EXTRA-CAPACITY SEALED-CLEAN
FOUR-ROW TAPERED ROLLER BEARINGS

Bearings used in the steel-making process are exposed to operating conditions unique in their severity: metal dust, water, high and low speeds, high heat, heavy loads and mechanical shock. NSK Extra-Capacity Sealed-Clean Four-Row Tapered Roller Bearings for work roll applications are designed to perform in the perfect storm, utilizing NSK’s Tough Steel material technology and featuring advanced seal technology to deliver reliability and productivity in the most aggressive environments.

PROVEN BENEFITS

› Higher load capacity derived from optimized internal design, as much as 35% greater than conventional sealed bearings
› Super-TF and WTF™ steels provide significantly longer service life under heavily contaminated operating conditions
› Improved sealing achieved with heat and water resistant sealing materials
› Sealed-clean solution significantly reduces grease

CONDITIONS:

- HL: HIGH LOADS
- HT: HIGH TEMPERATURES
- CO: CONTAMINATION
- WT: WATER EXPOSURE
- MS: MECHANICAL SHOCK
EXTRA-CAPACITY SEALED-CLEAN
FOUR-ROW TAPERED ROLLER BEARINGS

DESIGN FEATURES

› Newly designed bearing internal geometry - wider cage diameter, increased number and larger rollers
› Higher load capacity due to newly designed bearing internal geometry and special seal
› Main seal and seal holder are of a more compact design
› New type of bore seal prevents the build-up of negative pressure that can cause the entry of water through the main seals
› Special helical groove to prevent creeping on the roll neck shaft
› Available with Super-TF or WTF steel material
› Super-TF and WTF™ steels provide significantly longer service life under heavily contaminated operating conditions
› Sealed-clean solution significantly reduces grease consumption

APPLICATIONS

› Hot strip mills
› Skin pass mills
› Cold rolling mills
› Temper rolling mills

DESIGN SPECIFICATIONS

<table>
<thead>
<tr>
<th>STF</th>
<th>310</th>
<th>KV</th>
<th>S</th>
<th>4301</th>
<th>E</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIAL REFERENCE</td>
<td>BORE REFERENCE NO.</td>
<td>BEARING TYPE</td>
<td>SEAL</td>
<td>OUTER DIAMETER REFERENCE NO.</td>
<td>SPIRAL GROOVE</td>
<td>CARBURIZATION</td>
</tr>
<tr>
<td>MATERIAL REFERENCE</td>
<td>STF: Super-TF Steel</td>
<td>WTF: Water-TF Steel</td>
<td>SEAL</td>
<td>Blank: open bearing</td>
<td>S: sealed bearing</td>
<td></td>
</tr>
<tr>
<td>BORE DIAMETER</td>
<td>Available in a wide range for metric and inch shaft dimensions</td>
<td>CARBURIZATION</td>
<td>G: complete bearing</td>
<td>GA: outer only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEARING TYPE</td>
<td>KV: Four-Row Tapered Roller Bearing</td>
<td></td>
<td>GB: inner only</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>