

## FB 01

### Description

Product group: Guide elements  
Design: Guide strip  
Profile no.: 01  
Material: PTFE 00 9853



### Operational application limits

Max. surface pressure (N/mm<sup>2</sup>): ≤ 15  
Temperature (°C): -60 to +200  
Running speed (m/s): ≤ 15

### Media

Hydraulic oils acc. to DIN 51524 Part 1 - 3, lubricating oils, mineral oil based lubricating greases, highly non-flammable hydraulic fluids HFA, HFB, HFC acc. to VDMA 24317

### Function

Guide strips made of PTFE compounds serve to guide pistons and rods. They prevent metallic contact of the machine parts and absorb the transverse force that occurs. Guide elements made of PTFE compounds are characterised by outstanding friction behaviour which minimises the stick-slip effect. In addition they exhibit high thermal and chemical resistance. PTFE guide strips are suitable for medium surface pressure.

### Installation

Guide strips are produced on rolls and cut to the required length.  
There are three different cutting types: 30°, 90°, ST.  
30° = for better press force distribution and to facilitate installation  
90° = simple cut  
ST = for swivel movements

The following formulae are used to calculate the required lengths

Guiding a rod:

$$L = 3.11 \times (d + S) - 1.0$$

Guiding a piston:

$$L = 3.11 \times (D - S) - 1.0$$

In these formulae, the heat expansion coefficient and the gap dimensions for the joint are already included.

The ready cut guide strips can easily be installed in closed installation grooves.

### Remarks

Guide strips have the advantage of universal application. Due to the surface structure of the strips and the special consistence of the PTFE material, additional lubrication is created on by the guide strips. A chamfer on the edges prevents edge compression in the groove corners and facilitates installation.