

# Instructions: Removing sealing washers and cover washers from ball bearings

## Introduction

The correct removal of seals and shields is crucial for the functionality of ball bearings, especially deep groove ball bearings and angular contact ball bearings. This precise guide will help you to remove the ball bearing seals and maintain their integrity.

## Tools and materials required

- Pliers and spatulas, slotted screwdrivers: Use fine, but not sharp-edged tools that can remove the ball bearing seal 2RS or ZZ without causing damage.
- Clean pad: To protect the workplace from dirt.
- Gloves: Protect your fingers and the bearing from contamination.

## Step-by-step instructions

### 1. Preparation of the workplace:

- Ensure a clean and well-organized workplace to avoid any contamination.
- Wearing protective goggles and gloves prevents injuries and the ingress of dirt into the ball bearing.

### 2. Identify the sealing and cover disks:

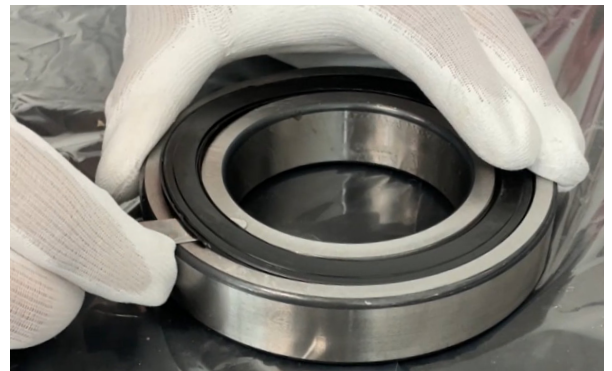
- Check whether they are rubber sealing washers or metal cover washers. These are usually found on the sides of the ball bearing.

### 3. Removing the sealing washers (rubber seals):

- Carefully position the tip of the screwdriver from the outside on the edge of the rubber seal, as the rubber on the inner ring is much more sensitive.
- Remove the ball bearing seal 2RS or ZZ slowly and evenly so as not to cause any damage.

### 4. Remove the cover washers (metal):

- Look for a small gap or groove on the side of the cover washer.
- Carefully apply the screwdriver and lift out the cover washer. Please note that Z cover plates may be damaged.



Removing the RS seal



Removing the ZZ seal

## Important notes

- Be particularly careful not to damage the balls or the bearing cage.
- Always work in a clean environment to prevent dirt or other contaminants from entering the thrust bearing or linear bearing.