

INNOVATION  
 SHX Steel



SHX is a heat-resistant & wear resistant steel resulting from NSK's special proprietary materials & heat treatment technology; it offers unrivalled ultra high-speed performance and extended fatigue life ideally suited for machine tools running to their maximum capacity.



**Product Features**

- › NSK's Patented special steel.
- › Special heat treatment process offering superior hardness.
- › SHX material for angular contact bearings is complemented with ceramic balls as standard.
- › SHX material rollers available for cylindrical roller bearings; a cost effective solution over the use of ceramic rollers whilst delivering up to 85% of the ceramic speed (Over 2 Million dmn (= Bearing mean diameter (mm) X speed (rpm))).  
 No other bearing company can offer an alternative material to rival the performance of a ceramic hybrid roller bearing.

**Product Benefits**

- › Sub surface & surface fatigue life resistance increase by 4 times.
- › 20% higher speed compared to standard bearing steel.
- › Enhanced service life under low / poor lubrication regime.
- › Similar heat resistance to Aerospace M50 steel (300°C).
- › Lower friction performance & indentation resistance.
- › Superior wear resistance is especially important for high speed applications, such as grinding operations, where ball / raceway slippage can occur.

**Condition Description:**

- Ultra high speed
- Friction
- Lubrication

**Applications:**

- › Machine Tool

