

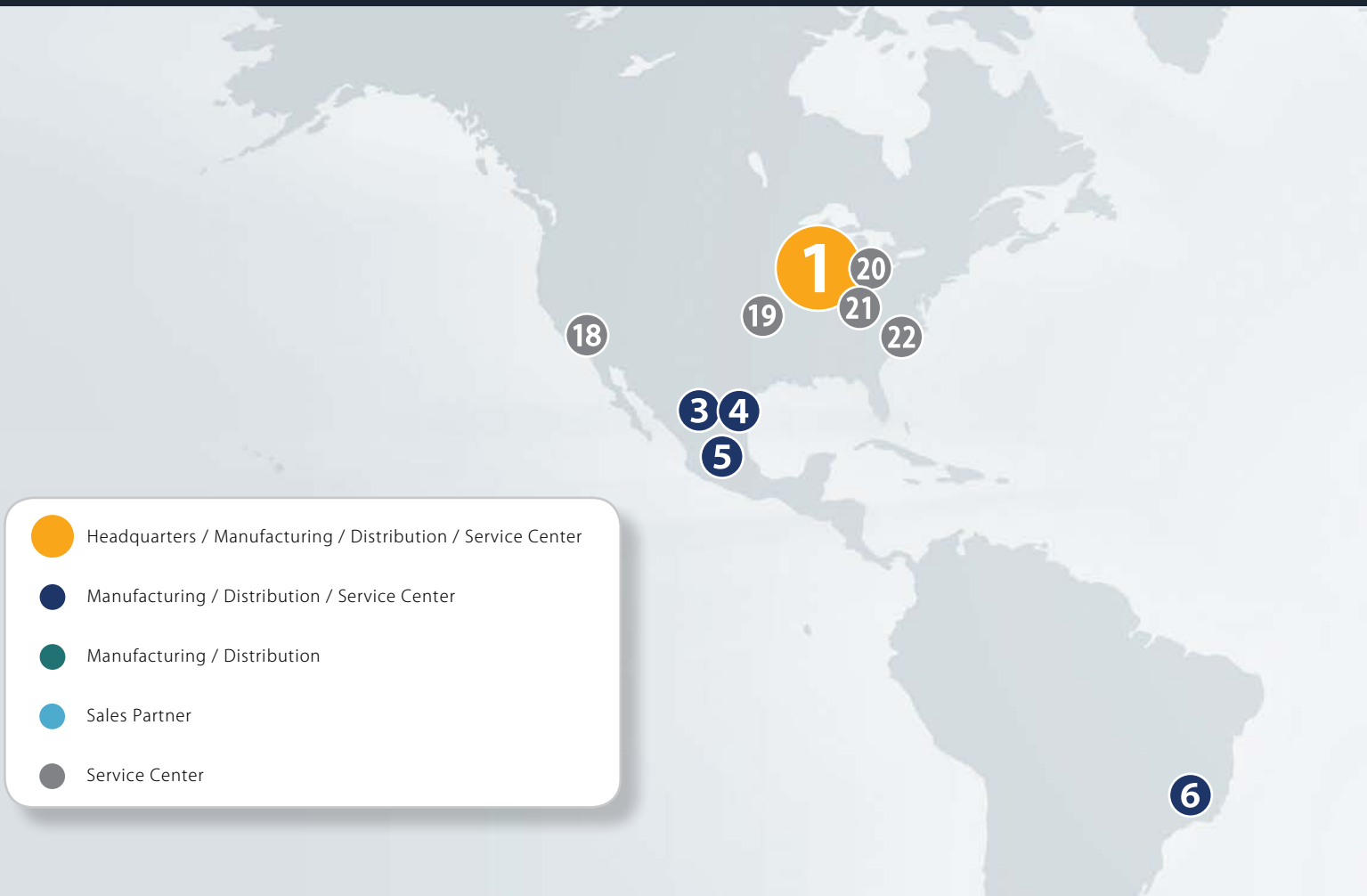
# BELLOWS

COATED FABRIC BELLOWS | STEEL-CLAD BELLOWS | RUBBER BELLOWS  
microFIN MODULAR BELLOWS | ROOFTOP BELLOWS



# HENNIG WORLDWIDE

manufacturing / sales / service centers



- Headquarters / Manufacturing / Distribution / Service Center
- Manufacturing / Distribution / Service Center
- Manufacturing / Distribution
- Sales Partner
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# BELLOWS

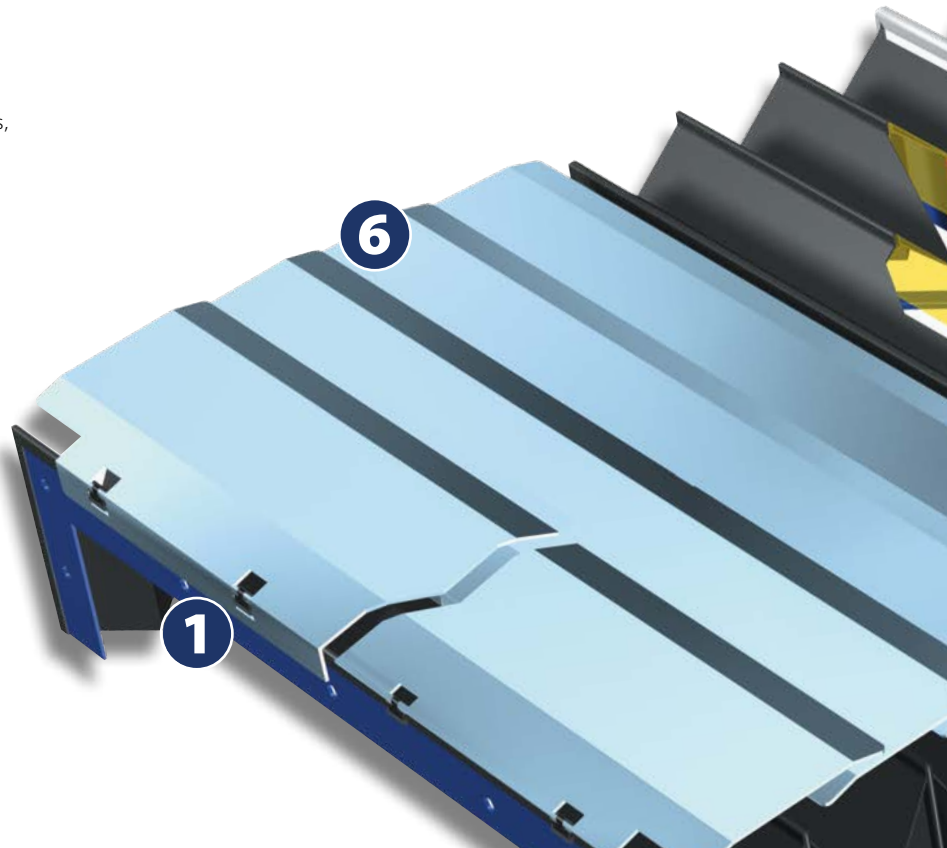
## features & options

### GENERAL INFO

We have designed and manufactured folded bellows for machine tools for more than 65 years. Our product range includes simple dust protection, sophisticated designs featuring extension systems and/or lamellas, as well as special designs for laser machines.

