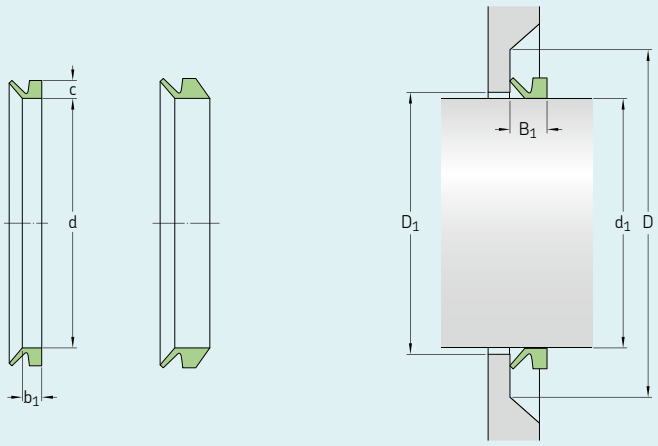
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
400221	VR2	R	0.827	0.945	0.787	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400225	VR2	V	0.827	0.945	0.787	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400250	VR1	R	0.945	1.063	0.866	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400254	VR1	V	0.945	1.063	0.866	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400251	VR2	R	0.945	1.063	0.866	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400255	VR2	V	0.945	1.063	0.866	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400280	VR1	R	1.063	1.142	0.984	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400284	VR1	V	1.063	1.142	0.984	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400281	VR2	R	1.063	1.142	0.984	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400285	VR2	V	1.063	1.142	0.984	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400300	VR1	R	1.142	1.220	1.063	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400304	VR1	V	1.142	1.220	1.063	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400301	VR2	R	1.142	1.220	1.063	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400305	VR2	V	1.142	1.220	1.063	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400320	VR1	R	1.220	1.299	1.142	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400324	VR1	V	1.220	1.299	1.142	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400321	VR2	R	1.220	1.299	1.142	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400325	VR2	V	1.220	1.299	1.142	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400350	VR1	R	1.299	1.417	1.220	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400354	VR1	V	1.299	1.417	1.220	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400351	VR2	R	1.299	1.417	1.220	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400355	VR2	V	1.299	1.417	1.220	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400380	VR1	R	1.417	1.496	1.339	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400384	VR1	V	1.417	1.496	1.339	0.236±.031	d1 + 0.079	d1 + 0.472	0.185	0.157
400381	VR2	R	1.417	1.496	1.339	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400385	VR2	V	1.417	1.496	1.339	0.354±.031	d1 + 0.079	d1 + 0.472	0.311	0.157
400400	VR1	R	1.496	1.693	1.417	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400409	VR1	V	1.496	1.693	1.417	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400401	VR2	R	1.496	1.693	1.417	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400405	VR2	V	1.496	1.693	1.417	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400450	VR1	R	1.693	1.890	1.575	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400454	VR1	V	1.693	1.890	1.575	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400451	VR2	R	1.693	1.890	1.575	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400455	VR2	V	1.693	1.890	1.575	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400500	VR1	R	1.890	2.087	1.772	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400504	VR1	V	1.890	2.087	1.772	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400501	VR2	R	1.890	2.087	1.772	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400505	VR2	V	1.890	2.087	1.772	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400550	VR1	R	2.087	2.283	1.929	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400554	VR1	V	2.087	2.283	1.929	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400551	VR2	R	2.087	2.283	1.929	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400555	VR2	V	2.087	2.283	1.929	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400600	VR1	R	2.283	2.480	2.126	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400604	VR1	V	2.283	2.480	2.126	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400601	VR2	R	2.283	2.480	2.126	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400605	VR2	V	2.283	2.480	2.126	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400650	VR1	R	2.480	2.677	2.283	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197
400654	VR1	V	2.480	2.677	2.283	0.276±.039	d1 + 0.079	d1 + 0.591	0.217	0.197



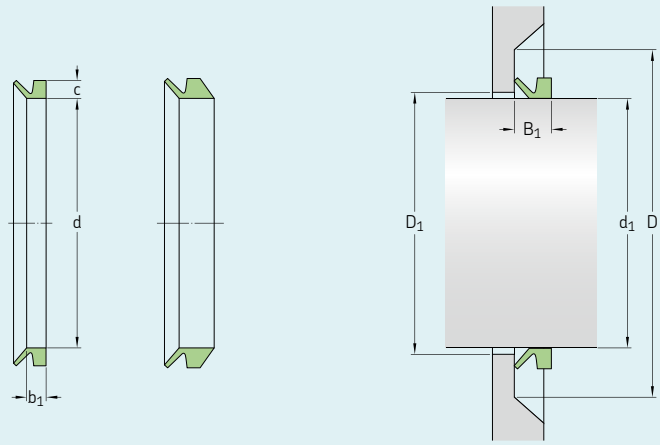
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
21	24	20	9±0.8	d1 + 2	d1 + 12	7.9	4	**400221**
21	24	20	9±0.8	d1 + 2	d1 + 12	7.9	4	**400225**
24	27	22	6±0.8	d1 + 2	d1 + 12	4.7	4	**400250**
24	27	22	6±0.8	d1 + 2	d1 + 12	4.7	4	**400254**
24	27	22	9±0.8	d1 + 2	d1 + 12	7.9	4	**400251**
24	27	22	9±0.8	d1 + 2	d1 + 12	7.9	4	**400255**
27	29	25	6±0.8	d1 + 2	d1 + 12	4.7	4	**400280**
27	29	25	6±0.8	d1 + 2	d1 + 12	4.7	4	**400284**
27	29	25	9±0.8	d1 + 2	d1 + 12	7.9	4	**400281**
27	29	25	9±0.8	d1 + 2	d1 + 12	7.9	4	**400285**
29	31	27	6±0.8	d1 + 2	d1 + 12	4.7	4	**400300**
29	31	27	6±0.8	d1 + 2	d1 + 12	4.7	4	**400304**
29	31	27	9±0.8	d1 + 2	d1 + 12	7.9	4	**400301**
29	31	27	9±0.8	d1 + 2	d1 + 12	7.9	4	**400305**
31	33	29	6±0.8	d1 + 2	d1 + 12	4.7	4	**400320**
31	33	29	6±0.8	d1 + 2	d1 + 12	4.7	4	**400324**
31	33	29	9±0.8	d1 + 2	d1 + 12	7.9	4	**400321**
31	33	29	9±0.8	d1 + 2	d1 + 12	7.9	4	**400325**
33	36	31	6±0.8	d1 + 2	d1 + 12	4.7	4	**400350**
33	36	31	6±0.8	d1 + 2	d1 + 12	4.7	4	**400354**
33	36	31	9±0.8	d1 + 2	d1 + 12	7.9	4	**400351**
33	36	31	9±0.8	d1 + 2	d1 + 12	7.9	4	**400355**
36	38	34	6±0.8	d1 + 2	d1 + 12	4.7	4	**400380**
36	38	34	6±0.8	d1 + 2	d1 + 12	4.7	4	**400384**
36	38	34	9±0.8	d1 + 2	d1 + 12	7.9	4	**400381**
36	38	34	9±0.8	d1 + 2	d1 + 12	7.9	4	**400385**
38	43	36	7±1	d1 + 2	d1 + 15	5.5	5	**400400**
38	43	36	7±1	d1 + 2	d1 + 15	5.5	5	**400409**
38	43	36	11±1	d1 + 2	d1 + 15	9.5	5	**400401**
38	43	36	11±1	d1 + 2	d1 + 15	9.5	5	**400405**
43	48	40	7±1	d1 + 2	d1 + 15	5.5	5	**400450**
43	48	40	7±1	d1 + 2	d1 + 15	5.5	5	**400454**
43	48	40	11±1	d1 + 2	d1 + 15	9.5	5	**400451**
43	48	40	11±1	d1 + 2	d1 + 15	9.5	5	**400455**
48	53	45	7±1	d1 + 2	d1 + 15	5.5	5	**400500**
48	53	45	7±1	d1 + 2	d1 + 15	5.5	5	**400504**
48	53	45	11±1	d1 + 2	d1 + 15	9.5	5	**400501**
48	53	45	11±1	d1 + 2	d1 + 15	9.5	5	**400505**
53	58	49	7±1	d1 + 2	d1 + 15	5.5	5	**400550**
53	58	49	7±1	d1 + 2	d1 + 15	5.5	5	**400554**
53	58	49	11±1	d1 + 2	d1 + 15	9.5	5	**400551**
53	58	49	11±1	d1 + 2	d1 + 15	9.5	5	**400555**
58	63	54	7±1	d1 + 2	d1 + 15	5.5	5	**400600**
58	63	54	7±1	d1 + 2	d1 + 15	5.5	5	**400604**
58	63	54	11±1	d1 + 2	d1 + 15	9.5	5	**400601**
58	63	54	11±1	d1 + 2	d1 + 15	9.5	5	**400605**
63	68	58	7±1	d1 + 2	d1 + 15	5.5	5	**400650**
63	68	58	7±1	d1 + 2	d1 + 15	5.5	5	**400654**



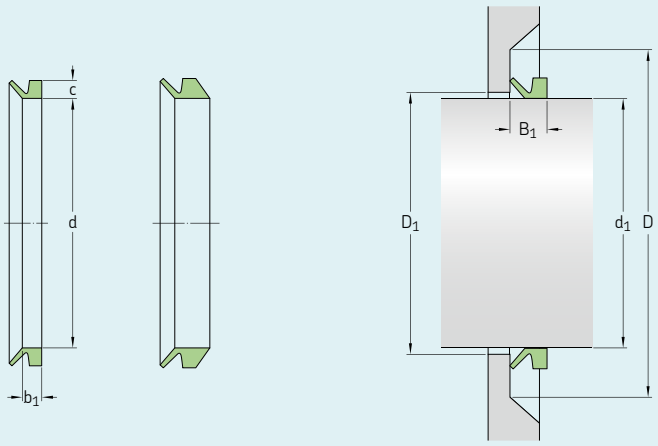
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
400651	VR2	R	2.480	2.677	2.283	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400655	VR2	V	2.480	2.677	2.283	0.433±.039	d1 + 0.079	d1 + 0.591	0.374	0.197
400700	VR1	R	2.677	2.874	2.480	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400704	VR1	V	2.677	2.874	2.480	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400701	VR2	R	2.677	2.874	2.480	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400705	VR2	V	2.677	2.874	2.480	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400750	VR1	R	2.874	3.071	2.638	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400754	VR2	V	2.874	3.071	2.638	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400751	VR2	R	2.874	3.071	2.638	0.531±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400755	VR2	V	2.874	3.071	2.638	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400800	VR1	R	3.071	3.268	2.835	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400804	VR1	V	3.071	3.268	2.835	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400801	VR2	R	3.071	3.268	2.835	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400805	VR2	V	3.071	3.268	2.835	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400850	VR1	R	3.268	3.465	2.992	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400854	VR1	V	3.268	3.465	2.992	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400851	VR2	R	3.268	3.465	2.992	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400855	VR2	V	3.268	3.465	2.992	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400900	VR1	R	3.465	3.661	3.189	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400904	VR1	V	3.465	3.661	3.189	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400901	VR2	R	3.465	3.661	3.189	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400905	VR2	V	3.465	3.661	3.189	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400950	VR1	R	3.661	3.858	3.346	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400954	VR1	V	3.661	3.858	3.346	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
400951	VR2	R	3.661	3.858	3.346	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
400955	VR2	V	3.661	3.858	3.346	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
401000	VR1	R	3.858	4.134	3.543	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
401004	VR1	V	3.858	4.134	3.543	0.354±.047	d1 + 0.118	d1 + 0.709	0.268	0.236
401001	VR2	R	3.858	4.134	3.543	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
401005	VR2	V	3.858	4.134	3.543	0.531±.047	d1 + 0.118	d1 + 0.709	0.445	0.236
401102	VR3	R	4.134	4.528	3.898	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401106	VR3	V	4.134	4.528	3.898	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401100	VR1	R	4.134	4.528	3.898	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401104	VR1	V	4.134	4.528	3.898	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401101	VR2	R	4.134	4.528	3.898	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401105	VR2	V	4.134	4.528	3.898	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401202	VR3	R	4.528	4.921	4.252	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401206	VR3	V	4.528	4.921	4.252	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401200	VR1	R	4.528	4.921	4.252	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401204	VR1	V	4.528	4.921	4.252	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401201	VR2	R	4.528	4.921	4.252	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401205	VR2	V	4.528	4.921	4.252	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401306	VR3	V	4.921	5.315	4.606	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401300	VR1	R	4.921	5.315	4.606	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401304	VR1	V	4.921	5.315	4.606	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401301	VR2	R	4.921	5.315	4.606	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401305	VR2	V	4.921	5.315	4.606	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276



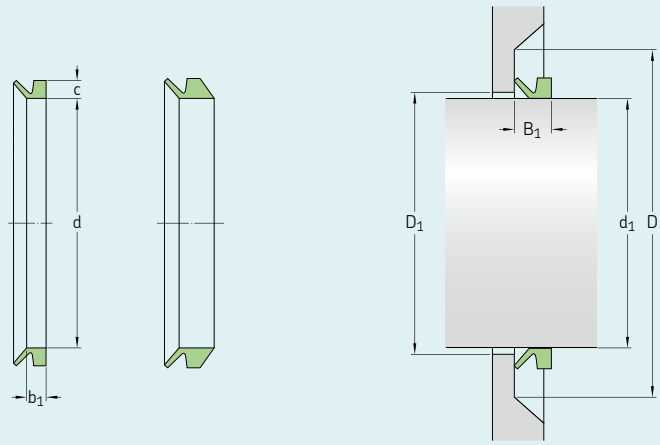
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
63	68	58	11±1	d1 + 2	d1 + 15	9.5	5	**400651**
63	68	58	11±1	d1 + 2	d1 + 15	9.5	5	**400655**
68	73	63	9±1.2	d1 + 3	d1 + 18	6.8	6	**400700**
68	73	63	9±1.2	d1 + 3	d1 + 18	6.8	6	**400704**
68	73	63	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400701**
68	73	63	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400705**
73	78	67	9±1.2	d1 + 3	d1 + 18	6.8	6	**400750**
73	78	67	9±1.2	d1 + 3	d1 + 18	6.8	6	**400754**
73	78	67	13.5±1.2	d1 + 3	d1 + 18	6.8	6	**400751**
73	78	67	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400755**
78	83	72	9±1.2	d1 + 3	d1 + 18	6.8	6	**400800**
78	83	72	9±1.2	d1 + 3	d1 + 18	6.8	6	**400804**
78	83	72	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400801**
78	83	72	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400805**
83	88	76	9±1.2	d1 + 3	d1 + 18	6.8	6	**400850**
83	88	76	9±1.2	d1 + 3	d1 + 18	6.8	6	**400854**
83	88	76	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400851**
83	88	76	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400855**
88	93	81	9±1.2	d1 + 3	d1 + 18	6.8	6	**400900**
88	93	81	9±1.2	d1 + 3	d1 + 18	6.8	6	**400904**
88	93	81	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400901**
88	93	81	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400905**
93	98	85	9±1.2	d1 + 3	d1 + 18	6.8	6	**400950**
93	98	85	9±1.2	d1 + 3	d1 + 18	6.8	6	**400954**
93	98	85	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400951**
93	98	85	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**400955**
98	105	90	9±1.2	d1 + 3	d1 + 18	6.8	6	**401000**
98	105	90	9±1.2	d1 + 3	d1 + 18	6.8	6	**401004**
98	105	90	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**401001**
98	105	90	13.5±1.2	d1 + 3	d1 + 18	11.3	6	**401005**
105	115	99	8±1.5	d1 + 5	d1 + 20	6	6.5	**401102**
105	115	99	8±1.5	d1 + 5	d1 + 20	6	6.5	**401106**
105	115	99	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401100**
105	115	99	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401104**
105	115	99	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401101**
105	115	99	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401105**
115	125	108	8±1.5	d1 + 5	d1 + 20	6	6.5	**401202**
115	125	108	8±1.5	d1 + 5	d1 + 20	6	6.5	**401206**
115	125	108	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401200**
115	125	108	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401204**
115	125	108	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401201**
115	125	108	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401205**
125	135	117	8±1.5	d1 + 5	d1 + 20	6	6.5	**401306**
125	135	117	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401300**
125	135	117	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401304**
125	135	117	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401301**
125	135	117	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401305**



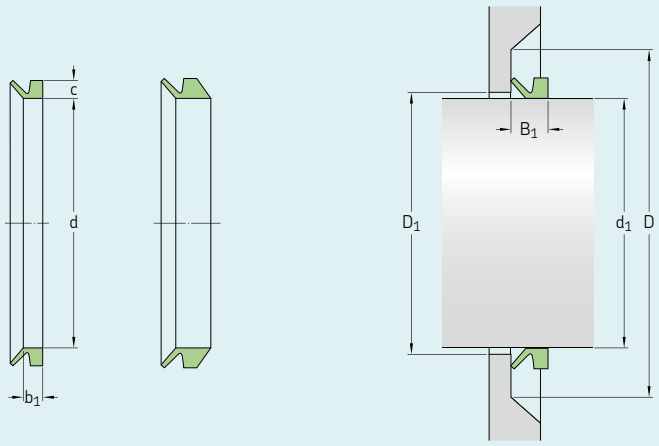
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
401402	VR3	R	5.315	5.709	4.961	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401406	VR3	V	5.315	5.709	4.961	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401400	VR1	R	5.315	5.709	4.961	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401404	VR1	V	5.315	5.709	4.961	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401401	VR2	R	5.315	5.709	4.961	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401405	VR2	V	5.315	5.709	4.961	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401502	VR3	R	5.709	6.102	5.315	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401506	VR3	V	5.709	6.102	5.315	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401500	VR1	R	5.709	6.102	5.315	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401504	VR1	V	5.709	6.102	5.315	0.413±.059	d1 + 0.157	d1 + 0.827	0.311	0.276
401501	VR2	R	5.709	6.102	5.315	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401505	VR2	V	5.709	6.102	5.315	0.610±.059	d1 + 0.157	d1 + 0.827	0.516	0.276
401602	VR3	R	6.102	6.496	5.669	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401606	VR3	V	6.102	6.496	5.669	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401600	VR1	R	6.102	6.496	5.669	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401604	VR1	V	6.102	6.496	5.669	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401601	VR2	R	6.102	6.496	5.669	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401605	VR2	V	6.102	6.496	5.669	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401702	VR3	R	6.496	6.890	6.024	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401706	VR3	V	6.496	6.890	6.024	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401700	VR1	R	6.496	6.890	6.024	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401704	VR1	V	6.496	6.890	6.024	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401701	VR2	R	6.496	6.890	6.024	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401705	VR2	V	6.496	6.890	6.024	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401802	VR3	R	6.890	7.283	6.378	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401806	VR3	V	6.890	7.283	6.378	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401800	VR1	R	6.890	7.283	6.378	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401804	VR1	V	6.890	7.283	6.378	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401801	VR2	R	6.890	7.283	6.378	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401805	VR2	V	6.890	7.283	6.378	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401902	VR3	R	7.283	7.677	6.732	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401906	VR3	V	7.283	7.677	6.732	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401900	VR1	R	7.283	7.677	6.732	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401904	VR1	V	7.283	7.677	6.732	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401901	VR2	R	7.283	7.677	6.732	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401905	VR2	V	7.283	7.677	6.732	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
4020022	VR3	R	7.677	8.268	7.165	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402006	VR3	V	7.677	8.268	7.165	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
401990	VR1	R	7.677	8.268	7.087	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401994	VR1	V	7.677	8.268	7.087	0.472±.071	d1 + 0.157	d1 + 0.945	0.354	0.315
401991	VR2	R	7.677	8.268	7.087	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
401995	VR2	V	7.677	8.268	7.087	0.709±.071	d1 + 0.157	d1 + 0.945	0.591	0.315
402000	VR1	R	7.677	8.268	7.087	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402004	VR1	V	7.677	8.268	7.087	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402202	VR3	R	8.268	9.173	7.795	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402206	VR3	V	8.268	9.173	7.795	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402200	VR1	R	8.268	9.252	7.795	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402204	VR1	V	8.268	9.252	7.795	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591



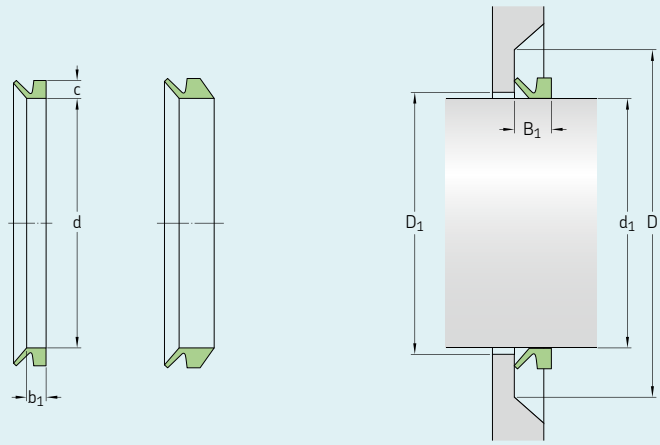
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
135	145	126	8±1.5	d1 + 5	d1 + 20	6	6.5	**401402**
135	145	126	8±1.5	d1 + 5	d1 + 20	6	6.5	**401406**
135	145	126	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401400**
135	145	126	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401404**
135	145	126	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401401**
135	145	126	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401405**
145	155	135	8±1.5	d1 + 5	d1 + 20	6	6.5	**401502**
145	155	135	8±1.5	d1 + 5	d1 + 20	6	6.5	**401506**
145	155	135	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401500**
145	155	135	10.5±1.5	d1 + 4	d1 + 21	7.9	7	**401504**
145	155	135	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401501**
145	155	135	15.5±1.5	d1 + 4	d1 + 21	13.1	7	**401505**
155	165	144	8±1.5	d1 + 5	d1 + 20	6	6.5	**401602**
155	165	144	8±1.5	d1 + 5	d1 + 20	6	6.5	**401606**
155	165	144	12±1.8	d1 + 4	d1 + 24	9	8	**401600**
155	165	144	12±1.8	d1 + 4	d1 + 24	9	8	**401604**
155	165	144	18±1.8	d1 + 4	d1 + 24	15	8	**401601**
155	165	144	18±1.8	d1 + 4	d1 + 24	15	8	**401605**
165	175	153	8±1.5	d1 + 5	d1 + 20	6	6.5	**401702**
165	175	153	8±1.5	d1 + 5	d1 + 20	6	6.5	**401706**
165	175	153	12±1.8	d1 + 4	d1 + 24	9	8	**401700**
165	175	153	12±1.8	d1 + 4	d1 + 24	9	8	**401704**
165	175	153	18±1.8	d1 + 4	d1 + 24	15	8	**401701**
165	175	153	18±1.8	d1 + 4	d1 + 24	15	8	**401705**
175	185	162	8±1.5	d1 + 5	d1 + 20	6	6.5	**401802**
175	185	162	8±1.5	d1 + 5	d1 + 20	6	6.5	**401806**
175	185	162	12±1.8	d1 + 4	d1 + 24	9	8	**401800**
175	185	162	12±1.8	d1 + 4	d1 + 24	9	8	**401804**
175	185	162	18±1.8	d1 + 4	d1 + 24	15	8	**401801**
175	185	162	18±1.8	d1 + 4	d1 + 24	15	8	**401805**
185	195	171	8±1.5	d1 + 5	d1 + 20	6	6.5	**401902**
185	195	171	8±1.5	d1 + 5	d1 + 20	6	6.5	**401906**
185	195	171	12±1.8	d1 + 4	d1 + 24	9	8	**401900**
185	195	171	12±1.8	d1 + 4	d1 + 24	9	8	**401904**
185	195	171	18±1.8	d1 + 4	d1 + 24	15	8	**401901**
185	195	171	18±1.8	d1 + 4	d1 + 24	15	8	**401905**
195	210	182	8±1.5	d1 + 5	d1 + 20	6	6.5	**4020022**
195	210	182	8±1.5	d1 + 5	d1 + 20	6	6.5	**402006**
195	210	180	12±1.8	d1 + 4	d1 + 24	9	8	**401990**
195	210	180	12±1.8	d1 + 4	d1 + 24	9	8	**401994**
195	210	180	18±1.8	d1 + 4	d1 + 24	15	8	**401991**
195	210	180	18±1.8	d1 + 4	d1 + 24	15	8	**401995**
195	210	180	20±4	d1 + 10	d1 + 45	14.3	15	**402000**
195	210	180	20±4	d1 + 10	d1 + 45	14.3	15	**402004**
210	233	198	8±1.5	d1 + 5	d1 + 20	6	6.5	**402202**
210	233	198	8±1.5	d1 + 5	d1 + 20	6	6.5	**402206**
210	235	198	20±4	d1 + 10	d1 + 45	14.3	15	**402200**
210	235	198	20±4	d1 + 10	d1 + 45	14.3	15	**402204**



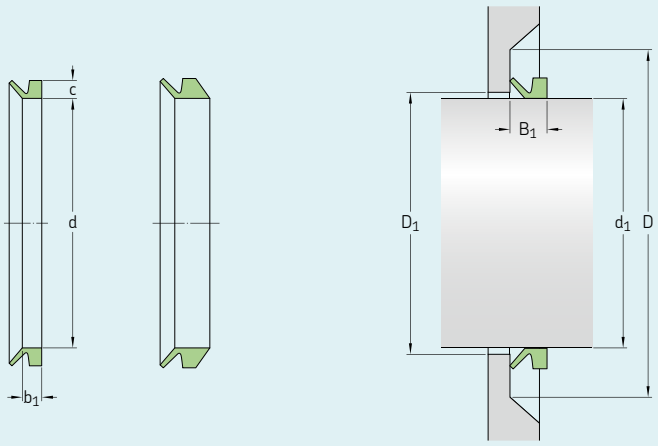
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
402502	VR3	R	9.173	10.236	8.858	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402506	VR3	V	9.173	10.236	8.858	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402500	VR1	R	9.252	10.433	8.858	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402504	VR1	V	9.252	10.433	8.858	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402752	VR3	R	10.236	11.220	9.724	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402756	VR3	V	10.236	11.220	9.724	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
402750	VR1	R	10.433	11.417	9.724	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
402754	VR1	V	10.433	11.417	9.724	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403002	VR3	R	11.220	12.205	10.630	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403006	VR3	V	11.220	12.205	10.630	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403000	VR1	R	11.417	12.205	10.630	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403004	VR1	V	11.417	12.205	10.630	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403003	VR4	R	11.811	12.008	11.575	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403053	VR4	R	12.008	12.205	11.772	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403252	VR3	R	12.205	13.189	11.496	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403256	VR3	V	12.205	13.189	11.496	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403250	VR1	R	12.205	13.189	11.496	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403254	VR1	V	12.205	13.189	11.496	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403103	VR4	R	12.205	12.402	11.969	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403153	VR4	R	12.402	12.598	12.165	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403203	VR4	R	12.598	12.795	12.362	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403253	VR4	R	12.795	12.992	12.559	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403303	VR4	R	12.992	13.189	12.717	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403502	VR3	R	13.189	14.370	12.402	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403506	VR3	V	13.189	14.370	12.402	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403500	VR1	R	13.189	14.370	12.402	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403504	VR1	V	13.189	14.370	12.402	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403353	VR4	R	13.189	13.386	12.913	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403403	VR4	R	13.386	13.583	13.110	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403453	VR4	R	13.583	13.780	13.307	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403503	VR4	R	13.780	13.976	13.504	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403553	VR4	R	13.976	14.173	13.661	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403603	VR4	R	14.173	14.370	13.858	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403752	VR3	R	14.370	15.157	13.268	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403756	VR3	V	14.370	15.157	13.268	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403750	VR1	R	14.370	15.354	13.268	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403754	VR1	V	14.370	15.354	13.268	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403653	VR4	R	14.370	14.567	14.055	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403703	VR4	R	14.567	14.764	14.252	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403753	VR4	R	14.764	14.961	14.449	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403803	VR4	R	14.961	15.157	14.606	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404002	VR3	R	15.157	16.142	14.173	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
4040066	VR3	V	15.157	16.142	14.173	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
403853	VR4	R	15.157	15.354	14.803	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404000	VR1	R	15.354	16.929	14.173	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
4040044	VR1	V	15.354	16.929	14.173	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
403903	VR4	R	15.354	15.551	15.000	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
403953	VR4	R	15.551	15.748	15.197	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181



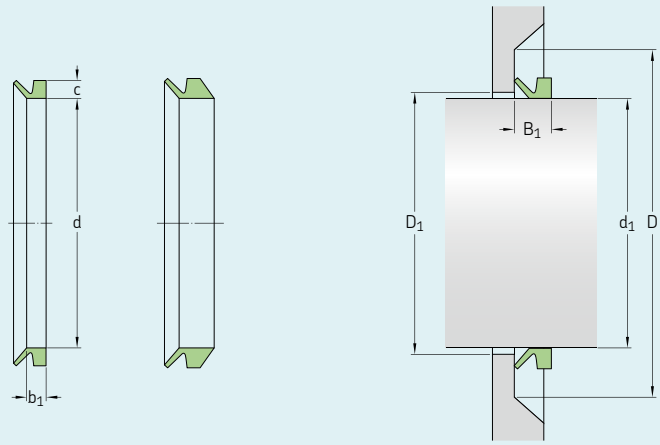
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
233	260	225	8±1.5	d1 + 5	d1 + 20	6	6.5	**402502**
233	260	225	8±1.5	d1 + 5	d1 + 20	6	6.5	**402506**
235	265	225	20±4	d1 + 10	d1 + 45	14.3	15	**402500**
235	265	225	20±4	d1 + 10	d1 + 45	14.3	15	**402504**
260	285	247	8±1.5	d1 + 5	d1 + 20	6	6.5	**402752**
260	285	247	8±1.5	d1 + 5	d1 + 20	6	6.5	**402756**
265	290	247	20±4	d1 + 10	d1 + 45	14.3	15	**402750**
265	290	247	20±4	d1 + 10	d1 + 45	14.3	15	**402754**
285	310	270	8±1.5	d1 + 5	d1 + 20	6	6.5	**403002**
285	310	270	8±1.5	d1 + 5	d1 + 20	6	6.5	**403006**
290	310	270	20±4	d1 + 10	d1 + 45	14.3	15	**403000**
290	310	270	20±4	d1 + 10	d1 + 45	14.3	15	**403004**
300	305	294	50±12	d1 + 24	d1 + 115	32.5	30	**403003**
305	310	299	50±12	d1 + 24	d1 + 115	32.5	30	**403053**
310	335	292	8±1.5	d1 + 5	d1 + 20	6	6.5	**403252**
310	335	292	8±1.5	d1 + 5	d1 + 20	6	6.5	**403256**
310	335	292	20±4	d1 + 10	d1 + 45	14.3	15	**403250**
310	335	292	20±4	d1 + 10	d1 + 45	14.3	15	**403254**
310	315	304	50±12	d1 + 24	d1 + 115	32.5	30	**403103**
315	320	309	50±12	d1 + 24	d1 + 115	32.5	30	**403153**
320	325	314	50±12	d1 + 24	d1 + 115	32.5	30	**403203**
325	330	319	50±12	d1 + 24	d1 + 115	32.5	30	**403253**
330	335	323	50±12	d1 + 24	d1 + 115	32.5	30	**403303**
335	365	315	8±1.5	d1 + 5	d1 + 20	6	6.5	**403502**
335	365	315	8±1.5	d1 + 5	d1 + 20	6	6.5	**403506**
335	365	315	20±4	d1 + 10	d1 + 45	14.3	15	**403500**
335	365	315	20±4	d1 + 10	d1 + 45	14.3	15	**403504**
335	340	328	50±12	d1 + 24	d1 + 115	32.5	30	**403353**
340	345	333	50±12	d1 + 24	d1 + 115	32.5	30	**403403**
345	350	338	50±12	d1 + 24	d1 + 115	32.5	30	**403453**
350	355	343	50±12	d1 + 24	d1 + 115	32.5	30	**403503**
355	360	347	50±12	d1 + 24	d1 + 115	32.5	30	**403553**
360	365	352	50±12	d1 + 24	d1 + 115	32.5	30	**403603**
365	385	337	8±1.5	d1 + 5	d1 + 20	6	6.5	**403752**
365	385	337	8±1.5	d1 + 5	d1 + 20	6	6.5	**403756**
365	390	337	20±4	d1 + 10	d1 + 45	14.3	15	**403750**
365	390	337	20±4	d1 + 10	d1 + 45	14.3	15	**403754**
365	370	357	50±12	d1 + 24	d1 + 115	32.5	30	**403653**
370	375	362	50±12	d1 + 24	d1 + 115	32.5	30	**403703**
375	380	367	50±12	d1 + 24	d1 + 115	32.5	30	**403753**
380	385	371	50±12	d1 + 24	d1 + 115	32.5	30	**403803**
385	410	360	8±1.5	d1 + 5	d1 + 20	6	6.5	**404002**
385	410	360	8±1.5	d1 + 5	d1 + 20	6	6.5	**4040066**
385	390	376	50±12	d1 + 24	d1 + 115	32.5	30	**403853**
390	430	360	20±4	d1 + 10	d1 + 45	14.3	15	**404000**
390	430	360	20±4	d1 + 10	d1 + 45	14.3	15	**4040044**
390	395	381	50±12	d1 + 24	d1 + 115	32.5	30	**403903**
395	400	386	50±12	d1 + 24	d1 + 115	32.5	30	**403953**



