

# AT HENNIG, YOUR SUCCESS ALWAYS COMES FIRST.

Hennig Worldwide has been a global leader since 1950, specializing in chip and coolant management, machine protection, and facility safety. We work with a wide variety of manufacturers and other facilities worldwide, helping them create and maintain safe and efficient workplaces. Our commitment to excellence extends beyond our services—we actively contribute to local communities, create regional jobs, and support the global needs of machine tool customers.

# **TABLE OF CONTENTS**

-	_ '
4	Overview
7	OVELVIEW

**5** Features & Options

6-7 Way Cover Shapes

7 XYZ Face Shields

8-9 Special Designs

**10-11** Wiper Systems

12-13 Service & Repair

**14-17** Quote Request Forms

**18-19** Facilities & Contacts





The range of steel way covers manufactured by Hennig is close to unlimited. With over 70 years of experience in the industry, there is little that we haven't seen or built.

With manufacturing facilities located worldwide, we are knowledgeable of nearly every telescopic steel way cover application in the world. This experience also enables us to design and manufacture OEM or custom steel way covers for state of the art equipment, high speed machines, as well as unusual and unique applications. Our extensive knowledge allows us to service and repair any way cover on the market, keeping your downtime to a minimum.

# **OVERVIEW**

- All forms are made from rolled commercial quality steel sheets
- Standard gauges 1.5 mm (16 gauge) to 3 mm (11 gauge) (other gauges available depending on the application)
- Corrosion-resistant stainless steel can be used for extreme conditions
- Speeds from 6 to 100 m/min can be attained

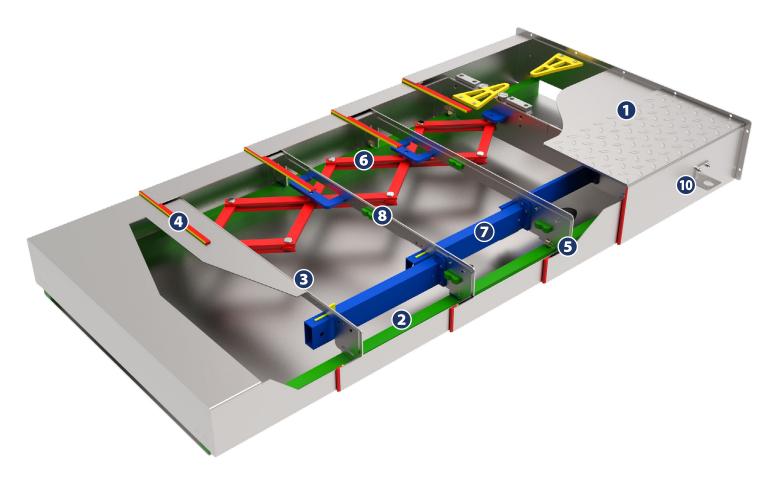
- Way wipers, guides, rollers, and damping elements are interchangeable
- Coolant troughs (preventing coolant entering the boxes) can be included in the design of different models
- Service, repair, and reverse engineering for all Hennig and non-Hennig telescopic steel covers







# **FEATURES & OPTIONS**



# **FEATURES**

#### 1. STEEL

Commercial quality steel is used to withstand the abuses of the shop environment. Standard sheet thicknesses range from 1.5 mm (16 gauge) to 3 mm (11 gauge). Other gauges available depending on the application.

#### 2. GUIDES

Brass or non-metallic guides can be used on the covers. Small and medium size covers can be supported with non-metallic, low friction guide shoes.

#### 3. INTERLOCKING DESIGN

Wrap around construction ensures precise location of individual cover sections and automatically provides the necessary initial preload for the flexible wipers.

#### 4. WIPER SYSTEMS

High endurance, insertable polyurethane wipers keep the cover clean and seal out chips, dust, and coolants.

#### 5. SUPPORT ROLLERS

To ensure smooth, accurate operation, large covers can be provided with rollers. Ball bearing, needle bearing, and many other roller options are also available.