Our customers include nearly all renowned machine manufacturers. To maintain our high quality standards, all materials used are checked and developed by our own R & D departments. Hennig offers excellent productivity and security for your machine.

- 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

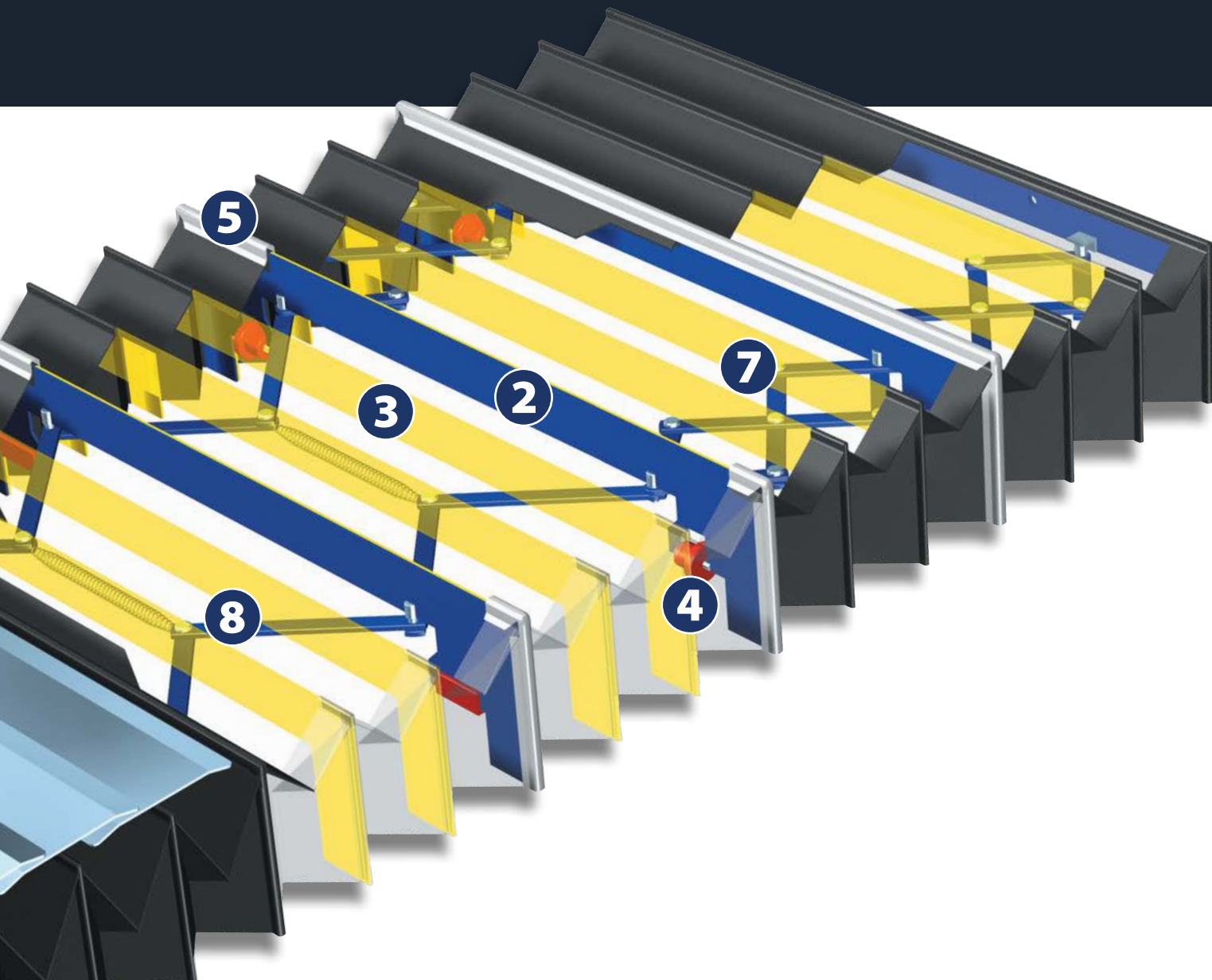
End frames, mostly made from steel or aluminum, connect the bellows with the machine. Hennig offers various fastening solutions for the adaptation to different bellows and machine interfaces.

#### 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 the 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 bellows 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

The advantage of half-scissors is that 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, the durability is also longer.

# BELLOWS

## types & assembly options

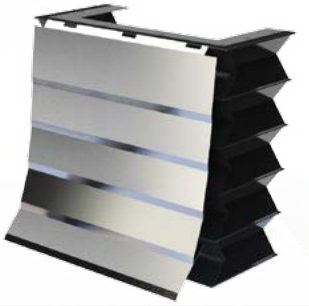


### COATED FABRIC *See page 7-8 for details*

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.

*See page 12 for Quote Request Worksheet*



### HINGED STEEL LAMELLAS *See page 9 for details*

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.

*See page 12 for Quote Request Worksheet*



### FIXED STEEL LAMELLAS *See page 10 for details*

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, or mechanical strain.

*See page 12 for Quote Request Worksheet*



### microFIN® MODULAR *See page 14 for details*

Lightweight, interlocking steel fins connect modularly without requiring a folded bellow for support. Good for direct chip loads, red hot and sharp edged swarf, and high speed applications. With an extremely high compression of 2.4 mm per fin, the entire machine stroke can be significantly increased.



### STITCHED BELLOWS *See page 8 for details*

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.

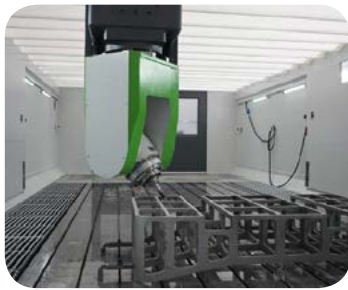
*See page 12 for Quote Request Worksheet*



## MOULDED RUBBER / RUBBER DISK *See page 13 for details*

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.

*See page 15-16 for Quote Request Worksheets*



## ROOF TOP BELLOWS *See page 17-18 for details*

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 bellows roofing according to your circumstances - either by using existing guide systems, or designing a new guide system that fits your specifications.