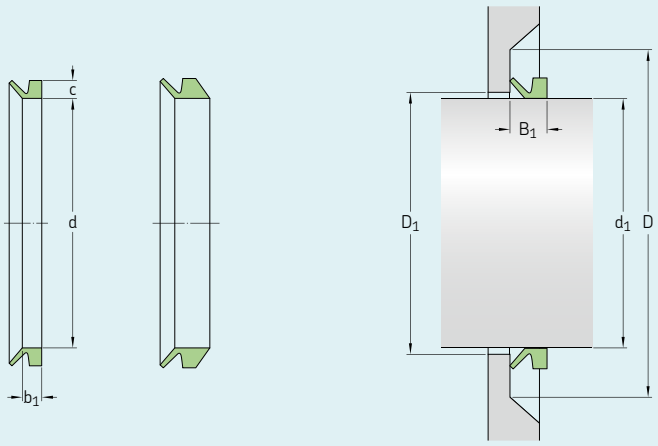
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
404003	VR4	R	15.748	15.945	15.394	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4040033	VR4	R	15.945	16.142	15.591	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404252	VR3	R	16.142	17.323	15.039	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
404256	VR3	V	16.142	17.323	15.039	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
404103	VR4	R	16.142	16.339	15.787	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404153	VR4	R	16.339	16.535	15.945	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404253	VR4	R	16.732	16.929	16.339	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404500	VR1	R	16.929	18.898	15.945	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
404504	VR1	V	16.929	18.898	15.945	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
404303	VR4	R	16.929	17.126	16.535	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404353	VR4	R	17.126	17.323	16.732	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404502	VR3	R	17.323	18.701	15.945	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
404506	VR3	V	17.323	18.701	15.945	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
4044033	VR4	R	17.323	17.520	16.890	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404453	VR4	R	17.520	17.717	17.087	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404503	VR4	R	17.717	17.913	17.283	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404553	VR4	R	17.913	18.110	17.480	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4040033	VR4	R	18.110	18.307	17.638	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404653	VR4	R	18.307	18.504	17.835	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404703	VR4	R	18.504	18.701	18.031	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405002	VR3	R	18.701	20.079	17.717	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
404033	VR3	V	18.701	20.079	17.717	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
404753	VR4	R	18.701	18.898	18.228	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405000	VR1	R	18.898	20.866	17.717	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
405004	VR1	V	18.898	20.866	17.717	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
404803	VR4	R	18.898	19.094	18.425	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404853	VR4	R	19.094	19.291	18.622	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404903	VR4	R	19.291	19.488	18.819	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
404953	VR4	R	19.488	19.685	19.016	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405003	VR4	R	19.685	19.882	19.213	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405053	VR4	R	19.882	20.079	19.409	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405252	VR3	R	20.079	21.260	18.583	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
405256	VR3	V	20.079	21.260	18.583	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
405103	VR4	R	20.079	20.276	19.567	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405153	VR4	R	20.276	20.472	19.764	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405203	VR4	R	20.472	20.669	19.961	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405253	VR4	R	20.669	20.866	20.157	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405500	VR1	R	20.866	22.835	19.488	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
405504	VR1	V	20.866	22.835	19.488	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
405303	VR4	R	20.866	21.063	20.354	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405353	VR4	R	21.063	21.260	20.512	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405502	VR3	R	21.260	22.638	19.488	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
405506	VR3	V	21.260	22.638	19.488	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
405403	VR4	R	21.260	21.457	20.709	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405453	VR4	R	21.457	21.654	20.906	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405503	VR4	R	21.654	21.850	21.102	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405553	VR4	R	21.850	22.047	21.299	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181



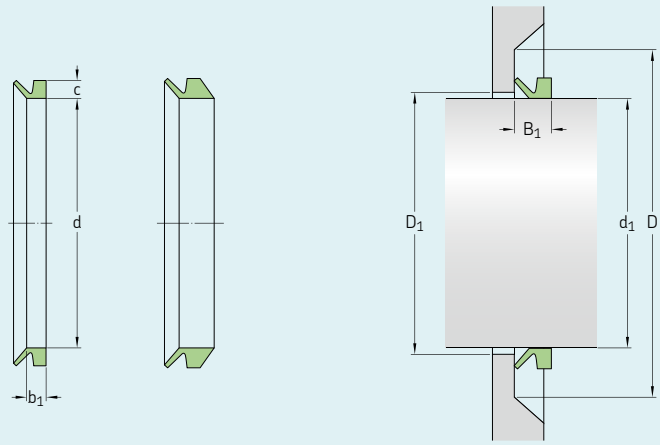
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
400	405	391	50±12	d1 + 24	d1 + 115	32.5	30	**404003**
405	410	396	50±12	d1 + 24	d1 + 115	32.5	30	**4040033**
410	440	382	8±1.5	d1 + 5	d1 + 20	6	6.5	**404252**
410	440	382	8±1.5	d1 + 5	d1 + 20	6	6.5	**404256**
410	415	401	50±12	d1 + 24	d1 + 115	32.5	30	**404103**
415	420	405	50±12	d1 + 24	d1 + 115	32.5	30	**404153**
425	430	415	50±12	d1 + 24	d1 + 115	32.5	30	**404253**
430	480	405	20±4	d1 + 10	d1 + 45	14.3	15	**404500**
430	480	405	20±4	d1 + 10	d1 + 45	14.3	15	**404504**
430	435	420	50±12	d1 + 24	d1 + 115	32.5	30	**404303**
435	440	425	50±12	d1 + 24	d1 + 115	32.5	30	**404353**
440	475	405	8±1.5	d1 + 5	d1 + 20	6	6.5	**404502**
440	475	405	8±1.5	d1 + 5	d1 + 20	6	6.5	**404506**
440	445	429	50±12	d1 + 24	d1 + 115	32.5	30	**4044033**
445	450	434	50±12	d1 + 24	d1 + 115	32.5	30	**404453**
450	455	439	50±12	d1 + 24	d1 + 115	32.5	30	**404503**
455	460	444	50±12	d1 + 24	d1 + 115	32.5	30	**404553**
460	465	448	50±12	d1 + 24	d1 + 115	32.5	30	**4040033**
465	470	453	50±12	d1 + 24	d1 + 115	32.5	30	**404653**
470	475	458	50±12	d1 + 24	d1 + 115	32.5	30	**404703**
475	510	450	8±1.5	d1 + 5	d1 + 20	6	6.5	**405002**
475	510	450	8±1.5	d1 + 5	d1 + 20	6	6.5	**4040033**
475	480	463	50±12	d1 + 24	d1 + 115	32.5	30	**404753**
480	530	450	20±4	d1 + 10	d1 + 45	14.3	15	**405000**
480	530	450	20±4	d1 + 10	d1 + 45	14.3	15	**405004**
480	485	468	50±12	d1 + 24	d1 + 115	32.5	30	**404803**
485	490	473	50±12	d1 + 24	d1 + 115	32.5	30	**404853**
490	495	478	50±12	d1 + 24	d1 + 115	32.5	30	**404903**
495	500	483	50±12	d1 + 24	d1 + 115	32.5	30	**404953**
500	505	488	50±12	d1 + 24	d1 + 115	32.5	30	**405003**
505	510	493	50±12	d1 + 24	d1 + 115	32.5	30	**405053**
510	540	472	8±1.5	d1 + 5	d1 + 20	6	6.5	**405252**
510	540	472	8±1.5	d1 + 5	d1 + 20	6	6.5	**405256**
510	515	497	50±12	d1 + 24	d1 + 115	32.5	30	**405103**
515	520	502	50±12	d1 + 24	d1 + 115	32.5	30	**405153**
520	525	507	50±12	d1 + 24	d1 + 115	32.5	30	**405203**
525	530	512	50±12	d1 + 24	d1 + 115	32.5	30	**405253**
530	580	495	20±4	d1 + 10	d1 + 45	14.3	15	**405500**
530	580	495	20±4	d1 + 10	d1 + 45	14.3	15	**405504**
530	535	517	50±12	d1 + 24	d1 + 115	32.5	30	**405303**
535	540	521	50±12	d1 + 24	d1 + 115	32.5	30	**405353**
540	575	495	8±1.5	d1 + 5	d1 + 20	6	6.5	**405502**
540	575	495	8±1.5	d1 + 5	d1 + 20	6	6.5	**405506**
540	545	526	50±12	d1 + 24	d1 + 115	32.5	30	**405403**
545	550	531	50±12	d1 + 24	d1 + 115	32.5	30	**405453**
550	555	536	50±12	d1 + 24	d1 + 115	32.5	30	**405503**
555	560	541	50±12	d1 + 24	d1 + 115	32.5	30	**405553**



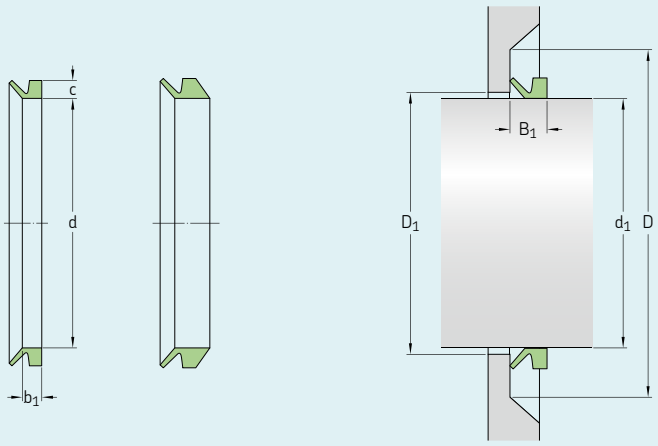
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
405603	VR4	R	22.047	22.244	21.496	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405653	VR4	R	22.244	22.441	21.654	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405703	VR4	R	22.441	22.638	21.850	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4060022	VR3	R	22.638	24.606	21.260	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
4060066	VR3	V	22.638	24.606	21.260	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
405753	VR4	R	22.638	22.835	22.047	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406000	VR1	R	22.835	24.803	21.260	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
4060044	VR1	V	22.835	24.803	21.260	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
405803	VR4	R	22.835	23.031	22.244	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405853	VR4	R	23.031	23.228	22.441	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
405903	VR4	R	23.228	23.622	22.638	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406003	VR4	R	23.622	24.016	22.913	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4061033	VR4	R	24.016	24.409	23.307	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406502	VR3	R	24.213	26.575	23.622	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
406506	VR3	V	24.213	26.575	23.622	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
4062033	VR4	R	24.409	24.803	23.701	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406500	VR1	R	24.803	26.181	23.622	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
406504	VR1	V	24.803	26.181	23.622	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
4063033	VR4	R	24.803	25.197	24.094	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4064033	VR4	R	25.197	25.591	24.449	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406503	VR4	R	25.591	25.984	24.843	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
4066033	VR4	R	25.984	26.378	25.197	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407000	VR1	R	26.181	27.756	24.803	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
407004	VR1	V	26.181	27.756	24.803	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
406703	VR4	R	26.378	26.772	25.591	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407002	VR3	R	26.575	27.953	24.803	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
407006	VR3	V	26.575	27.953	24.803	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
406803	VR4	R	26.772	27.165	25.984	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
406903	VR4	R	27.165	27.559	26.378	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407003	VR4	R	27.559	27.953	26.772	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407250	VR1	R	27.756	29.331	26.378	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
407254	VR1	V	27.756	29.331	26.378	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
407252	VR3	R	27.953	29.134	26.378	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
407256	VR3	V	27.953	29.134	26.378	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
407103	VR4	R	27.953	28.346	27.126	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407203	VR4	R	28.346	28.740	27.520	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407309	VR4	R	28.740	29.134	27.913	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407502	VR3	R	29.134	30.512	27.756	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
407506	VR3	V	29.134	30.512	27.756	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
407403	VR4	R	29.134	29.528	28.268	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407500	VR1	R	29.331	30.906	27.756	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
407504	VR1	V	29.331	30.906	27.756	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
407503	VR4	R	29.528	29.843	28.661	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407603	VR4	R	29.843	30.157	28.937	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407703	VR4	R	30.157	30.472	29.252	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
407803	VR4	R	30.472	30.827	29.567	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408002	VR3	R	30.512	32.480	29.331	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
408006	VR3	V	30.512	32.480	29.331	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256



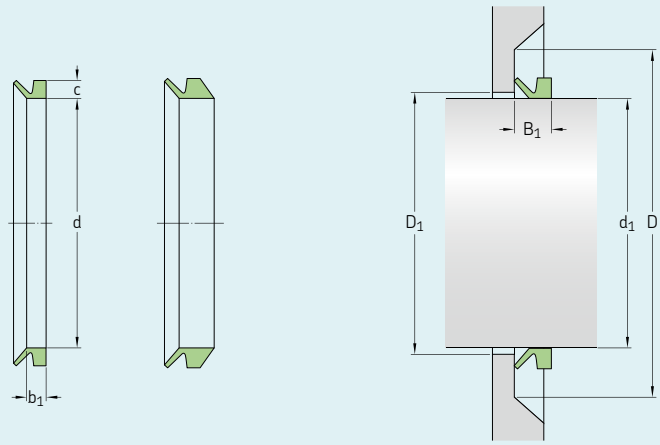
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
560	565	546	50±12	d1 + 24	d1 + 115	32.5	30	**405603**
565	570	550	50±12	d1 + 24	d1 + 115	32.5	30	**405653**
570	575	555	50±12	d1 + 24	d1 + 115	32.5	30	**405703**
575	625	540	8±1.5	d1 + 5	d1 + 20	6	6.5	**4060022**
575	625	540	8±1.5	d1 + 5	d1 + 20	6	6.5	**4060066**
575	580	560	50±12	d1 + 24	d1 + 115	32.5	30	**405753**
580	630	540	20±4	d1 + 10	d1 + 45	14.3	15	**406000**
580	630	540	20±4	d1 + 10	d1 + 45	14.3	15	**4060044**
580	585	565	50±12	d1 + 24	d1 + 115	32.5	30	**405803**
585	590	570	50±12	d1 + 24	d1 + 115	32.5	30	**405853**
590	600	575	50±12	d1 + 24	d1 + 115	32.5	30	**405903**
600	610	582	50±12	d1 + 24	d1 + 115	32.5	30	**406003**
610	620	592	50±12	d1 + 24	d1 + 115	32.5	30	**4061033**
615	675	600	8±1.5	d1 + 5	d1 + 20	6	6.5	**406502**
615	675	600	8±1.5	d1 + 5	d1 + 20	6	6.5	**406506**
620	630	602	50±12	d1 + 24	d1 + 115	32.5	30	**4062033**
630	665	600	20±4	d1 + 10	d1 + 45	14.3	15	**406500**
630	665	600	20±4	d1 + 10	d1 + 45	14.3	15	**406504**
630	640	612	50±12	d1 + 24	d1 + 115	32.5	30	**4063033**
640	650	621	50±12	d1 + 24	d1 + 115	32.5	30	**4064033**
650	660	631	50±12	d1 + 24	d1 + 115	32.5	30	**406503**
660	670	640	50±12	d1 + 24	d1 + 115	32.5	30	**406603**
665	705	630	20±4	d1 + 10	d1 + 45	14.3	15	**407000**
665	705	630	20±4	d1 + 10	d1 + 45	14.3	15	**407004**
670	680	650	50±12	d1 + 24	d1 + 115	32.5	30	**406703**
675	710	630	8±1.5	d1 + 5	d1 + 20	6	6.5	**407002**
675	710	630	8±1.5	d1 + 5	d1 + 20	6	6.5	**407006**
680	690	660	50±12	d1 + 24	d1 + 115	32.5	30	**406803**
690	700	670	50±12	d1 + 24	d1 + 115	32.5	30	**406903**
700	710	680	50±12	d1 + 24	d1 + 115	32.5	30	**407003**
705	745	670	20±4	d1 + 10	d1 + 45	14.3	15	**407250**
705	745	670	20±4	d1 + 10	d1 + 45	14.3	15	**407254**
710	740	670	8±1.5	d1 + 5	d1 + 20	6	6.5	**407252**
710	740	670	8±1.5	d1 + 5	d1 + 20	6	6.5	**407256**
710	720	689	50±12	d1 + 24	d1 + 115	32.5	30	**407103**
720	730	699	50±12	d1 + 24	d1 + 115	32.5	30	**407203**
730	740	709	50±12	d1 + 24	d1 + 115	32.5	30	**407309**
740	775	705	8±1.5	d1 + 5	d1 + 20	6	6.5	**407502**
740	775	705	8±1.5	d1 + 5	d1 + 20	6	6.5	**407506**
740	750	718	50±12	d1 + 24	d1 + 115	32.5	30	**407403**
745	785	705	20±4	d1 + 10	d1 + 45	14.3	15	**407500**
745	785	705	20±4	d1 + 10	d1 + 45	14.3	15	**407504**
750	758	728	50±12	d1 + 24	d1 + 115	32.5	30	**407503**
758	766	735	50±12	d1 + 24	d1 + 115	32.5	30	**407603**
766	774	743	50±12	d1 + 24	d1 + 115	32.5	30	**407703**
774	783	751	50±12	d1 + 24	d1 + 115	32.5	30	**407803**
775	825	745	8±1.5	d1 + 5	d1 + 20	6	6.5	**408002**
775	825	745	8±1.5	d1 + 5	d1 + 20	6	6.5	**408006**



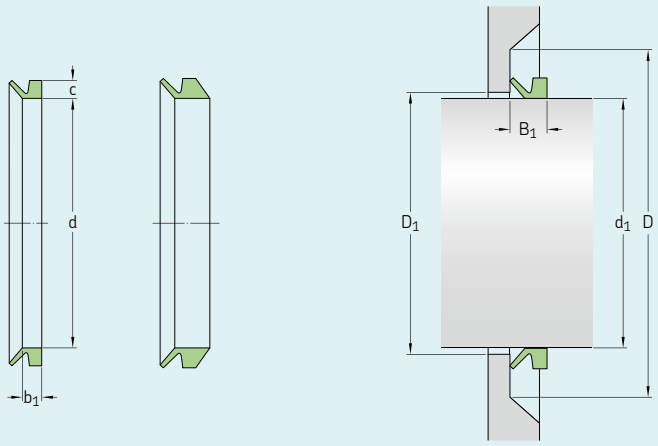
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
407903	VR4	R	30.827	31.181	29.882	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408000	VR1	R	30.906	32.677	29.331	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
408004	VR1	V	30.906	32.677	29.331	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
408003	VR4	R	31.181	31.535	30.236	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408103	VR4	R	31.535	31.890	30.591	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408203	VR4	R	31.890	32.323	30.945	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408303	VR4	R	32.323	32.717	31.339	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408502	VR3	R	32.480	34.449	30.906	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
408004	VR3	V	32.480	34.449	30.906	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
408500	VR1	R	32.677	34.449	30.906	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
408504	VR1	V	32.677	34.449	30.906	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
408403	VR4	R	32.717	33.110	31.693	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408503	VR4	R	33.110	33.504	32.047	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408603	VR4	R	33.504	33.898	32.441	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408703	VR4	R	33.898	34.291	32.795	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
408803	VR4	R	34.291	34.724	33.189	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409002	VR3	R	34.449	36.417	32.480	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
409006	VR3	V	34.449	36.417	32.480	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
409000	VR1	R	34.449	36.220	32.480	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
409004	VR1	V	34.449	36.220	32.480	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
408903	VR4	R	34.724	35.118	33.583	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409003	VR4	R	35.118	35.906	34.291	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409203	VR4	R	35.906	36.299	34.646	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409500	VR1	R	36.220	37.992	34.055	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
409504	VR1	V	36.220	37.992	34.055	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
409303	VR4	R	36.299	36.732	35.039	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409502	VR3	R	36.417	38.386	34.055	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
409506	VR3	V	36.417	38.386	34.055	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
409403	VR4	R	36.732	37.165	35.433	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409503	VR4	R	37.165	37.598	35.866	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409603	VR4	R	37.598	38.031	36.260	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410000	VR1	R	37.992	39.961	35.827	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
410004	VR1	V	37.992	39.961	35.827	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
409703	VR4	R	38.031	38.465	36.693	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410002	VR3	R	38.386	40.354	35.827	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
410006	VR3	V	38.386	40.354	35.827	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
409803	VR4	R	38.465	38.898	37.087	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
409903	VR4	R	38.898	39.331	37.520	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410003	VR4	R	39.331	39.764	37.913	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410203	VR4	R	39.764	40.354	38.307	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410500	VR1	R	39.961	41.929	37.598	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
410502	VR3	R	40.354	42.323	37.598	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
410506	VR3	V	40.354	42.323	37.598	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
410403	VR4	R	40.354	41.142	38.976	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
410603	VR4	R	41.142	41.929	39.685	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
411000	VR1	R	41.929	43.898	39.370	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
410803	VR4	R	41.929	42.717	40.433	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
411002	VR3	R	42.323	44.291	39.370	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256



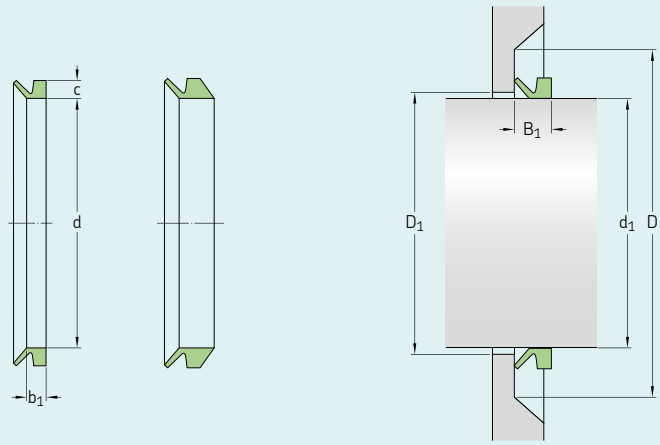
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
783	792	759	50±12	d1 + 24	d1 + 115	32.5	30	**407903**
785	830	745	20±4	d1 + 10	d1 + 45	14.3	15	**408000**
785	830	745	20±4	d1 + 10	d1 + 45	14.3	15	**408004**
792	801	768	50±12	d1 + 24	d1 + 115	32.5	30	**408003**
801	810	777	50±12	d1 + 24	d1 + 115	32.5	30	**408103**
810	821	786	50±12	d1 + 24	d1 + 115	32.5	30	**408203**
821	831	796	50±12	d1 + 24	d1 + 115	32.5	30	**408303**
825	875	785	8±1.5	d1 + 5	d1 + 20	6	6.5	**408502**
825	875	785	8±1.5	d1 + 5	d1 + 20	6	6.5	**408506**
830	875	785	20±4	d1 + 10	d1 + 45	14.3	15	**408500**
830	875	785	20±4	d1 + 10	d1 + 45	14.3	15	**408004**
831	841	805	50±12	d1 + 24	d1 + 115	32.5	30	**408403**
841	851	814	50±12	d1 + 24	d1 + 115	32.5	30	**408503**
851	861	824	50±12	d1 + 24	d1 + 115	32.5	30	**408603**
861	871	833	50±12	d1 + 24	d1 + 115	32.5	30	**408703**
871	882	843	50±12	d1 + 24	d1 + 115	32.5	30	**408803**
875	925	825	8±1.5	d1 + 5	d1 + 20	6	6.5	**409002**
875	925	825	8±1.5	d1 + 5	d1 + 20	6	6.5	**409006**
875	920	825	20±4	d1 + 10	d1 + 45	14.3	15	**409000**
875	920	825	20±4	d1 + 10	d1 + 45	14.3	15	**409004**
882	892	853	50±12	d1 + 24	d1 + 115	32.5	30	**408903**
892	912	871	50±12	d1 + 24	d1 + 115	32.5	30	**409003**
912	922	880	50±12	d1 + 24	d1 + 115	32.5	30	**409203**
920	965	865	20±4	d1 + 10	d1 + 45	14.3	15	**409500**
920	965	865	20±4	d1 + 10	d1 + 45	14.3	15	**409504**
922	933	890	50±12	d1 + 24	d1 + 115	32.5	30	**409303**
925	975	865	8±1.5	d1 + 5	d1 + 20	6	6.5	**409502**
925	975	865	8±1.5	d1 + 5	d1 + 20	6	6.5	**409506**
933	944	900	50±12	d1 + 24	d1 + 115	32.5	30	**409403**
944	955	911	50±12	d1 + 24	d1 + 115	32.5	30	**409503**
955	966	921	50±12	d1 + 24	d1 + 115	32.5	30	**409603**
965	1015	910	20±4	d1 + 10	d1 + 45	14.3	15	**410000**
965	1015	910	20±4	d1 + 10	d1 + 45	14.3	15	**410004**
966	977	932	50±12	d1 + 24	d1 + 115	32.5	30	**409703**
975	1025	910	8±1.5	d1 + 5	d1 + 20	6	6.5	**410002**
975	1025	910	8±1.5	d1 + 5	d1 + 20	6	6.5	**410006**
977	988	942	50±12	d1 + 24	d1 + 115	32.5	30	**409803**
988	999	953	50±12	d1 + 24	d1 + 115	32.5	30	**409903**
999	1010	963	50±12	d1 + 24	d1 + 115	32.5	30	**410003**
1010	1025	973	50±12	d1 + 24	d1 + 115	32.5	30	**410203**
1015	1065	955	20±4	d1 + 10	d1 + 45	14.3	15	**410500**
1025	1075	955	8±1.5	d1 + 5	d1 + 20	6	6.5	**410502**
1025	1075	955	8±1.5	d1 + 5	d1 + 20	6	6.5	**410506**
1025	1045	990	50±12	d1 + 24	d1 + 115	32.5	30	**410403**
1045	1065	1008	50±12	d1 + 24	d1 + 115	32.5	30	**410603**
1065	1115	1000	20±4	d1 + 10	d1 + 45	14.3	15	**411000**
1065	1085	1027	50±12	d1 + 24	d1 + 115	32.5	30	**410803**
1075	1125	1000	8±1.5	d1 + 5	d1 + 20	6	6.5	**411002**



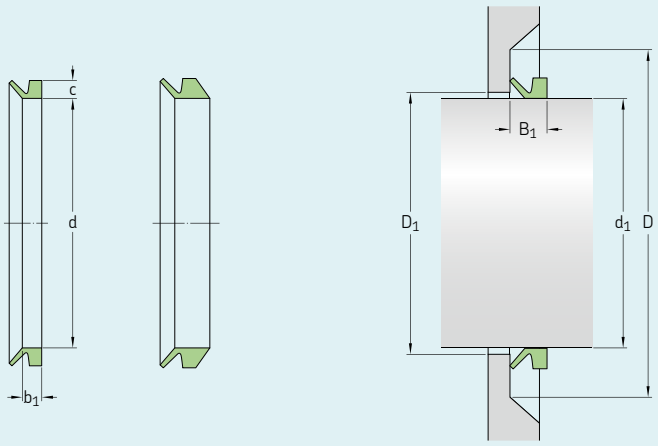
Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
411006	VR3	V	42.323	44.291	39.370	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
411003	VR4	R	42.717	43.504	41.142	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
411203	VR4	R	43.504	44.291	41.929	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
411500	VR1	R	43.898	45.866	41.142	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
411502	VR3	R	44.291	46.260	41.142	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
411506	VR3	V	44.291	46.260	41.142	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
411403	VR4	R	44.291	45.079	42.677	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
411603	VR4	R	45.079	45.866	43.425	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
412000	VR1	R	45.866	47.835	42.913	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
411803	VR4	R	45.866	46.654	44.134	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
412002	VR3	R	46.260	48.228	42.913	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
412006	VR3	V	46.260	48.228	42.913	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
412003	VR4	R	46.654	47.441	44.843	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
412203	VR4	R	47.441	48.228	45.551	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
412500	VR1	R	47.835	50.000	44.685	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
412502	VR3	R	48.228	50.197	44.685	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
412506	VR3	V	48.228	50.197	44.685	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
471240	VR4	R	48.228	49.016	46.299	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
412603	VR4	R	49.016	50.000	47.047	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
413000	VR1	R	50.000	51.969	46.457	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
412803	VR4	R	50.000	50.984	47.953	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
413002	VR3	R	50.197	52.165	46.457	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
413006	VR3	V	50.197	52.165	46.457	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
413003	VR4	R	50.984	51.772	48.819	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
413253	VR4	R	51.772	52.756	49.567	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
413500	VR1	R	51.969	53.937	48.228	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
413502	VR3	R	52.165	54.134	48.228	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
413506	VR3	V	52.165	54.134	48.228	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
413503	VR4	R	52.756	53.740	50.433	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
413753	VR4	R	53.740	54.724	51.378	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
414000	VR1	R	53.937	55.906	50.000	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
414002	VR3	R	54.134	56.102	50.000	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
414006	VR3	V	54.134	56.102	50.000	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
414003	VR4	R	54.724	55.709	52.283	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
414253	VR4	R	55.709	56.693	53.150	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
414500	VR1	R	55.906	57.874	51.772	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
414502	VR3	R	56.102	58.071	51.772	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
414506	VR3	V	56.102	58.071	51.772	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
414503	VR4	R	56.693	57.677	54.094	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
414753	VR4	R	57.677	58.661	55.000	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
415000	VR1	R	57.874	59.843	53.543	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
415002	VR3	R	58.071	60.039	53.543	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
415006	VR3	V	58.071	60.039	53.543	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
415003	VR4	R	58.661	59.646	55.866	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
415253	VR4	R	59.646	60.630	56.811	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
415500	VR1	R	59.843	61.811	55.315	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
415502	VR3	R	60.039	62.008	55.315	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
415506	VR3	V	60.039	62.008	55.315	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256



