

The background of the entire page is a high-quality photograph of numerous rotary seals. These seals are cylindrical metal components with a central bore and a raised outer rim. They are arranged in several stacks of varying heights, with some seals lying flat on the surface. The lighting is bright and even, highlighting the metallic texture and the precision of the manufacturing.

CATALOG —

Rotary & Oil Seals

A rotary seal, a crucial component in rotating machinery, provides a reliable barrier against the leakage of fluids or gases.

About Us

Product Portfolio

Leveraging our expertise in natural and synthetic elastomer compounds, we offer a comprehensive range of high-quality rubber products including gaskets, seals, O-rings, hoses, and more, tailored to diverse industry requirements.

Quality Check

Our skilled engineers oversee the entire rubber product development process, from ideation and material analysis to design, compounding, prototyping, manufacturing, and quality testing. With attention to detail at every stage, we ensure excellence and deliver high-quality products.

At American Rubber Corp, we go above and beyond to provide exceptional customer service and meet the unique needs of our clients.

As a full-service custom manufacturer of rubber products, we have established a strong reputation for delivering superior quality and customized solutions. With over two decades of experience in the industry, we have perfected our processes to ensure customer satisfaction.

We understand the importance of prompt service, which is why we prioritize quick turnaround times without compromising on quality. Our skilled engineers meticulously monitor every step of the manufacturing process, ensuring that the specified quality standards are met and that the finished products adhere to precise dimensions and desired properties.

Introduction

The information provided in this catalog is the result of our extensive experience in the fluid power industry, particularly in the manufacturing and application of fluid sealing and bearing systems. It is based on in-house testing and a wealth of international experience across various industries since 1959.

However, it's important to note that unknown parameters and conditions during usage may limit the applicability of general statements.

We are dedicated to providing recommendations and sealing solutions tailored to your specific application. However, due to factors beyond our control, we cannot provide a warranty or guarantee. The proportions of our seal ranges have been carefully determined to ensure satisfactory performance under recommended operating conditions. The material used for each seal type is described in detail alongside the respective seal type.

Contents

05. **STARNDARD ROTARY SHAFT SEALS**





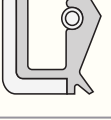
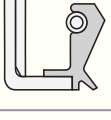

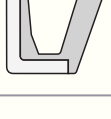
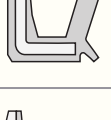
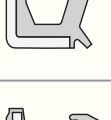
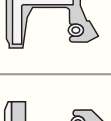

