

## Super-TF Spherical Roller Bearings

NSK's Super-TF (STF) spherical roller bearings for main shafts are engineered to deliver superior and sustainable performance through advanced material technology and applied manufacturing process controls. STF bearings are designed to last and provide high capacity performance for a significantly longer and more reliable operating life under very challenging operating conditions.

### Product Features

- Super-TF steel contains appropriate level of retained austenite to alleviate the stress concentration at the shoulder of dents generated by contaminations and fine carbide and carbonitride particles to increase the hardness
- Machined brass cage design delivers superior performance in applications subject to heavy and/or impact loading
- DLC (Diamond-like Carbon) coating increases roller surface toughness with extremely low friction and low adhesion
- Advanced raceway surface finish

### Condition Description

- Contamination
- Wear



### Benefits

- Super-TF steel improve performance under contamination and insufficient lubrication condition
- Significantly increased resistance to wear and indentation
- The basic dynamic load rating is 23% higher than standard
- Under contaminated lubricated conditions, L10 life of Super-TF Bearings is more than ten times that of ordinary carburized steel bearings. (around 5.5 times higher in boundary contaminated conditions)
- Super-Tf provides longer service life against White Structure Flaking (WSF), 2 times longer than that of ordinary carburized steel and 4 times longer than that of normal bearing steel
- Special roller surface treatment - DLC coating increases roller surface toughness and endurance
- Controlled raceway surface finish improves lubrication performance and increase wear resistance

### Industries

- Wind Energy

STF 240 800 CA g5 S4WC M E4 CGXXX U22B U303

#### Description

STF	Special Material - Super-Tough (TF)
240	Dimension series
800	Bore Ref Number
CA	High capacity internal design
g5	Material symbol - IR / OR
S4WC	Surface treatment DLC coated rollers
M	2-piece machined brass cage
E4	Lubrication groove
CGXXX	Internal clearance
U22B	Surface finish specifications
U303	Process control specification