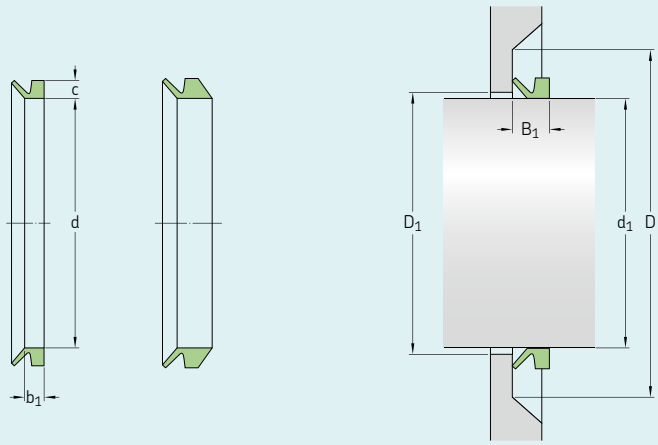
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
1075	1125	1000	8±1.5	d1 + 5	d1 + 20	6	6.5	**411006**
1085	1105	1045	50±12	d1 + 24	d1 + 115	32.5	30	**411003**
1105	1125	1065	50±12	d1 + 24	d1 + 115	32.5	30	**411203**
1115	1165	1045	20±4	d1 + 10	d1 + 45	14.3	15	**411500**
1125	1175	1045	8±1.5	d1 + 5	d1 + 20	6	6.5	**411502**
1125	1175	1045	8±1.5	d1 + 5	d1 + 20	6	6.5	**411506**
1125	1145	1084	50±12	d1 + 24	d1 + 115	32.5	30	**411403**
1145	1165	1103	50±12	d1 + 24	d1 + 115	32.5	30	**411603**
1165	1215	1090	20±4	d1 + 10	d1 + 45	14.3	15	**412000**
1165	1185	1121	50±12	d1 + 24	d1 + 115	32.5	30	**411803**
1175	1225	1090	8±1.5	d1 + 5	d1 + 20	6	6.5	**412002**
1175	1225	1090	8±1.5	d1 + 5	d1 + 20	6	6.5	**412006**
1185	1205	1139	50±12	d1 + 24	d1 + 115	32.5	30	**412003**
1205	1225	1157	50±12	d1 + 24	d1 + 115	32.5	30	**412203**
1215	1270	1135	20±4	d1 + 10	d1 + 45	14.3	15	**412500**
1225	1275	1135	8±1.5	d1 + 5	d1 + 20	6	6.5	**412502**
1225	1275	1135	8±1.5	d1 + 5	d1 + 20	6	6.5	**412506**
1225	1245	1176	50±12	d1 + 24	d1 + 115	32.5	30	**471240**
1245	1270	1195	50±12	d1 + 24	d1 + 115	32.5	30	**412603**
1270	1320	1180	20±4	d1 + 10	d1 + 45	14.3	15	**413000**
1270	1295	1218	50±12	d1 + 24	d1 + 115	32.5	30	**412803**
1275	1325	1180	8±1.5	d1 + 5	d1 + 20	6	6.5	**413002**
1275	1325	1180	8±1.5	d1 + 5	d1 + 20	6	6.5	**413006**
1295	1315	1240	50±12	d1 + 24	d1 + 115	32.5	30	**413003**
1315	1340	1259	50±12	d1 + 24	d1 + 115	32.5	30	**413253**
1320	1370	1225	20±4	d1 + 10	d1 + 45	14.3	15	**413500**
1325	1375	1225	8±1.5	d1 + 5	d1 + 20	6	6.5	**413502**
1325	1375	1225	8±1.5	d1 + 5	d1 + 20	6	6.5	**413506**
1340	1365	1281	50±12	d1 + 24	d1 + 115	32.5	30	**413503**
1365	1390	1305	50±12	d1 + 24	d1 + 115	32.5	30	**413753**
1370	1420	1270	20±4	d1 + 10	d1 + 45	14.3	15	**414000**
1375	1425	1270	8±1.5	d1 + 5	d1 + 20	6	6.5	**414002**
1375	1425	1270	8±1.5	d1 + 5	d1 + 20	6	6.5	**414006**
1390	1415	1328	50±12	d1 + 24	d1 + 115	32.5	30	**414003**
1415	1440	1350	50±12	d1 + 24	d1 + 115	32.5	30	**414253**
1420	1470	1315	20±4	d1 + 10	d1 + 45	14.3	15	**414500**
1425	1475	1315	8±1.5	d1 + 5	d1 + 20	6	6.5	**414502**
1425	1475	1315	8±1.5	d1 + 5	d1 + 20	6	6.5	**414506**
1440	1465	1374	50±12	d1 + 24	d1 + 115	32.5	30	**414503**
1465	1490	1397	50±12	d1 + 24	d1 + 115	32.5	30	**414753**
1470	1520	1360	20±4	d1 + 10	d1 + 45	14.3	15	**415000**
1475	1525	1360	8±1.5	d1 + 5	d1 + 20	6	6.5	**415002**
1475	1525	1360	8±1.5	d1 + 5	d1 + 20	6	6.5	**415006**
1490	1515	1419	50±12	d1 + 24	d1 + 115	32.5	30	**415003**
1515	1540	1443	50±12	d1 + 24	d1 + 115	32.5	30	**415253**
1520	1570	1405	20±4	d1 + 10	d1 + 45	14.3	15	**415500**
1525	1575	1405	8±1.5	d1 + 5	d1 + 20	6	6.5	**415502**
1525	1575	1405	8±1.5	d1 + 5	d1 + 20	6	6.5	**415506**



Inch

SKF Part Number	Design	Mat'l	Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c
415503	VR4	R	60.630	61.811	57.756	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
416000	VR1	R	61.811	63.780	57.087	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
415753	VR4	R	61.811	62.992	58.858	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
416002	VR3	R	62.008	63.976	57.087	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
416006	VR3	V	62.008	63.976	57.087	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
416003	VR4	R	62.992	64.567	60.000	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
416500	VR1	R	63.780	65.748	58.858	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
416502	VR3	R	63.976	65.945	58.858	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
416506	VR3	V	63.976	65.945	58.858	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
416503	VR4	R	64.567	66.142	61.378	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
417000	VR1	R	65.748	67.717	60.630	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
417002	VR3	R	65.945	67.913	60.630	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
417006	VR3	V	65.945	67.913	60.630	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
417500	VR1	R	67.717	69.685	62.402	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
417503	VR4	R	67.717	69.488	64.252	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
417502	VR3	R	67.913	69.882	62.402	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
417506	VR3	V	67.913	69.882	62.402	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
418003	VR4	R	69.488	71.260	65.787	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
418000	VR1	R	69.685	71.654	64.173	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
418002	VR3	R	69.882	71.850	64.173	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
418006	VR3	V	69.882	71.850	64.173	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
418503	VR4	R	71.260	73.031	67.480	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
418500	VR1	R	71.654	73.622	65.945	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
418502	VR3	R	71.850	73.819	65.945	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
418506	VR3	V	71.850	73.819	65.945	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
419003	VR4	R	73.031	75.000	69.016	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
419000	VR1	R	73.622	75.591	67.717	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
419002	VR3	R	73.819	75.787	67.717	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
419006	VR3	V	73.819	75.787	67.717	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
419503	VR4	R	75.000	76.969	70.630	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
419500	VR1	R	75.591	77.559	69.488	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
419502	VR3	R	75.787	77.756	69.488	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
419506	VR3	V	75.787	77.756	69.488	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
420003	VR4	R	76.969	79.134	72.598	1.969±.472	d1 + 0.945	d1 + 4.528	1.280	1.181
420000	VR1	R	77.559	79.528	71.260	0.787±.157	d1 + 0.394	d1 + 1.772	0.563	0.591
420002	VR3	R	77.756	79.724	71.260	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256
420006	VR3	V	77.756	79.724	71.260	0.315±.059	d1 + 0.197	d1 + 0.787	0.236	0.256



Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	Free state seal ID d	Fitted width B1	Max face ID D1	Min face OD D	Seal seat width b1	Seal height c	SKF Part Number
1540	1570	1467	50±12	d1 + 24	d1 + 115	32.5	30	**415503**
1570	1620	1450	20±4	d1 + 10	d1 + 45	14.3	15	**416000**
1570	1600	1495	50±12	d1 + 24	d1 + 115	32.5	30	**415753**
1575	1625	1450	8±1.5	d1 + 5	d1 + 20	6	6.5	**416002**
1575	1625	1450	8±1.5	d1 + 5	d1 + 20	6	6.5	**416006**
1600	1640	1524	50±12	d1 + 24	d1 + 115	32.5	30	**416003**
1620	1670	1495	20±4	d1 + 10	d1 + 45	14.3	15	**416500**
1625	1675	1495	8±1.5	d1 + 5	d1 + 20	6	6.5	**416502**
1625	1675	1495	8±1.5	d1 + 5	d1 + 20	6	6.5	**416506**
1640	1680	1559	50±12	d1 + 24	d1 + 115	32.5	30	**416503**
1670	1720	1540	20±4	d1 + 10	d1 + 45	14.3	15	**417000**
1675	1725	1540	8±1.5	d1 + 5	d1 + 20	6	6.5	**417002**
1675	1725	1540	8±1.5	d1 + 5	d1 + 20	6	6.5	**417006**
1720	1770	1585	20±4	d1 + 10	d1 + 45	14.3	15	**417500**
1720	1765	1632	50±12	d1 + 24	d1 + 115	32.5	30	**417503**
1725	1775	1585	8±1.5	d1 + 5	d1 + 20	6	6.5	**417502**
1725	1775	1585	8±1.5	d1 + 5	d1 + 20	6	6.5	**417506**
1765	1810	1671	50±12	d1 + 24	d1 + 115	32.5	30	**418003**
1770	1820	1630	20±4	d1 + 10	d1 + 45	14.3	15	**418000**
1775	1825	1630	8±1.5	d1 + 5	d1 + 20	6	6.5	**418002**
1775	1825	1630	8±1.5	d1 + 5	d1 + 20	6	6.5	**418006**
1810	1855	1714	50±12	d1 + 24	d1 + 115	32.5	30	**418503**
1820	1870	1675	20±4	d1 + 10	d1 + 45	14.3	15	**418500**
1825	1875	1675	8±1.5	d1 + 5	d1 + 20	6	6.5	**418502**
1825	1875	1675	8±1.5	d1 + 5	d1 + 20	6	6.5	**418506**
1855	1905	1753	50±12	d1 + 24	d1 + 115	32.5	30	**419003**
1870	1920	1720	20±4	d1 + 10	d1 + 45	14.3	15	**419000**
1875	1925	1720	8±1.5	d1 + 5	d1 + 20	6	6.5	**419002**
1875	1925	1720	8±1.5	d1 + 5	d1 + 20	6	6.5	**419006**
1905	1955	1794	50±12	d1 + 24	d1 + 115	32.5	30	**419503**
1920	1970	1765	20±4	d1 + 10	d1 + 45	14.3	15	**419500**
1925	1975	1765	8±1.5	d1 + 5	d1 + 20	6	6.5	**419502**
1925	1975	1765	8±1.5	d1 + 5	d1 + 20	6	6.5	**419506**
1955	2010	1844	50±12	d1 + 24	d1 + 115	32.5	30	**420003**
1970	2020	1810	20±4	d1 + 10	d1 + 45	14.3	15	**420000**
1975	2025	1810	8±1.5	d1 + 5	d1 + 20	6	6.5	**420002**
1975	2025	1810	8±1.5	d1 + 5	d1 + 20	6	6.5	**420006**

LDSLV wear sleeves for heavy industrial applications

Over time, contaminants trapped between a rotating shaft and a seal can cause severe shaft damage. Rather than repairing or replacing the damaged shaft, an LDSLV wear sleeve can take it from scored to restored in just minutes – or eliminate the need to finish it during manufacturing.

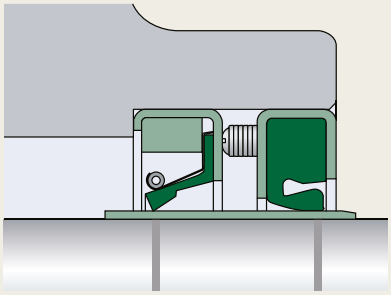
Heavy-duty protection

LDSLV wear sleeves are recommended for applications where seals are exposed to heavy contaminants and harsh operating conditions, as in rolling mills, metal plants and chemical processing facilities.

In applications where seal wear and shaft damage is common, SKF recommends installing the sleeves before the machine is operational. Installing LDSLV wear sleeves from the outset will eliminate the need to rework the shaft when installing a replacement sleeve; it will also allow the original seal size to be used as the replacement.

Figure 1

LDSLV4



Size range

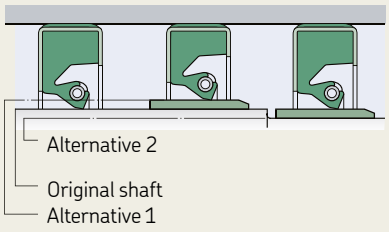
LDSLV wear sleeves for heavy industrial applications for shaft diameters ranging from 8.313 to 45 in. (*211.15* to *1,143 mm*). The sleeves are made to order for shaft diameters within the primary ranges listed in **table 1**.

Design features

LDSLV4 wear sleeves (→ **Fig. 1**) feature SAE 1008 chromium-plated carbon steel to enhance wear and corrosion resistance. Other sleeve materials are available to meet specific application demands. The sleeve outside diameter is specially ground to provide a precision bore surface for the seal. The wall thickness of the standard sleeves is 0.094 in. (*2.39 mm*).

Figure 2

Using LDSLV designs



Applications

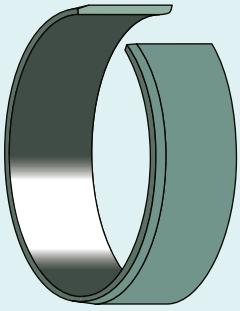
There are two alternative ways of using LDSLV4 wear sleeves for heavy industrial applications (→ **fig. 2**):

1. The sleeve is positioned on the shaft until it covers the damaged part and a new seal, designed for a 0.188 in. (*4.78 mm*) larger shaft diameter, is used.
2. The shaft is machined down by 0.188 in. (*4.78 mm*) in diameter, the sleeve is installed and the original seal size is used. The reworked shaft surface for the sleeve should have a surface roughness between Ra 100 to 125 µin (*2.5 and 3.2 µm*).

NOTE: The shaft tolerances for LDSLV designs, due to their heated slip-fit installation, are different from those for radial shaft seals. Contact SKF for assistance if the sleeves are to be used in systems with sustained temperatures higher than 165 °F (*75 °C*) and surface speeds in excess of 3,900 ft/min (*20 m/s*).

Table 1

Primary dimension range of LDSLV4



Shaft range		**Width**[1]	
over	incl.	min	max
in. (*mm*)		in. (*mm*)	
8.313 *211.15*	29.000 *736.60*	0.500 *12.70*	2.500 *63.50*
29.000 *736.60*	45.000 *1,143.00*	0.750 *19.05*	2.500 *63.50*

[1] Total width (b), 1.5 to 2 in. (*38.10* to *50.80 mm*) at 45 in. (*1,143.00 mm*) shaft diameter

Contact SKF for LDSLV4 designs outside the primary size range.

Installation/removal

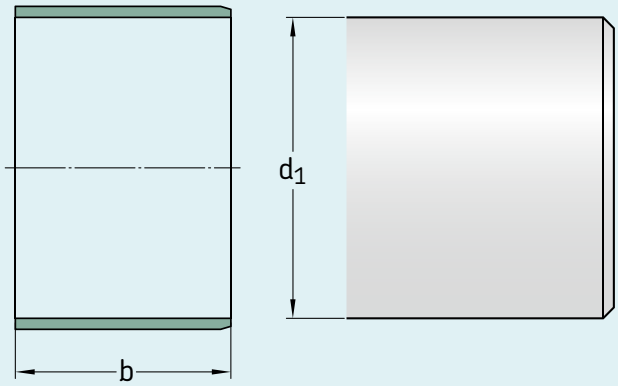
See **page 23** in this handbook.

Table 2

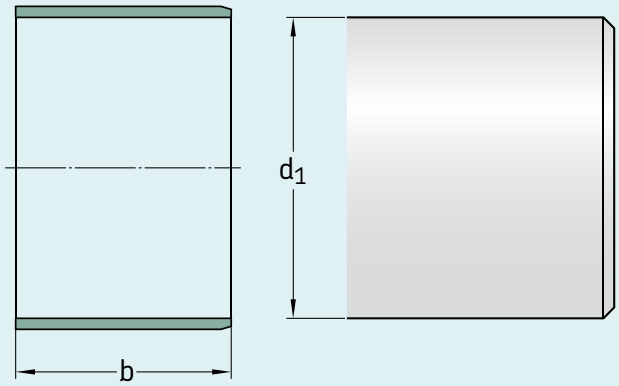
LDSLV4 interference fit and tolerances

Shaft		**Sleeve (metal I.D.)**	
Diameter	Tolerance	Nominal press fit	I.D. tolerance
3.001 to 5.000 in. *76.2 to 127 mm*	0.001 in. *0.025 mm*	0.005 in. *0.127 mm*	+ 0.002 in. – 0.004 in. *+ 0.051 mm* *– 0.102 mm*
5.001 to 7.000 in. *127 mm to 177.8 mm*	0.0015 in. *0.038 mm*	0.006 in. *0.152 mm*	+ 0.002 in. – 0.004 in. *+ 0.051 mm* *– 0.102 mm*
7.001 to 12.000 in. *177.8 to 304.8 mm*	0.002 in. *0.051 mm*	0.007 in. *0.178 mm*	+ 0.002 in. – 0.005 in. *+ 0.051 mm* *– 0.127 mm*
12.001 to 20.000 in. *304.8 to 508 mm*	+ 0.004 in. – 0.002 in. *+ 0.102 mm* *– 0.051 mm*	0.008 in. *0.203 mm*	+ 0.002 in. – 0.008 in. *+ 0.051 mm* *– 0.203 mm*
20.001 to 40.000 in. *508 to 1016 mm*	+ 0.008 in. – 0.002 in. *+ 0.203 mm* *– 0.051 mm*	0.008 in. *0.203 mm*	+ 0.002 in. – 0.008 in. *+ 0.051 mm* *– 0.203 mm*
40.001 to 60.000 in. *1016 to 1524 mm*	+ 0.010 in. – 0.002 in. *+ 0.254 mm* *– 0.051 mm*	0.008 in. *0.203 mm*	+ 0.002 in. – 0.010 in. *+ 0.081 mm* *– 0.254 mm*

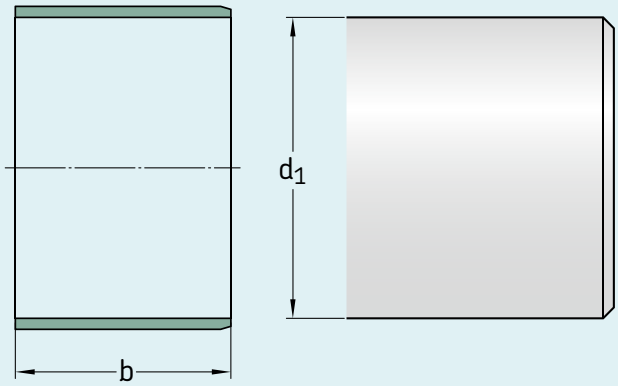
NOTE: Please contact us for recommendations concerning large diameter wear sleeves that will operate in systems with sustained oil sump temperatures greater than 170 °F (76.7 °C) and surface speed in excess of 3950 FPM (20.07 M/S).



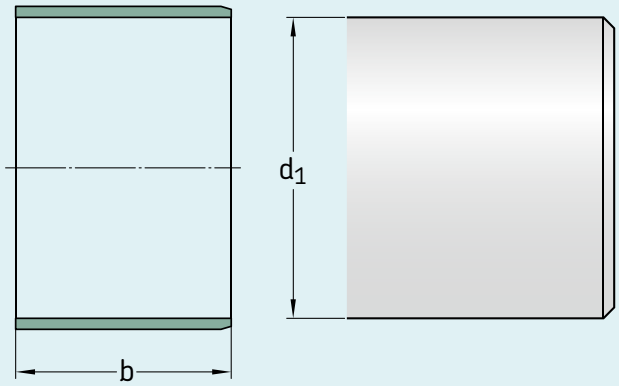
	Inch				Metric (mm)			
SKF Part Number	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b
91780	4.3255	4.3285	4.515	2.000	109.87	109.94	114.68	50.8
91284	4.3305	4.3335	4.520	1.200	109.99	110.07	114.81	30.5
91374	8.065	8.069	8.255	0.787	204.85	204.95	209.68	20
91375	8.068	8.072	8.258	0.787	204.93	205.03	209.75	20
91366	8.078	8.082	8.268	0.984	205.18	205.28	210	25
90812	8.078	8.082	8.268	1.299	205.18	205.28	210	33
90813	8.078	8.082	8.268	1.575	205.18	205.28	210	40
91703	8.266	8.270	8.456	1.574	209.96	210.06	214.78	40
85885	8.311	8.315	8.500	1.250	211.10	211.20	215.90	31.8
91338	8.463	8.467	8.653	1.000	214.96	215.06	219.79	25.4
90885	8.471	8.475	8.661	1.969	215.16	215.27	220	50
91326	8.498	8.502	8.688	1.000	215.85	215.95	220.68	25.4
91333	8.498	8.502	8.688	1.250	215.85	215.95	220.68	31.8
90874	8.659	8.663	8.849	0.787	219.94	220.04	224.76	20
87319	8.659	8.663	8.849	1.000	219.94	220.04	224.76	25.4
87143	8.659	8.663	8.849	1.181	219.94	220.04	224.76	30
91730	8.659	8.663	8.849	1.574	219.94	220.04	224.76	40
90822	8.659	8.663	8.849	1.960	219.94	220.04	224.76	50
86551	8.810	8.814	9.000	2.000	223.77	223.88	228.60	50.8
87166	8.864	8.868	9.054	2.500	225.15	225.25	229.97	63.5
87462	8.865	8.869	9.055	1.000	225.17	225.27	230	25.4
85846	8.998	9.002	9.188	1.750	228.55	228.65	233.38	44.5
87089	9.053	9.057	9.243	2.500	229.95	230.05	234.77	63.5
85931	9.061	9.065	9.250	1.500	230.15	230.25	234.95	38.1
87784	9.248	9.252	9.438	0.625	234.90	235.00	239.73	15.9
84643	9.248	9.252	9.438	0.875	234.90	235.00	239.73	22.2
87789	9.258	9.262	9.449	1.102	235.15	235.25	240	28
90835	9.258	9.262	9.449	1.181	235.15	235.25	240	30
90952	9.259	9.263	9.449	0.709	235.18	235.28	240	18
91382	9.267	9.271	9.449	1.732	235.38	235.48	240	44
91351	9.447	9.451	9.637	0.591	239.95	240.06	244.78	15
91317	9.447	9.451	9.637	0.709	239.95	240.06	244.78	18
91396	9.447	9.451	9.637	0.787	239.95	240.06	244.78	20
91736	9.447	9.451	9.637	1.000	239.95	240.06	244.78	25.4
87144	9.447	9.451	9.637	1.181	239.95	240.06	244.78	30
87911	9.455	9.459	9.646	1.732	240.16	240.26	245	44
91348	9.498	9.502	9.688	0.956	241.25	241.35	246.08	24.3
86562	9.498	9.502	9.688	2.500	241.25	241.35	246.08	63.5
91733	9.651	9.655	9.843	2.500	245.14	245.24	250	63.5
91318	9.652	9.656	9.843	1.330	245.16	245.26	250	34
84965	9.748	9.752	9.938	1.438	247.60	247.70	252.43	36.5
85045	9.748	9.752	9.938	2.250	247.60	247.70	252.43	57.2
86413	9.811	9.815	10.000	1.125	249.20	249.30	254	28.6
87067	9.811	9.815	10.000	2.000	249.20	249.30	254	50.8
90773	9.833	9.837	10.023	1.575	249.76	249.86	254.58	40
90890	9.841	9.845	10.031	1.181	249.96	250.06	254.79	30
91385	9.841	9.845	10.031	1.417	249.96	250.06	254.79	36
91383	10.037	10.041	10.227	2.244	254.94	255.04	259.77	57
86000	10.061	10.065	10.250	2.250	255.55	255.65	260.35	57.2



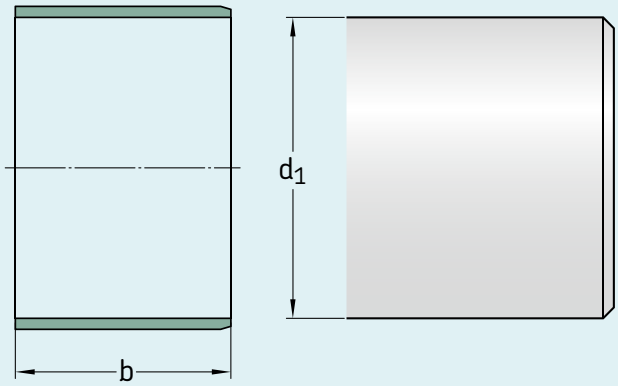
	Inch				Metric (mm)			
SKF Part Number	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b
84962	10.186	10.190	10.375	1.125	258.72	258.83	263.53	28.6
91704	10.225	10.229	10.415	1.299	259.72	259.82	264.54	33
90896	10.234	10.238	10.424	0.787	259.94	260.05	264.77	20
90898	10.234	10.238	10.424	0.787	259.94	260.05	264.77	20
91337	10.234	10.238	10.424	1.181	259.94	260.05	264.77	30
85629	10.311	10.315	10.500	2.000	261.90	262.00	266.70	50.8
86798	10.439	10.443	10.629	2.165	265.15	265.25	269.98	55
85839	10.498	10.502	10.688	1.500	266.65	266.75	271.48	38.1
86544	10.560	10.564	10.750	1.813	268.22	268.33	273.05	46.1
87768	10.561	10.565	10.750	1.500	268.25	268.35	273.05	38.1
86435	10.748	10.752	10.938	2.500	273.00	273.10	277.83	63.5
90870	10.810	10.814	11.000	1.575	274.57	274.68	279.40	40
85033	10.811	10.815	11.000	2.000	274.60	274.70	279.40	50.8
90546	10.825	10.829	11.024	0.866	274.96	275.06	280	22
90875	10.833	10.837	11.023	0.500	275.16	275.26	279.98	12.7
86601	10.844	10.848	11.034	0.709	275.44	275.54	280.26	18
84510	10.873	10.877	11.063	2.000	276.17	276.28	281	50.8
91301	10.982	10.986	11.172	2.500	278.94	279.04	283.77	63.5
91322	10.998	11.002	11.188	0.687	279.35	279.45	284.18	17.5
86486	10.998	11.002	11.188	1.500	279.35	279.45	284.18	38.1
91321	10.998	11.002	11.188	1.732	279.35	279.45	284.18	44.0
86454	10.998	11.002	11.188	2.500	279.35	279.45	284.18	63.5
87142	11.021	11.025	11.211	1.181	279.93	280.04	284.76	30
90437	11.022	11.026	11.220	1.772	279.96	280.06	285	45
85212	11.186	11.190	11.375	2.250	284.12	284.23	288.93	57.2
90238	11.227	11.231	11.417	2.500	285.17	285.27	290	63.5
86145	11.373	11.377	11.563	2.250	288.87	288.98	293.70	57.2
86441	11.415	11.419	11.605	1.750	289.94	290.04	294.77	44.5
90761	11.498	11.502	11.688	0.750	292.05	292.15	296.88	19.1
91342	11.498	11.502	11.688	1.688	292.05	292.15	296.88	42.9
91391	11.612	11.616	11.802	0.787	294.94	295.05	299.77	20
91365	11.612	11.616	11.811	1.260	294.94	295.05	300	32
90889	11.612	11.616	11.802	1.575	294.94	295.05	299.77	40
90895	11.809	11.813	12.000	0.787	299.95	300.05	304.80	20
90897	11.809	11.813	12.000	0.787	299.95	300.05	304.80	20
90853	11.809	11.813	12.000	0.984	299.95	300.05	304.80	25
86687	11.810	11.814	12.000	1.125	299.97	300.08	304.80	28.6
85046	11.811	11.815	12.000	2.250	300.00	300.10	304.80	57.2
90849	11.998	12.002	12.188	1.000	304.75	304.85	309.58	25.4
85577	11.998	12.002	12.188	2.250	304.75	304.85	309.58	57.2
91302	12.005	12.011	12.195	2.500	304.93	305.08	309.75	63.5
91323	12.015	12.021	12.205	1.969	305.18	305.33	310.01	50
91324	12.015	12.021	12.205	2.047	305.18	305.33	310.01	52
85418	12.061	12.067	12.250	0.625	306.35	306.50	311.15	15.9
91721	12.061	12.067	12.250	2.500	306.35	306.50	311.15	63.5
91376	12.172	12.178	12.362	0.945	309.17	309.32	313.99	24
91387	12.203	12.209	12.393	0.709	309.96	310.11	314.78	18
90174	12.310	12.316	12.500	1.500	312.67	312.83	317.50	38.1



	Inch				Metric (mm)			
SKF Part Number	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b
83760	12.311	12.317	12.500	0.750	312.70	312.85	317.50	19.1
90155	12.407	12.413	12.598	2.500	315.14	315.29	320	63.5
91390	12.596	12.602	12.786	1.574	319.94	320.09	324.76	40
90198	12.596	12.602	12.795	2.500	319.94	320.09	325	63.5
87513	12.748	12.754	12.938	0.688	323.80	323.95	328.63	17.5
91367	12.802	12.808	12.992	0.787	325.17	325.32	330	20
90239	12.802	12.808	12.992	2.500	325.17	325.32	330	63.5
91386	12.990	12.996	13.180	1.102	329.95	330.10	334.77	28
91729	12.990	12.996	13.180	1.889	329.95	330.10	334.77	48
85535	12.998	13.004	13.188	1.750	330.15	330.30	334.98	25.4
84963	13.061	13.067	13.250	1.125	331.75	331.90	336.55	28.6
91352	13.116	13.122	13.307	1.594	333.15	333.30	338	40.5
90801	13.196	13.202	13.386	1.969	335.18	335.33	340	50
87463	13.311	13.317	13.501	1.500	338.10	338.25	342.93	38.1
91731	13.383	13.389	13.583	1.968	339.93	340.08	345	50
91305	13.384	13.390	13.574	0.800	339.95	340.11	344.78	20
91309	13.384	13.390	13.574	1.693	339.95	340.11	344.78	43
91310	13.589	13.595	13.780	0.787	345.16	345.31	350	20
90887	13.811	13.817	14.001	1.181	350.80	350.95	355.63	30
90778	13.982	13.988	14.173	1.000	355.14	355.30	360	25.4
90785	13.982	13.988	14.173	1.969	355.14	355.30	360	50
86153	13.998	14.004	14.188	2.000	355.55	355.70	360.38	50.8
87445	14.171	14.177	14.361	1.000	359.94	360.10	364.77	25.4
91353	14.171	14.177	14.370	1.732	359.94	360.10	365	44
90788	14.180	14.186	14.370	1.772	360.17	360.32	365	45
86429	14.311	14.317	14.500	1.500	363.50	363.65	368.30	38.1
91368	14.748	14.754	14.938	1.000	374.60	374.75	379.43	25.4
90841	14.770	14.776	14.961	1.575	375.16	375.31	380	40
87723	14.811	14.817	15.000	1.500	376.20	376.35	381	38.1
91327	14.959	14.965	15.149	1.181	379.96	380.11	384.78	30
90272	15.060	15.066	15.250	0.750	382.52	382.68	387.35	19.1
91330	15.117	15.123	15.307	1.500	383.97	384.12	388.80	38.1
90891	15.155	15.161	15.354	1.575	384.94	385.09	390	40
87569	15.186	15.192	15.375	2.500	385.72	385.88	390.53	63.5
82458	15.498	15.504	15.688	1.500	393.65	393.80	398.48	38.1
91398	15.558	15.564	15.748	1.181	395.17	395.33	400	30
87461	15.558	15.564	15.748	2.500	395.17	395.33	400	63.5
85181	15.811	15.817	16.000	2.000	401.60	401.75	406.40	50.8
85900	15.998	16.004	16.188	2.000	406.35	406.50	411.18	50.8
86175	16.061	16.067	16.250	1.250	407.95	408.10	412.75	31.8
86426	16.061	16.067	16.250	1.300	407.95	408.10	412.75	33.0
86575	16.061	16.067	16.250	2.000	407.95	408.10	412.75	50.8
90866	16.140	16.146	16.330	2.461	409.96	410.11	414.78	62.5
90899	16.494	16.500	16.684	2.500	418.95	419.10	423.77	63.5
91312	16.533	16.539	16.723	2.500	419.94	420.09	424.76	63.5
84616	16.811	16.817	17.000	2.250	427.00	427.15	431.80	57.2
87916	17.132	17.138	17.323	2.500	435.15	435.31	440	63.5
91350	17.133	17.139	17.323	1.730	435.18	435.33	440	44
86430	17.311	17.317	17.500	1.500	439.70	439.85	444.50	38.1