07. **FABRIC OIL SEALS**

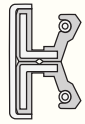

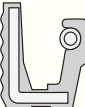









09. **HEAVY DUTY OIL SEALS**

15. **HIGH PRESSURE OIL SEALS**

19. **HIGH SPEED OIL SEALS**

23. **OTHER ROTARY SEALS**

Profile	Type	Pressure	Temp.	Material	Speed	Details
	R01	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R01 rotary shaft seal features a metal insert enveloped in rubber on all sides, except for the side facing the fluid that requires sealing. This design is particularly beneficial in situations where the housing expands more than the metal case oil seal. The R01 seal is well-suited for general sealing purposes and works effectively in housings prone to significant corrosion.
	R15	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R15 rotary shaft seal is widely used, with various sizes readily available. It has a metal-encased outer diameter and a non-fluid sealing side, offering better resistance to thermal expansion compared to rubber-encased metal insert seals. This design ensures durability and performance, making it a popular choice in many applications.
	R16	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R16 rotary shaft seal is a robust, spring-loaded seal with two metal cup inserts. Its fully metal-encased design ensures strength, making it suitable for small cross-section or large diameter seals. ARC supplies these seals up to 1500 mm. Refer to the dimension list for availability.
	R02	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R02 rotary shaft seal is similar to the R01 type seal, but it includes an additional dust lip. This dust lip serves to prevent the ingress of light to medium dust and dirt particles.
	R17	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R17 rotary shaft seal shares similarities with the R15 type seal, but it is equipped with an additional dust lip. This dust lip acts as a barrier, effectively preventing the entry of light to medium dust and dirt particles.
	R18	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R18 rotary shaft seal is comparable to the R16 type seal, featuring an added dust lip. This dust lip serves as an extra layer of protection, effectively preventing the infiltration of light to medium dust and dirt particles.
	R04	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R04 rotary shaft seal is specifically designed for applications where the pressure exceeds 0.5 bar or for seals with a small diameter that cannot accommodate a loaded spring. It offers reliable sealing performance in such situations, ensuring effective containment even without a spring-loaded mechanism.
	R21	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R21 rotary shaft seal shares similarities with the R04 seal, but it offers the additional advantage of better housing retention due to its Metal Cover. This feature enhances the seal's ability to remain securely in place within the housing, providing improved stability and reliability.
	R05	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R05 rotary shaft seal resembles the R04 type seal, but it includes an additional dust lip. This dust lip acts as a protective barrier, preventing the infiltration of light to medium dust and dirt particles, enhancing the seal's overall performance.
	R22	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R22 rotary shaft seal features a metal encasement and an additional dust lip, guarding against the entry of light to medium dust and dirt.
	R03	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R03 rotary shaft seal is suitable for dual fluid sealing, preventing coolant from entering the bearing or lubricant from leaking out.
	R19	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R19 rotary shaft seal is comparable to the R03 seal, but it offers enhanced retention in bearing housings due to its metal cover. This metal cover provides increased stability and secure fitting within the housing, ensuring reliable sealing performance in demanding applications.

Profile	Type	Pressure	Temp.	Material	Speed	Details
	R20	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R20 rotary shaft seal is akin to the R19 but has a closed metal cover for improved retention.
	R10	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R10 rotary shaft seal is a spring-loaded seal with a metal insert and rubber covering. It includes a projecting wiping lip for effective dust prevention.
	R11	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R11 rotary shaft seal is a spring-loaded seal with a metal insert and rubber covering. It features additional serrations on the outer diameter, ensuring improved static sealing and accommodating greater thermal expansion. The higher degree of press-fitting enhances its overall sealing performance.
	R12	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R12 rotary shaft seal is a double lip, spring-loaded seal with a metal insert and rubber covering. It has additional serrations on the outer diameter, providing enhanced static sealing and accommodating greater thermal expansion due to a higher degree of press-fitting.
	R13	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R13 rotary shaft seal features a metal insert, rubber covering, and an encapsulated spring within a lip. This design ensures that the spring remains securely in place during installation, preventing any risk of it falling out.
	R14	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R14 rotary shaft seal is akin to the R13 type, but it includes an additional dust lip to prevent the ingress of light to medium dust and dirt particles.
	R28	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The R28 rotary shaft seal features a metal encasement and an encapsulated spring within a lip, ensuring the spring remains secure during installation.
	R06	0.5 Bar	-30° to +100°C	NBR FKM	10 m/s	The R06 oil seal is a versatile seal designed for low-speed applications. It is available in both endless and split types and requires a cover plate for installation.
	R83	0.5 Bar	-30° to +100°C	NBR FKM	10 m/s	The R83 seal is an all-rubber seal known for its excellent static sealing performance. It is specifically suitable for small and lighter housing applications. The seal allows for split designs, making on-site installation and replacement easier and more convenient.
	RA1	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The RA1 seal shares similarities with the R11 seal, but it is specifically designed for applications where the spring cannot be loaded. It is commonly used for sealing purposes in small-diameter applications.
	RA4	0.5 Bar	-30° to +100°C	NBR/MS FKM/MS	10 m/s	The RA4 rotary shaft seal is akin to the RA1 type seal, but it includes an additional dust lip. This dust lip serves as a protective barrier, preventing the ingress of light to medium dust and dirt particles.
	RB5	0.5 Bar	-30° to +100°C	NBR FKM	10 m/s	The RB5 seal is an all-rubber seal featuring a double lip, offering excellent static sealing performance. It is specifically designed for small and lighter housing applications. The seal allows for split designs, making on-site installation and replacement convenient and efficient.