## ASSEMBLY OPTIONS



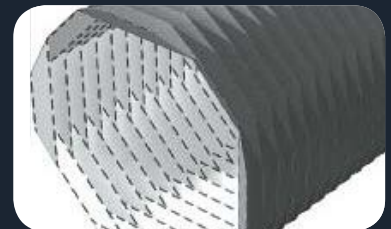
### high frequency welded

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.



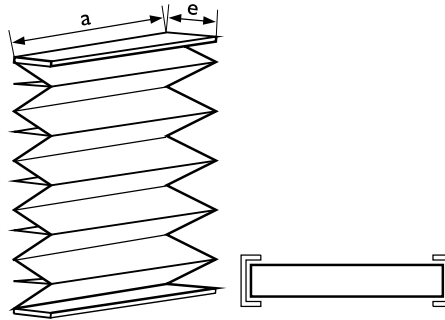
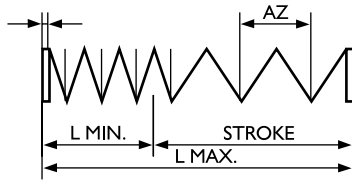
### glued

These bellows consist of up to three foils glued together in sandwich construction. Due to the special gluing of materials, these bellows provide maximum protection, even against liquids.

# BELLOWS

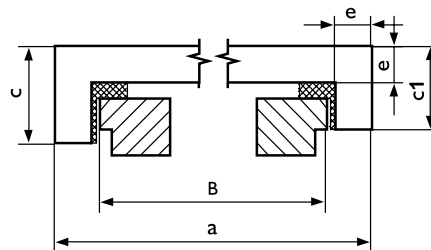
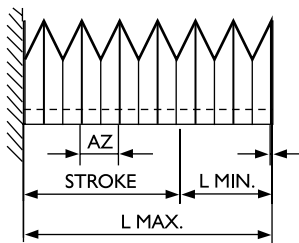
coated fabric bellows

## FLAT BELLOW



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
All dimensions in mm	

## FOLDED BELLOW



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
All dimensions in mm	

See page 11 for table of materials & properties

See page 12 for Quote Request Worksheet

## STANDARD MOUNTING OPTIONS



### half fold

Limits extension of first fold for inside mounting



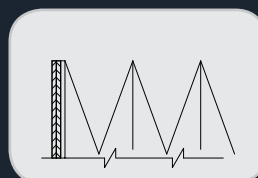
### external flange

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



### full fold

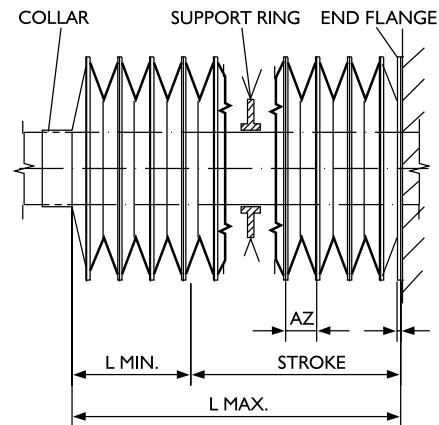
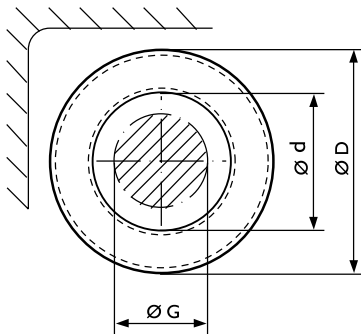
Allows for full extension of first fold for inside mounting



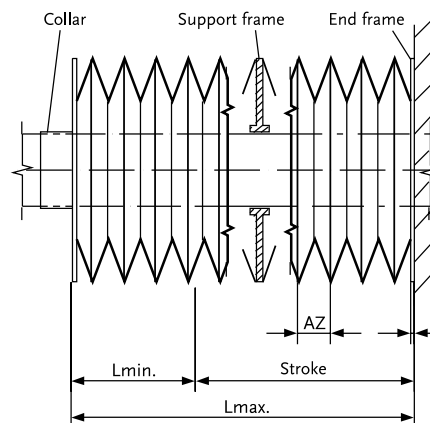
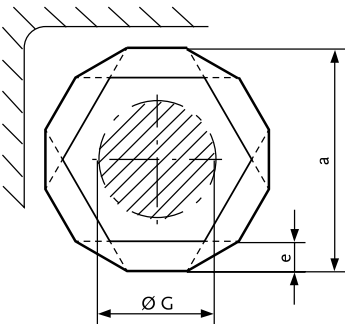
### velcro

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

## STITCHED ASSEMBLY

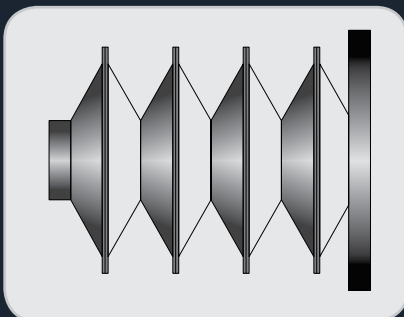


## GLUED ASSEMBLY



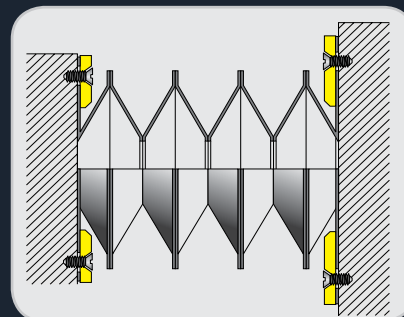
See page 11 for table of materials & properties  
See page 12 for Quote Request Worksheet

## STANDARD MOUNTING OPTIONS



**collar**  
(Type 1, Type 2)

Different fixing devices are possible on either side.



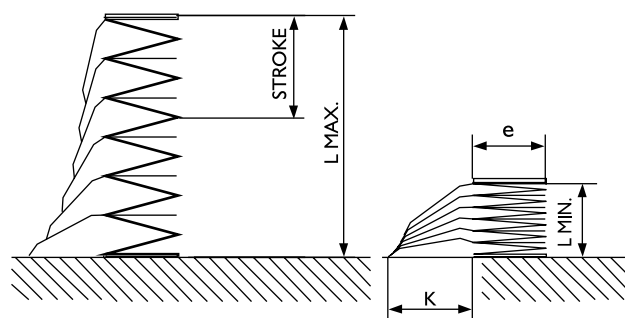
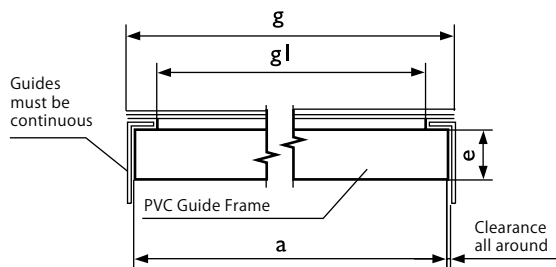
**flange**

Different fixing devices are possible on either side.