	Inch				Metric (mm)			
SKF Part Number	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b
91300	17.714	17.720	17.904	2.500	449.94	450.09	454.76	63.5
90867	17.715	17.721	17.905	2.500	449.96	450.11	454.79	63.5
91349	17.723	17.729	17.913	2.165	450.16	450.32	454.99	55
90888	17.810	17.816	18.000	1.181	452.37	452.53	457.20	30
87271	17.810	17.816	18.000	2.125	452.37	452.53	457.20	54.0
90347	17.920	17.926	18.110	1.181	455.17	455.32	460	30
91705	18.108	18.114	18.298	1.969	459.94	460.10	464.77	50
91357	18.108	18.114	18.298	2.362	459.94	460.10	464.77	60
87921	18.706	18.712	18.898	0.787	475.13	475.28	480	20
87924	18.810	18.816	19.000	1.575	477.77	477.93	482.60	40.0
86563	18.811	18.817	19.000	1.750	477.80	477.95	482.60	44.5
86716	18.811	18.817	19.000	2.500	477.80	477.95	482.60	63.5
91392	18.895	18.901	19.094	1.969	479.93	480.09	485	50
90259	19.464	19.470	19.654	0.945	494.39	494.54	499.21	24
90886	19.494	19.500	19.685	2.000	495.15	495.30	500	50.8
91732	19.683	19.689	19.873	1.574	499.95	500.10	504.77	40
91370	19.683	19.689	19.873	1.575	499.95	500.10	504.77	40
91336	19.683	19.689	19.873	1.970	499.95	500.10	504.77	50
84781	19.811	19.817	20.000	1.250	503.20	503.35	508	31.8
91308	20.310	20.320	20.500	1.750	515.87	516.13	520.70	44.5
90892	20.470	20.480	20.660	0.984	519.94	520.19	524.76	25
91339	20.810	20.820	21.000	1.000	528.57	528.83	533.40	25.4
85367	20.811	20.821	21.000	2.125	528.60	528.85	533.40	54.0
90805	20.863	20.873	21.053	2.250	529.92	530.17	534.75	57.2
87783	20.864	20.874	21.063	0.787	529.95	530.20	535	20
87069	21.801	21.811	21.991	2.362	553.75	554.00	558.57	60
85222	21.811	21.821	22.000	2.000	554.00	554.25	558.80	50.8
84590	21.811	21.821	22.000	2.250	554.00	554.25	558.80	57.2
91329	21.857	21.867	22.047	0.787	555.17	555.42	560	20
91399	22.045	22.055	22.235	1.181	559.94	560.20	564.77	30
87070	22.301	22.311	22.491	2.362	566.45	566.70	571.27	60
90163	22.810	22.820	23.000	2.000	579.37	579.63	584.20	50.8
90146	22.998	23.008	23.188	2.000	584.15	584.40	588.98	50.8
90840	23.431	23.441	23.622	2.500	595.15	595.40	600	63.5
87777	23.432	23.442	23.622	0.984	595.17	595.43	600	25
89997	23.432	23.442	23.622	2.500	595.17	595.43	600	63.5
91313	23.620	23.630	23.819	1.969	599.95	600.20	605	50
87922	23.810	23.820	24.000	0.750	604.77	605.03	609.60	19.1
90814	23.810	23.820	24.000	1.250	604.77	605.03	609.60	31.8
91395	23.998	24.008	24.188	2.500	609.55	609.80	614.38	63.5
86567	24.998	25.008	25.188	2.500	634.95	635.20	639.78	63.5
91700	25.589	25.599	25.787	2.500	649.96	650.21	655	63.5
91364	25.805	25.815	25.995	2.250	655.45	655.70	660.27	57.2
91343	25.810	25.820	26.000	2.244	655.57	655.83	660.40	57
90799	26.187	26.197	26.378	1.772	665.15	665.40	670	45
90809	26.310	26.320	26.500	1.375	668.27	668.53	673.10	34.9
86974	26.811	26.821	27.000	2.000	681.00	681.25	685.80	50.8
85531	26.811	26.821	27.000	2.250	681.00	681.25	685.80	57.2
84764	27.061	27.071	27.250	2.250	687.35	687.60	692.15	57.2
91331	27.311	27.321	27.500	2.250	693.70	693.95	698.50	57.2



	Inch				Metric (mm)			
SKF Part Number	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b	Shaft min. d1	Shaft max. d1	Reference Installed OD D	Width b
91328	27.360	27.370	27.559	2.500	694.94	695.20	700	63.5
90838	27.368	27.378	27.559	2.500	695.15	695.40	700	63.5
85122	27.431	27.441	27.625	1.500	696.75	697.00	701.68	38.1
91358	27.557	27.567	27.747	2.362	699.95	700.20	704.77	60
89922	27.806	27.816	27.996	2.500	706.27	706.53	711.10	63.5
91340	27.810	27.820	28.000	1.250	706.37	706.63	711.20	31.8
91371	28.310	28.320	28.500	2.313	719.07	719.33	723.90	58.8
90884	28.747	28.757	28.937	2.500	730.17	730.43	735	63.5
90872	28.810	28.820	29.000	1.535	731.77	732.03	736.60	39
84641	28.811	28.821	29.000	2.250	731.80	732.05	736.60	57.2
89949	28.944	28.954	29.134	2.480	735.18	735.43	740	63
91359	29.526	29.536	29.716	2.362	749.96	750.21	754.79	60
87605	30.318	30.328	30.508	1.375	770.08	770.33	774.90	34.9
90893	30.518	30.528	30.709	1.969	775.16	775.41	780	50
90894	30.707	30.717	30.897	2.480	779.96	780.21	784.78	63
91303	31.277	31.287	31.467	2.362	794.44	794.69	799.26	60
91360	31.494	31.504	31.684	2.500	799.95	800.20	804.77	63.5
90869	31.560	31.570	31.750	1.969	801.62	801.88	806.45	50
91320	31.748	31.758	31.938	0.874	806.40	806.65	811.23	22.2
91304	31.748	31.758	31.938	1.960	806.40	806.65	811.23	50
91319	31.748	31.758	31.938	1.968	806.40	806.65	811.23	50.0
91335	31.748	31.758	31.938	2.480	806.40	806.65	811.23	63
90810	31.810	31.820	32.000	2.500	807.97	808.23	812.80	63.5
86090	32.311	32.321	32.501	2.000	820.70	820.95	825.53	50.8
89996	32.761	32.771	32.953	2.500	832.13	832.38	837	63.5
87529	34.310	34.320	34.500	1.750	871.47	871.73	876.30	44.5
91389	35.234	35.244	35.433	1.969	894.94	895.20	900	50
91707	37.498	37.508	37.688	0.750	952.45	952.70	957.28	19.1
87945	38.270	38.280	38.460	2.500	972.06	972.31	976.88	63.5
85123	38.811	38.821	39.000	2.125	985.80	986.05	990.60	54.0
81826	39.811	39.821	40.000	2.125	1011.20	1011.45	1016	54
91737	39.959	39.969	40.149	2.500	1014.96	1015.21	1019.78	63.5
90852	39.966	39.976	40.156	1.181	1015.14	1015.39	1019.96	30
91728	40.155	40.167	40.345	2.500	1019.94	1020.24	1024.76	63.5
90830	41.310	41.322	41.496	1.575	1049.27	1049.58	1054	40
89948	41.310	41.322	41.500	1.968	1049.27	1049.58	1054.10	50
89947	41.310	41.322	41.496	2.362	1049.27	1049.58	1054	60
87379	42.310	42.322	42.500	1.250	1074.67	1074.98	1079.50	31.8
89946	43.313	43.325	43.504	2.480	1100.15	1100.46	1105	63
91708	44.998	45.010	45.188	1.000	1142.95	1143.25	1147.78	25.4

Metal face seals

HDDF metal face seals from SKF (→ **fig. 1**) are designed for severe operating conditions at relatively low circumferential speeds. They offer reliable protection against solid and liquid contaminants as well as leak-proof lubricant retention.

Typical applications

Originally developed for off-road and tracked vehicles, HDDF metal face seals (→ **fig. 2**) have proven equally suitable in applications that need protection against sand, soil, mud, water and more. These include:

- Mixers and conveyors
- Sand treatment equipment
- Mining equipment
- Construction equipment
- Agricultural machinery
- Washing equipment
- Grinding mills /pulverizing equipment

Figure 1

HDDF seal

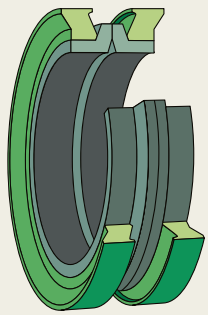
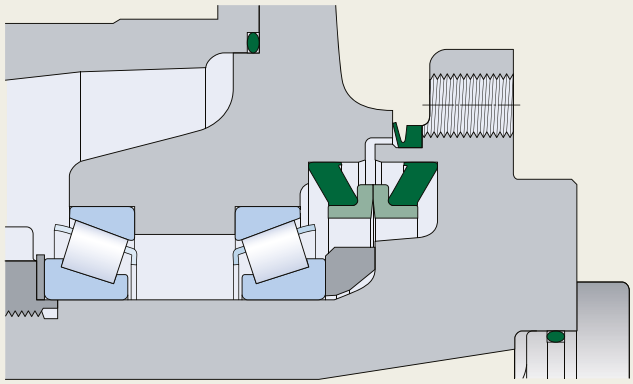


Figure 2

HDDF application



Design features

HDDF seals consist of two identical metal sealing rings and two similar Belleville washers (cup springs) made of nitrile or fluoro rubber compounds, specifically developed for these seals (→ **fig. 3**). The sealing rings are made of wear- and corrosion-resistant cast alloy and have finely finished sliding and sealing surfaces.

The Belleville washers of nitrile or fluoro rubber provide the necessary uniform face loading and effective sealing at the bore and outside diameters. Adequate tolerances between the seal assembly and the bore are critical for proper sealing performance.

Lubricant requirements

A lubricant should be applied on the dynamic sealing surfaces of a metal face seal to prevent scoring and cover at least 30% of the sealing surface to properly lubricate and cool the sealing rings. The lubricant can be either a detergent like SAE 10W-40, or a mineral-based oil ranging from 10 WT to 90 WT, depending on the ambient temperature. Some oils contain additives that make them incompatible with elastomers, which can cause degradation of the Belleville washers, especially when exposed to elevated temperatures.

Although mineral oils are always the recommended lubricant, a grease lubricant can also be used in some slowly rotating or oscillating applications, where the seal face surface speed does not exceed 100 ft/min (*0.5 m/s*). At higher speeds, an oil lubricant is required, not only to provide lubrication to the sealing faces, but also to cool the sealing rings.

Permissible operating conditions

Depending on their design, metal face seals can withstand different amounts of internal pressure. It should, however, generally be maintained below 35 psi (0.25 MPa). Other recommendations regarding operating conditions for the metal face seals, like temperature and speed, are provided in **table 1**.

Contaminants

Due to their use in heavily contaminated environments, HDDF metal face seals are subject to a build-up of mud packing in the cavity between the housing and sealing rings and Belleville washer. Eventually, the packing mud will push the Belleville washers out of position, resulting in improper face loads or mud being pumped past the Belleville washers. Contaminants can also cause abrasion to the Belleville washers, which in turn causes deterioration of the elastomer.

Installing HDDF seals

Careful handling and installation of a metal face seal is critical to avoid cutting or tearing of the elastomeric Belleville washers or breaking the metal sealing rings, both of which can cause premature seal failure and immediate leakage. It is also vital to keep the sealing faces free from contaminants like dirt or lint.

All housing components contacting the Belleville washers must be free from contaminants (oil, grease, dust, lint particles, etc.). SKF recommends using a non-petroleum-based solvent and a clean, lint-free wipe to clean these components prior to installation. Once these preparations are complete, proceed with HDDF seal installation:

1. Install the Belleville washers seated against the inside shoulder of the metal sealing rings (→ **fig. 4a**).
2. Carefully push each seal half (Belleville washer and metal sealing ring) into the housing until it is fully seated. Check that the seal is not cocked and that the washers are seated evenly at the bottom of the housing bore. Improper seal installation can result in uneven face loads around the circumference of the seal faces, causing scoring or the sealing rings to separate and allow oil to leak.
3. Clean both metal sealing ring faces with a lint-free wipe and apply a thin film of oil. Ensure that no oil is applied to any surface but the sealing ring faces (→ **fig. 4b**).
4. Check that both housings are concentric and in correct alignment. The Belleville washers must not unseat from the bottom of the housing.
5. Carefully bring the two housings together, avoiding high impact that can scratch or break the seal components.
6. Finally, hold one half of the assembly stationary while rotating the other half at least ten complete revolutions.

NOTE: This procedure enables the installer to check that the housing and the Belleville washers are aligned. If the seal assembly wobbles, it is necessary to disassemble it and make sure that the Belleville washers are properly seated in the housing.

Table 1

Permissible operating conditions

Operating condition	Recommended value	
Temperature, max		
Continuous operation		
Nitrile rubber (NBR)	–15 to +210 °F	*–25 to +100 °C*
Fluoro rubber (FKM)	+15 to 375 °F	*–10 to +190 °C*
Circumferential speed, max		
Continuous operation	350 ft/min	*1.8 m/s*
Brief periods	750 ft/min	*3.8 m/s*
Pressure, max		
Continuous operation	35 psi	*0.25 MPa*
Brief periods	50 psi	*0.35 MPa*

Figure 3

Design features

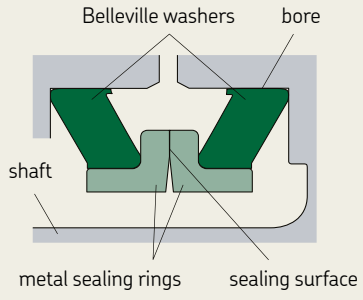
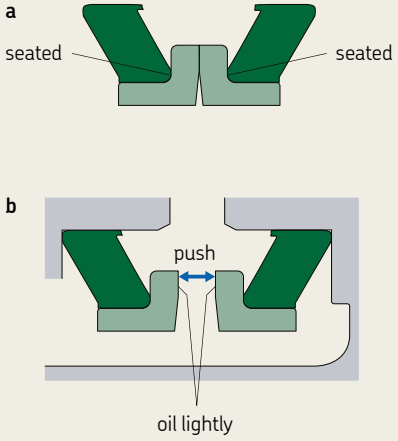
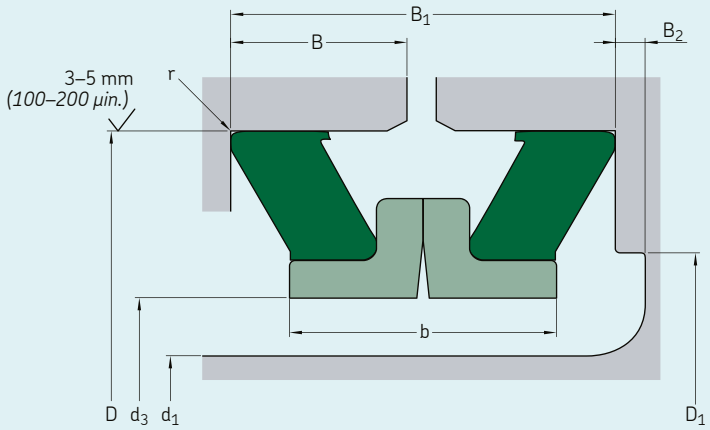


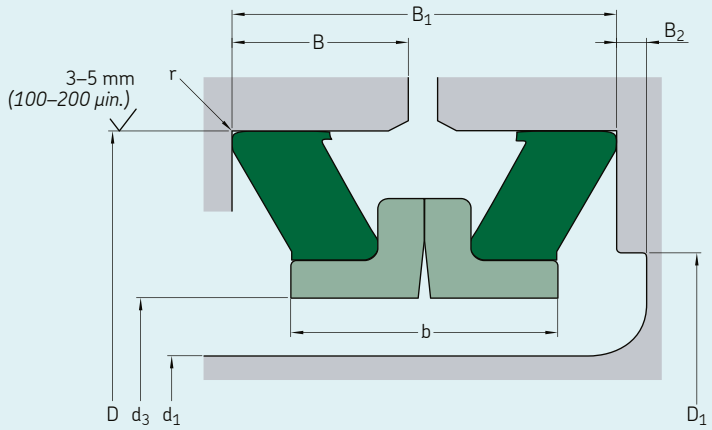
Figure 4

Installation procedure





SKF part number	Lip mat'l	Inch dimensions									
		Shaft diameter	Bore diameter	Operating width	Seal inside diameter	Bore depth	Recommended shoulder diameter		Undercut	Sealing ring width	Radius
		D_1 max	D	B_1	d_3 min	B	D_1 max	min[2]	B_2 min	b max	r max
		in.									
16904	R	1.688	2.760 ±0.002	0.974 ±0.038	1.760	0.453	2.282	-	-	0.846	0.037
18259	R	1.812	3.003 ±0.002	0.892 ±0.031	1.910	0.416	2.475	-	-	0.790	0.042
21301	R	2.125	3.250 ±0.002	0.900 ±0.033	2.215	0.418	2.759	-	-	0.812	0.045
25096	R	2.500	3.762 ±0.002	0.907 ±0.033	2.580	0.422	3.188	-	-	0.840	0.042
27536	R	2.750	4.030 ±0.002	0.918 ±0.035	2.830	0.426	3.480	-	-	0.810	0.042
30651	R	3.063	4.500 ±0.002	1.016 ±0.035	3.170	0.475	3.833	-	-	0.912	0.042
35076	R	3.500	4.953 ±0.002	1.096 ±0.043	3.620	0.511	4.296	-	-	0.962	0.035
38740	R	3.875	5.312 ±0.003	1.102 ±0.024	4.040	0.524	4.750	-	-	1.002	0.042
38751	R	3.875	5.562 ±0.003	1.267 ±0.050	4.040	0.594	4.791	-	-	1.110	0.051
43135	R	4.312	5.823 ±0.003	1.102 ±0.024	4.420	0.524	5.125	-	-	1.002	0.042
43150	R	4.312	6.000 ±0.003	1.320 ±0.040	4.420	0.625	5.173	-	-	1.090	0.051
46975	R	4.688	6.400 ±0.003	1.525 ±0.050	4.795	0.722	5.583	-	-	1.254	0.047
50655	R	5.062	6.750 ±0.003	1.280 ±0.040	5.170	0.605	5.975	-	-	1.150	0.057
54000	R	5.400	6.990 ±0.003	1.310 ±0.030	5.625	0.625	6.625	-	-	1.182	0.057
56170	R	5.625	7.250 ±0.003	1.366 ±0.031	5.825	0.650	6.486	6.174	0.032	1.300	0.057
58775	R	5.875	7.641 ±0.003	1.510 ±0.031	6.000	0.724	6.868	6.548	0.056	1.490	0.073
63796	R	6.375	8.120 ±0.003	1.265 ±0.040	6.570	0.598	7.555	7.505	0.125	1.350	0.042
67560	R	6.750	8.620 ±0.004	1.375 ±0.030	6.920	0.656	7.750	-	-	1.260	0.042
74310	R	7.438	9.400 ±0.004	1.656 ±0.040	7.540	0.793	8.431	-	-	1.344	0.073
78020	R	7.800	10.000 ±0.004	1.750 ±0.050	7.940	0.835	8.910	-	-	1.500	0.058
82540	R	8.250	10.062 ±0.004	1.560 ±0.040	8.358	0.745	9.280	9.220	0.071	1.562	0.058
86850	R	8.688	10.911 ±0.005	1.924 ±0.030	8.790	0.932	9.754	-	-	1.642	0.058
93115	R	9.312	11.000 ±0.005	1.437 ±0.032	9.410	0.687	10.360	10.260	0.090	1.510	0.050
93125	R	9.312	11.625 ±0.005	1.754 ±0.050	9.410	0.837	10.750	-	-	1.510	0.089
95620	R	9.562	11.859 ±0.005	1.949 ±0.069	9.660	0.925	10.703	-	-	1.700	0.074
108710	R	10.875	12.969 ±0.005	1.540 ±0.050	11.060	0.730	12.100	12.000	0.143	1.670	0.043
116500	R	11.625	13.250 ±0.005	1.290 ±0.030	11.780	0.615	12.780	-	-	1.210	0.450
124020	R	12.400	14.375 ±0.005	1.656 ±0.050	12.500	0.788	13.530	13.470	0.060	1.610	0.057
137570	R	13.750	15.817 ±0.005	1.875 ±0.032	13.910	0.906	14.985	-	-	1.670	0.089
806715	R	14.750	16.695 ±0.005	1.875 ±0.032	14.950	0.906	15.863	-	-	1.670	0.620
807115	V	14.750	16.695 ±0.005	1.875 ±0.032	14.950	0.906	15.863	-	-	1.670	0.062
171025	R	17.125	19.240 ±0.006	1.531 ±0.053	17.280	0.724	18.400	18.300	0.140	1.659	0.043
191022	R	19.125	21.500 ±0.006	1.640 ±0.042	19.250	0.784	20.950	20.850	0.175	1.832	0.057
238020	R	23.875	26.875 ±0.006	2.125 ±0.040	24.280	1.018	25.550	-	-	1.851	0.089
807199	V	23.875	26.875 ±0.006	2.125 ±0.040	24.280	1.018	25.550	-	-	1.851	0.089
807149	V	29.000	32.000 ±0.006	2.125 ±0.040	29.512	1.028	30.672	-	-	1.851	0.089



Metric (mm)

Metric dimensions										Lip mat'l	SKF part number
Shaft diameter	Bore diameter	Operating width	Seal inside diameter	Bore depth	Recommended shoulder diameter		Undercut	Sealing ring width	Radius		
D_1 max	D	B_1	d_3 min	B	D_1 max	min[2]	B_2 min	b max	r max		
in.											
42.88	70.10 ±0.06	24.74 ±0.97	44.70	11.51	57.96	-	-	21.49	0.94	R	**16904**
46.03	76.28 ±0.06	22.66 ±0.79	48.51	10.57	62.87	-	-	20.07	1.07	R	**18259**
53.98	82.55 ±0.06	22.86 ±0.84	56.26	10.62	70.08	-	-	20.62	1.14	R	**21301**
63.50	95.54 ±0.06	23.04 ±0.84	65.53	10.72	80.98	-	-	21.34	1.07	R	**25096**
69.85	102.36 ±0.06	23.32 ±0.89	71.88	10.82	88.39	-	-	20.57	1.07	R	**27536**
77.80	114.30 ±0.06	25.81 ±0.89	80.52	12.07	97.36	-	-	23.16	1.07	R	**30651**
88.90	125.81 ±0.06	27.84 ±1.09	91.95	12.98	109.12	-	-	24.43	0.89	R	**35076**
98.43	134.92 ±0.08	27.99 ±0.61	102.62	13.31	120.65	-	-	25.45	1.07	R	**38740**
98.43	141.27 ±0.08	32.18 ±1.27	102.62	15.09	121.69	-	-	28.19	1.30	R	**38751**
109.52	147.90 ±0.08	27.99 ±0.61	112.27	13.31	130.18	-	-	25.45	1.07	R	**43135**
109.52	152.40 ±0.08	33.53 ±1.02	112.27	15.88	131.39	-	-	27.69	1.30	R	**43150**
119.08	162.56 ±0.08	38.74 ±1.27	121.79	18.34	141.81	-	-	31.85	1.19	R	**46975**
128.57	171.45 ±0.08	32.51 ±1.02	131.32	15.37	151.77	-	-	29.21	1.45	R	**50655**
137.16	177.55 ±0.08	33.27 ±0.76	142.88	15.88	168.28	-	-	30.02	1.45	R	**54000**
142.88	184.15 ±0.08	34.70 ±0.79	147.96	16.51	164.74	156.82	0.81	33.02	1.45	R	**56170**
149.23	194.08 ±0.08	38.35 ±0.79	152.40	18.39	174.45	166.32	1.42	37.85	1.85	R	**58775**
161.93	206.25 ±0.08	32.13 ±1.02	166.88	15.19	191.90	190.63	3.18	34.29	1.07	R	**63796**
171.45	218.95 ±0.10	34.93 ±0.76	175.77	16.66	196.85	-	-	32.00	1.07	R	**67560**
188.93	238.76 ±0.10	42.06 ±1.02	191.52	20.14	214.15	-	-	34.14	1.85	R	**74310**
198.12	254.00 ±0.10	44.45 ±1.27	201.68	21.21	226.31	-	-	38.10	1.47	R	**78020**
209.55	255.57 ±0.10	39.62 ±1.02	212.29	18.92	235.71	234.19	1.80	39.67	1.47	R	**82540**
220.68	277.14 ±0.13	48.87 ±0.76	223.27	23.67	247.75	-	-	41.71	1.47	R	**86850**
236.52	279.40 ±0.13	36.50 ±0.81	239.01	17.45	263.14	260.60	2.29	38.35	1.27	R	**93115**
236.52	295.28 ±0.13	44.55 ±1.27	239.01	21.26	273.05	-	-	38.35	2.26	R	**93125**
242.87	301.22 ±0.13	49.50 ±1.75	245.36	23.50	271.86	-	-	43.18	1.88	R	**95620**
276.23	329.41 ±0.13	39.12 ±1.27	280.92	18.54	307.34	304.80	3.63	42.42	1.09	R	**108710**
295.28	336.55 ±0.13	32.77 ±0.76	299.21	15.62	324.61	-	-	30.73	11.43	R	**116500**
314.96	365.13 ±0.13	42.06 ±1.27	317.50	20.02	343.66	342.14	1.52	40.89	1.45	R	**124020**
349.25	401.75 ±0.13	47.63 ±0.81	353.31	23.01	380.62	-	-	42.42	2.26	R	**137570**
374.65	424.05 ±0.13	47.63 ±0.81	379.73	23.01	402.92	-	-	42.42	15.75	R	**806715**
374.65	424.05 ±0.13	47.63 ±0.81	379.73	23.01	402.92	-	-	42.42	1.57	V	**807115**
434.98	488.70 ±0.15	38.89 ±1.35	438.91	18.39	467.36	464.82	3.56	42.14	1.09	R	**171025**
485.78	546.10 ±0.15	41.66 ±1.07	488.95	19.91	532.13	529.59	4.45	46.53	1.45	R	**191022**
606.43	682.63 ±0.15	53.98 ±1.02	616.71	25.86	648.97	-	-	47.02	2.26	R	**238020**
606.43	682.63 ±0.15	53.98 ±1.02	616.71	25.86	648.97	-	-	47.02	2.26	V	**807199**
736.60	812.80 ±0.15	53.98 ±1.02	749.60	26.11	779.07	-	-	47.02	2.26	V	**807149**

Axial clamp seals

SKF axial clamp seals are designed for large and very large shaft diameters. They are suitable for use as primary seals, or as secondary seals in applications where the primary seals are subjected to excessive solid or fluid contaminants. Axial clamp seals do not rotate but seal axially against a rotating counterface.

SKF axial clamp seals are made of profiled strips of non-reinforced nitrile rubber and are held firmly in position by stainless steel band clamps. They are available for shaft diameters ranging from 5.9 to 181 in. (*50* to *4,600 mm*).

The standard range of SKF axial clamp seals is intended for inch-size shaft diameters. Because axial clamp seals are typically installed with an approximate 0.984 in. (*25 mm*) gap between the ends, they may also be used for metric shaft diameters.

Figure 1

Axial clamp seal designs

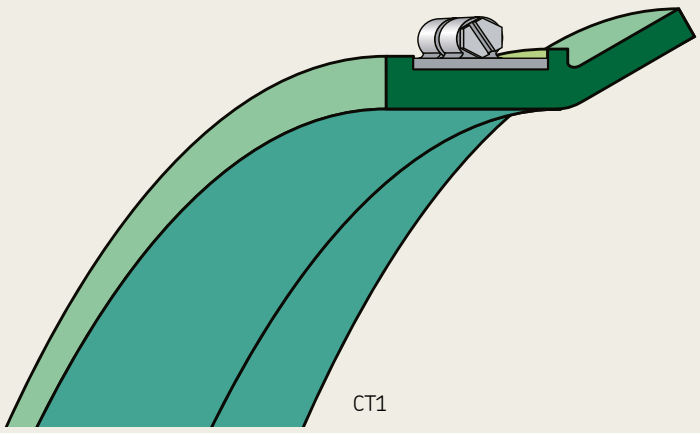
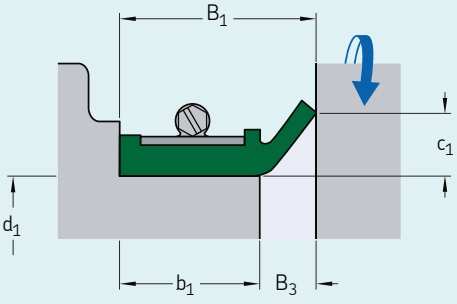


Table 1

Application tolerances



Dimension		Tolerance	Axial clamp seals CT1
Seal seat diameter, d_1	in. *mm*	± 0.063 *±1.6*	6.000 – 180.000 *152.40 – 4,572*
Seal fitted width, B_1	in. *mm*	± 0.031 *±0.8*	1.125 – 1.500 *28.60 – 38.10*
Seal seat width, b_1	in. *mm*	± 0.125 *±3.2*	0.688 – 1.063 *17.50 – 27*
Lip height, c_1	in. *mm*	± 0.031 *±0.8*	0.500 *12.70*
Gap width, B_3	in. *mm*		0.437 *11.10*

Basic design features

CT1 seals (→ **fig. 1**) have the basic design and are held in position by a band clamp.

The maximum permissible axial displacement relative to the bore is 0.094 in. (*+2.4 mm*).

Sealing arrangement design

To obtain reliable sealing performance, the seal seat diameter (d_1), seal seat width (b_1) and the seal fitted width (B_1) should meet the requirements listed in **table 1**. To simplify alignment, the seal should abut a shoulder.

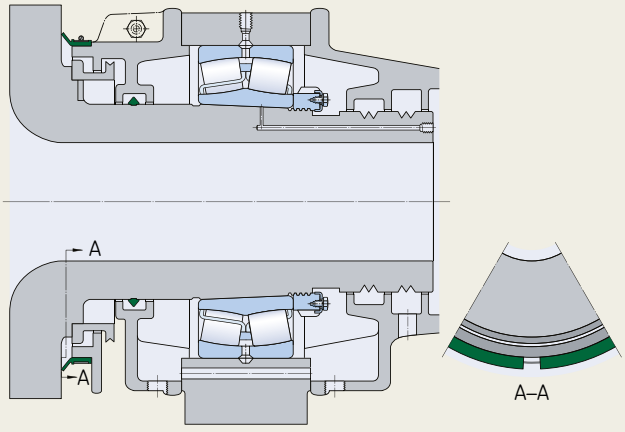
Finely turned bores are adequate for axial clamp seals. The appropriate surface roughness values are 115 µin (*Ra 2.5 µm*) and 480 µin (*Rt 12 µm*).

Typically, after installation, CT axial clamp seals have an approximate 1 in. (*25 mm*) gap between the ends. This should be arranged at the 6 o'clock position (→ **fig. 2**) to facilitate installation and drainage of contaminants.

Butt-joint seals are also available for certain applications.

Figure 2

Sealing arrangement and installation

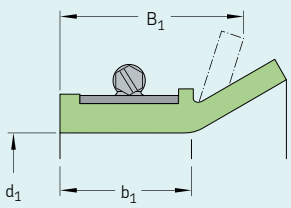


Installation instructions

Axial clamp seals are supplied as rolled-up coils. During installation they are placed in position on their seat in the housing and bolted lightly together. They are then pushed forward toward the counterface and the gap (or joint) between the two ends is arranged at the 6 o'clock position (→ **fig. 2**). The clamps are finally tightened.

The torque applied to the clamp screws should not exceed 7 Nm.

