Axial excluder seal HRC1

Extends service life by protecting wind turbine main shaft bearings from contaminants
**The HRC1 high-performance profile**

Robust sealing lip helps reduce bending to minimize contact area, friction and wear

Stainless steel clamping band

Optimized flexibility and geometry allows axial displacement of ±2 mm

**Benefits**
- Extends service life
- Reduces maintenance costs
- Reduces contaminant-related bearing failures
- Increases wind turbine reliability
- Facilitates up-tower retrofits

**Application**
- Wind turbine main shafts

**Part of the proven SKF wind turbine solutions portfolio**

The HRC1 axial excluder seal from SKF is part of a comprehensive, integrated range of SKF products for the wind turbine drive train. As a market leader in bearing and units for wind turbines, SKF is unique in combining bearing, sealing and lubrication technologies, supporting manufacturers, wind farm operators and service providers with integrated design solutions.

**Advanced seal engineering and materials**

Developed to handle applications with a rough counterface and poor lubrication, the axial excluder seal from SKF combine important design features, contributing to a robust, high-performing solution.

The HRC1 seal features an engineered geometry that allows axial displacement of ±2 mm. The design also supports the lubrication of the sealing lip edge while reducing seal contact area, friction and wear.

The seal is made of a special H-ECOPUR, a polyurethane material developed by SKF for specific application requirements. It is hydrolysis resistant and provides high resistance to wear, abrasion, UV radiation and ozone, making it an excellent material for up-tower applications.

**Design flexibility**

The HRC1 axial excluder seal from SKF is available in three different executions:

- Solid (HRC11)
- Split (HRC12)
- Split for welding installation (HRC13)

All executions of this seal, made of a special H-ECOPUR material, have the same cross-sectional dimensions and are available for shaft diameters ranging from 1 to 3 metres. Additionally, special sizes, compounds and designs are available on request. Please contact your SKF sales representative for solutions outside the standard range.

**Easy to install, solid or split**

Available in standard solid and split executions for shaft sizes from 1 to 3 metres\(^2\), HRC1 seal from SKF feature a steel band clamp with a fast-lock mechanism that enables easy installation and fixation on the shaft.

For split seal retrofits, SKF provides installation services, including the recommended up-tower seal welding. In new turbine assemblies, the axial excluder seal should preferably be installed in solid execution.

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*For shaft sizes outside of this range, please contact your local SKF seal specialist.*
The Power of Knowledge Engineering
Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

SKF BeyondZero is more than our climate strategy for a sustainable environment: it is our mantra; a way of thinking, innovating and acting.

For us, SKF BeyondZero means that we will reduce the negative environmental impact from our own operations and at the same time, increase the positive environmental contribution by offering our customers the SKF BeyondZero portfolio of products and services with enhanced environmental performance characteristics.

For inclusion in the SKF BeyondZero portfolio, a product, service or solution must deliver significant environmental benefits without serious environmental trade-offs.

All our solutions for the renewable energy sector have been selected for inclusion in the SKF BeyondZero portfolio, which includes products and solutions with significant environmental benefits, such as improved energy efficiency and the enabling of increased renewable energy generation.