# BELLOWS

hinged steel lamella bellows

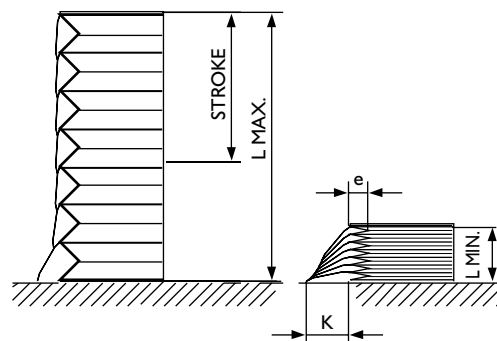
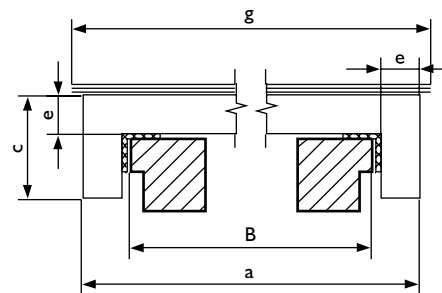
## FLAT BELLOW



See page 11 for table of materials & properties

See page 12 for Quote Request Worksheet

## FOLDED BELLOW

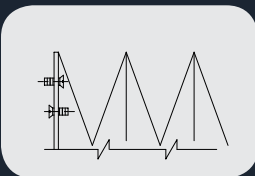


## STANDARD MOUNTING OPTIONS



### half fold

Limits extension of first fold for inside mounting



### full fold

Allows for full extension of first fold for inside mounting



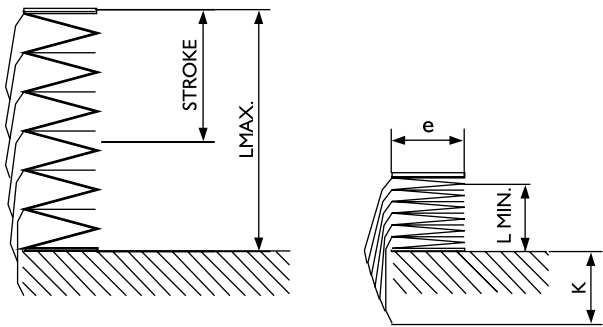
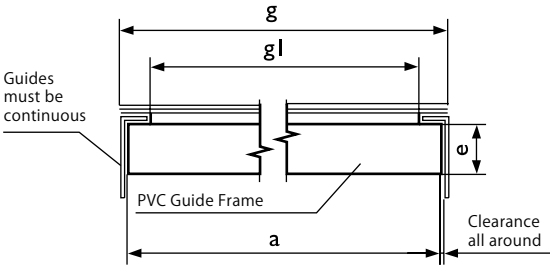
### external flange

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

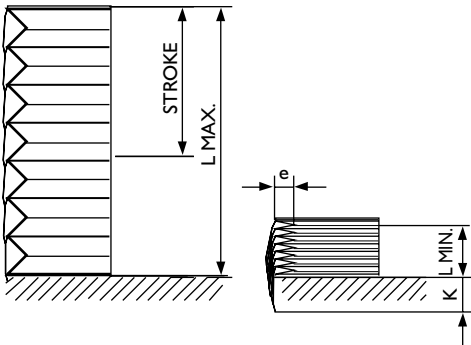
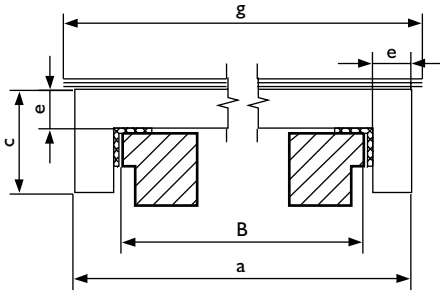
FOLD HEIGHT (e)	EXTENSIONS PER FOLD (AZ)		WIDTH OF LAMELLAS (K)
	Flat	Folded	
24	30	36	67
30	42	48	82
35	52	58	87
40	62	68	97
45	72	72	107
All dimensions in mm			

fixed steel lamella bellows

FLAT BELLOW

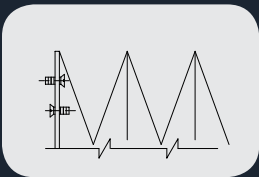


FOLDED BELLOW

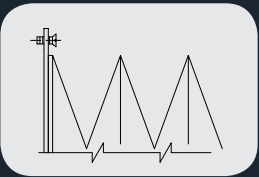


See page 11 for table of materials & properties  
See page 12 for Quote Request Worksheet

STANDARD MOUNTING OPTIONS



**full fold**  
Allows for full extension of first fold for inside mounting



**external flange**  
Allows for full extension of first fold with outside mounting above bellows.

FOLD HEIGHT (e)	EXTENSIONS PER FOLD (AZ)		WIDTH OF LAMELLAS (K)
	Flat	Folded	
24	27	33	61
30	39	45	76
35	49	55	81
40	59	65	91
45	69	75	101
All dimensions in mm			

# BELLOWS

## materials & shapes (coated fabric)

The covers of HENNIG folded bellows are exclusively made from high-quality plastic fabrics and foils. We select the cover material and processing according to the design ambient conditions. Decisive factors are the mechanical and thermal strain of the bellows as well as the type of swarf and aggressiveness of the agents used. Exact details of the used materials may be gathered from the table of materials.

Specification Number	Exterior Coating	Interior Coating	Carrier	Thickness (mm)	Color	* Heat Sealed	* Stitched	* Lamella	* Round Stitched	Resistant to wear	Resistant against oil, greases, & coolants	Surface stability	Resistant against swarf, welding splatter, forging scales	Self-extinguishing	Flame-resistant	Ratio between extension and compression
SP 122	OZ-PUR	PUR	PUR	Polyester	0.35	Black	x	x	x	+	+	++	+	o	-	+
SP 268	OZ-PUR	PUR	PUR	Polyester	0.22	Blk/Grey	x	x		+	+	o	o	o	-	++
SP 271	PUR-Kevlar®	PUR	PUR	Kevlar®	0.36	Blk/Grey	x	x	x	x	++	++	++	+	+	+
SP205	OZ-23	PVC	PVC	Polyester	0.23	Black	x	x		+	+	o	-	-	-	++
SP206	OZ-35	PVC	PVC	Polyester	0.36	Black	x	x	x	+	+	+	o	o	-	+
SP208	Alum-Aramid	ALU	ALU	Nomex®	0.35	Silver	x	x		x	+	+	++	++	+	+
SP270	PUR/Teflon	PTFE	PUR	Polyester	0.30	Black	x	x	x	++	++	++	o	o	-	+
	Neoprene	NEP	NEP	Nylon	0.40	Black	x	x	x	x	++	++	++	++	o	o
	Hypalon	HYP	HYP	Nylon	0.40	Black	x	x	x	x	+	+	+	o	o	o
SP106	GN807	PUR	PUR	Polyester	1.00	Black	x	x	-	x	+	+	-	-	o	-
SP130	NA-784	TPU	TPU	Polyester	1.00	White	x	x	x	x	+	+	-	-	o	-

