NSK SWRTM Spherical Roller Bearings are designed to meet the challenges of operating bearings in the harsh environment of continuous casting machines. Utilizing innovative material and heat-treatment technology, they offer superior resistance to wear and the onset of progressive bearing damage. With extreme durability and core toughness, SWRTM Spherical Roller Bearings are an advanced solution that promote extended operating life and reduce unexpected maintenance downtime and costs.

PROVEN BENEFITS
› Superior wear resistance – three times that of conventional bearing steel
› Improved flaking life property – five times that of conventional bearing steel
› Higher toughness of material core (prevention of crack damage) – five times that of conventional bearing steel
› Improved bearing durability extends roll segment operation, reducing maintenance costs and preventing unplanned downtime

CONDITIONS:

- HL: High Loads
- LS: Low Speeds
- HT: High Temperatures
- LU: Lubricant Stress
- CO: Contamination
**SWR™ SPHERICAL ROLLER BEARINGS**

**DESIGN FEATURES**
- Manufactured with an innovative steel composition
- Applied proprietary heat-treatment process
- Available in a wide range of sizes with high strength pressed steel (EA, CD) or one-piece machined brass (CAM) cage
- Superior wear resistance – 3 times that of conventional bearing steel (Fig. 1)
- Improved flaking life property - 5 times that of conventional bearing steel (Fig. 2)
- High toughness of material core (prevention of crack damage) – 5 times that of conventional bearing steel (Fig. 3)

**FIG. 1 - IMPROVED WEAR RESISTANCE**
Uneven wear caused by improper lubrication and differential sliding

**FIG. 2 - IMPROVED FLAKING / BEARING LIFE**
Flaking of the pure rolling section as a result of stress concentration

**FIG. 3 - IMPROVED STRENGTH / CORE TOUGHNESS**
Progress of vertical cracks caused by bending stress

**DESIGN SPECIFICATIONS**

<table>
<thead>
<tr>
<th>230</th>
<th>40</th>
<th>SWR</th>
<th>CA</th>
<th>g2</th>
<th>M</th>
<th>E4</th>
<th>C3</th>
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<tbody>
<tr>
<td>DIMENSIONAL SERIES</td>
<td>BORE REFERENCE NO.</td>
<td>MATERIAL</td>
<td>INTERNAL DESIGN</td>
<td>CARBURIZATION</td>
<td>CAGE</td>
<td>LUBRICATION FEATURES</td>
<td>INTERNAL CLEARANCE</td>
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<td><strong>DIMENSIONAL SERIES</strong></td>
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<td><strong>BORE DIAMETER</strong></td>
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<tr>
<td><strong>MATERIAL SERIES</strong></td>
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<td><strong>INTERNAL DESIGN</strong></td>
<td>EA, CA: high load capacity</td>
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*additional series / sizes are available - contact NSK*

Improved bearing durability achieved by using SWR spherical roller bearings extends roll segment operation, reducing maintenance costs and preventing unplanned downtime.