Description
Shaft seals are rotary seals. They are used to seal rotating or swivelling machine elements (mainly shafts). The areas of application are diverse and can be found in all areas of mechanical and apparatus engineering.

Typical applications
- Engine and gear manufacturing
  - Industrial gears
  - Gear engines
  - Electric motors
  - Internal combustion engines
- Pumps
- Drive systems
  - Agricultural machines
  - Construction machines
- Household appliances
  - Washing machines (household and industrial)
  - Dishwashers
- Heavy industry machines
  - Rolling mills
  - Ship building
  - Wind power generators

Demands made on shaft seals
- Leakage-free sealing under all operating conditions
- Low friction, low power loss, little heat development
- Simple installation, easy replacement

In most applications, the shaft seal is required to hold back a lubricating medium within the space to be sealed. At the same time, the demand can be to prevent the intrusion of dirt, dust, etc. into the space to be sealed. Shaft seals best fulfil these tasks and are therefore the most frequently used sealing elements.

The structure of a shaft seal is characterised by:
- an elastomer part, sealing lip, or protective lip, if applicable
- outer diameter, and coating of the metal case (reinforcing ring)
- a metal case,
- a spring.

Shaft seal terminology
Type OS-A11 with elastomer outer diameter, sealing lip, spring and protective lip
Norms
The design of the shaft seals is based on the German norm DIN 3760. Internationally, ISO 6194 is also applied.

The usual designation of a shaft seal includes the type, the shaft diameter, the outer diameter, the height and the material:

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Height</th>
<th>Outer diameter</th>
<th>Shaft diameter</th>
</tr>
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<tbody>
<tr>
<td>OS-A10</td>
<td>45-72-8 NBR</td>
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Quality
Our shaft seals are manufactured to strict quality demands in all areas, from the development, the procurement of source materials to the processing and despatch.

Modern manufacturing methods, many years of experience, strict testing and continuous documentation of all steps guarantee the fulfilment of our own quality demands and particularly those of our customers.

The quality of the products is under constant control for compliance with common international norms and standards.

The following delivery quality applies to all standard shaft seals for which no other arrangement has been made:

Shaft seals according to DIN 3760
Acceptable quality levels AQL 1.5 according to DIN ISO 2859-1

Customer-specific quality requirements can be agreed individually under purchase orders.