++ Excellent + Good o Suited under certain conditions - unsuitable ST=Steel  
MS=Brass AL=Aluminum PUR=Polyurethane TPU=Thermoplastic polyurethane

\* assembly options

## COMMONLY USED MATERIALS

### polyurethane (pur)

Temperature resistance up to 120°C

### aluminized

Aluminum-coated Nomex®. Temperature resistance up to 400°C (only for stitched version)

### nomex®

Flame-resistant material, suitable for laser applications

### kevlar®

High strength, abrasion resistant, puncture resistant

### polyvinylchloride (pvc)

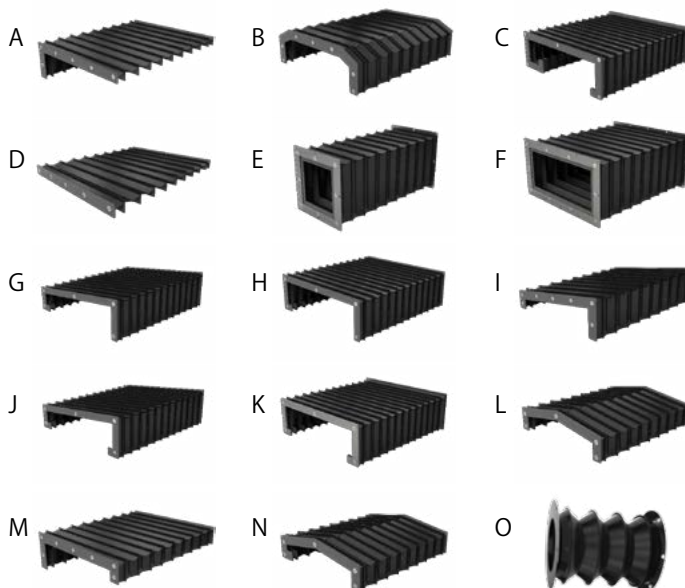
Material does not continue burning if ignited (self-extinguishing)

### teflon® polytetrafluorethylen (ptfe)

Anti-adhesive, high-chemical and thermal resilience, dirt and water-repelling, corrosion-proof

## COMMON SHAPES

All shapes can be customized to suit your application



# COATED FABRIC BELLOWS QUOTE REQUEST

Please complete this form and email or fax to your desired location  
(see pages 1-2 for contact info)

**HENNIG**

www.hennigworldwide.com

## 1 COMPANY (complete address)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_  
Title \_\_\_\_\_  
E-mail \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

## 2 TECHNICAL DATA

**S** Required stroke \_\_\_\_\_  
**L** Compressed length (min) \_\_\_\_\_  
**L** Extended length (max) \_\_\_\_\_  
**e** Fold height \_\_\_\_\_  
**a** Width of bellows \_\_\_\_\_  
**c<sub>1</sub>** Left-hand lateral height (outside) \_\_\_\_\_  
**c<sub>2</sub>** Right-hand lateral height (outside) \_\_\_\_\_  
**h** Height of bellows above support \_\_\_\_\_  
**l** Lower wrap-around \_\_\_\_\_  
**v** Travel speed \_\_\_\_\_ m/min  
**a** Acceleration \_\_\_\_\_ m/s<sup>2</sup>  
**B** Width of slideway \_\_\_\_\_  
**g** Length of lamellas \_\_\_\_\_  
**d** Inner diameter of bellows \_\_\_\_\_  
**D** Outside diameter of bellows \_\_\_\_\_  
Type of machine \_\_\_\_\_  
Axis X \_\_\_\_\_ Y \_\_\_\_\_ Z \_\_\_\_\_  
Number of strokes per day \_\_\_\_\_  
Coolant, lubricants \_\_\_\_\_  
Type of swarf \_\_\_\_\_  
Ambient temperature \_\_\_\_\_  
Linear type of slideway \_\_\_\_\_

Photos Available ☐ Yes ☐ No

DWGs or Sketches Available ☐ Yes ☐ No

### MATERIAL OF END FRAMES

☐ Steel ☐ Stainless Steel

☐ Aluminum ☐ PVC

### MOUNTING OPTIONS

☐ Half Fold ☐ Full Fold ☐ Collar

☐ External Flange ☐ Velcro

### MODE OF OPERATION

☐ Horizontal ☐ Vertical

☐ Cross-rail ☐ Other

### CONDITIONS OF APPLICATION

☐ Chips ☐ Sparks

☐ Coolant ☐ Oil

☐ Dust ☐ Indoor

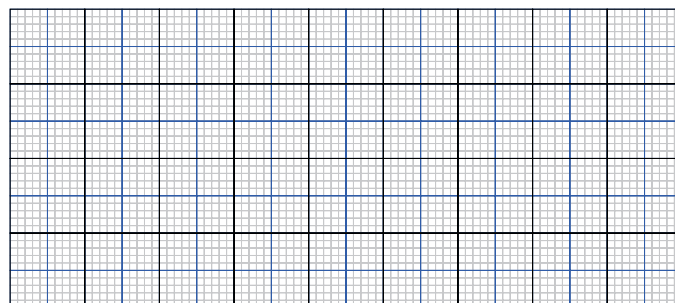
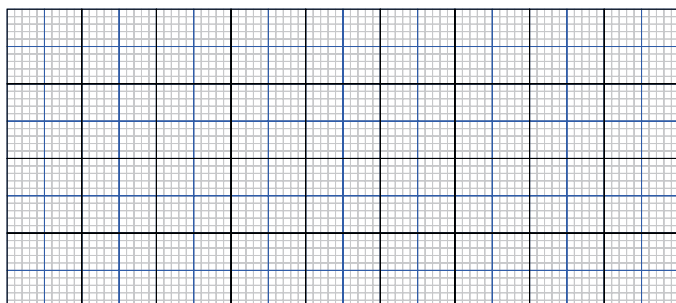
☐ Temperature ☐ Outdoor

### SHAPE

Select one \_\_\_\_\_ →

- or -

Use page 11 and write the corresponding letter  
here \_\_\_\_\_



# BELLOWS

moulded rubber

## RUBBER DISK BELLOWS

Our rubber disk bellows are of high grade and always the best choice for industrial purposes. This bellow can be made without a mold cost and are an economical solution for lower quantities. Rubber disk bellows have a good extension/compression ratio, and the variety of standard and custom shapes and mounting options make it ideal for special applications.

