Bearings - Joints

PEL® T BUSHING Patent HEF

HIGH RESISTANCE TO WEAR AND SEIZURE UNDER HIGH PRESSURE AND ABRASION ENVIRONMENT
LOW MAINTENANCE

Manufactured from a thin rolled steel strip, the PEL T bearing has excellent resistance to wear and seizure and is suitable for high contact pressure and abrasive surroundings, in alternative or continuous rotation.
With these bearings the intervals of lubrication are considerably increased.

Surface characteristics :

The cavities at the surface of the PEL-T bushing provide large grease reservoirs while maintaining optimum load distribution.

The impregnated thermo-chemical treatment provides high surface hardness, good conformability and excellent resistance to wear and seizure.

Conditions of use :

Dynamic pressure Max (MPa)	100
Speed (m/s)	8
PV factor (MPa.m/s)	See attached curve
Max Temp (°C)	250
Lubrication	greased

Tolerances :

Housing	H 7
Bushings ID (after assembly)	H 9 / H 10
Bushings OD	p 6
Shaft	f 7

EXPROHEF

H.E.F. GROUPE

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Standard dimensions

Dimensions in mm

ID	OD
20	23
25	28
30	34
35	39
40	44
45	49
50	55
55	60
60	65
65	70
70	75
75	80
80	85

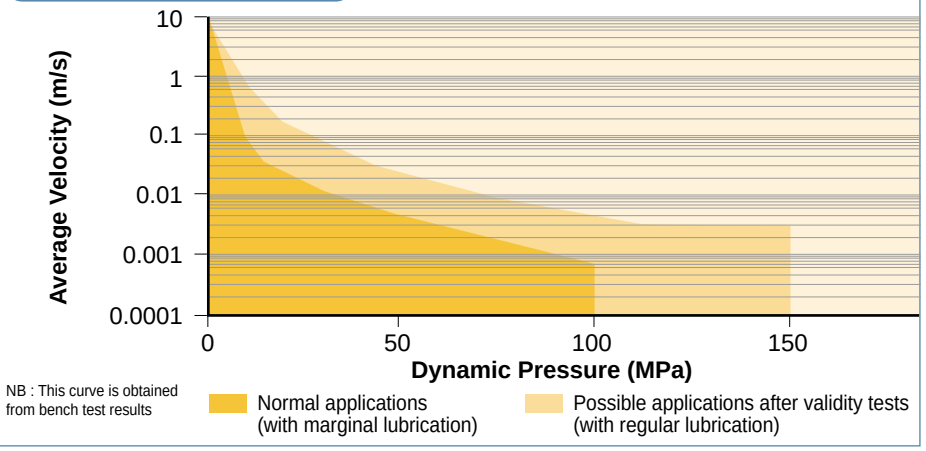
We can produce PEL T bushings in non standard dimensions.

Applications :

- **Earth moving equipment**
  - – Wheel loaders
  - – Skid loaders
  - – Telescopic handlers
- **Steel-glass processing**
  - – Mould
  - – Conveyors
- **Agricultural equipment**
  - – Plough
  - – Handler
  - – Front loader
  - – Bush-cutter pilers
- **Miscellaneous**
  - – Forklifts
  - – Fork for motorcycles

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.

PEL T : PV factor curve



Example of wear values measured on various bushings

Test conditions :

- Oscillating motion, 100° amplitude
- Greasing at mounting
- Dynamic pressure P = 80 MPa
- Mean PV factor = 0,18 MPa.m/s
- Mating shaft: PEL-ST technology surface roughness = 0,4 µm Ra
- Test duration: 1000 hours

Mating shaft :

– For optimal performances of the joint, the surface roughness should be inferior to 0.8 µm Ra
– Under severe conditions, shafts hardened for 56-60 HRc are recommended

For optimal performances, special shafts are available from HEF

BUSHING	WEAR AFTER TESTING (mm)
PEL-T	**< 0,05**
High performance rolled perforated bronze	0,2
High performance loaded composite	> 0,5
Steel + Sintered Bronze + polymeric resin	0,2
Bronze + graphite inserts	> 0,5
High performance impregnated woven material	Destruction

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