#### 6. SCISSORS

Depending on speed and size of application, scissors can be used for a smooth operation.

# **OPTIONS**

#### 7. HIGH SPEED MODULE

Perfect guidance for high speed covers up to 200 m/min (660 ft/min) and accelerations up to 2 g over the entire traverse path. Ideal for linear motor machines.

#### 8. DAMPING ELEMENTS (BUMPERS)

Bumpers are used based on machine speeds.

#### 9. WEDGE DAMPENER (ME MODULE)

Used to soften impact on the boxes.

#### 10. LIFTING LUGS

For ease of installation, lifting lugs can be provided.

## 11. INTERNAL GUTTER (NOT PICTURED)

Additional protection for machines with a hydrostatic guide. The internal water channel reliably prevents contamination of the hydrostatic machine bed with cooling lubricants. This reliably directs any coolant that has penetrated into the chip conveyor.

#### 12. WAY EXTENSION BRACKETS (NOT PICTURED)

Extend from the machine ways to provide support for the cover while it is in a compressed position.

#### 13. INSPECTION OPENINGS (NOT PICTURED)

For quick, easy inspections hinged or Plexiglas® panes may be specified.

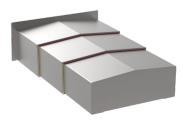
# **SHAPES**

## All shapes can be customized to fit your application.



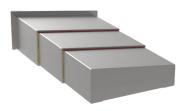
# FLAT (AA)

The flat, u-shaped design represents the best economical solution for the protection of slideways. Available in horizontal or vertical format.



# PEAK (BB)

The roof-shaped design deflects coolant and swarf on either side, depending on the angle of inclination. Additionally, the ridge provides higher rigidity and perfect guidance of the boxes. Available in horizontal or vertical format.



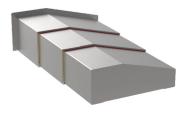
# **SLANT (CC)**

The slope of this design ensures the diversion of coolant and swarf in one direction, depending on the angle of inclination. Available in horizontal or vertical format.



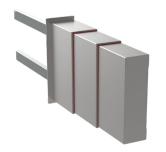
# HIP ROOF (DD)

The flat-roof form is used for broad covers to provide maximum rigidity of the box surfaces. Available in horizontal or vertical format.



# **FLAT/SLOPE (EE)**

The pent-roof design meets special geometric requirements and improves the draining of coolant and swarf, depending on the angle of inclination. The additional folded edge increases the rigidity of the boxes. Available in horizontal or vertical format.



# **CROSS BEAM**

Cross-beam covers can be manufactured in the models above. For more than three boxes, however, it is necessary to provide an additional return at the top slideway to prevent the individual boxes from tilting or disengaging.

# **SHAPES**



# **VERTICAL SLIDING PLATE**

In this type of cover, the individual plates slide in separate guide rails. Since these types of covers do not require slideways, they are particularly suited for the protection of column recesses. In the presence of swarf and coolant, the vertical sliding plate covers can only be mounted vertically. The guide rails are available in various materials to meet individual requirements.

# **XYZ FACE SHIELD**

Hennig manufactures vertical-wall telescopic steel covers to deliver full protection of the X and Y-axes on horizontal spindle machining centers.

The precision ways and CNC feedback devices are completely protected against the hot chips and flood coolant that can potentially effect machine uptime and accuracy. Based on space availability, these covers can be designed with telescopic steel boxes, stainless steel, fabric, aluminum extruded aprons, or bellows with steel plate protection (lamellas).



