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TESCO® BUSHING

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

TESCO[®] technology is based on alloy steels 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.

Examples of applications

Caster segment – Mandrel slides – Valves for ladle metallurgy – Dummy bar holding system – Steel plant wheel loader – Bushings on cooling chain – Transport screw – Cement bags feeding system – Yarn guides – etc...

Surface characteristics

The special alloy steel used for TESCO[®] bushings reaches core hardness higher than 50 HRC. A specific chemical surface treatment leads to 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 topographies could be added on the component in order to help removing abrasive particles, or making the grease distribution easier.

Conditions of use

Static pressure max (MPa)	Up to 1200 (depending on topography)
Dynamic pressure max (MPa)	100
Speed (m/s)	1,5
Max Temp (°C)	500
Lubrication	greased
Greasing intervals	Depending on topography



Member of HEF Groupe, tribology expert and leader in surface engineering, HEF Durferrit masters all technologies to develop customized bushings and friction components:

- Nitrocarburising specialist, owner of QPQ®, TENIFER®, ARCOR®, SURSULF®, TUFFTRIDE®...
- Low friction, anti-corrosion coatings: lamellar zinc, PTFE & MoS2 coatings...
- PVD & CVD coatings expert: DLC (aC:H, TaC), hard coatings (CrN, TiN,...): CERTESS®
 Anti-seizure treatment: STANAL[®] 400 (for stainless steel), DELSUN[®] (for bronze and cupper alloys)

















Standard tolerances

Bushing inner diameter	H9
Bushing outer diameter	p6
Housing	H7
Shaft tolerances	To be defined according to conditions of use
Shaft roughness	Ra < 0.8
Shaft hardness	> 56 HRC
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Assembly instructions

TESCO[®] bushings are best assembled by press fitting or by nitrogen mounting (Other assembly techniques can also be used. If necessary, please contact HEF DURFERRIT prior to use.)

Available basic forms

Different forms are available with TESCO[®] technology: Cylindrical or flanged bushings, sliding plates, thrust washers...

Topography may be adapted: BH holes, cross hatching...

TESCO[®] bushings may be customized to answer your specific needs.

Counter shaft

For shaft materials and heat treatment, they have to be adapted to high temperature environment.

For optimal performances, special HEF DURFERRIT shafts are available from HEF: $\text{TESCO}^{\texttt{R}}$ ST, $\text{TESCO}^{\texttt{R}}$ STC...

Large testing capabilities and strong R&D

- 60 tribologists and R&D engineers
- More than 30 test benches, customizable tribometers
- Studies in special environment: Cryogenic, high temperature, water, oil, grease, dust ...
- More than 2 500 studies in various industries
- More than 600 patents



This TESCO® bushing 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.



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You have a friction problem? HEF DURFERRIT has the solution!