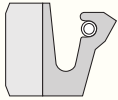
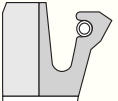
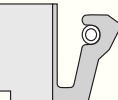
Fabric Oil Seals

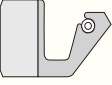

















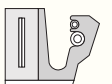

Fabric reinforced seals, commonly made of NBR (Nitrile), find extensive use in heavy machinery and engineering industries like Rolling Mills and Gear Boxes. They consist of a sealing lip bonded to a rigid fabric-reinforced outer body. These seals serve as a viable alternative to metal case oil seals, as the necessary installation tools for metal seals may not be readily available. With non-metallic construction, concerns about rust and damage are eliminated. They can be split if required, with a hook and eye spring for disassembly and reassembly. Split ends feature a molded rubber section to enhance sealing effectiveness. Solid versions have a threaded spring that can be removed. Fabric reinforced seals are cost-effective compared to other seal types and are effective even in worn bores.

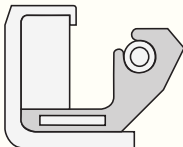
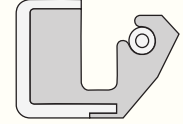
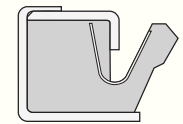
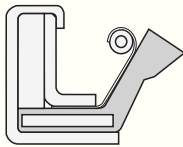
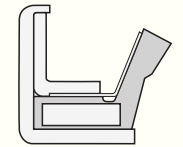
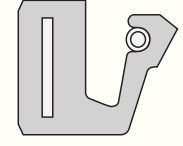
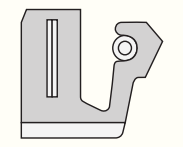
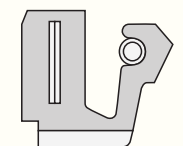



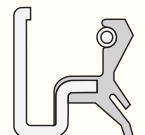
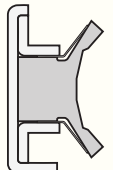
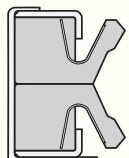
DESIGN INSTRUCTIONS

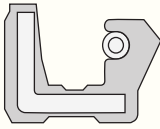
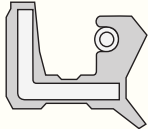

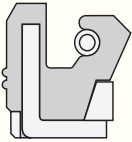
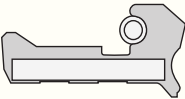
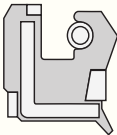
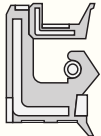
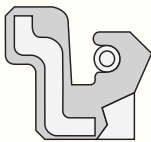
- Shaft surface finishing** **The surface on the shaft should have a roughness: Ra = 0.3 – 0.5 µm; Rmax = 1–2 µm. Obtained by plunge grinding**
- Shaft hardness** Recommended: 40 ÷ 50 HRC
- Shaft misalignment** Depending on the speed, should not exceed 1.5 mm
- Shaft tolerance** Shaft: h 11
Housing: H 8
Thickness or height: nominal dimension of the ring ± 0.1 mm
- Surface roughness** Surface roughness in the gland are specified in ISO 6194/1.

Profile	Type	Pressure	Temp.	Material	Speed	Details
	R31	0.5 Bar	-30° to +220°C	NBR/FABRIC HNBR/FABRIC FKM/FABRIC	10 m/s 20 m/s 25 m/s	R31 is a non-metallic seal. It has an outside surface with fabric reinforcement and elastomeric sealing lip
	R32	0.5 Bar	-30° to +220°C	NBR/FABRIC HNBR/FABRIC FKM/FABRIC	10 m/s 20 m/s 25 m/s	The R32 seal is similar to the R31 type seal with additional slots provided on the back face on periphery of the seal to enable the lubricant to enter through these slots for lubricating the sealing lips, thus preventing dry running or damaged to the sealing lip.
	R33	0.5 Bar	-30° to +220°C	NBR/FABRIC HNBR/FABRIC FKM/FABRIC	10 m/s 20 m/s 25 m/s	The R33 seal is similar to R32 but with additional distribution groove on seal body thus eliminates machining groove in housing. These seal is recommended to use back to back.