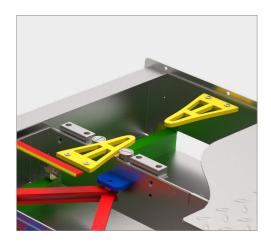
# **SPECIAL DESIGNS**



## **CUSTOM DESIGNS**

#### FOR COMPLICATED SLIDEWAY FORMS

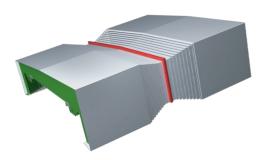
Different requirements and environmental conditions, complicated slideway forms, and less than ideal spacial conditions of special machines demand close cooperation between our design engineers and the machine tool manufacturers. Our engineers design your covers with knowhow, creativity, and an attractive price-performance ratio.



# **ME MODULE**

#### **FOR HEAVY LOADS**

High feed rates and accelerations are no longer excluded with large, heavy telescopic steel way covers. The transport mechanism eliminates high limit stop forces and corresponding noises in all operational positions, moving smoothly when the covers are pulled apart as well as when they come together. Test runs at speeds exceeding 328 feet per minute (100 meters per minute) and accelerations exceeding 2 g were absolutely trouble-free. The system is not positively driven; as a result, it doesn't have to move the entire mass; the only boxes moved are the ones that are needed. The mechanically muffled units travel on guides which guarantee extremely high stability.



# **COUPLED TELESCOPIC STEEL COVER**

#### FOR LONGER TRAVEL

By coupling a telescopic steel cover, a longer travel can be obtained. The box height above the ways, based on the same travel, is less with coupled telescopic steel covers than with one individual cover. The compressed length however is longer.

# **SPECIAL DESIGNS**

# WATER-TIGHT TELESCOPIC STEEL WAY COVERS

Our standard TSC designs are splash proof and suited for high traversing speeds. For high coolant applications, we offer water-tight covers using gutters to divert coolant.



#### **INTEGRAL GUTTER**

The gutter is formed as an integral part of the rear panel of the individual boxes. This version can be manufactured in a cover width of up to approximately 2000 mm.



## **SEPARATE GUTTER**

We can manufacture separate gutters for covers more than 2000 mm wide. In this design, a specially developed way wiper diverts the coolant along the inner side of the boxes. Due to its large cross-section, a separate gutter deflects the coolant optimally.



#### **SCHEDULED GULLET**

An attached coolant trough can be utilized with a variety of dimensions and is used mainly for large telescopic steel covers.

# **WIPER SYSTEMS**

wiper lip

profile support

sheet metal box

damping material

profile support

All dimensions shown in mm.



# **C SERIES**

- Same design for all types of C wipers (except CL1—see below)
- Highly wear-resistant polyurethane lips ensuring optimum resistance to water, coolants, chemicals and oil

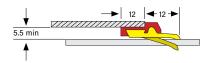
See page 11 for variations and dimensions

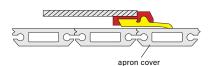


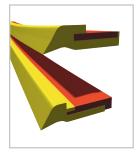


# **C SERIES - CL1**

- Usable for large surfaces and aluminum apron systems for manifold applications
- Optimum wiping effect: will wipe uneven surfaces up to 4 mm
- Highly durable and resistant against all common coolants
- Exchangeable and suitable for all profiles of series C2, C3, C5, and C6 profiles from the C Series (Illustration: CL1 with C2 profile)

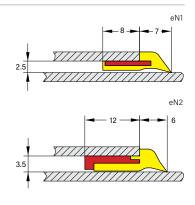






## **eN SERIES**

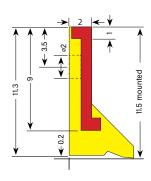
- Used on telescopic steel way covers for slideways with small cross-sections
- Wiper lip vulcanized to a flat steel profile
- Highly wear-resistant polyurethane lip, resistant to oil, coolants, and microbes
- Standard length: 500 mm





# F1 (mini)

- Compact wiper with a height of only 11.5 mm
- Especially useful where space is limited, e.g. on extractors or slides
- The wiper lip is vulcanized on a steel profile
- Low priced wiper based on the proven SK-series
- Standard length: 500 mm



# **WIPER SYSTEMS**

wiper lip

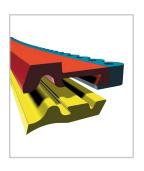
profile support

sheet metal box

damping material

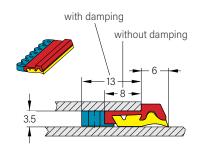
profile support

All dimensions shown in mm.