SKF Part Number	Seal type	Lip mat'l	Butt Joint	Seal Seat Ø d1	Face/heel offset* B1	Seal seat width b1
Inch						
594334	CT1	R		6.625	1.125	0.688
529489	CT1	R	✓	6.625	1.125	0.688
523586	CT1	R		7.000	1.500	1.063
594648	CT1	R	✓	7.000	1.500	1.063
565636	CT1	R		7.500	1.125	0.688
528745	CT1	R		8.000	0.875	0.688
527820	CT1	R	✓	8.250	1.125	0.688
529490	CT1	R	✓	8.625	1.125	0.688
531635	CT1	R		8.938	1.125	0.688
524204	CT1	R		9.000	1.125	0.688
527819	CT1	R	✓	9.000	1.125	0.688
524205	CT1	R		10.000	1.125	0.688
527806	CT1	R	✓	10.000	1.125	0.688
528780	CT1	R		10.000	1.000	0.813
524206	CT1	R		11.000	1.125	0.688
524928	CT1	R		11.000	1.250	0.813
597447	CT1	R		11.250	1.125	0.688
593629	CT1	R	✓	11.750	1.125	0.688
524208	CT1	R		12.000	1.250	0.813
525582	CT1	R		12.000	1.500	1.063
524209	CT1	R		13.000	1.125	1
523587	CT1	R		13.000	1.500	1
594110	CT1	R	✓	13.813	1.500	1
593037	CT1	R	✓	14.000	1.375	1
530733	CT1	R	✓	14.000	1.500	1
594025	CT1	R		15.000	1.125	0.750
594954	CT1	R	✓	15.250	1.125	0.688
523826	CT1	R		16.750	1.250	0.813
524815	CT1	R		16.750	1.313	0.875
528535	CT1	R		17.000	1.500	1.063
522679	CT1	R		17.500	1.250	0.813
525737	CT1	R	✓	17.500	1.375	0.938
597489	CT1	R	✓	18.000	1.250	0.813
525708	CT1	R		18.500	1.125	0.688
526192	CT1	R		18.500	1.250	0.813
557678	CT1	R	✓	18.500	1.250	0.813
594181	CT1	R		19.500	1.125	0.688
524587	CT1	R		20.000	1.250	0.875
524599	CT1	R		21.500	1.250	0.813
565834	CT1	R	✓	21.750	1.187	0.750
565603	CT1	R	✓	21.750	1.000	1.437
524210	CT1	R		21.813	1.250	0.813
524211	CT1	R		21.938	1.125	0.688
524347	CT1	R		22.000	1.250	0.813
524212	CT1	R		22.500	1.250	0.813
524657	CT1	R		22.750	1.375	0.938
525627	CT1	R		23.375	1.375	0.938
525031	CT1	R		23.438	1.125	0.688
524364	CT1	R		23.500	1.375	0.938
524365	CT1	R		23.750	1.250	0.813
597448	CT1	R		24.500	1.125	1
524213	CT1	R		24.750	1.250	1
524214	CT1	R		25.125	1.375	1
524591	CT1	R		26.000	1.375	1
524215	CT1	R		26.938	1.125	1
524592	CT1	R		27.250	1.375	1
524216	CT1	R		27.750	1.375	1
527232	CT1	R		28.000	1.250	1
525032	CT1	R	✓	28.813	1.125	1
565833	CT1	R	✓	29.250	1.062	0.750
565602	CT1	R	✓	29.250	1.187	0.750
524218	CT1	R		29.750	1.500	1.063
525033	CT1	R		30.063	1.125	0.688
525212	CT1	R		31.000	1.250	0.813
525034	CT1	R		32.188	1.250	0.813
524294	CT1	R		32.250	1.250	0.813
565601	CT1	R	✓	32.250	1.063	1.500
524367	CT1	R		32.500	1.250	0.813
526867	CT1	R		33.063	1.250	0.813
565931	CT1	R	✓	33.063	1.250	0.813
524219	CT1	R		33.688	1.250	0.813
523063	CT1	R		34.500	1.500	1.063
524221	CT1	R		35.438	1.250	0.813
528416	CT1	R		36.000	1.125	0.688
525320	CT1	R		37.000	1.500	1.063
524368	CT1	R		37.250	1.250	0.813
524226	CT1	R		38.000	1.250	0.813
556379	CT1	R	✓	38.000	1.250	0.813
529452	CT1	R		39.500	1.125	0.688
526806	CT1	R		39.500	1.250	0.813
525035	CT1	R		40.000	1.438	1.000
527903	CT1	R		40.000	1.500	1.063
524227	CT1	R		41.000	1.500	1.063
525036	CT1	R		41.125	1.500	1.063
527474	CT1	R		41.500	1.250	0.813
597308	CT1	R	✓	42.500	1.125	0.784
524909	CT1	R		43.375	1.250	0.813
522676	CT1	R		44.875	1.500	1.063
529086	CT1	R		46.500	1.250	0.813
527211	CT1	R	✓	47.000	1.500	1.063
525091	CT1	R		47.500	1.250	0.813
522677	CT1	R		47.625	1.500	1.063
524232	CT1	R		51.500	1.500	1.063
528927	CT1	R		52.000	1.299	1.063
528526	CT1	R		53.000	1.250	0.813
528525	CT1	R		57.000	1.250	0.813
557318	CT1	R		61.438	1.125	0.688
526809	CT1	R		70.000	1.250	0.813
531456	CT1	R		73.000	1.500	1.063
566079	CT1	R		83.950	1.252	0.815
522856	CT1	R		100.000	1.500	1.063
Metric (mm)						
593637	CT1	R	✓	185	30	25
528631	CT1	R		229	29.21	18.11
557587	CT1	R		320	34.80	30
593171	CT1	R	✓	380	38.10	27
557458	CT1	R		385	35.71	24.46
595110	CT1	R	✓	410	23.83	12.50
565531	CT1	R	✓	470	31.75	20.65
594241	CT1	R		533	31.75	20.65
594431	CT1	R		600	30	18.90
557571	CT1	R	✓	612	33	30
557966	CT1	R	✓	660	28	20
557965	CT1	R	✓	740	28	20
594785	CT1	R	✓	825	28.58	17.48
526021	CT1	R		1206	34.93	23.83
556550	CT1	R	✓	2320	31.80	20.70
557682	CT1	R		3164	28	20.65
557683	CT1	R		3566	28	20.65



* fitted width

Pressure seals

CRW5 and CRWA5 seals

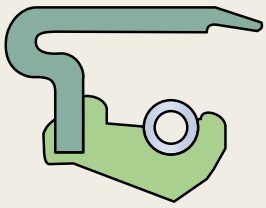
CRW5 and CRWA5 seals are designed to withstand moderate pressure differentials. They have an SKF Wave lip to reduce heat generation and a metal outside diameter for easy installation and a firm and accurate fit in the housing bore; most designs feature SKF Bore Tite Coating on the outside diameter. CRW5 and CRWA5 seals will both operate under a maximum pressure of 50 psi.

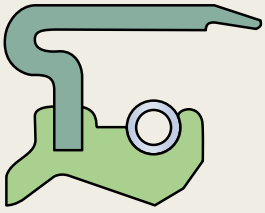
- **CRW5**: Seal with one steel case, SKF Wave lip and a carbon steel garter spring.
- **CRWA5**: Seal with one steel case, SKF Wave lip, a carbon steel garter spring and an auxiliary contacting lip for additional contaminant exclusion ability. A shoulder or retaining ring should be used at the low-pressure side of the seal to prevent it from being pressed out of the housing bore.

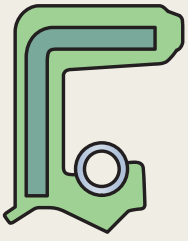
CRW5 and CRWA5 seals are available in inch sizes with sealing lips made of either nitrile rubber or the SKF FKM compound SKF Duralife. Other materials are also available on request.

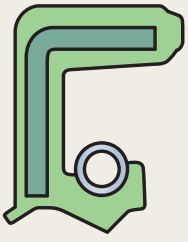
HMSA7P2 and HMSA72P2 seals

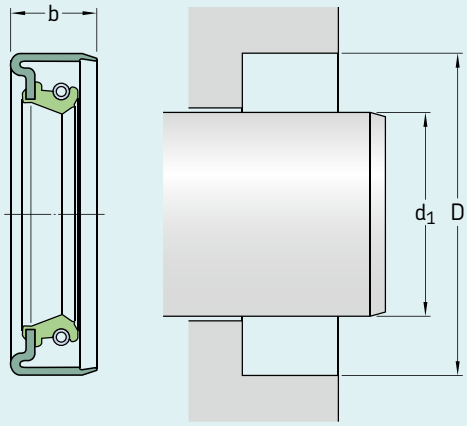
CR Seals also offers a limited number of alternative sizes in HMSA7P2 and HMSA72P2 configurations. These are standard oil seals with a straight lip capable of handling up to 50 psi pressure. A shoulder or retaining ring is required to hold the seals in place.


CRW5


CRWA5

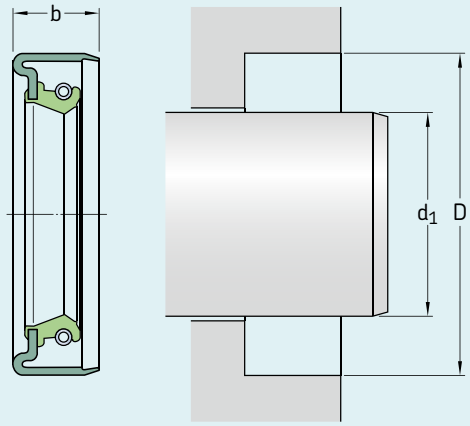

HMSA7P2


HMSA72P2



Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 0.313" (7.95 mm)						
0.686	0.313	**3094**	**CRWA5**	R	W	■
0.686	0.313	3096	**CRWA5**	V	W	
0.749	0.250	3103	**CRWA5**	V	W	
0.749	0.256	3101	**CRWA5**	R	W	
0.999	0.313	**3171**	**CRWA5**	R	W	
INCH Shaft Diameter – 0.375" (9.53 mm)						
0.749	0.250	**3689**	**CRW5**	R	W	◤◎
1.124	0.375	**3807**	**CRW5**	V	W	■
METRIC Shaft Diameter – 12 mm (0.472")						
22	6	12X22X6 HMSA72P2 R	HMSA72P2	R	S	
24	6	12X24X6 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 0.500" (12.70 mm)						
0.875	0.313	**4940**	**CRWA5**	R	W	■
0.875	0.313	4941	CRWA5	V	W	■
0.999	0.250	**4991**	**CRWA5**	V	W	■◎
0.999	0.313	**4996**	**CRWA5**	R	W	■
1.124	0.250	**5069**	**CRWA5**	R	W	■
1.124	0.250	**5072**	**CRWA5**	V	W	■
METRIC Shaft Diameter – 15 mm (0.591")						
32	7	15X32X7 HMSA7P2 R	HMSA7P2	R	S	
35	6	15X35X6 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 0.625" (15.88 mm)						
0.999	0.250	**6151**	**CRWA5**	R	W	■
1.124	0.250	**6191**	**CRW5**	R	W	■
1.124	0.374	**6231**	**CRWA5**	V	W	■
1.124	0.375	**6229**	**CRWA5**	R	W	■
1.126	0.250	**6242**	**CRW5**	R	W	■
1.250	0.313	**6280**	**CRWA5**	R	W	◤◎
1.250	0.313	**6285**	**CRWA5**	V	W	◤◎
1.375	0.250	**6371**	**CRW5**	P	W	■
1.375	0.375	**6388**	**CRWA5**	R	W	■◤◎
1.500	0.313	**6393**	**CRW5**	V	W	■◎
METRIC Shaft Diameter – 18 mm (0.709")						
30	6	18X30X6 HMSA7P2 R	HMSA7P2	R	S	
35	6	18X35X6 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 0.750" (19.05 mm)						
1.250	0.250	**7434**	**CRWA5**	R	W	■
1.250	0.375	**7449**	**CRWA5**	R	W	■
1.375	0.250	**7509**	**CRWA5**	V	W	■

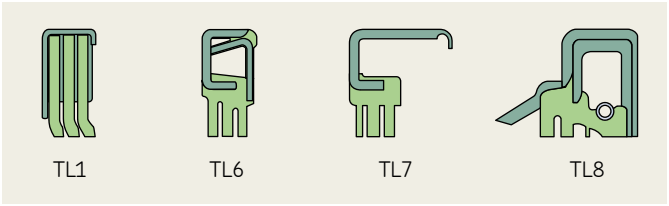
Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Features
INCH Shaft Diameter – 0.875" (22.23 mm)						
1.250	0.250	**8634**	**CRWA5**	V	W	■
1.375	0.250	**8660**	**CRWA5**	R	W	■
1.375	0.250	**8665**	**CRWA5**	V	W	■
1.497	0.313	**8694**	**CRWA5**	V	W	■◎
METRIC Shaft Diameter – 25 mm (0.984")						
40.54	6.35	**9700**	**CRWA5**	R	W	■
44.50	7.95	**9805**	**CRWA5**	V	W	■◤◎
47	6	25X47X6 HMSA72P2 R	HMSA72P2	R	S	
INCH Shaft Diameter – 1.000" (25.40 mm)						
1.375	0.250	**9814**	**CRWA5**	R	W	■
1.499	0.250	**9855**	**CRW5**	R	W	◎
1.499	0.250	**9843**	**CRWA5**	R	W	■
1.499	0.250	**9858**	**CRWA5**	V	W	■
1.499	0.374	**544167**	**CRWA5**	P	W	■
1.500	0.250	**9863**	**CRWA5**	R	W	■
1.752	0.313	**9967**	**CRWA5**	R	W	■
2.000	0.313	**10131**	**CRWA5**	R	W	■
INCH Shaft Diameter – 1.125" (28.58 mm)						
1.626	0.250	**11139**	**CRWA5**	V	W	■
METRIC Shaft Diameter – 30 mm (1.181")						
42	6	30X42X6 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 1.250" (31.75 mm)						
1.687	0.313	**12333**	**CRWA5**	R	W	■
1.750	0.250	**12360**	**CRWA5**	R	W	■
1.750	0.250	**12339**	**CRWA5**	V	W	■
1.937	0.375	**12542**	**CRWA5**	V	W	
1.997	0.438	**12438**	**CRWA5**	V	W	■◎
2.328	0.500	**12609**	**CRWA5**	R	W	■◎
2.502	0.500	**12640**	**CRWA5**	R	W	■◎
METRIC Shaft Diameter – 35 mm (1.378")						
52	6	35X52X6 HMSA72P2 R	HMSA72P2	R	S	
52	6	35X52X6 HMSA7P2 V	HMSA7P2	V	S	
INCH Shaft Diameter – 1.500" (38.10 mm)						
1.997	0.250	**14844**	**CRWA5**	V	W	■◎
2.064	0.375	**14868**	**CRWA5**	V	W	■◎
2.311	0.500	**14979**	**CRWA5**	V	W	■◎
2.328	0.500	**14977**	**CRWA5**	R	W	■◎

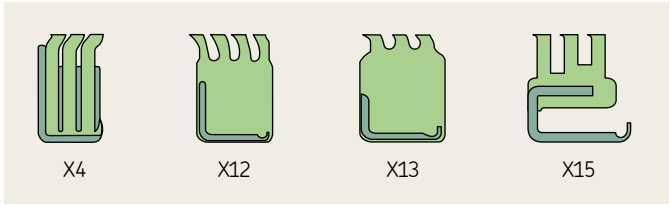


Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Fea-tures
METRIC Shaft Diameter – 40 mm (1.575")						
62	6	40X62X6 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 1.750" (44.45 mm)						
2.502	0.500	**17374**	**CRWA5**	R	W	■◎
METRIC Shaft Diameter – 45 mm (1.772")						
65	7	45X65X7 HMSA7P2 R	HMSA7P2	R	S	
INCH Shaft Diameter – 1.938" (49.23 mm)						
2.675	0.250	**19213**	**CRWA5**	R	W	■
2.835	0.250	**19278**	**CRWA5**	R	W	■
METRIC Shaft Diameter – 50 mm (1.969")						
68	7	50X68X7 HMSA7P2 R	HMSA7P2	R	S	
72	7	50X72X7 HMSA7P2 R	HMSA7P2	R	S	
METRIC Shaft Diameter – 55 mm (2.165")						
72	7	55X72X7 HMSA72P2 R	HMSA72P2	R	S	
INCH Shaft Diameter – 2.500" (63.50 mm)						
3.250	0.350	**24892**	**CRWA5**	R	W	■◤◎
3.250	0.350	**534616**	**CRWA5**	V	W	

Housing Bore	Width	Part Number	Seal Type	Lip Mat'l	Seal Tech	Fea-tures
METRIC Shaft Diameter – 70 mm (2.756")						
90	7	70X90X7 HMSA7P2 R	HMSA7P2	R	S	
METRIC Shaft Diameter – 75 mm (2.953")						
95	7	75X95X7 HMSA7P2 V	HMSA7P2	V	S	
METRIC Shaft Diameter – 80 mm (3.150")						
100	7	80X100X7 HMSA7P2 V	HMSA7P2	V	S	
100	7	80X100X7 HMSA7P2 R	HMSA7P2	R	S	
METRIC Shaft Diameter – 90 mm (3.543")						
110	7.50	90X110X7.50 HMSA7P2 R	HMSA7P2	R	S	
METRIC Shaft Diameter – 105 mm (4.134")						
130	7.50	105X130X7.5 HMSA7P2 R	HMSA7P2	R	S	
METRIC Shaft Diameter – 150 mm (5.906")						
180	8.50	150X180X8.5 HMSA72P2R	HMSA72P2	R	S	
METRIC Shaft Diameter – 200 mm (7.835")						
230	13	200X230X13 HMSA72P2 R	HMSA72P2	R	S	

Seals for grease-lubricated applications



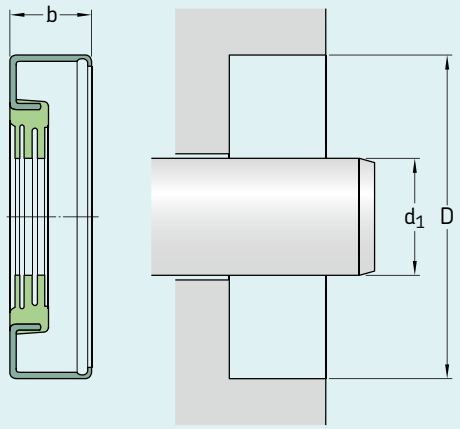


TL seals

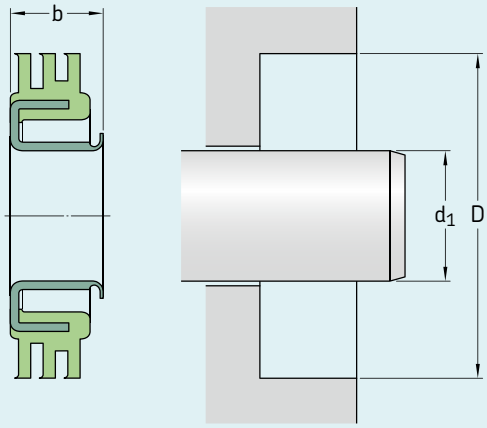
CR Seals include an extensive assortment of radial shaft seals for less demanding grease-lubricated applications operating at moderate speeds. The majority of these seals are designed without a spring. The seals are generally installed with the sealing lip facing outward to provide maximum exclusion ability. Typical applications are grease-lubricated agriculture machinery.

X seals

X seals include an assortment of radial shaft seals that operate with a press fit on the shaft and with sealing lip(s) that contact the housing bore. These seals are generally installed with the sealing lip(s) facing outward to provide optimum exclusion. Primary applications are grease-lubricated agriculture machinery.



				Inch			Metric (mm)		
SKF Part Number	Seal type	Lip mat'l	Presses on shaft	Shaft dia. d1	Bore dia. B	Width b	Shaft dia. d1	Bore dia. B	Width b
13916	TL8	R		1.375	2.835	0.594	34.93	72.01	15.1
16064	TL7	R		1.625	2.328	0.438	41.28	59.13	11.1
17618	TL7	R		1.750	2.718	0.359	44.45	69.04	9.1
17674	TL7	R		1.750	2.875	0.500	44.45	73.03	12.7
17724	TL6	R		1.750	3.149	0.290	44.45	79.98	7.4
18127	TL7	R		1.813	2.719	0.270	46.05	69.06	6.9
19251	TL8	R		1.938	2.686	0.594	49.23	68.22	15.1
19510	TL6	R		1.945	2.892	0.294	49.40	73.46	7.5
20674	TL7	R		2.063	3.150	0.266	52.40	80.01	6.8
24670	TL1	R		2.474	3.543	0.290	62.84	89.99	7.4
29852	TL1	R		2.953	4.724	0.320	75	120	8.1



				Inch			Metric (mm)		
SKF Part Number	Seal type	Lip mat'l	Presses on shaft	Shaft dia. d1	Bore dia. B	Width b	Shaft dia. d1	Bore dia. B	Width b
538266	X15	R	✓	1.000	2.356	0.270	25.40	59.84	6.9
13807	X15	R	✓	1.375	2.438	0.250	34.93	61.93	6.4
14970	X15	R	✓	1.500	2.286	0.270	38.10	58.06	6.9
15174	X13	R	✓	1.500	2.462	0.290	38.10	62.53	7.4
15530	X4	R	✓	1.563	2.237	0.290	39.70	56.82	7.4
15660	X15	R	✓	1.563	2.531	0.285	39.70	64.29	7.2
16286	X15	R	✓	1.625	2.462	0.250	41.28	62.53	6.4
16818	X4	R	✓	1.688	2.650	0.290	42.88	67.31	7.4
17485	X4	R	✓	1.750	2.718	0.294	44.45	69.04	7.5
17620	X15	R	✓	1.750	2.786	0.294	44.45	70.76	7.5
18030	X15	R	✓	1.813	2.408	0.300	46.05	61.16	7.6
18510	X13	R	✓	1.872	2.684	0.544	47.55	68.17	13.8
18630	X13	R	✓	1.873	2.716	0.281	47.57	68.99	7.1
19720	X4	R	✓	1.991	2.900	0.290	50.57	73.66	7.4
19844	X15	D	✓	2.000	2.802	0.250	50.80	71.17	6.4
20560	X15	R	✓	2.063	2.938	0.344	52.40	74.63	8.7
20735	X15	R	✓	2.063	3.250	0.294	52.40	82.55	7.5
21298	X15	R	✓	2.125	3.250	0.270	53.98	82.55	6.9
22430	X15	R	✓	2.250	3.250	0.270	57.15	82.55	6.9
22563	X15	R	✓	2.250	3.400	0.294	57.15	86.36	7.5
23744	X15	R	✓	2.375	3.471	0.250	60.33	88.16	6.4
25078	X15	R	✓	2.496	3.672	0.313	63.40	93.27	8.0
30108	X12	R	✓	3.000	4.525	0.375	76.20	114.94	9.5
31514	X15	R	✓	3.150	3.994	0.591	80	101.45	15
32437	X4	R	✓	3.250	4.468	0.315	82.55	113.49	8.0
32441	X15	R	✓	3.250	4.500	0.313	82.55	114.30	8.0
36172	X15	R	✓	3.625	4.500	0.294	92.08	114.30	7.5
36221	X13	R	✓	3.625	4.695	0.395	92.08	119.25	10.0
38590	X12	R	✓	3.875	5.390	0.375	98.43	136.91	9.5
40510	X12	R	✓	4.063	5.390	0.375	103.20	136.91	9.5
44892	X12	R	✓	4.500	6.015	0.550	114.30	152.78	14.0
45161	X12	D	✓	4.500	6.409	0.415	114.30	162.79	10.5
47455	X15	R	✓	4.750	6.002	0.300	120.65	152.45	7.6
49060	X12	R	✓	4.902	7.085	0.475	124.51	179.96	12.1

SKF Speedi-Sleeve wear sleeves

The fastest way to an optimal sealing surface

To seal effectively, radial shaft seals need to run against a smooth, round shaft surface. If that surface becomes worn, the seal will no longer be able to perform its key function: retaining lubricants and excluding contaminants.

Typically, a shaft surface will become scored when a contaminant particle is caught under the sealing lip and grinds against the shaft as it rotates. As the scoring worsens, the seal will allow more contaminant ingress, eventually leading to a shaft and/or bearing malfunction. Simply replacing the seal will not correct the problem; at this point the machine will require disassembly to remove the shaft and grind it down until it is within specification. Otherwise, the sealing system will not function properly.

SKF Speedi-Sleeve wear sleeves offer a proven solution for repairing worn shafts, without the need to disassemble and re-machine the shaft, or specify a different size replacement seal. For OEMs, installing SKF Speedi-Sleeve wear sleeves eliminates the need to finish-machine, grind and harden the shaft – with SKF Speedi-Sleeve, rough machining is all that is required. In many cases, SKF Speedi-Sleeve provides a seal running surface that's superior to what can be achieved on a shaft.

A new generation of performance

The new generation of SKF Speedi-Sleeve wear sleeves combines a proprietary stainless steel material and manufacturing process, resulting in an optimized surface that minimizes wear on both the sleeve and sealing lip. The proprietary stainless steel material provides increased strength and excellent ductility properties. Imperceptible lubricant pockets keep the lubricant on the sleeve, thereby preventing the excessive wear caused by dry running of the sealing lip.

The sleeves are thin-walled 0.011 in. (*0.28 mm*) and the wear-resistant contact surface is manufactured to minimize directionality (0° ±0.05) with a finish of Ra 10 to 20 µin. (*0.25 to 0.5 µm*). As noted, this is a superior surface to what can often be achieved on a shaft.

Removable flange

To help simplify installation SKF Speedi-Sleeve has a removable flange (→ **fig. 1**). For most installations the flange can be left intact, but in applications where the flange will interfere with other system components, it should be removed to prevent excessive friction, heat and wear debris. The flange should also be removed in applications where it may reduce the supply of lubricant to the seal, as this would reduce the cooling effect of the lubricant and result in elevated, underlip temperatures and premature aging of the seal.

If the flange must be removed, it should be cut from the outside diameter into the radius in one location prior to installation. The flange can then be twisted and raised up after installation and grasped with a pair of pliers and twisted into a coil.

SKF Speedi-Sleeve Gold

For highly abrasive applications, the new generation of SKF Speedi-Sleeve is also available in the Gold version. A thin, metallic coating applied to the base stainless steel imparts a gold color and significantly increases durability. SKF Speedi-Sleeve Gold is particularly effective in environments where there are abrasive contaminants, especially when combined with a seal manufactured from the SKF FKM material SKF Duralife. This sealing system solution lasted 2,500 hours in a contamination test.

The installation procedure is common to both SKF Speedi-Sleeve designs and the original seal size can still be used. All sleeves listed in the following product tables can be manufactured as SKF Speedi-Sleeve Gold.

Available size range

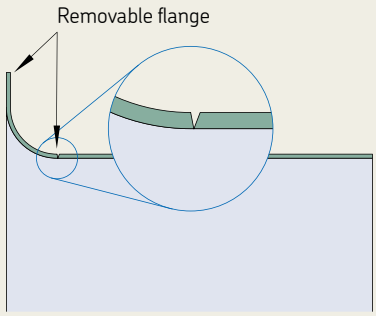
The standard size range covers sleeves for shaft diameters from 0.472 to 8 in. (*11.99* to *203.33 mm*). Depending on production quantities, non-standard sizes can be manufactured (for additional information, contact SKF). Each sleeve is designed to fit a specific shaft range, usually above and below the nominal shaft diameter. This permits some flexibility to accommodate variations in the actual shaft diameter.

Selecting the sleeve size

To determine the appropriate sleeve size, the shaft must be carefully cleaned first. The diameter of an undamaged section of the shaft surface should then be measured on at least three different planes. The arithmetical mean of these measurements determines the size of the required SKF Speedi-Sleeve. If the value lies within the permissible range listed in the product table for the shaft diameter d1, the selected SKF Speedi-Sleeve will provide an adequately tight fit on the shaft and will not require an adhesive.

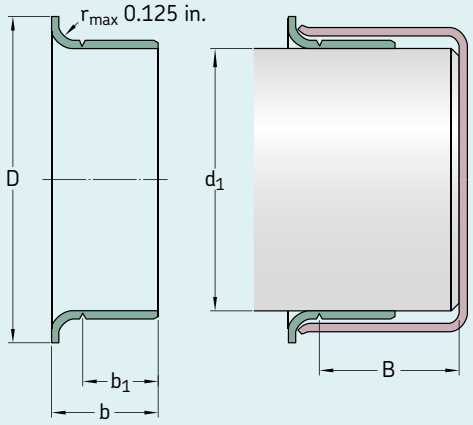
Figure 1

SKF Speedi-Sleeve removable flange



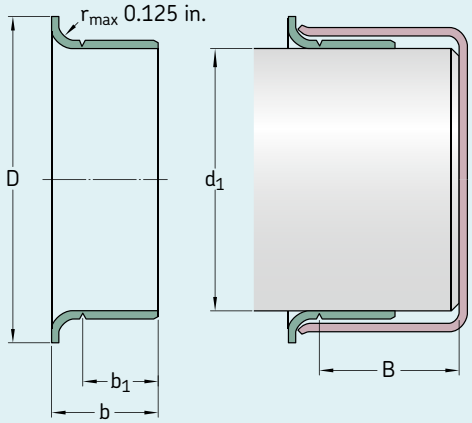
SKF Speedi-Sleeve new generation, Gold version

The standard size range covers sleeves for shaft diameters from 0.472 to 8 in. (11.99 to 203.33 mm)



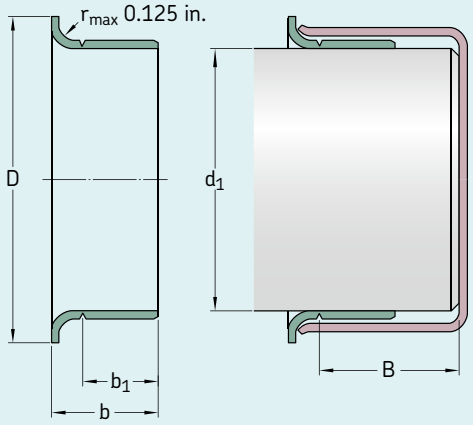
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
12 mm	**99049**	**STD**	0.469	0.473	0.236	0.331	0.610	1.875
0.500 in.	**99050**	**STD**	0.498	0.502	0.250	0.344	0.610	2.000
14 mm	**99055**	**STD**	0.547	0.551	0.250	0.390	0.750	1.831
0.563 in.	**99056**	**STD**	0.560	0.564	0.250	0.391	0.750	1.831
15 mm	**99059**	**STD**	0.589	0.593	0.197	0.354	0.750	1.862
0.625 in.	**99062**	**STD**	0.623	0.627	0.313	0.406	0.750	2.000
0.625 in.	99810	GOLD	0.623	0.627	0.313	0.406	0.750	2.000
16 mm	**99058**	**STD**	0.626	0.630	0.313	0.437	0.718	2.000
17 mm	**99068**	**STD**	0.667	0.671	0.315	0.433	0.875	2.000
0.684 in.	**99060**	**STD**	0.682	0.686	0.313	0.438	0.900	2.000
18 mm	**99082**	**STD**	0.704	0.708	0.315	0.433	0.962	1.811
0.750 in.	**99076**	**STD**	0.748	0.752	0.313	0.438	0.945	2.000
0.750 in.	99811	GOLD	0.748	0.752	0.313	0.438	0.945	2.000
0.760 in.	**99081**	**STD**	0.759	0.763	0.313	0.438	0.938	2.000
0.781 in.	**99080**	**STD**	0.780	0.784	0.313	0.438	0.935	2.000
20 mm	**99075**	**STD**	0.782	0.786	0.339	0.437	0.930	1.875
20 mm	**99078**	**STD**	0.785	0.789	0.315	0.433	0.930	2.000
0.813 in.	**99083**	**STD**	0.811	0.815	0.375	0.563	1.188	3.000
0.859 in.	**99086**	**STD**	0.857	0.861	0.250	0.375	1.155	2.000
22 mm	**99084**	**STD**	0.861	0.865	0.259	0.358	1.188	1.856
22 mm	**99085**	**STD**	0.861	0.865	0.315	0.472	1.188	1.812
0.875 in.	99812	GOLD	0.873	0.877	0.313	0.438	1.094	2.000
0.875 in.	**99087**	**STD**	0.873	0.877	0.313	0.438	1.094	2.000
0.875 in.	**99087**	**STD**	0.873	0.877	0.313	0.438	1.094	2.000
0.910 in.	**99091**	**STD**	0.908	0.912	0.313	0.438	1.218	1.847
0.910 in.	99860	GOLD	0.908	0.912	0.313	0.438	1.218	1.847
24 mm	**99092**	**STD**	0.940	0.944	0.313	0.437	1.130	2.000
0.969 in.	**99094**	**STD**	0.966	0.970	0.313	0.438	1.130	2.000
0.969 in.	**99096**	**STD**	0.966	0.970	0.625	0.719	1.130	2.000
25 mm	**99098**	**STD**	0.982	0.986	0.313	0.433	1.300	2.000
25 mm	99813	GOLD	0.982	0.986	0.313	0.433	1.300	2.000
1.000 in.	**99868**	**STD**	0.998	1.003	0.313	0.438	1.219	2.000
1.000 in.	99814	GOLD	0.998	1.003	0.313	0.438	1.219	2.000
26 mm	**99103**	**STD**	1.019	1.024	0.315	0.472	1.313	1.813
1.063 in. or 27 mm	**99106**	**STD**	1.060	1.065	0.313	0.438	1.320	1.843
1.063 in. or 27 mm	99815	GOLD	1.060	1.065	0.313	0.438	1.320	1.843
1.089 in.	**99108**	**STD**	1.087	1.092	0.313	0.438	1.406	0.625
28 mm	**99111**	**STD**	1.100	1.105	0.375	0.500	1.378	1.843
28 mm	99866	GOLD	1.100	1.105	0.375	0.500	1.378	1.843
1.125 in.	**99112**	**STD**	1.123	1.128	0.313	0.438	1.500	0.688
1.125 in.	99816	GOLD	1.123	1.128	0.313	0.438	1.500	0.688
1.125 in.	**99116**	**STD**	1.123	1.128	0.375	0.500	1.500	0.688
1.156 in.	**99120**	**STD**	1.154	1.159	0.375	0.500	1.350	0.688
1.175 in.	**99122**	**STD**	1.173	1.178	0.313	0.438	1.400	0.688
30 mm	**99114**	**STD**	1.179	1.184	0.315	0.433	1.400	0.688
1.188 in.	**99118**	**STD**	1.185	1.190	0.313	0.438	1.400	0.688
31 mm	**99123**	**STD**	1.216	1.221	0.313	0.433	1.563	0.625
1.240 in.	**99141**	**STD**	1.237	1.243	0.315	0.438	1.540	0.688

