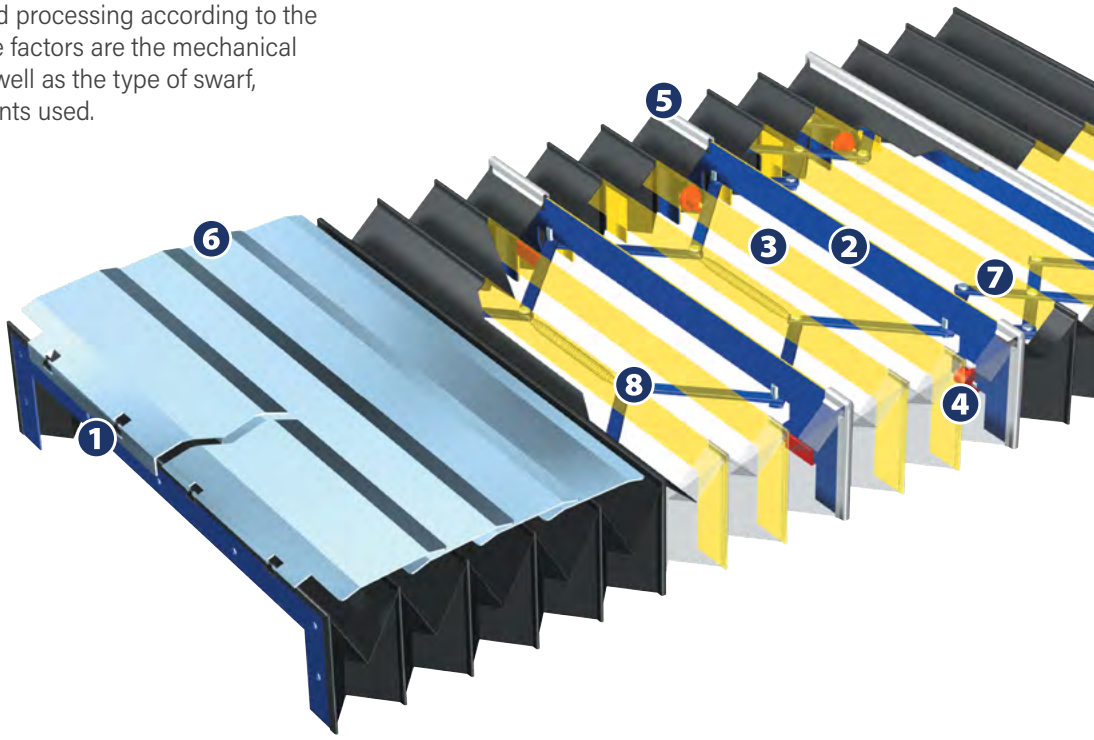
OVERVIEW & OPTIONS

Our bellows are made exclusively from high-quality plastic fabrics and foils. We select the cover material and processing according to the design's ambient conditions. Decisive factors are the mechanical and thermal strain of the bellows as well as the type of swarf, chips, and aggressiveness of the agents used.

- Maximum functional reliability
- Tailor-made solutions
- Maximum durability
- Proven components
- Minimum service requirements
- Long-term supply of spare parts



OPTIONS

The dynamic properties of modern drives make heavy demands on all bellows. With Hennig, you can adapt every detail of the friction, extension, and durability properties of your bellows to your requirements.

1. **END FRAMES**
   End frames, mostly made from steel or aluminum, connect the bellows with the machine. Hennig offers various fastening solutions for the adaptation to different bellows and machine interfaces.

2. **INTERMEDIATE FRAMES**
   Intermediate steel frames are used to connect the various elements, especially when extension limit systems are required. The intermediate frames are fastened to the bellows with a clamping rail. The intermediate frames can be guided by either plastic or brass rollers or gliders.

3. **GUIDE FRAMES**
   The guide frames provide the bellows with necessary stability and enable a precise operation, even at high speeds. They are made from PVC and are directly welded to the cover. The shape of the frame is adapted by Hennig to the design required.

4. **ROLLERS**
   Rollers are used in large and heavy bellows. They minimize friction and ensure excellent running properties.

5. **COUPLING RAIL**
   Necessary for medium and large bellows with a high number of folds in order to connect the single bellow elements together. Connected inside and outside.

6. **LAMELLAS**
   Fixed or hinged, stainless steel lamellas can be added to protect the bellows against hot, sharp-edged swarf, or mechanical strain.

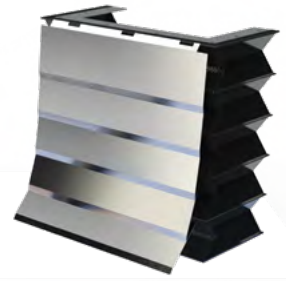
7. **SCISSORS**
   Scissors are used for high traversing speeds. This allows an even extension of all elements across the whole extension length. As a result, the folds are less strained and the durability of the bellows is prolonged.