 <p>Profile : R34 Pressure : 1 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : R37 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : R36 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : R38 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : R39 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 5 m/s Material : NBR / Fabric</p>	 <p>Profile : R40 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : R42 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 5 m/s Material : NBR / Fabric</p>	 <p>Profile : R41 Pressure : 10 Bar Temperature : -30° to +100° Speed : 5 m/s Material : NBR / Fabric</p>	 <p>Profile : R35 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : R43 Pressure : 200 Bar Temperature : -30° to +100° Speed : 0.1 m/s Material : NBR / Fabric</p>	 <p>Profile : R44 Pressure : 400 Bar Temperature : -30° to +100° Speed : 0.2 m/s Material : NBR / Fabric</p>	 <p>Profile : R45 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : R46 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : R47 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : AFR Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : RB6 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : RB4 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 5 m/s Material : NBR / Fabric</p>	 <p>Profile : R92 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>
 <p>Profile : R55 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 10 m/s Material : NBR / Fabric</p>	 <p>Profile : RA5 Pressure : 0.5 Bar Temperature : -30° to +100° Speed : 15 m/s Material : NBR / Fabric</p>	


Profile	Type	Pressure	Temp.	Material	Speed	Details
	R23	0.5 Bar	-30° to +100°C	NBR/MS	10 m/s	The R23 style rotary seal is primarily employed in hot rolled or cold rolled steel rolling mills to seal valuable bearings in work rolls, intermediate rolls, and backup roll chocks. It offers significantly longer lifespan compared to other seals. With its robust design featuring a steel spacer and a hard CRC outer cup, this seal ensures excellent retention in the housing, enhancing its resistance to rotation or distortion with the shaft, a common issue with conventional seals.
		0.5 Bar	-30° to +140°C	HNBR/MS	10 m/s	
		0.5 Bar	-40° to +220°C	FKM/MS	10 m/s	
	R24	0.5 Bar	-30° to +100°C	NBR/MS	10 m/s	The R24 style rotary seal bears resemblance to the R23 seal but includes a rubber spacer. This addition provides additional flexibility and versatility in sealing applications, further enhancing its performance and compatibility with various sealing requirements.
	R25	0.5 Bar	-30° to +100°C	NBR/MS	15 m/s	The R25 style Rotary Seal is frequently employed in heavy-duty gearboxes. With its two-metal case, this seal offers enhanced durability, while the addition of a cup-type spring ensures optimal contact with the rotating shaft. As a result, the seal exhibits excellent long-term sealing performance, even in demanding operating conditions.
	R26	0.5 Bar	-30° to +100°C	NBR/MS SS SPRING	20 m/s	The R26 style Rotary Seal is specifically designed for high-speed applications. It features a sturdy steel spacer enclosed within a hard CRC (metal) cup, equipped with a rubber lip and a cup-type spring preloaded with a garter spring. This design ensures double tension on the shaft, making it suitable for applications with eccentric shaft movements. The R26 seal is well-suited for demanding high-speed operations.
		0.5 Bar	-30° to +140°C	HNBR/MS SS FINGER	30 m/s	
		0.5 Bar	-40° to +220°C	FKM/MS SS FINGER	35 m/s	
	R27	0.5 Bar	-30° to +100°C	NBR/MS SS FINGER SPRING	15 m/s	The R27 seal is equivalent to the R25 profile. Both seals share the same design and characteristics, making them interchangeable in terms of their sealing performance and suitability for heavy-duty gearboxes.
	R07	0.5 Bar	-30° to +100°C	NBR/MS	10 m/s	The R07 seal is a metal-inserted seal with a rubber covering specifically designed for non-ferrous housings. This seal offers reliable sealing performance in applications where non-ferrous materials, such as aluminum or bronze, are used for the housing.
	R08	0.5 Bar	-30° to +140°C	NBR/MS	12 m/s	The R08 seals are similar to the R07 profile but feature additional slots on the back face of the seal's periphery. These slots allow lubricant to enter and effectively lubricate the sealing lip, preventing dry-running and potential damage to the seal. This design ensures optimal sealing performance and longevity in various applications.
	R09	0.5 Bar	-40° to +220°C	NBR/MS	15 m/s	The R09 seal is similar to the R08 profile, but it includes an additional distribution groove on the seal body. This design eliminates the need for a machining groove in the housing, simplifying the installation process. The distribution groove allows for proper distribution of lubricant, ensuring effective sealing and reducing the risk of damage to the seal.