Green shading = inch **blue shading = metric** **gray shading = both**



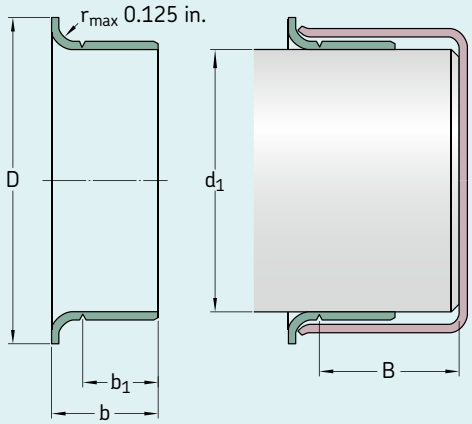
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
11.91	12.01	6.0	8.4	15.5	47.6	**STD**	**99049**	12 mm
12.65	12.75	6.4	8.7	15.5	50.8	**STD**	**99050**	0.500 in.
13.89	14.00	6.4	9.9	19.1	46.5	**STD**	**99055**	14 mm
14.22	14.33	6.4	9.9	19.1	46.5	**STD**	**99056**	0.563 in.
14.96	15.06	5.0	9.0	19.1	47.3	**STD**	**99059**	15 mm
15.82	15.93	8.0	10.3	19.1	50.8	**STD**	**99062**	0.625 in.
15.82	15.93	8.0	10.3	19.1	50.8	GOLD	99810	0.625 in.
15.90	16.00	8.0	11.1	18.2	50.8	**STD**	**99058**	16 mm
16.94	17.04	8.0	11.0	22.2	50.8	**STD**	**99068**	17 mm
17.32	17.42	8.0	11.1	22.9	50.8	**STD**	**99060**	0.684 in.
17.88	17.98	8.0	11.0	24.4	46.0	**STD**	**99082**	18 mm
19.00	19.10	8.0	11.1	24.0	50.8	**STD**	**99076**	0.750 in.
19.00	19.10	8.0	11.1	24.0	50.8	GOLD	99811	0.750 in.
19.28	19.38	8.0	11.1	23.8	50.8	**STD**	**99081**	0.760 in.
19.81	19.91	8.0	11.1	23.8	50.8	**STD**	**99080**	0.781 in.
19.86	19.96	8.6	11.1	23.6	47.6	**STD**	**99075**	20 mm
19.94	20.04	8.0	11.0	23.6	50.8	**STD**	**99078**	20 mm
20.60	20.70	9.5	14.3	30.2	76.2	**STD**	**99083**	0.813 in.
21.77	21.87	6.4	9.5	29.3	50.8	**STD**	**99086**	0.859 in.
21.87	21.97	6.6	9.1	30.2	47.1	**STD**	**99084**	22 mm
21.87	21.97	8.0	12.0	30.2	46.0	**STD**	**99085**	22 mm
22.17	22.28	8.0	11.1	27.8	50.8	GOLD	99812	0.875 in.
22.17	22.28	8.0	11.1	27.8	50.8	**STD**	**99087**	0.875 in.
22.17	22.28	8.0	11.1	27.8	50.8	**STD**	**99087**	0.875 in.
23.06	23.16	8.0	11.1	30.9	46.9	**STD**	**99091**	0.910 in.
23.06	23.16	8.0	11.1	30.9	46.9	GOLD	99860	0.910 in.
23.88	23.98	8.0	11.1	28.7	50.8	**STD**	**99092**	24 mm
24.54	24.64	8.0	11.1	28.7	50.8	**STD**	**99094**	0.969 in.
24.54	24.64	15.9	18.3	28.7	50.8	**STD**	**99096**	0.969 in.
24.94	25.04	8.0	11.0	33.0	50.8	**STD**	**99098**	25 mm
24.94	25.04	8.0	11.0	33.0	50.8	GOLD	99813	25 mm
25.35	25.48	8.0	11.1	31.0	50.8	**STD**	**99868**	1.000 in.
25.35	25.48	8.0	11.1	31.0	50.8	GOLD	99814	1.000 in.
25.88	26.01	8.0	12.0	33.4	46.1	**STD**	**99103**	26 mm
26.92	27.05	8.0	11.1	33.5	46.8	**STD**	**99106**	1.063 in. or 27 mm
26.92	27.05	8.0	11.1	33.5	46.8	GOLD	99815	1.063 in. or 27 mm
27.61	27.74	8.0	11.1	35.7	15.9	**STD**	**99108**	1.089 in.
27.94	28.07	9.5	12.7	35.0	46.8	**STD**	**99111**	28 mm
27.94	28.07	9.5	12.7	35.0	46.8	GOLD	99866	28 mm
28.52	28.65	8.0	11.1	38.1	17.5	**STD**	**99112**	1.125 in.
28.52	28.65	8.0	11.1	38.1	17.5	GOLD	99816	1.125 in.
28.52	28.65	9.5	12.7	38.1	17.5	**STD**	**99116**	1.125 in.
29.31	29.44	9.5	12.7	34.3	17.5	**STD**	**99120**	1.156 in.
29.79	29.92	8.0	11.1	35.6	17.5	**STD**	**99122**	1.175 in.
29.95	30.07	8.0	11.0	35.6	17.5	**STD**	**99114**	30 mm
30.10	30.23	8.0	11.1	35.6	17.5	**STD**	**99118**	1.188 in.
30.89	31.01	8.0	11.0	39.7	15.9	**STD**	**99123**	31 mm
31.42	31.57	8.0	11.1	39.1	17.5	**STD**	**99141**	1.240 in.



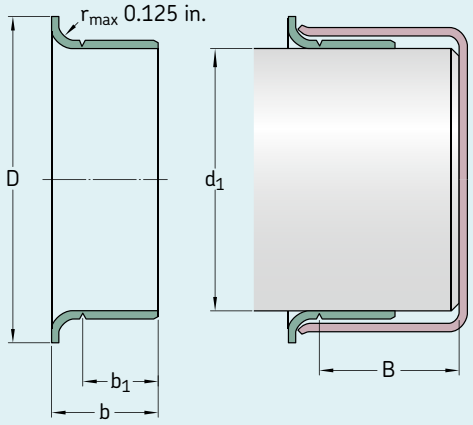
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
1.250 in.	**99125**	**STD**	1.247	1.253	0.313	0.438	1.500	0.688
1.250 in.	99817	GOLD	1.247	1.253	0.313	0.438	1.500	0.688
32 mm	**99128**	**STD**	1.257	1.263	0.315	0.437	1.500	0.688
32 mm	99876	GOLD	1.257	1.263	0.315	0.437	1.500	0.688
33 mm	**99121**	**STD**	1.293	1.299	0.591	0.709	1.594	1.000
1.313 in.	**99129**	**STD**	1.308	1.314	0.250	0.374	1.600	0.813
1.313 in.	**99131**	**STD**	1.310	1.316	0.500	0.625	1.594	0.813
34 mm	**99134**	**STD**	1.333	1.339	0.500	0.626	1.625	0.813
1.375 in.	**99133**	**STD**	1.371	1.377	0.313	0.438	1.638	0.813
1.375 in.	**99138**	**STD**	1.371	1.377	0.500	0.625	1.638	0.813
1.375 in.	99819	GOLD	1.371	1.377	0.500	0.625	1.638	0.813
35 mm	**99139**	**STD**	1.375	1.381	0.512	0.630	1.638	0.813
35 mm	99820	GOLD	1.375	1.381	0.512	0.630	1.638	0.813
36 mm	**99146**	**STD**	1.411	1.417	0.512	0.669	1.781	0.984
1.435 in.	99821	GOLD	1.432	1.438	0.563	0.688	1.781	1.016
1.435 in.	**99143**	**STD**	1.432	1.438	0.563	0.688	1.781	1.016
1.438 in.	**99144**	**STD**	1.435	1.441	0.375	0.500	1.781	1.016
38 mm	**99147**	**STD**	1.490	1.496	0.512	0.669	1.781	0.984
1.500 in.	**99150**	**STD**	1.497	1.503	0.375	0.500	1.781	1.016
1.500 in.	99823	GOLD	1.497	1.503	0.375	0.500	1.781	1.016
1.500 in.	**99149**	**STD**	1.497	1.503	0.563	0.688	1.781	1.016
1.500 in.	99822	GOLD	1.497	1.503	0.563	0.688	1.781	1.016
1.523 in.	**99152**	**STD**	1.520	1.526	0.438	0.563	1.859	1.016
1.552 in.	**99155**	**STD**	1.549	1.555	0.438	0.563	1.859	1.016
1.562 in.	**99156**	**STD**	1.559	1.565	0.563	0.688	1.859	1.016
1.563 in.	99824	GOLD	1.559	1.565	0.563	0.688	1.859	1.016
1.569 in.	**99159**	**STD**	1.566	1.572	0.625	0.750	1.859	1.016
40 mm	**99153**	**STD**	1.567	1.573	0.390	0.509	1.850	1.000
40 mm	99825	GOLD	1.569	1.575	0.512	0.630	1.850	1.023
40 mm	**99157**	**STD**	1.572	1.578	0.512	0.630	1.850	1.023
1.605 in.	**99160**	**STD**	1.602	1.608	0.500	0.641	1.938	1.000
41 mm	**99163**	**STD**	1.608	1.614	0.500	0.625	1.938	1.016
1.625 in.	**99161**	**STD**	1.622	1.628	0.313	0.438	1.875	1.016
1.625 in.	**99162**	**STD**	1.622	1.628	0.563	0.688	1.875	0.813
1.625 in.	99826	GOLD	1.622	1.628	0.563	0.688	1.875	0.813
42 mm	**99166**	**STD**	1.647	1.653	0.445	0.571	2.087	0.846
42 mm	**99169**	**STD**	1.647	1.653	0.563	0.689	2.087	0.827
1.656 in.	**99165**	**STD**	1.653	1.659	0.550	0.689	2.087	0.827
1.688 in.	**99168**	**STD**	1.684	1.690	0.563	0.688	1.906	0.875
1.688 in.	**99167**	**STD**	1.685	1.691	0.313	0.438	1.906	0.875
43 mm	**99182**	**STD**	1.687	1.693	0.500	0.625	1.906	0.844
1.718 in.	**99171**	**STD**	1.715	1.721	0.563	0.688	2.031	0.813
1.739 in.	**99170**	**STD**	1.736	1.742	0.375	0.500	2.063	0.813
1.750 in.	**99172**	**STD**	1.747	1.753	0.375	0.500	2.055	0.813
1.750 in.	**99180**	**STD**	1.747	1.753	0.531	0.625	2.063	0.878
1.750 in.	**99174**	**STD**	1.747	1.753	0.563	0.688	2.063	0.813
1.750 in.	99827	GOLD	1.747	1.753	0.563	0.688	2.063	0.813
1.750 in.	**99175**	**STD**	1.747	1.753	0.750	0.875	2.063	0.813

Green shading = inch **blue shading = metric** **gray shading = both**



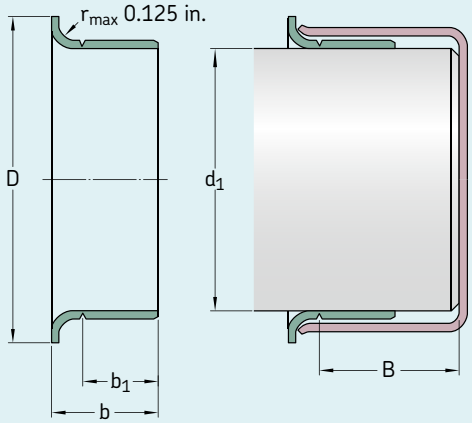
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
31.67	31.83	8.0	11.1	38.1	17.5	**STD**	**99125**	1.250 in.
31.67	31.83	8.0	11.1	38.1	17.5	GOLD	99817	1.250 in.
31.93	32.08	8.0	11.1	38.1	17.5	**STD**	**99128**	32 mm
31.93	32.08	8.0	11.1	38.1	17.5	GOLD	99876	32 mm
32.84	32.99	15.0	18.0	40.5	25.4	**STD**	**99121**	33 mm
33.22	33.38	6.4	9.5	40.6	20.7	**STD**	**99129**	1.313 in.
33.27	33.43	12.7	15.9	40.5	20.7	**STD**	**99131**	1.313 in.
33.86	34.01	12.7	15.9	41.3	20.7	**STD**	**99134**	34 mm
34.82	34.98	8.0	11.1	41.6	20.7	**STD**	**99133**	1.375 in.
34.82	34.98	12.7	15.9	41.6	20.7	**STD**	**99138**	1.375 in.
34.82	34.98	12.7	15.9	41.6	20.7	GOLD	99819	1.375 in.
34.93	35.08	13.0	16.0	41.6	20.7	**STD**	**99139**	35 mm
34.93	35.08	13.0	16.0	41.6	20.7	GOLD	99820	35 mm
35.84	35.99	13.0	17.0	45.2	25.0	**STD**	**99146**	36 mm
36.37	36.53	14.3	17.5	45.2	25.8	GOLD	99821	1.435 in.
36.37	36.53	14.3	17.5	45.2	25.8	**STD**	**99143**	1.435 in.
36.45	36.60	9.5	12.7	45.2	25.8	**STD**	**99144**	1.438 in.
37.85	38.00	13.0	17.0	45.2	25.0	**STD**	**99147**	38 mm
38.02	38.18	9.5	12.7	45.2	25.8	**STD**	**99150**	1.500 in.
38.02	38.18	9.5	12.7	45.2	25.8	GOLD	99823	1.500 in.
38.02	38.18	14.3	17.5	45.2	25.8	**STD**	**99149**	1.500 in.
38.02	38.18	14.3	17.5	45.2	25.8	GOLD	99822	1.500 in.
38.61	38.76	11.1	14.3	47.2	25.8	**STD**	**99152**	1.523 in.
39.34	39.50	11.1	14.3	47.2	25.8	**STD**	**99155**	1.552 in.
39.60	39.75	14.3	17.5	47.2	25.8	**STD**	**99156**	1.562 in.
39.60	39.75	14.3	17.5	47.2	25.8	GOLD	99824	1.563 in.
39.78	39.93	15.9	19.1	47.2	25.8	**STD**	**99159**	1.569 in.
39.81	39.96	9.9	12.9	47.0	25.4	**STD**	**99153**	40 mm
39.85	40.01	13.0	16.0	47.0	26.0	GOLD	99825	40 mm
39.93	40.08	13.0	16.0	47.0	26.0	**STD**	**99157**	40 mm
40.69	40.84	12.7	16.3	49.2	25.4	**STD**	**99160**	1.605 in.
40.84	41.00	12.7	15.9	49.2	25.8	**STD**	**99163**	41 mm
41.20	41.35	8.0	11.1	47.6	25.8	**STD**	**99161**	1.625 in.
41.20	41.35	14.3	17.5	47.6	20.7	**STD**	**99162**	1.625 in.
41.20	41.35	14.3	17.5	47.6	20.7	GOLD	99826	1.625 in.
41.83	41.99	11.3	14.5	53.0	21.5	**STD**	**99166**	42 mm
41.83	41.99	14.3	17.5	53.0	21.0	**STD**	**99169**	42 mm
41.99	42.14	14.0	17.5	53.0	21.0	**STD**	**99165**	1.656 in.
42.77	42.93	14.3	17.5	48.4	22.2	**STD**	**99168**	1.688 in.
42.80	42.95	8.0	11.1	48.4	22.2	**STD**	**99167**	1.688 in.
42.85	43.00	12.7	15.9	48.4	21.4	**STD**	**99182**	43 mm
43.56	43.71	14.3	17.5	51.6	20.7	**STD**	**99171**	1.718 in.
44.09	44.25	9.5	12.7	52.4	20.7	**STD**	**99170**	1.739 in.
44.37	44.53	9.5	12.7	52.2	20.7	**STD**	**99172**	1.750 in.
44.37	44.53	13.5	15.9	52.4	22.3	**STD**	**99180**	1.750 in.
44.37	44.53	14.3	17.5	52.4	20.7	**STD**	**99174**	1.750 in.
44.37	44.53	14.3	17.5	52.4	20.7	GOLD	99827	1.750 in.
44.37	44.53	19.1	22.2	52.4	20.7	**STD**	**99175**	1.750 in.



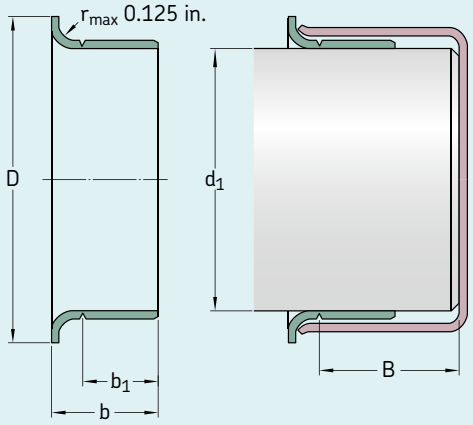
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
1.750 in.	99828	GOLD	1.747	1.753	0.750	0.875	2.063	0.813
1.764 in.	**99176**	**STD**	1.761	1.767	0.563	0.688	2.063	0.813
1.764 in.	99829	GOLD	1.761	1.767	0.563	0.688	2.063	0.813
45 mm	**99177**	**STD**	1.769	1.775	0.551	0.669	2.087	0.812
45 mm	99830	GOLD	1.769	1.775	0.551	0.669	2.087	0.812
1.781 in.	**99179**	**STD**	1.778	1.784	0.664	0.800	2.125	1.062
1.813 in.	**99181**	**STD**	1.809	1.815	0.563	0.688	2.090	1.000
1.813 in.	99831	GOLD	1.809	1.815	0.563	0.688	2.090	1.000
1.860 in.	**99185**	**STD**	1.857	1.863	0.563	0.688	2.156	1.000
1.869 in.	**99186**	**STD**	1.866	1.872	0.889	1.025	2.188	1.000
1.875 in.	**99190**	**STD**	1.872	1.878	0.175	0.295	2.203	0.744
1.875 in.	**99188**	**STD**	1.872	1.878	0.295	0.415	2.203	0.744
1.875 in.	**99184**	**STD**	1.872	1.878	0.375	0.516	2.203	1.050
1.875 in.	**99187**	**STD**	1.872	1.878	0.563	0.688	2.203	1.000
1.875 in.	99832	GOLD	1.872	1.878	0.563	0.688	2.203	1.000
48 mm	**99189**	**STD**	1.887	1.893	0.551	0.668	2.205	0.984
1.912 in.	**99192**	**STD**	1.909	1.915	0.375	0.500	2.219	1.000
1.938 in.	**99193**	**STD**	1.934	1.940	0.563	0.688	2.219	1.000
1.938 in.	99833	GOLD	1.934	1.940	0.563	0.688	2.219	1.000
50 mm	**99196**	**STD**	1.965	1.971	0.551	0.668	2.244	0.984
50 mm	**99052**	**STD**	1.965	1.971	0.551	0.668	2.224	1.350
1.980 in.	**99198**	**STD**	1.977	1.983	0.563	0.704	2.313	1.050
2.000 in.	99834	GOLD	1.997	2.003	0.563	0.688	2.406	1.006
2.000 in.	**99199**	**STD**	1.997	2.003	0.563	0.688	2.406	1.000
2.000 in.	**99200**	**STD**	1.997	2.003	0.875	1.000	2.406	1.000
2.000 in.	99835	GOLD	1.997	2.003	0.875	1.000	2.406	1.000
52 mm	**99878**	**STD**	2.040	2.046	0.500	0.625	2.469	1.359
2.063 in.	**99205**	**STD**	2.057	2.063	0.781	0.938	2.469	1.375
2.125 in.	**99210**	**STD**	2.123	2.129	0.500	0.750	2.422	1.281
2.125 in.	**99212**	**STD**	2.124	2.130	0.781	0.938	2.422	1.375
2.125 in.	99836	GOLD	2.124	2.130	0.781	0.938	2.422	1.375
55 mm	**99215**	**STD**	2.162	2.168	0.787	0.905	2.441	1.250
55 mm	99863	GOLD	2.162	2.168	0.787	0.905	2.441	1.250
2.188 in.	**99218**	**STD**	2.186	2.192	0.781	0.938	2.500	1.313
56 mm	**99224**	**STD**	2.198	2.205	0.779	0.936	2.531	3.150
56 mm	**99220**	**STD**	2.198	2.204	0.500	0.625	2.531	1.313
2.230 in.	99861	GOLD	2.227	2.233	0.500	0.625	2.531	1.313
2.230 in.	**99229**	**STD**	2.227	2.233	0.500	0.625	2.531	1.313
2.230 in.	**99230**	**STD**	2.227	2.233	0.781	0.906	2.531	1.250
2.240 in.	**99226**	**STD**	2.237	2.243	0.764	0.900	2.563	1.250
2.250 in.	**99227**	**STD**	2.249	2.255	0.313	0.438	2.531	1.313
2.250 in.	99838	GOLD	2.249	2.255	0.313	0.438	2.531	1.313
2.250 in.	**99225**	**STD**	2.249	2.255	0.781	0.938	2.531	1.313
2.250 in.	99837	GOLD	2.249	2.255	0.781	0.938	2.531	1.313
58 mm	**99219**	**STD**	2.280	2.286	0.787	0.938	2.598	1.375
2.313 in.	**99231**	**STD**	2.309	2.315	0.781	0.938	2.688	1.375
2.330 in.	**99233**	**STD**	2.327	2.333	0.750	0.875	2.750	1.500
60 mm	**99241**	**STD**	2.359	2.365	0.370	0.450	2.785	1.471

Green shading = inch **blue shading = metric** **gray shading = both**



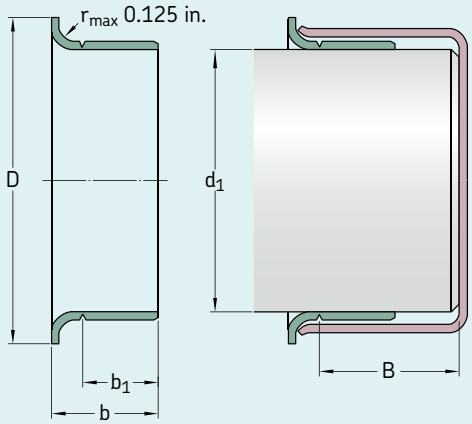
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
44.37	44.53	19.1	22.2	52.4	20.7	GOLD	99828	1.750 in.
44.73	44.88	14.3	17.5	52.4	20.7	**STD**	**99176**	1.764 in.
44.73	44.88	14.3	17.5	52.4	20.7	GOLD	99829	1.764 in.
44.93	45.09	14.0	17.0	53.0	20.6	**STD**	**99177**	45 mm
44.93	45.09	14.0	17.0	53.0	20.6	GOLD	99830	45 mm
45.16	45.31	16.9	20.3	54.0	27.0	**STD**	**99179**	1.781 in.
45.95	46.10	14.3	17.5	53.1	25.4	**STD**	**99181**	1.813 in.
45.95	46.10	14.3	17.5	53.1	25.4	GOLD	99831	1.813 in.
47.17	47.32	14.3	17.5	54.8	25.4	**STD**	**99185**	1.860 in.
47.40	47.55	22.6	26.0	55.6	25.4	**STD**	**99186**	1.869 in.
47.55	47.70	4.5	7.5	56.0	18.9	**STD**	**99190**	1.875 in.
47.55	47.70	7.5	10.5	56.0	18.9	**STD**	**99188**	1.875 in.
47.55	47.70	9.5	13.1	56.0	26.7	**STD**	**99184**	1.875 in.
47.55	47.70	14.3	17.5	56.0	25.4	**STD**	**99187**	1.875 in.
47.55	47.70	14.3	17.5	56.0	25.4	GOLD	99832	1.875 in.
47.93	48.08	14.0	17.0	56.0	25.0	**STD**	**99189**	48 mm
48.49	48.64	9.5	12.7	56.4	25.4	**STD**	**99192**	1.912 in.
49.12	49.28	14.3	17.5	56.4	25.4	**STD**	**99193**	1.938 in.
49.12	49.28	14.3	17.5	56.4	25.4	GOLD	99833	1.938 in.
49.91	50.06	14.0	17.0	57.0	25.0	**STD**	**99196**	50 mm
49.91	50.06	14.0	17.0	56.5	34.3	**STD**	**99052**	50 mm
50.22	50.37	14.3	17.9	58.8	26.7	**STD**	**99198**	1.980 in.
50.72	50.88	14.3	17.5	61.1	25.6	GOLD	99834	2.000 in.
50.72	50.88	14.3	17.5	61.1	25.4	**STD**	**99199**	2.000 in.
50.72	50.88	22.2	25.4	61.1	25.4	**STD**	**99200**	2.000 in.
50.72	50.88	22.2	25.4	61.1	25.4	GOLD	99835	2.000 in.
51.82	51.97	12.7	15.9	62.7	34.5	**STD**	**99878**	52 mm
52.25	52.40	19.8	23.8	62.7	34.9	**STD**	**99205**	2.063 in.
53.92	54.08	12.7	19.1	61.5	32.5	**STD**	**99210**	2.125 in.
53.95	54.10	19.8	23.8	61.5	34.9	**STD**	**99212**	2.125 in.
53.95	54.10	19.8	23.8	61.5	34.9	GOLD	99836	2.125 in.
54.91	55.07	20.0	23.0	62.0	31.8	**STD**	**99215**	55 mm
54.91	55.07	20.0	23.0	62.0	31.8	GOLD	99863	55 mm
55.52	55.68	19.8	23.8	63.5	33.4	**STD**	**99218**	2.188 in.
55.83	56.01	19.8	23.8	64.3	80.0	**STD**	**99224**	56 mm
55.83	55.98	12.7	15.9	64.3	33.4	**STD**	**99220**	56 mm
56.57	56.72	12.7	15.9	64.3	33.4	GOLD	99861	2.230 in.
56.57	56.72	12.7	15.9	64.3	33.4	**STD**	**99229**	2.230 in.
56.57	56.72	19.8	23.0	64.3	31.8	**STD**	**99230**	2.230 in.
56.82	56.97	19.4	22.9	65.1	31.8	**STD**	**99226**	2.240 in.
57.12	57.28	8.0	11.1	64.3	33.4	**STD**	**99227**	2.250 in.
57.12	57.28	8.0	11.1	64.3	33.4	GOLD	99838	2.250 in.
57.12	57.28	19.8	23.8	64.3	33.4	**STD**	**99225**	2.250 in.
57.12	57.28	19.8	23.8	64.3	33.4	GOLD	99837	2.250 in.
57.91	58.06	20.0	23.8	66.0	34.9	**STD**	**99219**	58 mm
58.65	58.80	19.8	23.8	68.3	34.9	**STD**	**99231**	2.313 in.
59.11	59.26	19.1	22.2	69.9	38.1	**STD**	**99233**	2.330 in.
59.92	60.07	9.4	11.4	70.7	37.4	**STD**	**99241**	60 mm



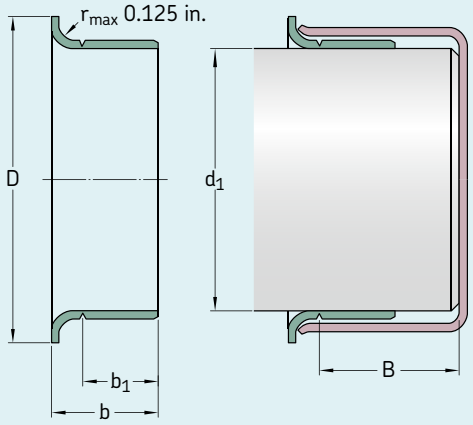
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
60 mm	**99235**	**STD**	2.359	2.365	0.787	0.905	2.785	1.375
60 mm	99869	GOLD	2.359	2.365	0.787	0.906	2.785	1.375
2.375 in.	**99238**	**STD**	2.372	2.378	0.594	0.750	2.750	1.375
2.375 in.	**99240**	**STD**	2.374	2.380	0.526	0.683	2.750	1.375
2.375 in.	**99237**	**STD**	2.374	2.380	0.781	0.938	2.750	1.375
2.375 in.	99839	GOLD	2.374	2.380	0.781	0.938	2.750	1.375
62 mm	**99244**	**STD**	2.434	2.440	0.500	0.625	2.828	1.425
2.438 in.	**99243**	**STD**	2.434	2.440	0.781	0.938	2.828	1.393
2.438 in.	**99242**	**STD**	2.435	2.441	0.500	0.625	2.828	1.425
2.492 in.	**99249**	**STD**	2.489	2.495	0.781	0.938	2.875	1.393
2.500 in.	**99253**	**STD**	2.497	2.504	0.555	0.650	2.820	0.890
2.500 in.	**99248**	**STD**	2.500	2.507	0.500	0.656	2.828	1.393
2.500 in.	**99250**	**STD**	2.500	2.507	0.781	0.938	2.820	1.375
2.500 in.	99840	GOLD	2.500	2.507	0.781	0.938	2.820	1.375
2.513 in.	**99251**	**STD**	2.510	2.517	0.781	0.906	2.828	1.438
65 mm	**99254**	**STD**	2.556	2.563	0.787	0.905	2.850	1.375
65 mm	99841	GOLD	2.556	2.563	0.787	0.905	2.850	1.375
2.563 in.	**99256**	**STD**	2.560	2.567	0.781	0.938	2.891	1.375
66 mm	**99259**	**STD**	2.595	2.602	0.781	0.938	2.990	1.250
2.621 in.	**99261**	**STD**	2.618	2.625	0.781	0.938	3.047	1.375
2.625 in.	**99264**	**STD**	2.621	2.628	0.781	0.906	3.047	1.375
2.625 in.	**99260**	**STD**	2.622	2.629	0.500	0.625	3.047	1.375
2.628 in.	**99262**	**STD**	2.625	2.632	0.781	0.938	3.047	1.375
2.628 in.	99842	GOLD	2.625	2.632	0.781	0.938	3.047	1.375
68 mm	**99266**	**STD**	2.670	2.677	0.750	0.875	3.125	1.688
2.730 in.	**99268**	**STD**	2.727	2.734	0.781	0.906	3.125	1.313
2.743 in.	**99273**	**STD**	2.740	2.747	0.781	0.938	3.065	1.250
2.748 in.	**99274**	**STD**	2.745	2.752	0.781	0.938	3.125	1.250
2.748 in.	99843	GOLD	2.745	2.752	0.781	0.938	3.125	1.250
2.750 in.	**99267**	**STD**	2.747	2.754	1.438	1.625	3.075	1.625
70 mm	**99269**	**STD**	2.747	2.754	1.125	1.250	3.125	1.312
70 mm	**99272**	**STD**	2.750	2.757	0.406	0.563	3.125	1.250
70 mm	**99275**	**STD**	2.750	2.757	0.781	0.938	3.125	1.250
70 mm	99844	GOLD	2.750	2.757	0.781	0.938	3.125	1.250
70 mm	**99276**	**STD**	2.753	2.760	0.787	0.945	3.125	1.250
2.813 in.	**99281**	**STD**	2.809	2.816	0.594	0.688	3.188	1.250
72 mm	**99284**	**STD**	2.828	2.835	0.750	0.875	3.225	1.343
72 mm	99870	GOLD	2.828	2.835	0.750	0.875	3.225	1.343
2.841 in.	**99282**	**STD**	2.838	2.845	0.500	0.656	3.225	1.250
2.841 in.	99845	GOLD	2.838	2.845	0.500	0.656	3.225	1.250
2.869 in.	**99286**	**STD**	2.866	2.873	0.781	0.938	3.188	1.250
2.875 in.	**99287**	**STD**	2.873	2.880	0.781	0.938	3.219	1.250
2.875 in.	99846	GOLD	2.873	2.880	0.781	0.938	3.219	1.250
2.938 in.	**99293**	**STD**	2.937	2.944	0.781	0.938	3.344	1.313
2.938 in.	**99290**	**STD**	2.937	2.944	0.500	0.641	3.344	1.331
2.938 in.	99847	GOLD	2.937	2.944	0.781	0.938	3.344	1.313
75 mm	**99289**	**STD**	2.950	2.957	0.594	0.690	3.273	1.083
75 mm	**99294**	**STD**	2.950	2.957	0.866	1.024	3.305	1.313

