



TESCO BUSHING

HIGH RESISTANCE TO WEAR AND SEIZURE BY HIGH TEMPERATURE AND ABRASIVE ENVIRONMENT

TESCO technology is based on an alloy steel with high mechanical resistance completed with a duplex surface treatment which provides a high abrasion resistance in severe working conditions: high pressure and high temperature.

Surface characteristics

The special alloy steel used for TESCO bushings reaches a core hardness higher than 50 HRC.

A specific chemical surface treatment leads a surface hardness higher than 800 HV and excellent friction properties like abrasion resistance at high temperatures.

TESCO technology is duplicable on slides, guiding plates or washers. Different surface topography could be added on the component in order to help removing abrasive particles, or making the grease distribution easier.

Conditions of use

Dynamic pressure	
Max (MPa)	100
Max Speed (m/s)	0,5

Max temp	500 °C (930°F)
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Lubrication	high temp grease
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Standard Tolerances

Housing	H 7
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Bushings ID	H 9
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Bushings OD	p 6
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Shaft	have to be defined depending on working environment
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Applications:

- ▶ **Steel industry :**
 - Caster segment
 - Mandrel slides
 - Valves for ladle metallurgy
 - Dummy bar holding system
 - Steel plant wheel loader
- ▶ **Cement industry :**
 - Bushings on cooling chain
 - Transport screw
 - Cement bags feeding system
- ▶ **Miscellaneous :**
 - Yarn guides

References:

- Arcelor Mittal
- Ascométal
- Caterpillar
- Ciments Calcia
- Ciments Lafarge
- Pirelli
- Siemens VAI
- Ugitech
- Vallourec

This solution is based on our experience in the field of tribology. Therefore, it should be tested and validated in your real working conditions before being adopted for permanent use.

Mating shafts

For optimal performances of the joint, the surface roughness should be lower than $0.8 \mu\text{m Ra}$ and the hardness should be higher than 56 HRc. Shaft material and heat treatment have to be adapted to high temperature environment.

For optimal performances, special shafts are available from HEF DURFERRIT: TESCO ST, TESCO STC, TESCO OX, TESCO HT.

Assembly instructions

TESCO bearings are best assembled by press fitting or by nitrogen mounting. (Other assembly techniques can also be used).

For further information, please contact HEF DURFERRIT prior to use.

Lubrication

Joints used with TESCO technology have to be lubricated. Depending on working conditions high temperature greases or not have to be used. Please contact us if you need technical support.

Available basic forms

Different forms are available with TESCO technology: bushings, flanged bushings, pins, rollers, sliding plates, washers or others complex shapes.



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