Profile	Type	Pressure	Temp.	Material	Speed	Details
	R30	0.5 Bar	-30° to +100°C	NBR/MS	10 m/s	The R30 seals are metallic seals featuring a metal spacer and double sealing lips. This robust design enhances their durability and sealing performance.
	R29	0.5 Bar	-30° to +100°C	NBR/MS	12 m/s	The R29 seal is a metallic oil seal with a rubber sealing lip and multiple dust lips. This combination of materials provides effective sealing against oil leakage, while the additional dust lips act as barriers to prevent the entry of dust and dirt particles.
	R82	0.5 Bar	-30° to +100°C	NBR/MS SS FINGER SPRING	10 m/s	The R82 seal is a heavy-duty seal with a metal encasement. This seal is designed as an assembled profile, meaning it is composed of multiple components that are put together to form the complete seal.
	RC5	0.5 Bar	-30° to +100°C	NBR/MS SS FINGER SPRING	10 m/s	The RC5 seal is a heavy-duty seal featuring a metal encasement. It is designed as an assembled profile, meaning it consists of multiple components that are assembled together to form the complete seal.

Profile	Type	Pressure	Temp.	Material	Speed	Details
	R49	5.0 Bar	-30° to +100°C	NBR/MS	10 m/s	The R49 seal is a high-pressure oil seal with a rubber covering and a short, flexible, spring-loaded sealing lip. It is specifically designed to minimize lip deformation caused by oil pressure. The seal's construction ensures that its sealing performance remains uncompromised even under high-pressure conditions. This makes the R49 seal highly reliable and effective in applications requiring robust sealing against oil leakage.
	R50	5.0 Bar	-30° to +100°C	NBR/MS	10 m/s	The R50 seal is a high-pressure oil seal with a rubber covering and short, flexible, spring-loaded double sealing lips. It is specifically engineered to minimize lip deformation caused by oil pressure. The seal's design ensures that its sealing performance remains unaffected even under high-pressure conditions.
	R51	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The R51 oil seal is specifically designed to withstand high pressure conditions and minimize lip deformation. It incorporates an auxiliary cage to support the sealing lip and ensure its stability under pressure. The R51 seal is commonly utilized for large diameter and high-pressure rotating shafts, where maintaining effective sealing performance is critical.
	R53	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The R53 seal is a specialized seal primarily employed in automobile power steering systems. It is designed to withstand high pressure and minimize lip deformation. The seal includes a backup ring, which provides additional support to the sealing lip, ensuring its stability under high-pressure conditions. The R53 seal is specifically tailored to meet the demanding requirements of power steering applications in automobiles.
	R98	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The R98 seal is a specialized seal used in automobile gas spring units. It offers excellent sealing ability and low friction, ensuring reliable performance in the automotive industry.
	R52	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The R52 seal is similar to the R53 seal, but it features an additional sealing lip. This extra lip enhances the sealing capability of the R52 seal, making it even more effective in applications where a higher level of sealing performance is required.
	RB9	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The RB9 seal is a dual lip, dual-element design specifically engineered for maximum dirt exclusion. With its dual lip configuration, this seal provides enhanced protection against the ingress of dirt and contaminants. It is well-suited for applications where maintaining a clean and debris-free environment is crucial.
	R54	10.0 Bar	-30° to +100°C	NBR/MS	5 m/s	The R54 seal is a specialized high-pressure seal used in the earth moving and mining industries. It features a backup ring that minimizes lip deformation under high pressure, ensuring reliable sealing performance in demanding environments.


THANK YOU

Please feel free to contact us using the details provided below. We look forward to assisting you further.

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