

# *Floating Seals*

*your seal of quality*







*Perfection in Motion.*



# EKK heavy duty Floating Seals - cast for life

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Choosing Floating Seals from EKK means you are selecting optimal precision and protection. Quite simply put, we are your partner of choice for highly engineered components that possess outstanding corrosion resistance and durability, thanks largely to innovative, in-house manufacturing processes and proprietary materials science.

For example, depending on the application and operating conditions, the quality and hardness of EKK materials means that our Floating Seals can offer you up to 6,000-10,000 hours of working life, this means a long product lifetime and reduced cost of operation.

Designed to minimise downtime and maximise vehicle availability, users of our Floating Seals enjoy many benefits. Our precision-cast Floating Seals are globally renowned for features such as withstanding extreme temperatures, facilitating high speeds and providing you with optimum air- and oil-tight protection. Designed specifically for use on all types of heavy duty crawling vehicles, the exceptional abrasion-reducing characteristics of our Floating Seals will exceed your highest requirements and standards.

When using EKK Floating Seals, you also benefit from over half a century of experience and research in material handling applications, delivered with an absolute commitment to consistent and detailed quality control. In addition, we have an extensive and successful track record of partnering with customers requiring customised Floating Seals to suit specific applications. Flexibility in design is a trade mark of our business.

# Your benefits

## *EKK – Quality sealing solutions for construction, mining and agricultural vehicles*

Designed to meet all your requirements and constraints, even in adverse or extremely challenging applications:

- EKK Floating Seals – also known as metal face seals, mechanical face seals, lifetime seals or duo cone seals – are an essential element of undercarriage track rollers;
- EKK Floating Seals are designed and manufactured in-house, including the metal seal rings and rubber O-rings;
- EKK Floating Seals are of heavy duty design for heavy equipment operating in severe environments, such as those found in construction, agriculture and mining;
- High speed applications are equipped with EKK Floating Seals because of their high performance materials.



**ES100** Toric version



**ES764** Diamond-shaped version



# Heavy duty seal types

Our ES100-type Floating Seal has many excellent features. For instance, it is more air-tight than conventional face seals and also, they are easier to assemble due to their structures.

Furthermore, demonstrating the joint interest in quality we share with our customers, our cast products exhibit high material density and high mechanical strength, thus resulting in a seal designed to operate for the lifetime of the equipment without failure. This also results in less maintenance time, allowing you to concentrate on your core business.







*When the going gets tough,  
the tough get going.*



# Seal Specifications

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Both the seal ring and O-ring components of our Floating Seals are produced and assembled in-house, ensuring our advanced products are subject to the constant quality control of our company experts. As a result, we can fully guarantee the flawless and durable operation of our Floating Seals so that you do not have to worry about downtime.



# Superior Materials

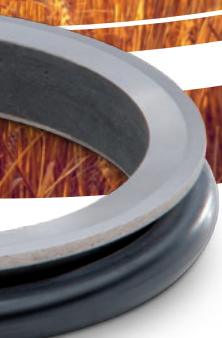
## Seal Ring

The seal ring is manufactured in a special casting process, which produces a patented, exceptionally hard material (HRc 65-67, HV 700 minimum). This is designed to reduce abrasion caused by soil, sand, salt and water, ensuring it exceeds the operating life of the track roller assembly and helps maximise uptime.

Seal Ring	
Diameters	38 – 429 mm
Material	CRH5 (Ni-Hard)
Production method	Casting
Hardness (HRC)	65-67
Speed (max.)	3 m/s*
Finish	Grinding, lapping, polishing

*\*Depending on the application, even higher speeds can be achieved using our specially designed high speed alloy. Please enquire for more information.*



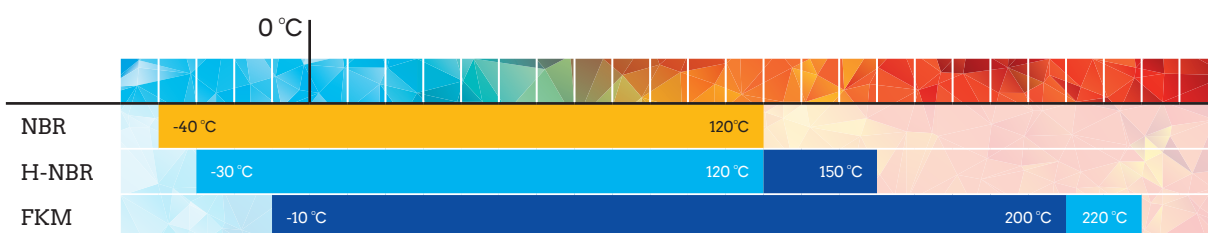


## O-Ring

We offer a range of rubber materials designed to meet your requirements. The in-house competence, development and production ensure that the highest quality is maintained.

Default harsh conditions require our standard NBR, which is a synthetic rubber that is known for its impressive shape retention, and has excellent tear strength and low/high temperature durability. When temperature plays an important role we recommend H-NBR (hydrogenated nitrile butadiene rubber) and FKM (fluor elastomer), which have been developed specifically for higher temperature ranges.