8. **HALF-SCISSORS**
   With half-scissors, the individual elements can be extended successively depending on the necessary extension length. Since the folds are not loaded up to the theoretically possible extension limit, it also has better durability.

DESIGN TYPES

COATED FABRIC

Maximum compression and flexibility in a wide range of materials for a wide range of environments. Industrial coated fabric bellows are great for dust protection, laser machines, and guideways that don't see a lot of chip loads. Coated fabric bellows can be assembled using the heat-sealed or the stitched method, and can be custom made in almost any shape including round bellows.



HINGED STEEL LAMELLAS

Do you need vertically mounted bellows? Without lamella overhang? In such a case, our bellows with hinged lamellas are the perfect solution for you. Each lamella is flexibly fixed to the PVC frame. Therefore, the lamellas can lie down flat on the machine enclosure at the bottom.

FIXED STEEL LAMELLAS

Hennig has developed lamella bellows to meet particularly tough requirements. This type fills the gap between telescopic steel covers and conventional bellows. The lamella bellows are based on our heat sealed or stitched designs. Each fold has its own guide frame which is secured to the cover material. Lamellas made from stainless steel protect the bellows against red hot, sharp-edged swarf and mechanical strain.

STITCHED

We make bellows with round, oval, or rectangular (with rounded off corners) cross-sections using a special sewing method. Support rings are used to meet special requirements and applications. Due to their robust design, these bellows have a long and reliable service life, even under extreme mechanical and dynamic strain. The temperature resistance of these bellows can be increased to approx. 400°C (752°F) when using an aluminized fabric.

MOLDED RUBBER / RUBBER DISK

Rubber bellows offer maximum protection against water, oil, chemicals, and high temperatures. Primarily used for protecting lead screws, shafts, and moving air cylinders, but can be custom molded to any shape for your application.

DESIGN TYPES

MACHINE ROOF BELLOW COVERS

A bellows system designed as a “ceiling” for your machining center. Use this system to protect your machine from dust and other light contaminants that cannot otherwise be protected against with your standard machine enclosure. Designed with double fold units for increased stroke, these bellows can be manufactured to your requirements. We plan the guidance of the roof bellow according to your circumstances, either by using existing guide systems, or designing a new system that fits your specifications.

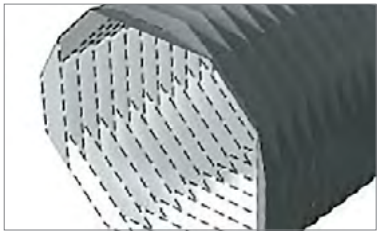
ASSEMBLY OPTIONS

HEAT-SEALED

The optimum design for bellows is the heat-sealed version. The cover material and PVC guide frames are permanently joined. The connection of the bellows material and the guide frames ensures maximum loading capacity and absolute tightness against liquids such as cooling or grinding agents.

STITCHED

Due to their robust design, these bellows have a long and reliable service life, even under extreme mechanical and dynamic strain. The temperature resistance of these bellows can be increased to approx. 400°C (752°F) when using an aluminized fabric.

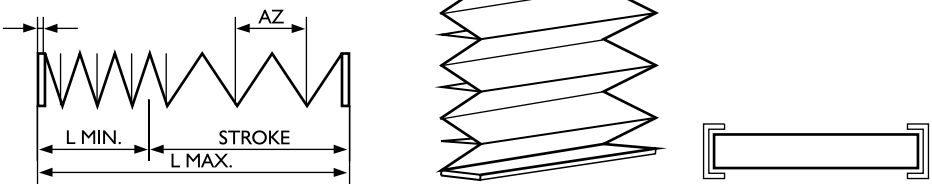


GLUED

This bellows consists of up to three foils glued together in a sandwich construction. Thanks to a special bonding of the materials, this bellows offers the greatest possible protection even when using liquids.

COATED FABRIC BELLOWS

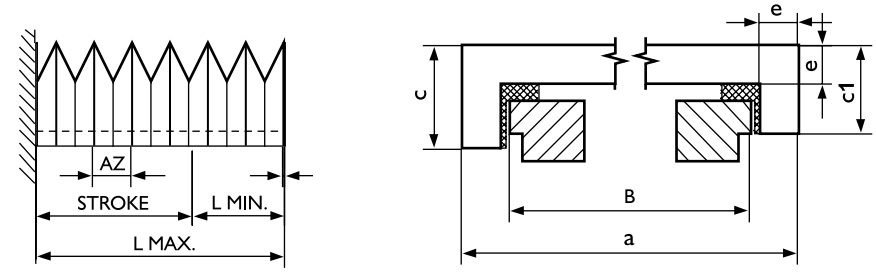
FLAT BELLOW



Fold Height (e)	Extensions Per Fold (AZ)
15	14
17	18
20	24
24	32
30	44
35	54
40	64
45	74
50	84

