

PERMAGLIDE® plain bearings: Bearing of the lamellae in fire dampers

Sector: Fire safety technology, building technology

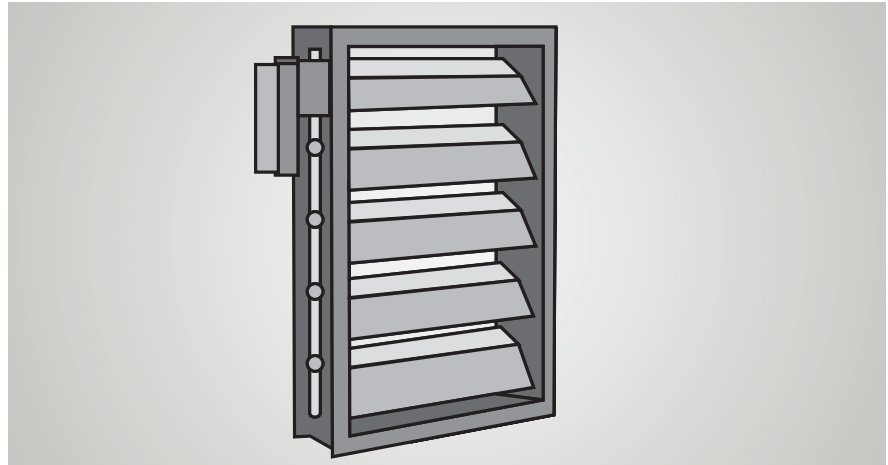
Function

Fire dampers must function reliably. If there is a fire, the lamellae of the fire damper must open smoothly and correctly. Environmental influences such as heat, cold, dirt or dust must not impede the function of the lamellae. If used frequently – or indeed rarely – this correct opening must not be impeded. Jamming caused by corrosion, dirt or the influence of certain temperatures must be prevented.

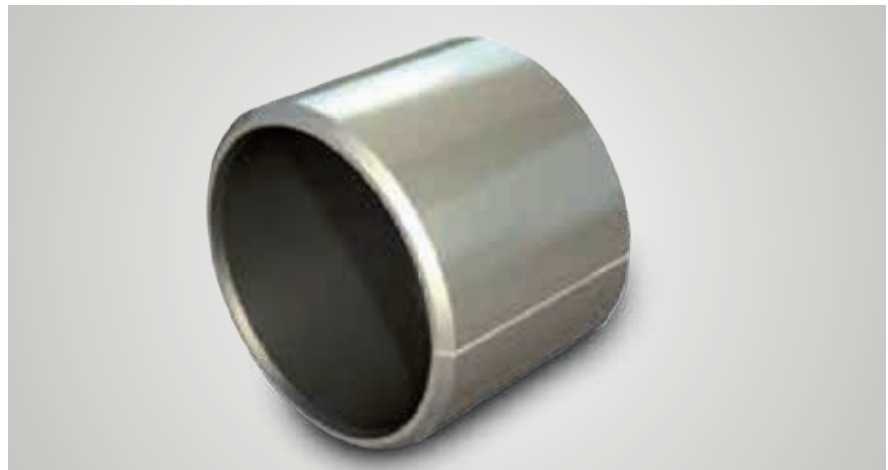
Bearing with PERMAGLIDE® P10 plain bearing bushes

PERMAGLIDE® P10 plain bearings, which are implemented in pairs, are an ideal solution for the bearing of the lamellae in fire dampers.

The maintenance-free PERMAGLIDE® P10 plain bearings prevent the bearing from corroding and freezing solid, and prevent the lubricant from dripping out due to heat. The bearing clearance may not become too low, e.g. due to high temperatures, as this can lead to the lamellae becoming stuck. The reliable function of the fire damper – even after long periods of use – is guaranteed by using PERMAGLIDE® P10 plain bearings.



Lamellae arranged one behind the other in a fire damper



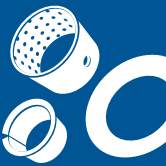
PERMAGLIDE® P10 plain bearing bush

Advantage: Reliable function of the bearing thanks to PERMAGLIDE® P10 plain bearings

- Impervious to temperature, dirt and dust
- Maintenance-free, even when used very frequently or rarely
- Protected against corrosion

Use of PERMAGLIDE® P10 plain bearings in fire dampers

Bearing of the lamellae pivots:
PERMAGLIDE® bushes in the locating hole of the lamellae



Description of material

PERMAGLIDE® P10 – robust and reliable

- Universally usable plain bearing material for dry and lubricated applications
- High rigidity
- Durability
- High chemical resistance
- Good emergency running properties
- Material: Lead bronze sintered onto a steel base, friction-minimising additives PTFE and lead.

PERMAGLIDE® P10 offers the following advantages over comparable lead-free plain bearing products:

- Higher thermal conductivity
- Good chemical resistance
- Good transfer of lubricant onto the interacting sliding partner
- Good passivation of the interacting sliding partner
- Impervious to high edge loading

In damp environments, in particular, this sliding layer system provides outstanding protection against corrosion. Moreover, lead and PTFE are extremely non-absorbent. Absorption of the surrounding fluids with consequent swelling of the materials is prevented, as is chemical damage to interacting sliding partners. The result is dimensional stability and optimum corrosion protection during use.

Application description

In normal operation, the lamellae of the fire damper are closed and are never opened, or if so, then very rarely. Fire dampers are installed in building ventilation systems in order to prevent fire and smoke spreading via ventilation lines. In the event of fire, fire dampers are opened so that toxic fumes can be

extracted. Fire dampers are sometimes mandatory as safety components according to § 14 of the German Model Building Ordinance (MBO). Fire dampers are also used for normal ventilation in building technology.



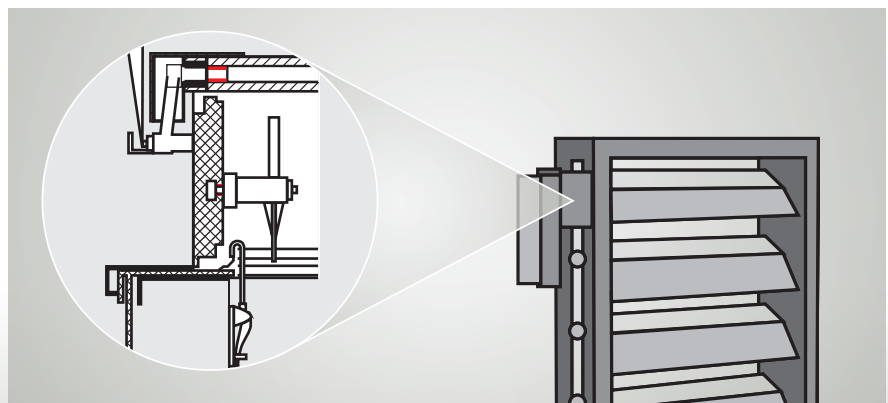
Fire damper



Ventilation system

Further information on PERMAGLIDE® P10 plain bearing bushes

- PERMAGLIDE® catalogue, item no. 50003863-02
- PERMAGLIDE® P10 folder, item no. 50003845-02
- PERMAGLIDE® PI 1090
- PERMAGLIDE® online catalogue www.permaglide.com/onlineshop



Bearing of the lamellae using PERMAGLIDE® P10 plain bearings