

# CRS

# (Controlled Compressive Residual Stress) Bearings

The proprietary special process enhances the fatigue life of the bearing in multiple times. The cold working process generates a beneficial compressive residual stress which prevents the crack generation and propagation. Our unique surface treatment induces high residual compressive stress compare to the conventional methods.

#### **Features**

- Introduced compressive residual stresses to enhance fatigue life
- Resistance to bending and higher radial load
- Improved surface texturing, helps lubricant retention

#### **Benefits**

- Higher operational reliability
- Higher performance and higher power density
- Improved lubricant effectiveness
- Low maintenance requirements

# **Application**

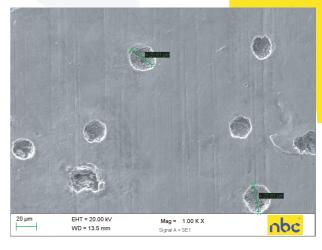
- Transmission & differential
- Bearings used in coal crushers & industrial applications





## **Specifications**

- ✓ Lower processing time
- Residual stress can be controlled as per requirement
- Depth of residual stress layer is more than 300 μm

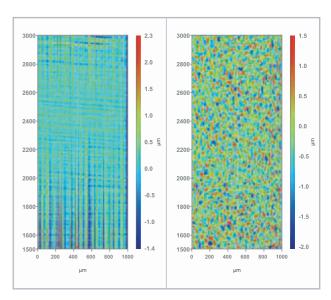


SEM images of raceway (CRS treated)

## **Technical Data**



Increment (%) in residual compressive stress on the raceway



Standard bearing CRS Treated

3D-Profile image of raceway (contains small cavity)





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