*See page 15 for Quote Request Worksheet*



## MOULDED RUBBER BELLOWS

Moulded bellows are primarily used for protecting lead screws, precision shafts, moving air cylinders, various round shafts and irregular-shaped parts. Its outstanding features include resistance to water, oil, temperature and chemicals. Various bellow shapes and mounting options are available, including custom setups for special applications.

*See page 16 for Quote Request Worksheet*



*Special shapes and mounting devices/combinations available upon request.*

## TABLE OF MATERIALS

NO.	Material Type	THERMAL PROPERTIES °C	HARDNESS RANGE SHORE A	MATERIAL RESISTANCE TO
		min — max		
01	NBR	-30 °C — +110 °C	40 — 75	Gasoline, Mineral Oil
02	FPM	-20 °C — +200 °C	40 — 75	Gasoline, Mineral Oil, Acids, Lyes, Water, Weathering & Ozone, Air Impermeability
03	CR	-35 °C — +100 °C	40 — 75	Weathering and Ozone
04	EPDM	-50 °C — +130 °C	40 — 75	Acids, Lyes, Water, Weathering and Ozone
05	VMQ	-65 °C — +200 °C	40 — 75	Weathering and Ozone, Steam
Survey of main elastomers. Further types on request.				

# BELLOWS

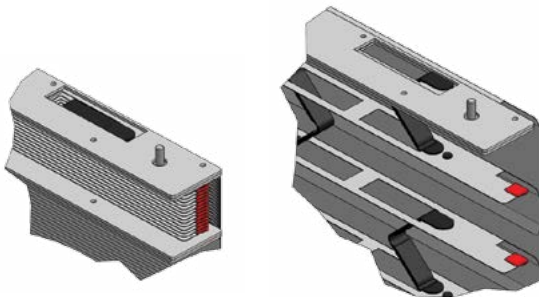
microFIN® modular bellows

## microFIN® MODULAR BELLOWS

- Stainless steel fins
- Excellent durability with high resistance to water, oil and dust
- Low noise and long durability life
- Cover shapes, dimensions, mounting types, moving speeds can be made according to your requirements

### exceptional compression ratio

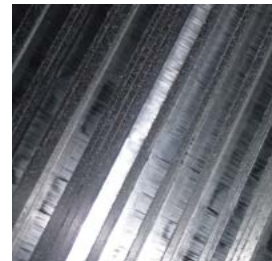
With its new designed geometry, microFIN feather elements interlock with the bellow elements. This enables the whole construction to achieve a compression of 2.4 mm per lamella. In comparison to regular bellows which have a relatively low compression rate, the whole machine stroke can be greatly increased.



### anti-scratch coating

With its unique coating at the bottom of each fin (lamella), scratching is prevented and the lifetime of the cover is increased significantly (up to 70%). Additionally it increases the tightness against coolants and chips.\*

\*available for lamellas up to 1000 mm in width



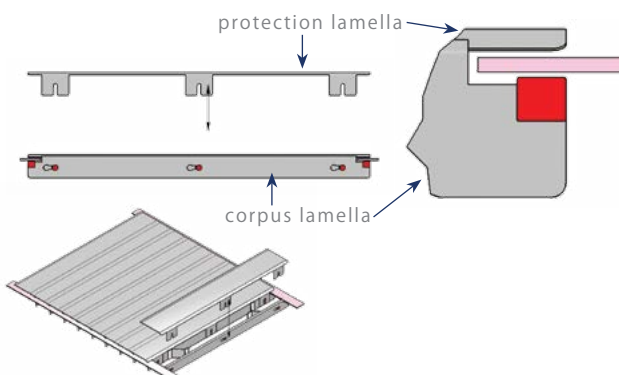
CONVENTIONAL



microFIN

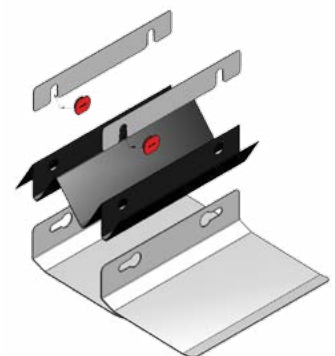
### modular construction

Each lamella is removable from the bellow system without disassembly of the whole cover system. This is achieved by a plug connection between corpus lamella and protection lamella. Damaged lamellas can be removed easily and economically.



### sealing fabric option

Due to its modular construction, additional fabric can be added to the cover system. As a result, the cover gets 100% sealing against coolants without compromising the compression ratio.



# RUBBER DISK BELLOWS QUOTE REQUEST

Please complete this form and email or fax to your desired location  
(see pages 1-2 for contact info)

**HENNIG**

[www.hennigworldwide.com](http://www.hennigworldwide.com)

## 1 COMPANY (complete address)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_  
Title \_\_\_\_\_  
E-mail \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

## 2 APPLICATION

Quantity \_\_\_\_\_

Working Position ☐ Horizontal ☐ Vertical

Use of Bellow ☐ Outside ☐ Inside

Temperature Range \_\_\_\_\_

Work Cycles / min \_\_\_\_\_

Max Speed (m/min) \_\_\_\_\_

Working Hours / Day \_\_\_\_\_

Sliding Bearings ☐ Yes ( Quantity \_\_\_\_\_ ) ☐ No

Air vents ☐ Yes ☐ No

Exposed To	Inside	Outside	Permanently	Sporadically
<input type="checkbox"/> Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Dust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Oil/Grease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Leaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

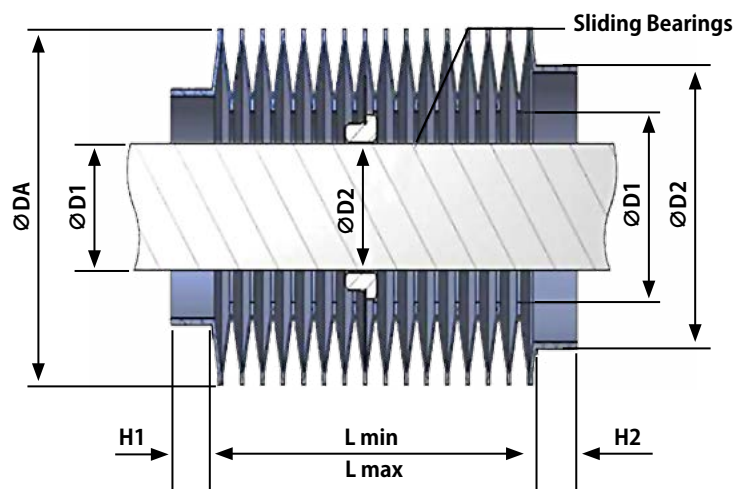
## 3 DIMENSIONS

d \_\_\_\_\_  $\varnothing$ Di \_\_\_\_\_  
L (max) \_\_\_\_\_  $\varnothing$ DA \_\_\_\_\_  
L (min) \_\_\_\_\_  $\varnothing$ DA1 \_\_\_\_\_  
H1 \_\_\_\_\_  $\varnothing$ D1 \_\_\_\_\_  
H2 \_\_\_\_\_  $\varnothing$ D2 \_\_\_\_\_