Green shading = inch **blue shading = metric** **gray shading = both**



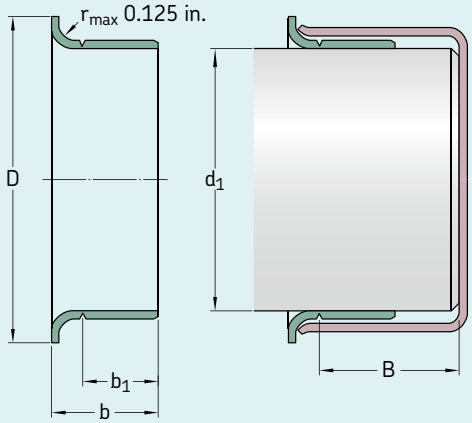
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
59.92	60.07	20.0	23.0	70.7	34.9	**STD**	**99235**	60 mm
59.92	60.07	20.0	23.0	70.7	34.9	GOLD	99869	60 mm
60.25	60.40	15.1	19.1	69.9	34.9	**STD**	**99238**	2.375 in.
60.30	60.45	13.4	17.4	69.9	34.9	**STD**	**99240**	2.375 in.
60.30	60.45	19.8	23.8	69.9	34.9	**STD**	**99237**	2.375 in.
60.30	60.45	19.8	23.8	69.9	34.9	GOLD	99839	2.375 in.
61.82	61.98	12.7	15.9	71.8	36.2	**STD**	**99244**	62 mm
61.82	61.98	19.8	23.8	71.8	35.4	**STD**	**99243**	2.438 in.
61.85	62.00	12.7	15.9	71.8	36.2	**STD**	**99242**	2.438 in.
63.22	63.37	19.8	23.8	73.0	35.4	**STD**	**99249**	2.492 in.
63.42	63.60	14.1	16.5	71.6	22.6	**STD**	**99253**	2.500 in.
63.50	63.68	12.7	16.7	71.8	35.4	**STD**	**99248**	2.500 in.
63.50	63.68	19.8	23.8	71.6	34.9	**STD**	**99250**	2.500 in.
63.50	63.68	19.8	23.8	71.6	34.9	GOLD	99840	2.500 in.
63.75	63.93	19.8	23.0	71.8	36.5	**STD**	**99251**	2.513 in.
64.92	65.10	20.0	23.0	72.4	34.9	**STD**	**99254**	65 mm
64.92	65.10	20.0	23.0	72.4	34.9	GOLD	99841	65 mm
65.02	65.20	19.8	23.8	73.4	34.9	**STD**	**99256**	2.563 in.
65.91	66.09	19.8	23.8	76.0	31.8	**STD**	**99259**	66 mm
66.50	66.68	19.8	23.8	77.4	34.9	**STD**	**99261**	2.621 in.
66.57	66.75	19.8	23.0	77.4	34.9	**STD**	**99264**	2.625 in.
66.60	66.78	12.7	15.9	77.4	34.9	**STD**	**99260**	2.625 in.
66.68	66.85	19.8	23.8	77.4	34.9	**STD**	**99262**	2.628 in.
66.68	66.85	19.8	23.8	77.4	34.9	GOLD	99842	2.628 in.
67.82	68.00	19.1	22.2	79.4	42.9	**STD**	**99266**	68 mm
69.27	69.44	19.8	23.0	79.4	33.4	**STD**	**99268**	2.730 in.
69.60	69.77	19.8	23.8	77.9	31.8	**STD**	**99273**	2.743 in.
69.72	69.90	19.8	23.8	79.4	31.8	**STD**	**99274**	2.748 in.
69.72	69.90	19.8	23.8	79.4	31.8	GOLD	99843	2.748 in.
69.77	69.95	36.5	41.3	78.1	41.3	**STD**	**99267**	2.750 in.
69.77	69.95	28.6	31.8	79.4	33.3	**STD**	**99269**	70 mm
69.85	70.03	10.3	14.3	79.4	31.8	**STD**	**99272**	70 mm
69.85	70.03	19.8	23.8	79.4	31.8	**STD**	**99275**	70 mm
69.85	70.03	19.8	23.8	79.4	31.8	GOLD	99844	70 mm
69.93	70.10	20.0	24.0	79.4	31.8	**STD**	**99276**	70 mm
71.35	71.53	15.1	17.5	81.0	31.8	**STD**	**99281**	2.813 in.
71.83	72.01	19.1	22.2	81.9	34.1	**STD**	**99284**	72 mm
71.83	72.01	19.1	22.2	81.9	34.1	GOLD	99870	72 mm
72.09	72.26	12.7	16.7	81.9	31.8	**STD**	**99282**	2.841 in.
72.09	72.26	12.7	16.7	81.9	31.8	GOLD	99845	2.841 in.
72.80	72.97	19.8	23.8	81.0	31.8	**STD**	**99286**	2.869 in.
72.97	73.15	19.8	23.8	81.8	31.8	**STD**	**99287**	2.875 in.
72.97	73.15	19.8	23.8	81.8	31.8	GOLD	99846	2.875 in.
74.60	74.78	19.8	23.8	84.9	33.4	**STD**	**99293**	2.938 in.
74.60	74.78	12.7	16.3	84.9	33.8	**STD**	**99290**	2.938 in.
74.60	74.78	19.8	23.8	84.9	33.4	GOLD	99847	2.938 in.
74.93	75.11	15.1	17.5	83.1	27.5	**STD**	**99289**	75 mm
74.93	75.11	22.0	26.0	84.0	33.4	**STD**	**99294**	75 mm



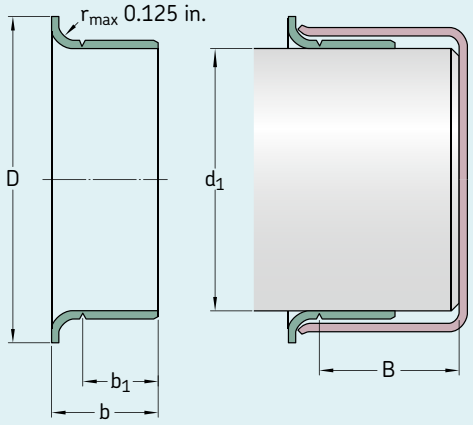
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
75 mm	99875	GOLD	2.950	2.957	0.866	1.024	3.305	1.313
2.974 in.	**99292**	**STD**	2.972	2.979	0.812	1.000	3.235	1.250
2.993 in.	**99291**	**STD**	2.990	2.997	0.484	0.625	3.359	1.331
2.993 in.	**99298**	**STD**	2.990	2.997	0.563	0.688	3.359	1.375
2.993 in.	**99299**	**STD**	2.990	2.997	0.813	1.000	3.350	1.281
3.000 in.	**99296**	**STD**	2.997	3.004	0.813	0.938	3.240	1.375
3.003 in.	**99300**	**STD**	3.000	3.007	0.813	1.000	3.235	1.281
3.003 in.	**99048**	**STD**	3.000	3.007	0.625	0.813	3.345	1.280
3.003 in.	99848	GOLD	3.000	3.007	0.813	1.000	3.235	1.281
3.011 in.	**99301**	**STD**	3.008	3.015	0.500	0.625	3.355	2.000
78 mm	**99306**	**STD**	3.064	3.071	0.750	0.875	3.468	2.056
3.125 in.	**99311**	**STD**	3.120	3.127	0.688	0.813	3.531	2.000
3.125 in.	**99312**	**STD**	3.120	3.127	0.813	1.000	3.531	2.000
3.125 in.	99849	GOLD	3.120	3.127	0.813	1.000	3.531	2.000
3.125 in.	**99053**	**STD**	3.124	3.131	0.551	0.709	3.525	2.031
80 mm	**99313**	**STD**	3.142	3.149	0.750	0.886	3.540	1.375
80 mm	**99317**	**STD**	3.146	3.153	0.433	0.591	3.543	1.375
80 mm	**99315**	**STD**	3.146	3.153	0.827	0.945	3.543	1.375
82 mm	**99328**	**STD**	3.225	3.232	0.660	0.848	3.585	1.750
3.250 in.	**99322**	**STD**	3.247	3.254	0.813	1.000	3.594	1.375
3.250 in.	**99324**	**STD**	3.250	3.257	0.595	0.719	3.575	1.375
3.250 in.	99850	GOLD	3.250	3.257	0.595	0.719	3.575	1.375
3.250 in.	**99326**	**STD**	3.250	3.257	0.688	0.875	3.585	1.250
3.250 in.	**99325**	**STD**	3.250	3.257	0.813	1.000	3.585	1.375
3.250 in.	99851	GOLD	3.250	3.257	0.813	1.000	3.585	1.375
3.310 in.	**99331**	**STD**	3.307	3.314	0.813	1.000	3.688	1.375
3.342 in.	**99332**	**STD**	3.337	3.344	0.669	0.827	3.700	1.378
3.342 in.	**99333**	**STD**	3.337	3.344	0.827	0.984	3.700	1.378
3.342 in.	99872	GOLD	3.337	3.344	0.827	0.984	3.700	1.378
85 mm	**99334**	**STD**	3.338	3.345	0.399	0.499	3.580	1.431
3.375 in.	**99338**	**STD**	3.373	3.380	0.375	0.500	3.688	1.410
3.375 in.	**99337**	**STD**	3.373	3.380	0.813	1.000	3.695	1.375
3.438 in.	**99339**	**STD**	3.435	3.442	0.781	0.906	3.844	1.406
88 mm	**99481**	**STD**	3.457	3.464	1.150	1.349	3.752	1.673
3.480 in.	**99340**	**STD**	3.477	3.484	0.781	0.906	3.835	1.406
3.500 in.	**99346**	**STD**	3.497	3.504	0.625	0.813	3.844	1.347
3.503 in.	**99350**	**STD**	3.500	3.507	0.813	1.000	3.844	1.347
3.503 in.	**99347**	**STD**	3.500	3.507	0.313	0.500	3.825	1.347
3.503 in.	99852	GOLD	3.500	3.507	0.813	1.000	3.844	1.347
3.504 in.	**99349**	**STD**	3.501	3.508	0.625	0.813	3.844	1.348
90 mm	**99352**	**STD**	3.540	3.547	0.438	0.538	4.000	1.813
90 mm	**99353**	**STD**	3.540	3.547	0.526	0.667	4.000	1.750
90 mm	**99351**	**STD**	3.540	3.547	0.710	0.906	4.000	1.813
90 mm	**99354**	**STD**	3.540	3.547	0.906	1.102	4.000	1.750
3.563 in.	**99356**	**STD**	3.560	3.567	0.813	1.000	3.900	1.750
92 mm	**99360**	**STD**	3.618	3.625	0.813	1.000	4.031	1.750
3.625 in.	**99363**	**STD**	3.623	3.630	0.500	0.625	4.025	1.750
3.625 in.	**99362**	**STD**	3.623	3.630	0.813	1.000	4.031	1.750

Green shading = inch **blue shading = metric** **gray shading = both**



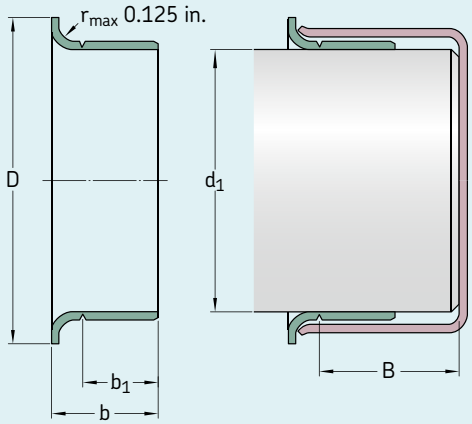
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
74.93	75.11	22.0	26.0	84.0	33.4	GOLD	99875	75 mm
75.49	75.67	20.6	25.4	82.2	31.8	**STD**	**99292**	2.974 in.
75.95	76.12	12.3	15.9	85.3	33.8	**STD**	**99291**	2.993 in.
75.95	76.12	14.3	17.5	85.3	34.9	**STD**	**99298**	2.993 in.
75.95	76.12	20.7	25.4	85.1	32.5	**STD**	**99299**	2.993 in.
76.12	76.30	20.7	23.8	82.3	34.9	**STD**	**99296**	3.000 in.
76.20	76.38	20.7	25.4	82.2	32.5	**STD**	**99300**	3.003 in.
76.20	76.38	15.9	20.7	85.0	32.5	**STD**	**99048**	3.003 in.
76.20	76.38	20.7	25.4	82.2	32.5	GOLD	99848	3.003 in.
76.40	76.58	12.7	15.9	85.2	50.8	**STD**	**99301**	3.011 in.
77.83	78.00	19.1	22.2	88.1	52.2	**STD**	**99306**	78 mm
79.25	79.43	17.5	20.7	89.7	50.8	**STD**	**99311**	3.125 in.
79.25	79.43	20.7	25.4	89.7	50.8	**STD**	**99312**	3.125 in.
79.25	79.43	20.7	25.4	89.7	50.8	GOLD	99849	3.125 in.
79.35	79.53	14.0	18.0	89.5	51.6	**STD**	**99053**	3.125 in.
79.81	79.98	19.1	22.5	89.9	34.9	**STD**	**99313**	80 mm
79.91	80.09	11.0	15.0	90.0	34.9	**STD**	**99317**	80 mm
79.91	80.09	21.0	24.0	90.0	34.9	**STD**	**99315**	80 mm
81.92	82.09	16.8	21.5	91.1	44.5	**STD**	**99328**	82 mm
82.47	82.65	20.7	25.4	91.3	34.9	**STD**	**99322**	3.250 in.
82.55	82.73	15.1	18.3	90.8	34.9	**STD**	**99324**	3.250 in.
82.55	82.73	15.1	18.3	90.8	34.9	GOLD	99850	3.250 in.
82.55	82.73	17.5	22.2	91.1	31.8	**STD**	**99326**	3.250 in.
82.55	82.73	20.7	25.4	91.1	34.9	**STD**	**99325**	3.250 in.
82.55	82.73	20.7	25.4	91.1	34.9	GOLD	99851	3.250 in.
84.00	84.18	20.7	25.4	93.7	34.9	**STD**	**99331**	3.310 in.
84.76	84.94	17.0	21.0	94.0	35.0	**STD**	**99332**	3.342 in.
84.76	84.94	21.0	25.0	94.0	35.0	**STD**	**99333**	3.342 in.
84.76	84.94	21.0	25.0	94.0	35.0	GOLD	99872	3.342 in.
84.79	84.96	10.1	12.7	90.9	36.4	**STD**	**99334**	85 mm
85.67	85.85	9.5	12.7	93.7	35.8	**STD**	**99338**	3.375 in.
85.67	85.85	20.7	25.4	93.9	34.9	**STD**	**99337**	3.375 in.
87.25	87.43	19.8	23.0	97.6	35.7	**STD**	**99339**	3.438 in.
87.81	87.99	29.2	34.3	95.3	42.5	**STD**	**99481**	88 mm
88.32	88.49	19.8	23.0	97.4	35.7	**STD**	**99340**	3.480 in.
88.82	89.00	15.9	20.7	97.6	34.2	**STD**	**99346**	3.500 in.
88.90	89.08	20.7	25.4	97.6	34.2	**STD**	**99350**	3.503 in.
88.90	89.08	8.0	12.7	97.2	34.2	**STD**	**99347**	3.503 in.
88.90	89.08	20.7	25.4	97.6	34.2	GOLD	99852	3.503 in.
88.93	89.10	15.9	20.7	97.6	34.2	**STD**	**99349**	3.504 in.
89.92	90.09	11.1	13.7	101.6	46.1	**STD**	**99352**	90 mm
89.92	90.09	13.4	16.9	101.6	44.5	**STD**	**99353**	90 mm
89.92	90.09	18.0	23.0	101.6	46.1	**STD**	**99351**	90 mm
89.92	90.09	23.0	28.0	101.6	44.5	**STD**	**99354**	90 mm
90.42	90.60	20.7	25.4	99.1	44.5	**STD**	**99356**	3.563 in.
91.90	92.08	20.7	25.4	102.4	44.5	**STD**	**99360**	92 mm
92.02	92.20	12.7	15.9	102.2	44.5	**STD**	**99363**	3.625 in.
92.02	92.20	20.7	25.4	102.4	44.5	**STD**	**99362**	3.625 in.



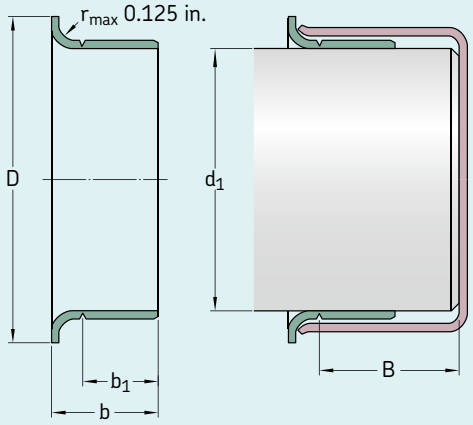
			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
3.688 in.	**99368**	**STD**	3.684	3.691	0.313	0.438	4.031	0.875
3.688 in.	**99365**	**STD**	3.685	3.692	0.813	0.938	4.025	1.800
3.730 in.	**99359**	**STD**	3.727	3.734	0.469	0.594	4.016	1.800
3.730 in.	**99366**	**STD**	3.727	3.734	0.781	0.906	4.025	1.800
95 mm	**99369**	**STD**	3.737	3.744	0.827	0.945	4.025	1.800
95 mm	**99374**	**STD**	3.740	3.747	0.344	0.500	4.031	1.800
95 mm	**99364**	**STD**	3.740	3.747	0.469	0.594	4.035	1.800
3.750 in.	**99376**	**STD**	3.746	3.753	0.563	0.688	4.025	1.800
3.750 in.	**99367**	**STD**	3.750	3.757	0.344	0.500	4.025	1.800
3.750 in.	**99372**	**STD**	3.750	3.757	0.688	0.875	4.020	1.800
3.750 in.	99853	GOLD	3.750	3.757	0.688	0.875	4.020	1.800
3.875 in.	**99386**	**STD**	3.868	3.875	0.813	1.000	4.185	1.875
3.875 in.	**99387**	**STD**	3.873	3.880	0.813	1.000	4.219	1.875
3.938 in.	**99393**	**STD**	3.935	3.942	0.813	1.000	4.313	2.050
3.938 in.	99854	GOLD	3.935	3.942	0.813	1.000	4.313	2.050
4.000 in.	**99401**	**STD**	3.998	4.006	0.500	0.625	4.375	2.066
4.000 in.	**99395**	**STD**	3.998	4.006	0.600	0.725	4.375	2.050
4.000 in.	**99400**	**STD**	3.998	4.006	0.650	0.775	4.375	1.375
4.000 in.	**99399**	**STD**	3.998	4.006	0.813	1.000	4.375	2.050
4.000 in.	99855	GOLD	3.998	4.006	0.813	1.000	4.375	2.050
104 mm	**99409**	**STD**	4.090	4.098	0.787	0.945	4.438	1.417
4.125 in.	**99412**	**STD**	4.122	4.130	0.813	1.000	4.470	1.375
105 mm	**99413**	**STD**	4.130	4.138	0.787	0.913	4.470	1.378
4.187 in.	**99418**	**STD**	4.183	4.191	0.813	1.000	4.500	1.375
4.230 in.	**99423**	**STD**	4.226	4.234	0.781	0.906	4.610	1.438
4.250 in.	**99424**	**STD**	4.248	4.256	0.813	1.000	4.610	1.438
110 mm	**99434**	**STD**	4.322	4.330	0.448	0.589	4.921	1.297
110 mm	**99435**	**STD**	4.327	4.335	0.509	0.650	4.921	1.250
4.375 in.	**99437**	**STD**	4.370	4.378	0.813	1.000	4.750	1.650
112 mm	**99438**	**STD**	4.401	4.409	0.750	0.886	4.750	1.300
4.438 in.	**99439**	**STD**	4.434	4.442	1.000	1.142	4.813	1.313
4.500 in.	**99450**	**STD**	4.496	4.504	0.813	1.000	4.900	1.250
4.500 in.	99856	GOLD	4.496	4.504	0.813	1.000	4.900	1.250
115 mm	**99452**	**STD**	4.523	4.531	0.813	0.938	5.000	1.250
4.625 in.	**99465**	**STD**	4.621	4.629	0.438	0.625	5.000	1.375
4.625 in.	**99463**	**STD**	4.621	4.629	1.000	1.250	5.063	1.375
4.688 in.	**99468**	**STD**	4.685	4.693	0.813	1.000	5.063	1.375
120 mm	**99471**	**STD**	4.720	4.728	0.315	0.433	5.110	1.323
120 mm	**99473**	**STD**	4.720	4.728	0.787	0.984	5.110	1.260
4.750 in.	**99475**	**STD**	4.746	4.754	0.500	0.750	5.000	1.500
122 mm	**99472**	**STD**	4.799	4.807	0.787	0.945	5.177	1.260
4.875 in.	**99487**	**STD**	4.871	4.879	0.625	0.750	5.250	1.438
125 mm	**99057**	**STD**	4.916	4.937	0.433	0.551	5.400	1.438
125 mm	**99490**	**STD**	4.917	4.925	0.394	0.551	5.400	1.438
125 mm	**99492**	**STD**	4.917	4.925	1.024	1.260	5.400	1.438
5.000 in.	**99501**	**STD**	4.998	5.007	0.540	0.681	5.400	1.438
5.000 in.	99857	GOLD	4.998	5.007	0.688	0.875	5.400	1.438
5.000 in.	**99498**	**STD**	4.998	5.007	0.688	0.875	5.400	1.438

Green shading = inch **blue shading = metric** **gray shading = both**



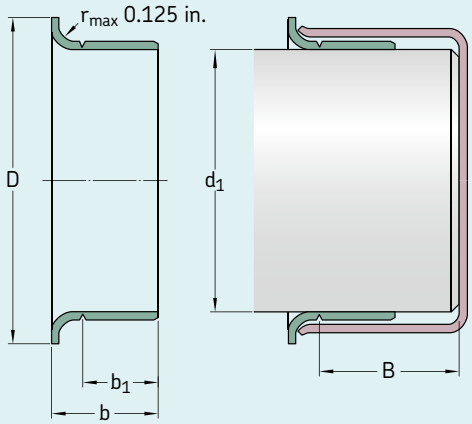
Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
93.57	93.75	8.0	11.1	102.4	22.2	**STD**	**99368**	3.688 in.
93.60	93.78	20.7	23.8	102.2	45.7	**STD**	**99365**	3.688 in.
94.67	94.84	11.9	15.1	102.0	45.7	**STD**	**99359**	3.730 in.
94.67	94.84	19.8	23.0	102.2	45.7	**STD**	**99366**	3.730 in.
94.92	95.10	21.0	24.0	102.2	45.7	**STD**	**99369**	95 mm
95.00	95.17	8.7	12.7	102.4	45.7	**STD**	**99374**	95 mm
95.00	95.17	11.9	15.1	102.5	45.7	**STD**	**99364**	95 mm
95.15	95.33	14.3	17.5	102.2	45.7	**STD**	**99376**	3.750 in.
95.25	95.43	8.7	12.7	102.2	45.7	**STD**	**99367**	3.750 in.
95.25	95.43	17.5	22.2	102.1	45.7	**STD**	**99372**	3.750 in.
95.25	95.43	17.5	22.2	102.1	45.7	GOLD	99853	3.750 in.
98.25	98.43	20.7	25.4	106.3	47.6	**STD**	**99386**	3.875 in.
98.37	98.55	20.7	25.4	107.2	47.6	**STD**	**99387**	3.875 in.
99.95	100.13	20.7	25.4	109.6	52.1	**STD**	**99393**	3.938 in.
99.95	100.13	20.7	25.4	109.6	52.1	GOLD	99854	3.938 in.
101.55	101.75	12.7	15.9	111.1	52.5	**STD**	**99401**	4.000 in.
101.55	101.75	15.2	18.4	111.1	52.1	**STD**	**99395**	4.000 in.
101.55	101.75	16.5	19.7	111.1	34.9	**STD**	**99400**	4.000 in.
101.55	101.75	20.7	25.4	111.1	52.1	**STD**	**99399**	4.000 in.
101.55	101.75	20.7	25.4	111.1	52.1	GOLD	99855	4.000 in.
103.89	104.09	20.0	24.0	112.7	36.0	**STD**	**99409**	104 mm
104.70	104.90	20.7	25.4	113.5	34.9	**STD**	**99412**	4.125 in.
104.90	105.11	20.0	23.2	113.5	35.0	**STD**	**99413**	105 mm
106.25	106.45	20.7	25.4	114.3	34.9	**STD**	**99418**	4.187 in.
107.34	107.54	19.8	23.0	117.1	36.5	**STD**	**99423**	4.230 in.
107.90	108.10	20.7	25.4	117.1	36.5	**STD**	**99424**	4.250 in.
109.78	109.98	11.4	15.0	125.0	32.9	**STD**	**99434**	110 mm
109.91	110.11	12.9	16.5	125.0	31.8	**STD**	**99435**	110 mm
111.00	111.20	20.7	25.4	120.7	41.9	**STD**	**99437**	4.375 in.
111.79	111.99	19.1	22.5	120.7	33.0	**STD**	**99438**	112 mm
112.62	112.83	25.4	29.0	122.3	33.4	**STD**	**99439**	4.438 in.
114.20	114.40	20.7	25.4	124.5	31.8	**STD**	**99450**	4.500 in.
114.20	114.40	20.7	25.4	124.5	31.8	GOLD	99856	4.500 in.
114.88	115.09	20.7	23.8	127.0	31.8	**STD**	**99452**	115 mm
117.37	117.58	11.1	15.9	127.0	34.9	**STD**	**99465**	4.625 in.
117.37	117.58	25.4	31.8	128.6	34.9	**STD**	**99463**	4.625 in.
119.00	119.20	20.7	25.4	128.6	34.9	**STD**	**99468**	4.688 in.
119.89	120.09	8.0	11.0	129.8	33.6	**STD**	**99471**	120 mm
119.89	120.09	20.0	25.0	129.8	32.0	**STD**	**99473**	120 mm
120.55	120.75	12.7	19.1	127.0	38.1	**STD**	**99475**	4.750 in.
121.89	122.10	20.0	24.0	131.5	32.0	**STD**	**99472**	122 mm
123.72	123.93	15.9	19.1	133.4	36.5	**STD**	**99487**	4.875 in.
124.87	125.40	11.0	14.0	137.2	36.5	**STD**	**99057**	125 mm
124.89	125.10	10.0	14.0	137.2	36.5	**STD**	**99490**	125 mm
124.89	125.10	26.0	32.0	137.2	36.5	**STD**	**99492**	125 mm
126.95	127.18	13.7	17.3	137.2	36.5	**STD**	**99501**	5.000 in.
126.95	127.18	17.5	22.2	137.2	36.5	GOLD	99857	5.000 in.
126.95	127.18	17.5	22.2	137.2	36.5	**STD**	**99498**	5.000 in.



			Inch					
Nominal shaft size	**SKF part number**	**Style**	**Shaft dia. min** d1	**Shaft dia. max** d1	**'On-shaft' width** b1	**Total width** b	**Flange dia.** D	**Max tear groove offset** B
5.000 in.	**99499**	**STD**	4.998	5.007	0.813	1.000	5.390	1.438
5.000 in.	99858	GOLD	4.998	5.007	0.813	1.000	5.508	1.438
128 mm	**99482**	**STD**	5.031	5.040	1.150	1.349	5.327	1.587
130 mm	**99494**	**STD**	5.110	5.119	0.750	0.938	5.493	1.181
5.125 in.	**99491**	**STD**	5.117	5.126	0.866	0.996	5.493	1.280
5.125 in.	**99513**	**STD**	5.120	5.129	0.813	1.000	5.500	1.250
5.250 in.	**99525**	**STD**	5.246	5.255	0.813	1.000	5.560	1.250
135 mm	**99533**	**STD**	5.307	5.316	0.807	1.000	5.735	1.250
5.375 in.	**99537**	**STD**	5.371	5.380	0.813	1.000	5.875	1.250
5.438 in.	**99548**	**STD**	5.434	5.443	1.500	1.688	5.750	1.875
5.476 in.	**99547**	**STD**	5.472	5.481	0.563	0.750	5.900	1.234
5.500 in.	**99550**	**STD**	5.498	5.507	0.518	0.705	5.938	1.250
5.500 in.	**99549**	**STD**	5.498	5.507	0.813	1.000	5.938	1.250
5.500 in.	99859	GOLD	5.498	5.507	0.813	1.000	5.938	1.250
140 mm	**99552**	**STD**	5.508	5.517	0.807	1.000	5.945	1.250
5.625 in.	**99560**	**STD**	5.621	5.630	0.875	1.000	6.188	1.812
145 mm	**99571**	**STD**	5.699	5.708	0.750	0.875	6.100	1.812
5.730 in.	**99562**	**STD**	5.726	5.735	0.563	0.750	6.100	1.938
5.750 in.	**99575**	**STD**	5.746	5.755	0.813	1.000	6.180	1.750
5.875 in.	**99587**	**STD**	5.871	5.880	1.000	1.250	6.188	1.313
5.875 in.	99862	GOLD	5.871	5.880	1.000	1.250	6.188	1.313
150 mm	**99595**	**STD**	5.896	5.905	1.024	1.181	6.260	1.280
5.938 in.	**99596**	**STD**	5.934	5.943	1.000	1.125	6.375	1.875
6.000 in.	**99599**	**STD**	5.995	6.005	1.000	1.250	6.375	1.750
154 mm	**99605**	**STD**	6.058	6.068	1.024	1.181	6.375	1.299
155 mm	**99606**	**STD**	6.092	6.102	1.024	1.181	6.575	1.299
6.203 in.	**99620**	**STD**	6.198	6.208	0.813	1.063	6.625	1.750
6.250 in.	**99625**	**STD**	6.245	6.255	1.031	1.250	6.625	1.750
160 mm	**99630**	**STD**	6.289	6.299	1.000	1.250	6.750	1.375
6.500 in.	**99650**	**STD**	6.495	6.505	1.000	1.250	7.000	1.375
170 mm	**99640**	**STD**	6.683	6.693	1.250	1.496	7.188	1.750
6.750 in.	**99675**	**STD**	6.745	6.755	0.813	1.063	7.125	1.750
175 mm	**99687**	**STD**	6.880	6.890	1.102	1.260	7.362	1.378
7.000 in.	**99700**	**STD**	6.995	7.006	1.000	1.250	7.475	1.688
180 mm	**99721**	**STD**	7.077	7.088	1.299	1.496	7.500	1.752
7.250 in.	**99725**	**STD**	7.244	7.255	1.250	1.500	7.760	2.175
185 mm	**99726**	**STD**	7.273	7.284	1.260	1.496	7.760	2.165
7.449 in.	**99745**	**STD**	7.444	7.455	0.813	1.000	7.860	1.250
7.500 in.	**99750**	**STD**	7.495	7.506	0.813	1.000	7.875	1.250
7.750 in.	**99775**	**STD**	7.745	7.756	1.000	1.313	8.270	1.875
7.875 in. and 200 mm	**99787**	**STD**	7.869	7.880	1.359	1.500	8.375	1.750
7.938 in.	**99799**	**STD**	7.933	7.944	1.000	1.250	8.375	1.750
8.000 in.	**99800**	**STD**	7.995	8.006	1.000	1.250	8.375	1.750

Green shading = inch **blue shading = metric** **gray shading = both**



Metric (mm)

Shaft dia. min d1	Shaft dia. max d1	'On-shaft' width b1	Total width b	Flange dia. D	Max tear groove offset B	Style	SKF part number	Nominal shaft size
126.95	127.18	20.7	25.4	136.9	36.5	**STD**	**99499**	5.000 in.
126.95	127.18	20.7	25.4	139.9	36.5	GOLD	99858	5.000 in.
127.79	128.02	29.2	34.3	135.3	40.3	**STD**	**99482**	128 mm
129.79	130.02	19.1	23.8	139.5	30.0	**STD**	**99494**	130 mm
129.97	130.20	22.0	25.3	139.5	32.5	**STD**	**99491**	5.125 in.
130.05	130.28	20.7	25.4	139.7	31.8	**STD**	**99513**	5.125 in.
133.25	133.48	20.7	25.4	141.2	31.8	**STD**	**99525**	5.250 in.
134.80	135.03	20.5	25.4	145.7	31.8	**STD**	**99533**	135 mm
136.42	136.65	20.7	25.4	149.2	31.8	**STD**	**99537**	5.375 in.
138.02	138.25	38.1	42.9	146.1	47.6	**STD**	**99548**	5.438 in.
138.99	139.22	14.3	19.1	149.9	31.3	**STD**	**99547**	5.476 in.
139.65	139.88	13.2	17.9	150.8	31.8	**STD**	**99550**	5.500 in.
139.65	139.88	20.7	25.4	150.8	31.8	**STD**	**99549**	5.500 in.
139.65	139.88	20.7	25.4	150.8	31.8	GOLD	99859	5.500 in.
139.90	140.13	20.5	25.4	151.0	31.8	**STD**	**99552**	140 mm
142.77	143.00	22.2	25.4	157.2	46.0	**STD**	**99560**	5.625 in.
144.75	144.98	19.1	22.2	154.9	46.0	**STD**	**99571**	145 mm
145.44	145.67	14.3	19.1	154.9	49.2	**STD**	**99562**	5.730 in.
145.95	146.18	20.7	25.4	157.0	44.5	**STD**	**99575**	5.750 in.
149.12	149.35	25.4	31.8	157.2	33.4	**STD**	**99587**	5.875 in.
149.12	149.35	25.4	31.8	157.2	33.4	GOLD	99862	5.875 in.
149.76	149.99	26.0	30.0	159.0	32.5	**STD**	**99595**	150 mm
150.72	150.95	25.4	28.6	161.9	47.6	**STD**	**99596**	5.938 in.
152.27	152.53	25.4	31.8	161.9	44.5	**STD**	**99599**	6.000 in.
153.87	154.13	26.0	30.0	161.9	33.0	**STD**	**99605**	154 mm
154.74	154.99	26.0	30.0	167.0	33.0	**STD**	**99606**	155 mm
157.43	157.68	20.7	27.0	168.3	44.5	**STD**	**99620**	6.203 in.
158.62	158.88	26.2	31.8	168.3	44.5	**STD**	**99625**	6.250 in.
159.74	159.99	25.4	31.8	171.5	34.9	**STD**	**99630**	160 mm
164.97	165.23	25.4	31.8	177.8	34.9	**STD**	**99650**	6.500 in.
169.75	170.00	31.8	38.0	182.6	44.5	**STD**	**99640**	170 mm
171.32	171.58	20.7	27.0	181.0	44.5	**STD**	**99675**	6.750 in.
174.75	175.01	28.0	32.0	187.0	35.0	**STD**	**99687**	175 mm
177.67	177.95	25.4	31.8	189.9	42.9	**STD**	**99700**	7.000 in.
179.76	180.04	33.0	38.0	190.5	44.5	**STD**	**99721**	180 mm
184.00	184.28	31.8	38.1	197.1	55.3	**STD**	**99725**	7.250 in.
184.73	185.01	32.0	38.0	197.1	55.0	**STD**	**99726**	185 mm
189.08	189.36	20.7	25.4	199.6	31.8	**STD**	**99745**	7.449 in.
190.37	190.65	20.7	25.4	200.0	31.8	**STD**	**99750**	7.500 in.
196.72	197.00	25.4	33.4	210.1	47.6	**STD**	**99775**	7.750 in.
199.87	200.15	34.5	38.1	212.7	44.5	**STD**	**99787**	7.875 in. and 200 mm
201.50	201.78	25.4	31.8	212.7	44.5	**STD**	**99799**	7.938 in.
203.07	203.35	25.4	31.8	212.7	44.5	**STD**	**99800**	8.000 in.