O-Ring			
Material	Hardness (Duro A)	Temp. range(°C)	Remarks
NBR A627	66	-40~100 Max.120	Standard material
NBR A283	72	-40~100 Max.120	Sub-standard material for A627
H-NBR G969	65	-30~120 Max.150	For high temp. conditions
FKM F201	67	-10~200 Max.220	For extreme high temp. conditions





# Centrifugal Casting Process

In 1987, EKK was the first company in the world using centrifugal casting for its Floating Seal production.

Today, all of our Floating Seals are produced using centrifugal casting, which sees our specially developed alloy poured into a mould rotating at high speed. Thanks to centrifugal force, the liquefied alloy comes into contact with the rotating mold under significant pressure to enable high precision forming results.

Your benefits include high casting grain density, high mechanical strength and

almost zero porosity. In addition, the process delivers finer-grained structures and fewer inclusions and impurities in comparison with traditional sand casting.

In other words, we know how important quality and durability is for you so we take pride in offering you the strongest and most robust Floating Seals in the market.



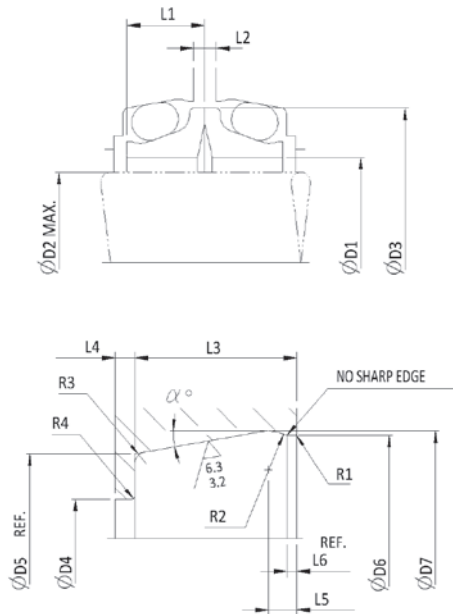
*Casting Process*



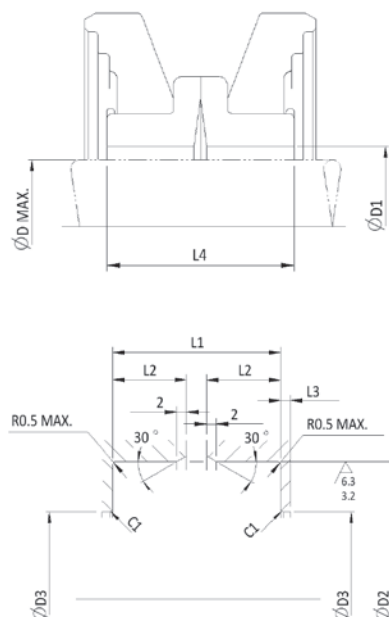
# Dimensions

All information and data on dimensions are available for your reference. Please contact our customer service via email or telephone.

## ES100



## ES764



\* **Note:** Custom design is possible. Product drawings can be provided upon request.

## List of dimensions \*

### ES100

Type & Size	D2	D1	D3	L1	L2	O/R
	max.	ref.	ref.	ref.	±0.5	WD
ES100-38	35	38	51	10	3	6
ES100-45	42	45	58	10.5	3	6.4
ES100-48	45	48	62	12.5	3	7.5
ES100-51	48	51	65	11.5	3	6.7
ES100-56	53	56	70	13.2	3	7.7
ES100-58	55	58	75	13.5	3	8.6
ES100-60	57	60	74	10.9	3	6.4
ES100-63.5	60.5	63.5	82	16	3	9.6
ES100-64	61	64	78	13.2	3	8.1
ES100-66	63	66	86	14	3	8.9
ES100-69	66	69	84	12.5	3	7.9
ES100-70	67	70	90	14.5	3	9
ES100-73	70	73	92.1	16	3	9.4
ES100-76	73	76	94	14.5	3	9.3
ES100-80	77	80	100	14.5	3	9.3
ES100-82	79	82	98	13	3	8
ES100-90	87	90	109	16	3	9.2
ES100-90.1	87.5	90.1	109.5	16	3	9.7
ES100-95	92	95	114	16	3	9.5
ES100-100	97	100	118	16	3	9.5
ES100-102	99	102	122	16.7	3	9.3
ES100-109	106	109	132	16	3	9.5
ES100-110	107	110	128	16	3	9
ES100-115	112	115	137	15.5	3	9.2
ES100-120	117	120	142	19.5	4	11
ES100-127	124	127	141	12.5	4	6.4
ES100-130	127	130	152	19.2	3	11.3
ES100-137	134	137	153	15	4	9.2
ES100-143	140	143	157	12.5	4	6.4
ES100-146	143	146	168	19	4	12.7
ES100-148	145	148	170	17	4	9.6
ES100-150	147	150	172	20	4	11.3
ES100-154						





## Service & Technical Support

In Europe, you can contact and order EKK Floating  
Seals through our service and sales office in the  
Netherlands.

For more **information**, please contact:

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