## 4 MOUNTING OPTIONS

☐ Type A ☐ Type B

☐ Type C ☐ Type D



# MOULDED RUBBER BELLOWS QUOTE REQUEST

Please complete this form and email or fax to your desired location  
(see pages 1-2 for contact info)

**HENNIG**

[www.hennigworldwide.com](http://www.hennigworldwide.com)

## 1 COMPANY (complete address)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_  
Title \_\_\_\_\_  
E-mail \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

## 2 APPLICATION

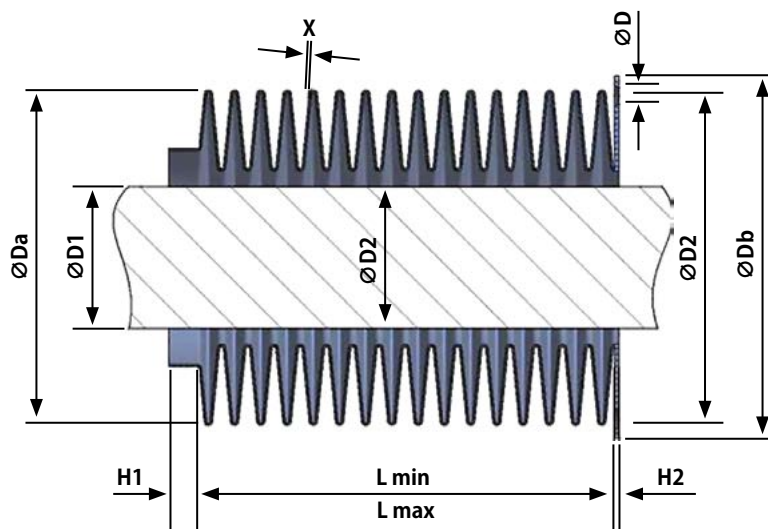
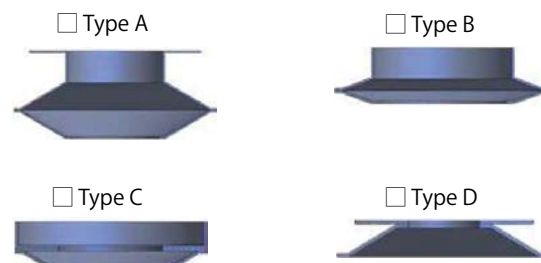
Quantity \_\_\_\_\_  
Material \_\_\_\_\_ (see page 13)  
Working Position ☐ Horizontal ☐ Vertical  
Use of Bellow ☐ Outside ☐ Inside  
Temperature Range \_\_\_\_\_  
Max Speed (m/min) \_\_\_\_\_

Exposed To	Inside	Outside	Permanently	Sporadically
<input type="checkbox"/> Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Dust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Oil/Grease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Leaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 3 DIMENSIONS

Stem (shaft) Diameter \_\_\_\_\_ mm  
L (max) \_\_\_\_\_ mm  $\varnothing Da$  \_\_\_\_\_ mm  
L (min) \_\_\_\_\_ mm  $\varnothing Db$  \_\_\_\_\_ mm  
X \_\_\_\_\_ mm  $\varnothing D1$  \_\_\_\_\_ mm  
H1 \_\_\_\_\_ mm  $\varnothing D2$  \_\_\_\_\_ mm  
H2 \_\_\_\_\_ mm  $\varnothing Di$  \_\_\_\_\_ mm

## 4 MOUNTING OPTIONS



# BELLOWS

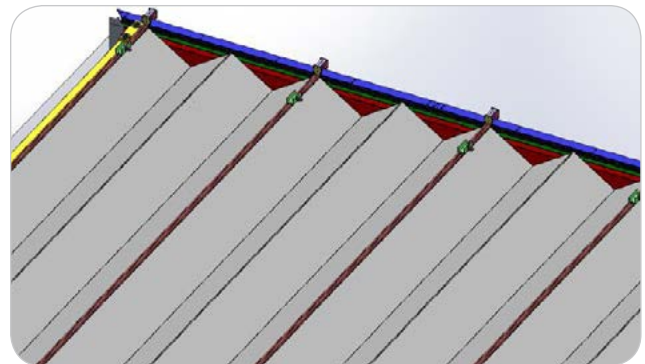
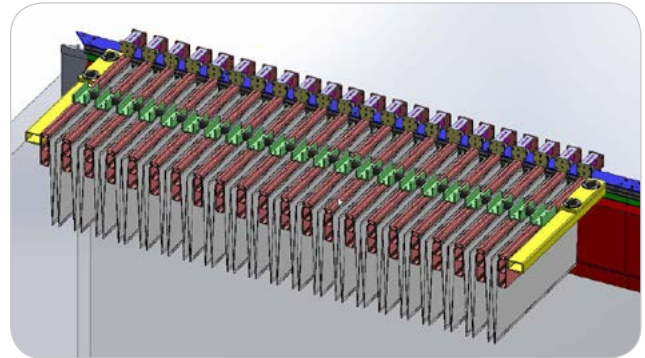
## roof top bellows

### ADVANTAGES

- Carbon fiber processing (aerospace)
- Noise protection
- Sound insulation
- Environment protection
- Health protection

