



PEL[®] T BUSHING HEF Patent

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

The PEL T bushing has excellent resistance to wear and seizure and is suitable for high contact pressure and abrasive surroundings, in alternative or continuous rotation. With these bushings the intervals of lubrication are considerably increased.

Surface characteristics

The cavities on the contact area 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
Max Speed (m/s)	8
PV factor (MPa.m/s)	see attached curve
Max temperature of use (°C)	250
Lubrication	greased

Standard tolerances

Housing	H 7
Bushings ID	H 9 / H 10
Bushings OD	p 6
Shaft	f 7





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Standard dimensions in mm

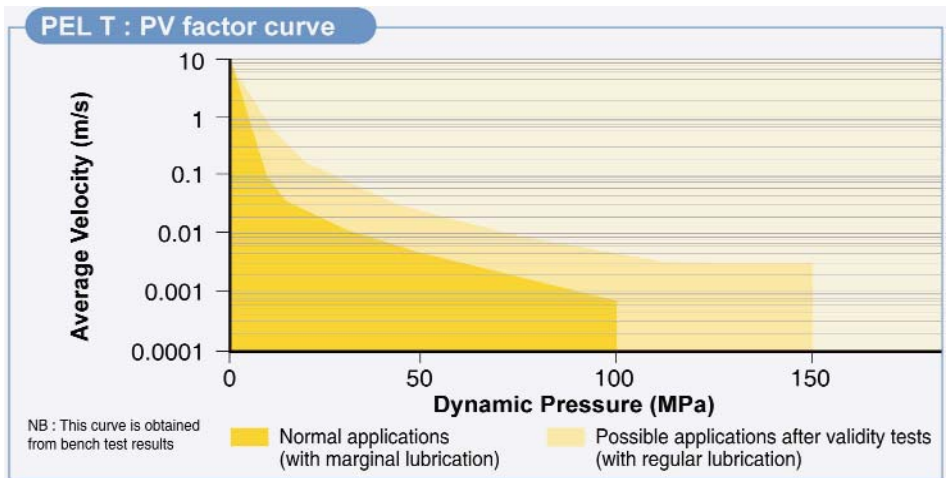
ID	OD
20	23
25	28
30	34
35	39
40	44
45	49
50	55
55	60
60	65
65	70
70	75
75	80
80	85

We can produce PEL T bushings in non standard dimensions.

Applications:

- ▶ **Earth moving equipments**
 - Wheel loaders
 - Skid loaders
 - Telescopic handlers
- ▶ **Steel-glass processing**
 - Moulds
 - Conveyors
- ▶ **Agricultural equipments**
 - Ploughs
 - Handlers
 - Front loaders
 - Bush-cutter pillar arms
- ▶ **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.



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 below to 0.8 µm Ra
- Under severe conditions, shafts hardened to 56-60 HRC are recommended

For optimal performances, special shafts are available from HEF DURFERRIT

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



Mechanical Components Division: 7, rue Salvador Dali
42000 Saint-Etienne - France
Tél.: +33 (0) 4 77 46 53 90
Fax: +33 (0) 4 77 46 53 95
E-mail: bushings@hef.fr

HEF USA Headquarters: 2015 Progress Drive
Springfield, Ohio 45505
Phone: (937) 323-2556
Fax: (937) 323-5787
E-mail: sales@hefusa.net
Internet: www.hefusa.net