Multiple Convolution Bellows

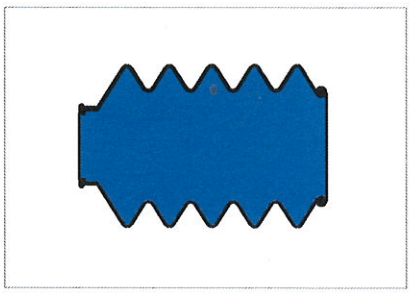


Fig. 1 Multiple Convolution Bellows

Product description

Bellows are protective elements comprising a moving section and two connection pieces for fastening. They protect axially moving rods and parts of machines against soiling, water spray, dust or the effects of the weather. Depending on their design, they can accommodate movements perpendicular to the axis or a combination of movements (e.g. gear levers).

Bellows are able to follow axial movements within their limits L_{min} (compressed length) and L_{max} (extended length). Special loads (non-axial movements, pressure loads etc.) affect the maximum working stroke and the flexibility
→ Technical Manual.

Product advantages

Depending on the application, bellows and connecting areas can have very different geometrical shapes and dimensions. More than 500 different bellows geometries are available to the user quickly and cost-effectively.

Application

There are many application cases for bellows, for example, the functional sealing of ball joints, connection of two tube ends, push rods (e.g. in hydraulic and pneumatic applications), axle bearings.

Material

Material	CR	NBR
Hardness	42/50 Shore A	approx. 45 Shore A

Other materials on enquiry (after clarification of the material-job specification and the type).

Operating conditions

Material	CR	NBR
Temperature	−40 ... +100 °C	−30 ... +100 °C
Dynamic loading	very good	sufficient
Mineral oil and grease resistance	sufficient	good

The values listed in the table are recommended values.
→ Technical Manual.

Fitting & installation

The moving section of the bellows must not come into contact with any sharp edges. It is imperative that continuous chaffing against moving parts of the machine is avoided.
Bellows are not able to absorb major excess pressure or vacuum, as otherwise excessive deformation would occur.
To prevent a pressure build-up inside bellows on axial movements, a sufficient ventilation must be provided.
Torsional loading of the bellows should be avoided.
For further information on installation:
→ Technical Manual.

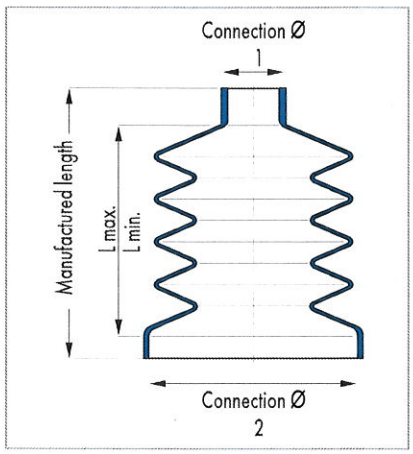
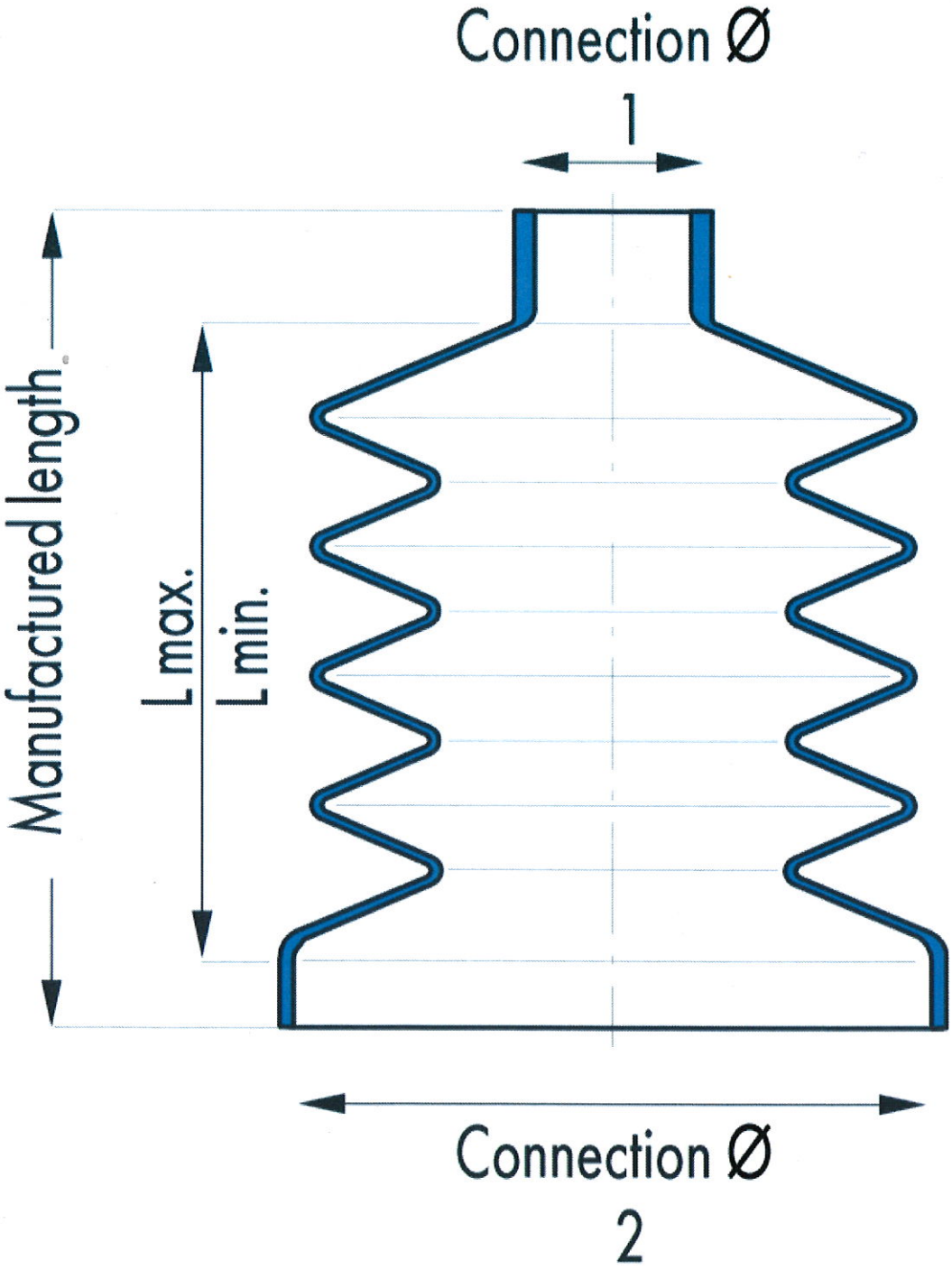


Fig. 2 Drawing with dimensions multiple convolution bellows


Connection Ø
1
Manufactured length
L max.
L min.
Connection Ø
2