All dimensions in mm

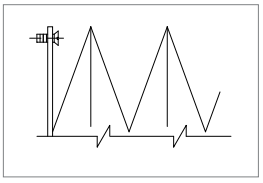
FOLDED BELLOW



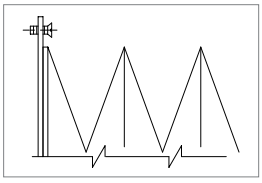
Fold Height (e)	Extensions Per Fold (AZ)
15	18
17	22
20	28
24	36
30	48
35	58
40	68
45	78
50	88

All dimensions in mm

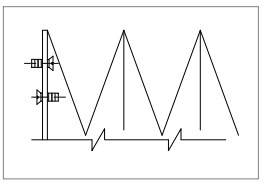
STANDARD MOUNTING OPTIONS (FLAT OR FOLDED)



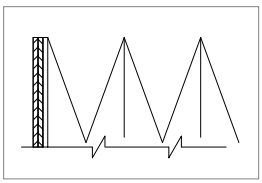
HALF FOLD
Limits extension of first fold for inside mounting.



EXTERNAL FLANGE
Allows for full extension of first fold with outside mounting above bellows.



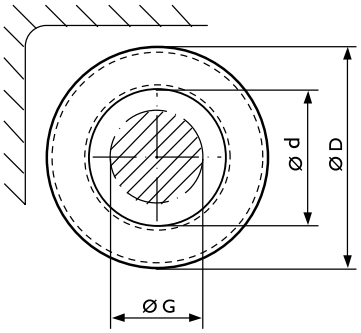
FULL FOLD
Allows for full extension of first fold for inside mounting.

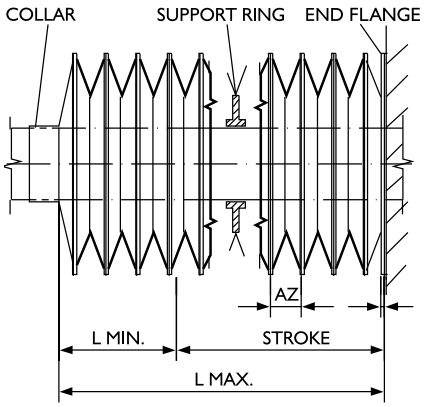


VELCRO
Supplied with adhesive backed velcro fastener for simple & quick inspection of machine components (dry applications).

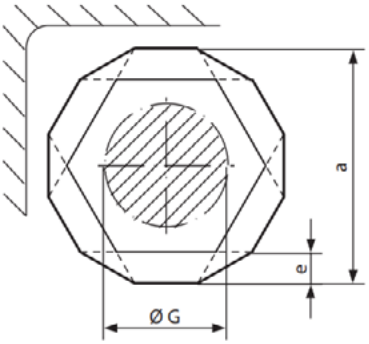
ROUND BELLOWS

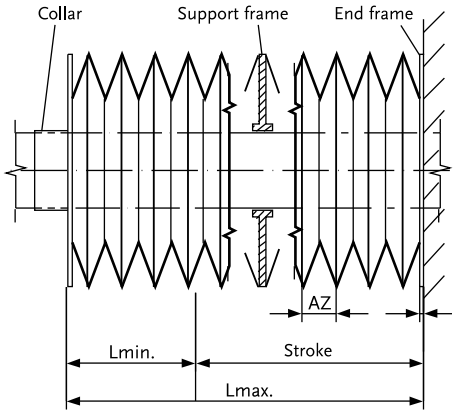
STITCHED ASSEMBLY



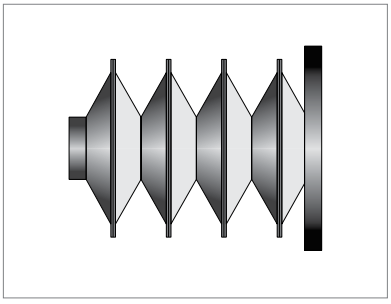


GLUED BELLOWS



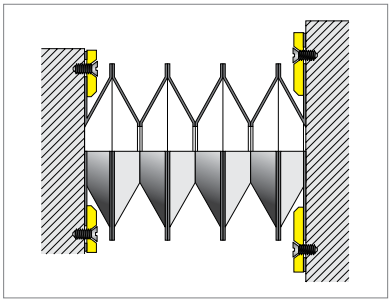


STANDARD MOUNTING OPTIONS



COLLAR

Different fixing devices are possible on either side.



FLANGE

Different fixing devices are possible on either side.