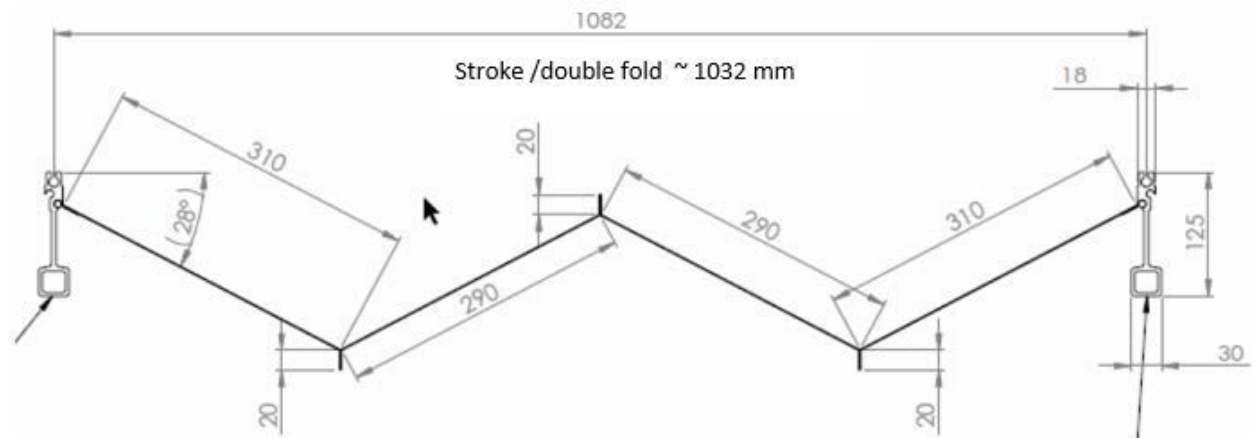
### TECHNICAL DETAILS

- Width up to max. 8000 mm
- L max if necessary up to max. 24.000 mm
- Standard fold depth 125 (max. 300 mm if necessary)
- Speed up to 90 m/min.
- Acceleration up to max. 1g
- Transverse beams made of aluminum hollow profile
- White, translucent fold material provides an optimum brightness in the working area
- Slide way systems depending on requirements (rollers, gliders, slide ways)
- Motorized version for opening and closing (conforms with the EC machine directives)



## DESIGNED TO YOUR SPECIFICATIONS

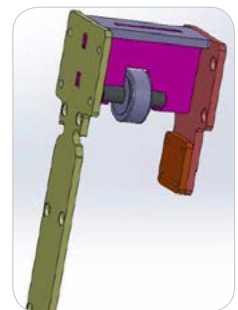
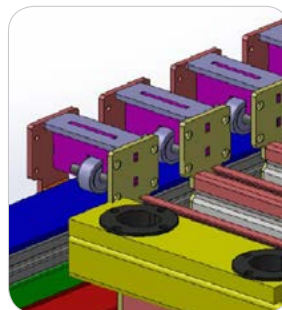
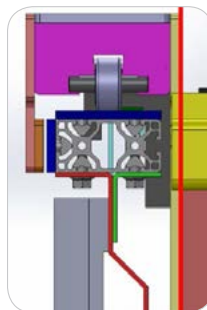
Engineered with a double fold unit for increased stroke, our roof protect systems can be manufactured to any dimensions to suit your application.



## SLIDEWAYS

We plan the folded bellow roof specifically according to your requirements.

The implementation of the roof protect system can be done with the existing slide way or with a new slide way.



# SERVICE & REPAIR

scope of services

## WE KNOW HOW EXPENSIVE DOWNTIME CAN BE

That's why we offer quick, responsive, service for the following products:

- Telescopic Steel Covers (see next page for details)
- Bellow Covers
- Aprons & Roll Ups
- Modular Face Shield Systems
- Wiper Systems
- Walk-On Pit Covers

We provide repairs and replacement parts for all the products we sell. With our experienced technicians, it doesn't matter who manufactured the original product, the end result absolutely must meet Hennig standards for quality and safety before we will consider it finished.

## OUR SCOPE OF SERVICES:

- Preventative and Predictive Maintenance Training
- Way cover diagnostics and troubleshooting
- Extensive replacement spare parts inventory
- On-Site repairs of waycovers of any make on the market
- Logistics services for minimum downtime

## SERVICE & REPAIR CENTERS WORLDWIDE

We have 17 service centers located throughout the world, enabling us to provide fast, localized service no matter where you are. Below is a snapshot of our service & repair locations.

*For more details and contact info, see pages 1-2.*



# SERVICE & REPAIR

for telescopic steel covers

## REPAIR & REFURBISHING SERVICES

At Hennig we service everything we sell. Our repair and refurbishment facilities are located in regions worldwide, so you get fast, localized service from experts who speak your language and deeply understand the systems you're using. We have the resources to keep your systems running - and running right - so you minimize downtime and get the greatest possible return from your machine investment.

### services offered

- Repairs for all Hennig and non-Hennig way covers
- Same-day turn-around on diagnosis and repair estimates
- Reverse engineering of existing way covers
- Fast, local access to spare parts and supplies
- Customer training for in-house way cover repair
- Service and repair of Hennig Chip Conveyors
- Preventive maintenance service contracts available
- Service initiated within 48 hours in most locations
- On-site services available
- 90-day warranty on parts and labor

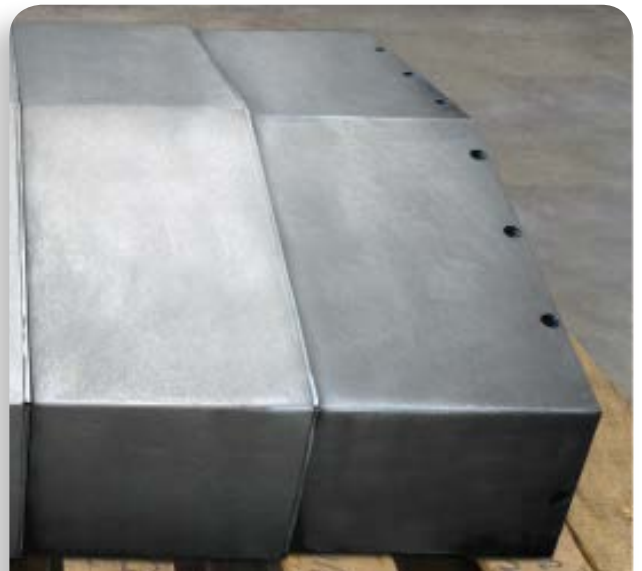
### service. where you need it.

Hennig has way cover repair facilities located throughout the world to better serve our customers.

**See pages 1-2 for a complete list of our repair facilities and contact information.**



↑ Before Hennig Repair



↑ After Hennig Repair



[www.hennigworldwide.com](http://www.hennigworldwide.com)

For over 50 years, Hennig Worldwide has been defining Excellence in Machine Protection, creating regional jobs, serving their local communities, and supporting the global needs of machine tool customers.

Specializing in chip management, machine protection, and facility safety, Hennig products optimize production and keep your shop floor clean and safe.

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## **MACHINE PROTECTION**

Telescopic Steel Covers  
Modular Face Shields (XYZ Shields)  
Bellows  
Aprons  
Roll Up Covers  
Walk-On/Pit Covers  
Wiper Systems  
Telescopic Springs  
Cable Conduits

## **CHIP SOLUTIONS**

Chip Conveyors  
Chip Disc Filtration (CDF)  
Coolant Tanks  
Turnkey Chip Systems  
Conveyor Networks

## **FACILITY SAFETY**

Walk-On Pit Covers  
Scissor Lift Bellows  
Rooftop Systems  
Platforms and Enclosures  
Guarding and Fencing  
Special Fabrications

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*See pages 1-2 for contact information*