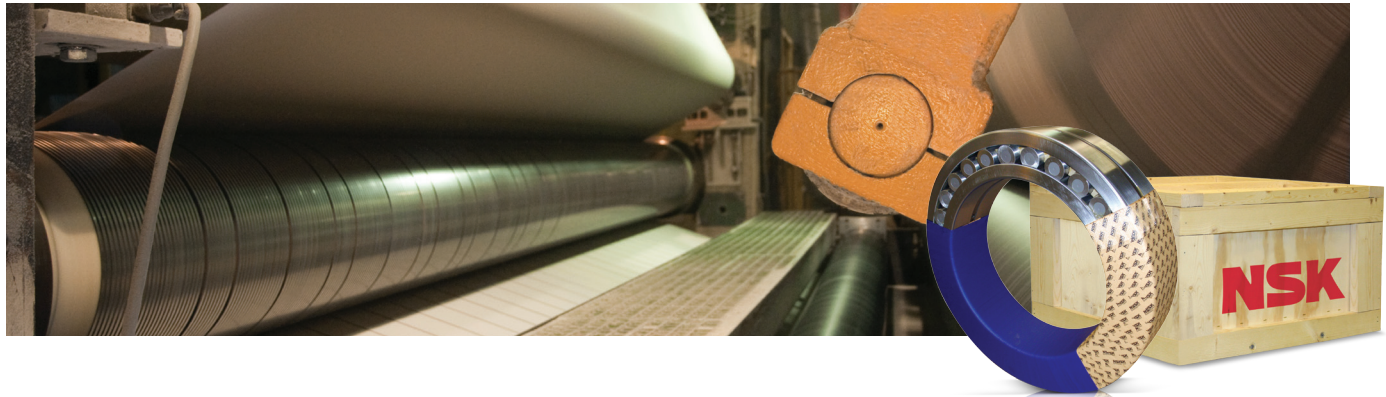


## BEARING STORAGE AND TRANSPORTATION BEST PRACTICES TO IMPROVE BEARING PERFORMANCE



### Bearing Storage for Paper Mills

Unused bearing storage is very important for the life of a bearing. Bearings should always be stored flat in original NSK packaging, indoors and in low humidity.

Storage area should be:

- Clean
- Dry
- Have a consistent temperature: max. fluctuation 3 degrees C or 5.4 degrees F
- Free from air flow that would alternate temperature
- Humidity less than 75%
- Free from vibration

Rolls such as suction rolls, press rolls and calendar rolls are regularly reground and replaced in paper machines, while others are stored for extended periods as critical spares.

Before a roll is removed from a machine it is usually washed with high pressure. After cleaning, the roll may be stored for several weeks before being serviced. During this storage time there is great risk of corrosion damage if moisture is present in the housing. Therefore, the roll should be rotated while the bearings are purged with fresh grease as soon as possible after cleaning. Be sure to replenish with enough fresh grease to purge any contamination from the bearing.

For cleaning done outside of the machine it is important that the seals are covered to avoid entrance of water. For oil lubricated bearings the housing should be flushed with oil.

### Long Term Bearing Storage

- Carefully remove bearings from housings and journals for inspection.
- Clean bearings with uncontaminated solvent or fresh light oil.
- Wash bearings with a very thin clean oil.
- Inspect bearing for possible reuse or reconditioning.
- Reinstall bearings in housings on the roll or repackage for storage.
- Lubricate bearings to protect from corrosion.
- Stored rolls should be rotated regularly to protect from corrosion or static brinell damage.
- Greased bearings can be regreased.
- Oil lubricated bearings can be protected with rust preventative (examples).
- Maximum storage time for greased (sealed) bearings is three years from the manufacture date and 10 years for open bearings in optimum storage environment (60% humidity at 70 - 80 degrees F).

### How to Avoid Damage in Transport

Best practice is to transport bearings in original packaging and only unpack when at final destination.

Improper shipping practices can lead to false brinelling and shortened bearing life.

For more information please contact:  
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