## **C2**

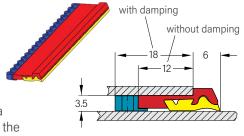
- Smallest wiper of the "C" series
- Replaceable wiper lips
- Very little space required (regarding the mounting height and depth)
- Also available with a rubber profile vulcanized on the profiled support, for optimum damping properties at high traverse speeds (illustrations show C2 with damping)





# **C3**

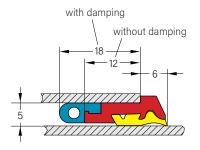
- Wider profile to ensure a better adhesion when spot-welding it to the box
- Replaceable wiper lips
- Mounting height requires very little spacing
- Can be screwed onto the cover box
- Optimum rigidity of the cover box in the wiper area
- Available with and without damping (illustration to the left shows wiper without damping, illustration to the right shows wiper with damping)
- Assembly dimension with damping 18 mm





## **C5**

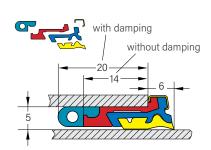
- Designed for large covers
- Replaceable wiper lips
- A combination of C5 and C3 wipers is possible
- Optimum rigidity of the cover box in the wiper area
- Available with and without damping (illustrations show C5 with damping)





## **C6**

- Can be replaced directly on the machine without disassembling the cover
- Time saving and cost-effective
- Available with and without damping (illustrations show C6 with damping)
- Replaceable profile (shown in blue) is fixed with spring clamps
- Solid profile support (shown in red) is welded with the box plate and remains on the cover



# **SERVICE & REPAIR**

# INDUSTRY LEADING WAY COVER SERVICE

We offer quick, responsive, service and repair for all Hennig and non-Hennig machine covers, chip conveyors, and any other machine tool components that experience wear and tear. With our experienced technicians, it doesn't matter who manufactured the original product, the end result must absolutely meet Hennig standards for quality and safety before we will consider it finished.

#### **SCOPE OF SERVICES**

- Repair and service of Hennig covers and third-party products
- Improvements to existing solutions
- On-site maintenance and repairs
- Technical service
- On-site training for your service technicians
- Fast supply of spare parts
- Telephone advice in case of service





# **SERVICE & REPAIR**

The failure of a telescopic steel way cover is usually indicated in advance by certain signs. Below are seven points that indicate a defective cover. If your cover needs repair, please inform Hennig's service team at vertrieb@hennig-gmbh.de.



1. Streaks forming on the cover, chips collecting under the sealing lip, or the wipers becoming porous are indicators that it is time to change the scrapers. Wipers should be inspected at least weekly and replaced if necessary.



2. Does the cover squeak when processing your parts? If so, then the glide and roller elements inside the cover should be examined.



**3.** Does the cover shake or vibrate when moving? If so, then you should have the geometry checked.



**4.** If you have dropped a tool or workpiece on the cover or crashed the cover, a new box element may be necessary.



**5.** Does your positively-guided cover move unevenly? If so, then part of the guide elements could be defective.



**6.** If you hear loud impact noises when the cover is closed or pulled out, this may indicate defective damping elements in the cover.



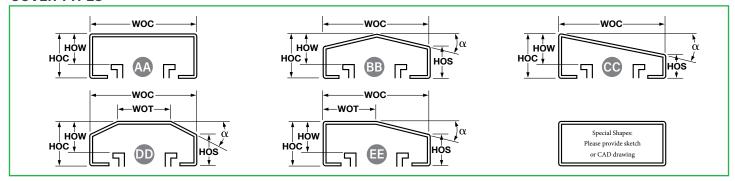
**7.** Sometimes issues are as simple as a rusty surface, which not only spoils the visual impression, but also has a negative impact on the service life of the wipers/sealing elements.