Appendix

Table explanations

RT = room temperature [70 °F (*40 °C*)]
1 = minor effect
2 = moderate effect
3 = static only
4 = not recommended
5 = insufficient data, test before use

Materials matrix

Material	Abbreviation	SKF trade name	Material code	Operating temperatures °F (°C)
Nitrile Rubber	**NBR**	**–**	**R or RG**	**–40 to 210 °F (–40 to 100 °C)**
Carboxylated Nitrile	**XNBR**	**Duralip**	**D**	**–40 to 210 °F (–40 to 100 °C)**
Hydrogenated Nitrile	**HNBR**	**Duratemp**	**H**	**–40 to 302 °F (–40 to 150 °C)**
Fluorocarbon Rubber	**FKM**	**Duralife**	**V**	**–5 to 390 °F (–20 to 200 °C)**
Polyacrylate elastomer	**ACM**	**–**	**P**	**–40 to 300+ °F (–40 to 150+ °C)**
Filled Polytetrafluoroethylene	**PTFE**	**–**	**T**	**–90 to 480 °F (–70 to 250 °C)**

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
A				
Acetaldehycle	RT	4	4	4
Acetamide	RT	1	2	4
Acetic acid, 100% (glacial)	60 (140)	3	3	4
Acetic acid, 30%	RT	2	2	4
Acetic acid, 3% (vinegar)	RT	2	1	4
Acetic anhydride	RT / 80 (175)	3	4	4
Acetone	RT	4	4	4
Acetophenone	RT	4	4	4
Acetylene	60 (140)	1	1	5
Acrylonitrile	RT / 60 (140)	4	3	4
Adipic acid (aq)	RT	1	1	5
Alum (aq)	100 (210)	1	1	4
Aluminium acetate (aq)	RT	2	4	4
Aluminium chloride (aq)	RT	1	1	1
Aluminium fluoride (aq)	RT	1	1	5
Aluminium nitrate (aq)	RT	1	1	5
Aluminium phosphate (aq)	RT	1	1	5
Aluminium sulphate (aq)	RT / 60 (140)	1	1	4
Ammonia (anhydrous)	RT	2	4	4
Ammonia gas	RT	1	4	4
Ammonia gas	80 (175) / 100 (210)	4	4	4
Ammonium carbonate (aq)	RT / 60 (140)	2	5	4
Ammonium chloride (aq)	RT / 60 (140)	1	1	5
Ammonium chloride (dry) (sal ammoniac)	RT	1	1	1
Ammonium nitrate (aq)	RT	1	5	2
Ammonium persulphate (aq)	RT	4	5	4
Ammonium phosphate (aq)	RT / 60 (140)	1	5	5
Ammonium sulphate (aq)	100 (210)	1	4	4
Amyl acetate	RT	4	4	4
Amyl alcohol	60 (140)	2	2	4
Aniline	60 (140) / 100 (210)	4	3	4
Aniline dyes	RT	4	2	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Aniline hydrochloride	RT	2	2	4
Aniline hydrochloride	100 (210)	4	5	5
Animal fats	80 (175)	1	1	1
Aqua Regia	RT	4	5	4
Arsenic acid	RT / 60 (140)	1	1	3
Arsenic trichloride (aq)	RT	1	5	5
Asphalt (liquid)	100 (210)	2	2	4
B				
Barium chloride (aq)	RT / 60 (140)	1	1	1
Barium hydroxide (aq)	RT / 60 (140)	1	1	4
Barium sulphate	RT / 60 (140)	1	1	4
Barium sulphide (aq)	RT / 60 (140)	1	1	4
Beer	RT	1	1	4
Benzaldehyde	RT / 60 (140)	4	4	4
Benzene	RT	4	1	4
Benzene sulphonic acid	RT	4	1	4
Benzoic acid	RT / 60 (140)	4	1	4
Benzoyl chloride	RT	4	1	4
Benzyl alcohol	RT / 60 (140)	4	1	1
Benzyl benzoate	50 (120) / 60 (140)	4	1	4
Benzyl chloride	RT	4	1	4
Blast furnace gas	100 (210)	4	1	4
Borax (aq)	RT / 60 (140)	2	1	5
Bordeaux mixture	RT	2	1	4
Boric acid	60 (140) / 100 (210)	1	1	4
Brake fluid, ATE	80 (175)	4	4	4
Brake fluid, glycol ether	80 (175)	4	5	4
Brine (sodium chloride, aq)	RT / 50 (120)	1	1	4
Bromine, anhydrous (liquid/gaseous)	RT	4	1	4
Bromine trifluoride	RT	4	4	4
Bromine water	RT	4	1	4
Bromobenzene	RT	4	1	4
Bunker oil	60 (140)	1	1	1
Butadiene (gaseous or liquified)	RT	4	1	4
Butane (gaseous or liquified)	RT	1	1	1
Butter (animal fat)	RT / 80 (175)	1	1	1
Butyl acetate	RT	4	4	4
Butyl acrylate	RT	4	4	4
Butyl alcohol	RT	2	1	4
Butyl amines	RT	3	4	4
Butylene	RT	2	1	4
Butyl stearate	50 (120)	2	1	5
Butyraldehyde	RT	4	4	4
C				
Calcium acetate (aq)	RT	2	4	4
Calcium bisulphite (aq)	RT	1	1	4
Calcium chloride (aq)	60 (140)	1	1	1
Calcium hydroxide (aq)	RT	1	1	4
Calcium hypochlorite (aq)	RT / 60 (140)	2	1	4
Calcium nitrate (aq)	RT / 40 (105)	1	1	1
Cane sugar liquors	RT / 60 (140)	1	1	4
Carbon dioxide	RT	1	1	5
Carbon disulphide	RT	3	1	3
Carbonic acid	RT	2	1	1
Carbon monoxide	60 (140)	1	1	5
Carbon tetrachloride	RT / 60 (140)	3	1	4
Castor oil	RT	1	1	1
Cellosolve (ethyl glycol)	RT	4	3	4
Cellosolve acetate (ethyl glycol acetate)	RT	4	4	4
Chlorine (dry)	RT	4	1	4
Chlorine (wet)	RT	4	1	4
Chlorine dioxide	RT	4	1	4
Chlorine trifluoride	RT	4	4	4
Chloroacetic acid	60 (140)	4	4	4
Chloroacetone	RT	4	4	4
Chlorobenzene	RT	4	1	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Chlorobromomethane	RT	4	1	4
Chlorobutadiene	RT	4	1	4
Chloroform	RT	4	1	4
Chlorosulphonic acid	RT	4	4	4
Chlorotoluene	RT	4	1	4
Chromic acid	60 (140)	4	1	4
Citric acid	60 (140) / 70 (160)	1	1	5
Cobalt chloride (aq)	RT	1	1	4
Coconut oil	50 (120) / 80 (175)	1	1	1
Cod liver oil	RT	1	1	1
Coke oven gas	80 (175)	4	1	4
Copper acetate (aq)	RT	2	4	4
Copper chloride (aq)	RT	1	1	1
Copper sulphate (aq)	60 (140)	1	1	4
Corn oil	RT / 60 (140)	1	1	1
Cottonseed oil	RT / 70 (160)	1	1	1
Cresol	50 (120) / 70 (160)	4	1	4
Cumene (isopropylbenzene)	RT	4	1	4
Cyclohexane	RT	1	1	1
Cyciohexanol	RT	3	1	5
Cyclohexanone	RT	4	4	4
p-Cymene	RT	4	1	4
D				
Decahydronaphthalene (decalin)	RT / 60 (140)	4	1	5
Detergent	RT	1	1	4
Developing fluids (photography)	RT	1	1	5
Diacetone alcohol	RT	4	4	4
Dibenzyl ether	RT	4	4	5
Dibutyl amine	RT	4	4	4
Dibutyl ether	RT	4	3	3
Dibutyl phthalate	RT / 60 (140)	4	3	4
Dibutyl sebacate	RT / 60 (140)	4	2	4
o-Dichlorobenzene	RT	4	1	4
Dicyclohexylamine	RT	3	4	4
Diethyl amine	RT	2	4	4
Diethyl benzene	RT	4	1	5
Diethyl ether	RT	4	4	3
Diethyl sebacate	RT	2	2	4
Diisopropyl benzene	RT	4	1	5
Dimethyl aniline (Xylidine)	RT	3	4	4
Dimethyl ether	RT	1	2	4
Dimethyl formamide	RT / 60 (140)	2	4	4
Dimethyl phthalate	RT	4	2	4
Dioctyl phthalate	RT / 60 (140)	3	2	4
Dioctyl sebacate	RT / 60 (140)	4	2	4
Dioxane	RT / 60 (140)	4	4	4
Dioxolane	RT	4	4	4
Dipentene	RT	2	1	4
Diphenyl oxide	RT	4	1	4
Dowtherm oils	100 (210)	4	1	4
Dry cleaning fluids	40 (105)	3	1	4
E				
Epichlorohydrin	RT	4	4	4
Ethane	RT	1	1	1
Ethanol (denatured alcohol)	RT	1	1	4
Ethanolamine (monoethanolamine)	RT	2	4	4
Ethanolamine (di- and triethanolamine)	50 (120)	5	4	4
Ethyl acetate	RT	4	4	4
Ethyl acrylate	RT	4	4	4
Ethyl benzene	RT	4	1	4
Ethyl benzoate	RT	4	1	4
Ethyl chloride	RT	1	1	4
Ethylene	RT	1	1	5
Ethylene chloride	RT	4	2	4
Ethylene chlorohydrin	RT	4	1	4
Ethylene diamine	RT	1	4	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Ethylene glycol	RT	1	1	2
Ethylene glycol	100 (210)	1	1	3
Ethylene oxide	RT	4	4	4
Ethylene trichloride	RT	4	1	4
Ethyl ether	RT	3	4	4
Ethyl formate	RT	4	1	5
Ethyl glycol (Cellosolve)	RT	4	3	4
Ethyl glycol acetate (Cellosolve acetate)	RT	4	4	4
Ethyl silicate	RT	1	1	5
F				
Fatty acids	100 (210)	2	1	5
Ferric chloride (aq)	RT	1	1	1
Ferric nitrate (aq)	RT	1	1	1
Ferric sulphate (aq)	RT	1	1	1
Fish oil	RT	1	1	5
Fluorine (liquified)	RT	4	2	4
Fluorobenzene	RT	4	1	4
Fluorosilic acid	60 (140)	1	1	5
Formaldehyde	RT	3	1	4
Formaldehyde, 37%	below 100 (210)	2	1	4
Formic acid	RT / 60 (140)	2	3	5
Fuels				
– Aero engine fuels JP:				
– JP3 (MIL-J-5624 G)	RT	1	1	2
– JP4 (MIL-J-5624 G)	RT	1	1	2
– JP5 (MIL-J-5624 G)	RT	1	1	2
– JP6 (MIL-F-25656 B)	RT / 60 (140)	1	1	5
– ASTM reference fuels:				
– ASTM-A (MIL-S-3136 B Typ 1)	RT / 60 (140)	1	1	2
– ASTM-B (MIL-S-3136 B Typ 111)	RT / 60 (140)	1	1	5
– ASTM-C	RT / 60 (140)	2	1	4
– Diesel fuel	60 (140)	1	1	2
– Fuel oil	60 (140)	1	1	1
– Gasohol (10% ethanol or methanol)	RT	2	3	4
– Kerosene	RT	1	1	1
– Mineral oil	100 (210)	1	1	1
– Petrol	RT	1	1	4
Fumaric acid	RT	1	1	4
Furan	RT	4	5	4
Furfural	RT	4	4	4
Furfuran	RT	4	5	4
G				
Gelatine (aq)	40 (105)	1	1	4
Glucose	RT	1	1	5
Glue	RT	1	1	5
Glycerin	100 (210)	1	1	3
Glycols	100 (210)	1	1	4
H				
n-Hexaldehyde	RT	4	4	5
Hexane	RT / 60 (140)	1	1	1
1-Hexene	RT	2	1	1
Hexyl alcohol	RT	1	1	4
Hydraulic fluids				
– Hydraulic oils (acc. to DIN 51524)	80 (175)	1	1	1
– Hydraulic fluids (acc to DIN 51502):				
– HFA (oil in water emulsion)	55 (130)	1	1	5
– HFB (water in oil emulsion)	60 (140)	1	1	5
– HFC (aqueous Polymer solutions)	60 (140)	1	1	5
– HFD (phosphoric esters)	80 (175)	4	2/4	4
– Skydrol 500	80 (175)	4	4	4
– Skydrol 7000	80 (175)	4	2	4
Hydrazine	RT	2	4	5
Hydrobromic acid	RT / 60 (140)	4	1	4
Hydrochloric acid (conc.)	RT	3	1	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Hydrochloric acid (conc.)	80 (175)	4	2	4
Hydrocyanic acid (Prussic acid)	RT	2	1	4
Hydrofluoric acid (conc.)	RT	4	1	4
Hydrofluoric acid (conc.)	100 (210)	4	3	4
Hydrofluoric acid (anhydrous)	100 (210)	4	4	4
Hydrogen gas	RT	1	1	2
Hydrogen peroxide (90%)	RT	4	2	4
Hydrogen sulphide (wet)	RT / 100 (210)	4	4	4
Hydroquinone	RT	4	2	4
Hypochlorous acid	RT	4	1	4
I				
Iodine pentafluoride	RT	4	4	4
Isobutyl alcohol	RT	2	1	4
Isooctane	RT	1	1	1
Isophorone	RT	4	4	4
Isopropyl acetate	RT / 80 (175)	4	4	4
Isopropyl alcohol	RT / 60 (140)	2	1	4
Isopropyl chloride	RT	4	1	4
Isopropyl ether	RT / 60 (140)	2	4	3
L				
Lactic acid	RT	1	1	4
Lactic acid	100 (210)	4	1	4
Lard	80 (175)	1	1	1
Lavender oil	RT	2	1	2
Lead acetate (aq)	RT / 60 (140)	2	2	4
Lead nitrate (aq)	RT	1	5	5
Linoleic acid	RT	2	2	5
Linseed oil	RT / 60 (140)	1	1	1
Lubricants				
– ASTM oil No. 1	100 (210)	1	1	1
– ASTM oil No. 2	100 (210)	1	1	1
– ASTM oil No. 3	100 (210)	1	1	1
– ATF oils, type A	100 (210)	1	1	1
– ATF oils, type I	100 (210)	1	1	1
– ATF oils, type II	100 (210)	1	1	1
– ATF oils, type F	100 (210)	1	1	1
– ATF oils, type Mercon	100 (210)	1	1	1
– EP lubes	100 (210)	2	1	1
– Fluorolube	100 (210)	1	2	5
– Grease MIL-G-7118 A	80 (175)	1	1	3
– Grease MIL-G-7711 A	80 (175)	1	1	1
– Lubricating oils (petroleum)	100 (210)	1	1	1
– Red oil (MIL-H-5606)	100 (210)	1	1	1
– RJ-1 (MIL-F-25558 B)	100 (210)	1	1	1
– RP-1 (MIL-F-25576 C)	100 (210)	1	1	1
– Motor oil SAE 30	100 (210)	1	1	1
– Transmission oil SAE 90	100 (210)	1	1	1
– Transmission oil MIL-L-23699 A	100 (210)	1	1	3
– Silicone greases	120 (250)	1	1	1
– Silicone oils	120 (250)	1	1	1
– Transformer oil (Pyranol)	60 (140)	4	1	5
– Transformer oil	60 (140)	1	1	2
– Transmission fluid type A	RT	1	1	1
– Turbine oil	100 (210)	2	1	1
M				
Magnesium chloride (aq)	100 (210)	1	1	5
Magnesium hydroxide (aq)	100 (210)	2	1	4
Magnesium sulphate (aq)	100 (210)	1	1	4
Maleic acid	100 (210)	4	1	4
Maleic anhydride	60 (140)	4	4	4
Malic acid	RT	1	1	4
Mercury	RT / 60 (140)	1	1	5
Mercury chloride (aq)	RT / 60 (140)	1	1	5
Mesityl oxide	RT	4	4	4
Methane	RT	1	2	1

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Methanol (methyl alcohol)	60 (140)	1	4	4
Methyl acetate	RT	4	4	4
Methyl acrylate	RT	4	4	4
Methyl aniline	RT	4	2	4
Methyl bromide	RT	2	1	3
Methyl cellosolve (methyl glycol)	RT	3	4	4
Methyl chloride	RT	4	2	4
Methyl cyclopentane	RT	4	2	4
Methylene chloride	RT	4	2	4
Methyl ethyl ketone	RT	4	4	4
Methyl formate	RT	4	5	5
Methyl glycol (Cellosolve)	RT	3	4	4
Methyl isobutyl ketone	RT	4	4	4
Methyl methacrylate	RT	4	4	4
Methyl salicylate	RT	4	5	5
Milk	RT	1	1	4
Mustard gas	RT	5	5	5
N				
Naphtha	RT	2	1	2
Naphthalene	60 (140)	4	1	5
Naphthalenic acid	RT	2	1	5
Natural gas	RT	1	1	2
Neat-s-foot oil	RT / 60 (140)	1	1	1
Nickel acetate (aq)	RT	2	4	4
Nickel chloride	RT	1	1	4
Nickel sulphate (aq)	RT / 60 (140)	1	1	4
Nitric acid (conc.)	RT	4	3	4
Nitric acid (fuming)	RT	4	4	4
Nitric acid (dilute)	RT	4	1	4
Nitrobenzene	50 (120)	4	2	4
Nitroethane	RT	4	4	4
Nitrogen	RT	1	1	1
Nitrogen tetroxide	RT	4	4	4
Nitromethane	RT	4	4	4
O				
Octadecane	RT / 50 (120)	1	1	2
n-Octane	RT	2	1	4
Octyl alcohol	RT	2	1	4
Oleic acid	70 (160)	1	2	2
Olive oil	60 (140)	1	1	1
Oxalic acid	70 (160)	2	1	5
Oxygen	RT	2	1	2
Oxygen	> 100 (210)	4	2	4
Ozone	RT	4	1	2
P				
Palmitic acid	60 (140)	1	1	4
Peanut oil	RT / 50 (120)	1	1	1
Perchloric acid	RT	4	1	4
Perchloroethylene	RT / 60 (140)	2	1	4
Petroleum	below 120 (250)	1	1	2
Petroleum	above 120 (250)	4	2	4
Petroleum ether	RT / 60 (140)	1	1	1
Petroleum gas (liquified)	RT	1	1	3
Phenol	60 (140) / 100 (210)	4	1	4
Phenyl ethyl ether	RT	4	4	4
Phenyl hydrazine	RT / 60 (140)	4	1	4
Phoron (diisopropylidene acetone)	60 (140)	4	4	4
Phosphoric acid, 20%	50 (120) / 60 (140)	2	1	5
Phosphoric acid, 45%	50 (120) / 60 (140)	4	1	5
Phosphorus trichloride	RT	4	1	5
Pickling solution	RT	4	2	4
Picric acid	RT	4	1	5
Pinene	RT	2	1	4
Pine oil	RT	4	1	5
Piperidine	RT	4	4	4
Potassium acetate (aq)	RT	2	4	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Potassium chloride (aq)	RT / 60 (140)	1	1	1
Potassium cyanide (aq)	RT / 50 (120)	1	1	1
Potassium dichromate (aq)	RT	1	1	1
Potassium hydroxide (aq)	60 (140)	2	4	4
Potassium nitrate (aq)	RT / 60 (140)	1	1	1
Potassium sulfate (aq)	RT / 60 (140)	1	1	4
Propane	RT	1	1	1
Propyl acetate	RT	4	4	4
Propyl alcohol	RT / 60 (140)	1	1	4
Propylene	RT	4	1	4
Propylene oxide	RT	4	4	4
Prussic acid (hydrocyanic acid)	RT	2	1	4
Pyridine	RT	4	4	4
Pyroligneous acid	RT	4	4	4
Pyrrole	RT	4	4	4
R				
Rapeseed oil	RT	2	1	2
Refrigerants (acc. to DIN 8962)				
– R 11	RT	2	1	5
– R 12	RT	1	2	1
– R 13	RT	1	1	5
– R 13 B1	RT	1	1	5
– R 14	RT	1	1	5
– R 21	RT	4	4	5
– R 22	RT	4	4	2
– R 31	RT	4	4	5
– R 32	RT	1	4	5
– R 112	RT	3	1	5
– R 113	RT	1	2	5
– R 114	RT	1	2	5
– R 114 B2	RT	2	2	5
– R 115	RT	1	2	5
– R C 318	RT	1	2	5
S				
Salicylic acid	RT	2	1	5
Sea water	RT	1	1	4
Silver nitrate (aq)	RT	2	1	1
Soap solution	RT	1	1	4
Sodium acetate (aq)	RT	2	4	4
Sodium bicarbonate (aq)	60 (140)	1	1	5
Sodium bisulphite (aq)	100 (210)	1	1	4
Sodium carbonate (soda)	RT / 60 (140)	1	1	5
Sodium chloride (aq)	RT / 100 (210)	1	1	5
Sodium cyanide (aq)	RT	1	1	5
Sodium hydroxide (aq)	RT	2	2	3
Sodium hypochlorite (aq)	RT / 50 (120)	2	1	4
Sodium metaphosphate	RT / 60 (140)	1	1	5
Sodium nitrate (aq)	RT / 60 (140)	2	5	5
Sodium phosphate (aq)	RT / 60 (140)	1	1	4
Sodium silicate (aq)	RT / 60 (140)	1	1	5
Sodium sulphate (aq) (Glauber's salt)	RT / 60 (140)	1	1	4
Sodium thiosulphate (aq)	RT / 50 (120)	2	1	4
Soyabean oil	RT	1	1	1
Stannic chloride (aq)	RT / 80 (175)	1	1	5
Stannous chloride (aq)	RT / 80 (175)	1	1	5
Steam	below 150 (300)	4	4	4
Steam	above 150 (300)	4	4	4
Stearic acid	60 (140)	2	2	4
Stoddard solvent	RT	1	1	1
Styrene	RT	4	2	4
Sucrose solution	RT / 60 (140)	1	1	4
Sulphur	RT / 60 (140)	4	1	4
Sulphur chloride (aq)	RT	3	1	4
Sulphur dioxide (dry)	RT / 60 (140)	4	1	4
Sulphur dioxide (liquified)	RT / 60 (140)	4	1	4
Sulphur dioxide (wet)	RT / 60 (140)	4	1	4

Table 2

Chemical resistance

Medium	Temperature	Medium's effect on sealing lip material		
		R, D, H	V	P
–	°C (°F)	–		
Sulphur hexafluoride	RT	2	1	4
Sulphuric acid (conc.)	RT / 50 (120)	4	1	4
Sulphuric acid (20%) (battery acid)	60 (140)	4	1	4
Sulphuric acid (dilute)	RT	3	1	2
Sulphurous acid	RT / 60 (140)	4	1	4
Sulphur trioxide	RT	4	1	4
T				
Tannic acid	RT / 60 (140)	1	1	4
Tar, bituminous	RT	2	1	4
Tartaric acid	60 (140)	1	1	5
Tepineol	RT	2	1	5
Tetrabromoethane	RT	4	1	4
Tetrabromomethane	RT	4	1	5
Tetrabutyl titanate	RT	2	1	5
Tetrachloroethylene	60 (140)	4	2	4
Tetraethyl lead	RT	2	1	5
Tetrahydrofuran	RT	4	4	4
Tetrahydronaphthalene (Tetralin)	RT	4	1	5
Thionyl chloride	RT	4	2	4
Titanium tetrachloride	RT	2	1	4
Toluene	RT	4	1	4
Toluene diisocyanate	RT	4	4	4
Triacetin	RT	2	1	4
Tributoxy ethyl phosphate	RT	4	1	4
Tributyl phosphate	RT / 60 (140)	4	4	4
Trichloroacetic acid	60 (140)	5	4	4
Trichloroethane	RT	4	1	4
Trichloroethylene	RT	4	1	4
Tricresyl phosphate	RT / 60 (140)	4	1	4
Triethanol amine	RT	2	4	4
Triethyl aluminium	RT	4	2	4
Triethyl borane	RT	4	1	4
Trinitrotoluene	RT	4	2	4
Trioctyl phosphate	RT / 60 (140)	4	2	4
Tung oil (China wood oil)	RT	1	1	1
Turpentine	RT	1	1	2
V				
Varnish	RT	2	1	4
Vegetable oil	60 (140)	1	1	1
Vinyl acetylene	RT	1	1	5
Vinyl chloride	RT	4	1	5
W				
Water	100 (210)	1	1	4
Whisky	RT	1	1	4
White oil	RT / 80 (175)	1	1	1
Wine	RT	1	1	4
Wood oil	RT	1	1	1
X				
Xylene	RT	4	1	4
Xylidine (di-methyl aniline)	RT	3	4	4
Z				
Zeolites	RT	1	1	5
Zinc acetate (aq)	RT	1	1	4
Zinc chloride (aq)	RT	1	1	4
Zinc sulphate (aq)	RT	1	1	4

Seal request form

Customer to Quote: _____ **Contact:** _____

End Customer: _____ **Contact:** _____

Seal Brand and Part #: _____

Application: _____

Purchase QTY:		**Delivery Date:**		**Profile:**	
Annual Usage:		**Target Price:**		**Material:**	

Reason for Inquiry:

❑ Delivery ❑ Mounting ❑ Quality ❑ Material ❑ New Design

❑ Seal Life ❑ Wear ❑ Leakage ❑ Price Other: _____

Seal Type: ❑ Piston Seal ❑ Rod Seal ❑ Guide Ring ❑ O-Ring ❑ Rotary Shaft Seal

❑ Wiper ❑ Backup Ring ❑ Gasket ❑ Check if Split Other: _____

Motion: ❑ Static ❑ Oscillating ❑ Linear (❑ Single Acting ❑ Double Acting)

Rotating (❑ Clockwise* ❑ Counter-clockwise* ❑ Bi-directional *Viewed from air side) ❑ Shaft Rotating ❑ Bore Rotating

Internal Media: (Type, Level) _____

External Media: (Type, Level) _____

Operating Conditions (Label Units)	Speed (fpm, m/s, rpm)	Differential Pressure (PSI/BAR)	Temperature (°F/°C)
Minimum			
Normal			
Maximum			

Service life (h) _____

Cycles/min _____

Stroke length or Degrees of arc _____

Hardware Image No. (Page 2) _____

Housing Type: ❑ Through ❑ Press-in ❑ Open End ❑ 2 Piece ❑ Groove ❑ Snap-in

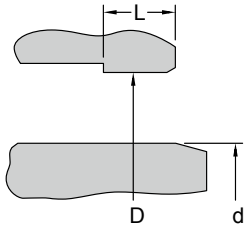
MM ❑ IN ❑	Key	Values	Tolerance	Fixed (Yes/No)	Hardness	Surface Finish	Material
Shaft / Rod / Groove DIA	d						
Shaft / Rod / Groove DIA	d_1						
Bore / Groove DIA	D						
Bore / Groove DIA	D_1						
Bore / Groove Length	L						
Bore / Groove Length	L_1						
Max. Extrusion Gap (Air)	e_{MAX}						

Shaft Treatment		Dynamic Run-out		Shaft to Bore Misalignment		Axial Free Play	

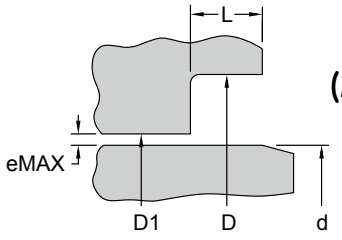
Additional information (quality requirements, installation method, torque, pressure cycle, contamination, etc.):

Hardware images

❑ **1. Through**

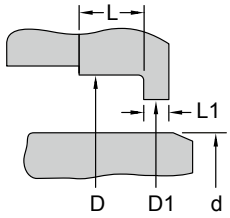


❑ **2. Press-in**



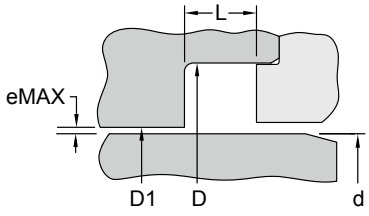
(Air)

❑ **3. Open End**

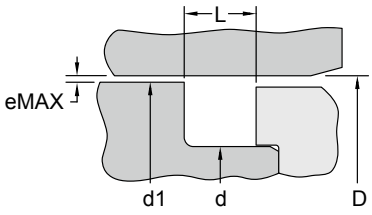


(Air)

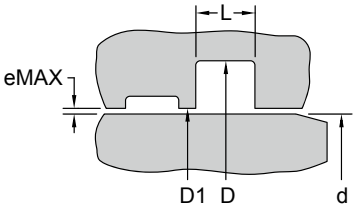
❑ **4. 2-Piece Housing**



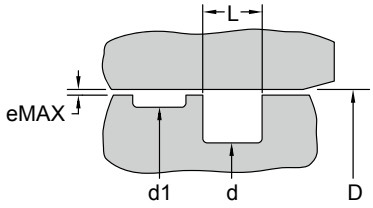
❑ **5. 2-Piece Piston**



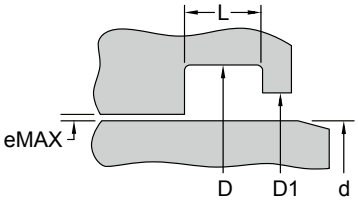
❑ **6. Groove in Housing**



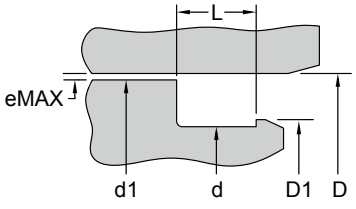
❑ **7. Groove in Piston**



❑ **8. Snap-in Housing**



❑ **9. Snap-in Lip Retention**



MM ❑ IN ❑	Key	Values	10. Sketch
Shaft/Rod/Groove DIA	d		
Shaft/Rod/Groove DIA	d_1		
Bore/Groove DIA	D		
Bore/Groove DIA	D_1		
Bore/Groove Length	L		
Bore/Groove Length	L_1		
Max. Extrusion Gap (Air)	e_{MAX}		

*All corners require radiuses, edges require chamfers and sealing surfaces have defined finishes and hardness values. Please see SKF product catalogs for specific requirements.

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