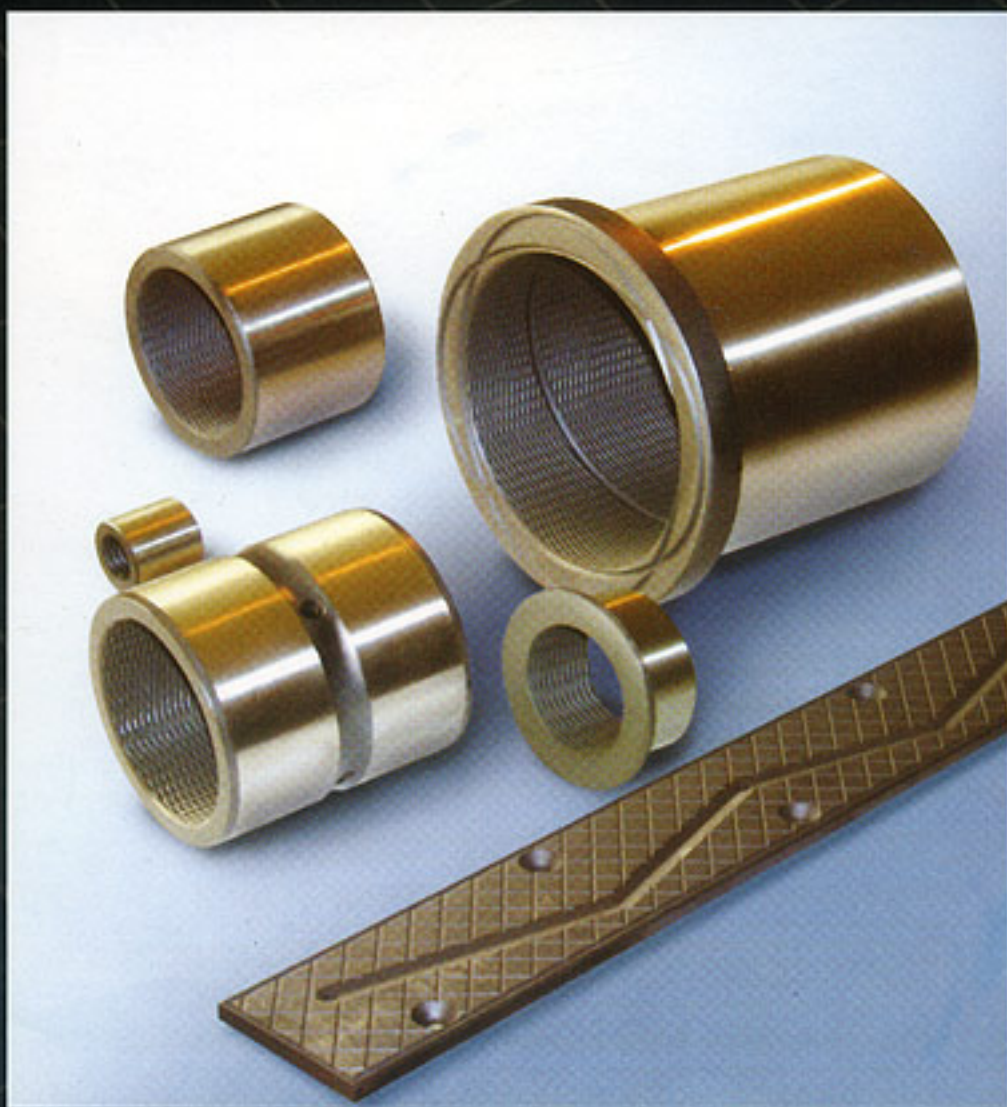




## Surface engineered Bushes for demanding applications



# PEL<sup>®</sup> BUSHES

Resistance to wear, seizure and corrosion  
under harsh working conditions.

## Excellence in Surface Engineering

PEL® Bushes are made with the choicest material and perfected through surface modification technologies. Developed by Hydromecanique et Frottement (HEF) France, PEL Bushes incorporate a special design to expel dirt and unwanted particles. The enhanced surface properties ensure excellent resistance to wear and seizure.

The specially engineered lubrication retention arrangement inside the bushes help effectively embed abrasive particles in dusty environment and expel them. They also act as reservoir for wet lubricants, when applied.

However, the dry film lubricant coating of the PEL bushes reduces the demand for grease by extending the mean time between lubrication.

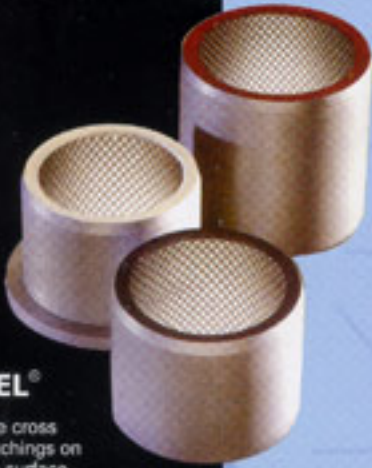
Ideal for situations where external lubrication is neither possible nor permitted, these bushes and pins help free movement while rotating, swiveling or reciprocating.

### Special advantages:

- Can be used in dusty atmosphere.
- Reduced lubrication requirements, saving on lubrication cost.
- Replaces phosphor bronze, gunmetal and other bushes made of copper alloys.
- Replaces case-hardened bushes.
- Used in areas inaccessible for lubrication.
- Used in areas of high contact loads.

### PEL®

The cross hatchings on the surface provide a large grease reservoir and helps remove the abrasive dust.



### PEL® BH

The cavities on the surface of the PEL® BH bushing provide a large grease reservoir while maintaining an optimum load distribution.



### PEL® G

Circular grooves on the inner wall act as grease reservoirs and provide good distribution of the grease in the contact area.



### PEL® BH spherical

These spherical plain bearings have grease reservoirs between the inner and the outer ring of the bushing.



### PEL® T

The holes on the surface of the bushing provide a large grease reservoir while maintaining an optimum load distribution.

## Applications of PEL® Bushes

PEL® bushes particularly find application in excavators, giant cranes, backhoe loaders, dumpers and tractors, that gnaw the earth and plough through dirt, debris, muck and ore.

### Industrial applications:

Earth moving machinery  
Automobiles  
Material handling equipment  
Cement industry  
Textile industry  
Mining industry  
Agricultural equipment  
Hydraulics  
Plastic moulding industry  
Railways

### Conditions of Utilisation:

#### LOAD / PRESSURE

Maximum 1000 bars

#### SPEED / VELOCITY

Range 0 to 0.5m / sec.

#### LUBRICATION

PEL® bushes have a dry film lubricant coating for reducing friction. They are compatible with oils and greases.

#### TEMPERATURE OF UTILISATION

Maximum operational temperature : 300°C

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PEL® bushes can be designed and supplied as per customer specifications.



## Other specialty bushes from HEF



FAM for very high abrasive environment



COD 11 for corrosion resistance in saline environment

TS 555 thin walled rolled bushes

TS 811 & FV 721 Plastics & Polymer based bushes.



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