# **QUOTE REQUEST (NEW WAY COVERS)**

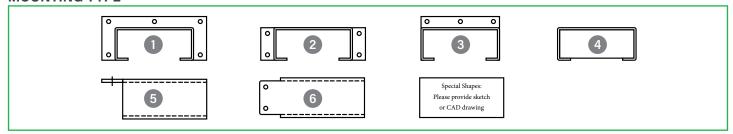
Please complete this form and email to vertrieb@hennig-gmbh.de.  ${\it *Required fields}$ 

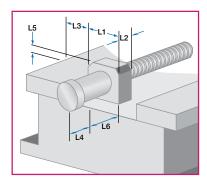
CUMPANY			
Company Name		*Name	
Company Address		*Title	
		*E-mail	
		Phone	
EXISTING COVER INFO (if you	have an existing cover, pleas	ee provide the details found on the product identification tag)	
Do you have an existing cover?	O yes O no		
Manufacturer O Hennig O Enor	moto O Hennig France (Sermet	to) O Cobsen O Other	
'Part #		*OEM Part #	
Quantity O each O set	*Number of Boxes	*Photos Available ○ yes ○ no *DWGs or Sketches ○ yes	O no
TECHNICAL DATA / COVER D	IMENSIONS		
SUOM O inch O mm	*Width of Cover (WOC)	*Height Over Ways (HOW)	
Cover Type	*Height of Cover (HOC)	*Height of Side (HOS)	
Mounting Type	*Angle (α)	*Width of Top (WOT)	
Operating Temperature Range		*Axis O X O Y O Z O Other  *Maximum Travel Speed  pt bod O column/table O other	
		nt bed O column/table O otheravy coolant 🗆 other	
DIMENSIONS			
A Extended length		*K2 Individual height of way	
B Compressed length		*K3 Side of way to side of casting	
C Travel		*K4 Casting distance below way	
D1 End of way to table when compres		*L1 Width of drive mount	
D2 End of way to table at over trave	<u> </u>	*L2 Depth of drive mount	
Table width		*L3 Side of way to side of drive mount	
<b>E2</b> Table height		*L4 End of way to front of motor	
Table height above way		*LS Drive mount height above way	
<b>F1</b> Way wiper height above way		*L6 End of way to drive mount  *M Rail type	
<b>F2</b> Side of way wipers to side of war		*M1 Width over linear rails	
<b>F3</b> Way wiper to table (depth)		*M2 Rail width (top)	
G Height of ball screw above way		*M3 Rail width (bottom)	
H Width over ways		*M4 Rail height	
Individual width of way		*M5 Side of casting to side of rail	
J2 Individual height of way		W1 Way extension length	
<b>'J3</b> Side of way to side of casting		W2 Way height to floor	
*J4 Casting distance below way		W3 Way to bed offset	
K1 Individual width of way		W4 Bed to way offset	

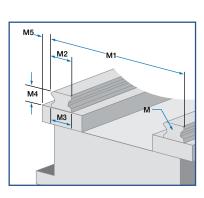
## **COVER TYPES**

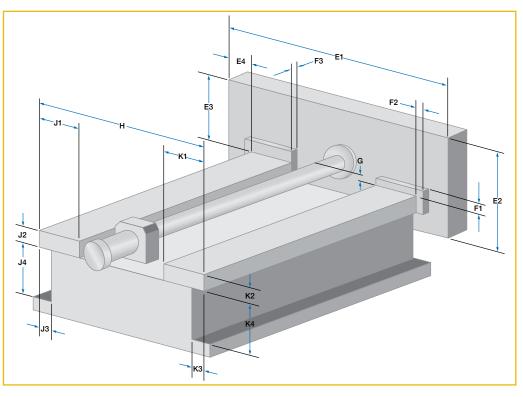


# **MOUNTING TYPE**

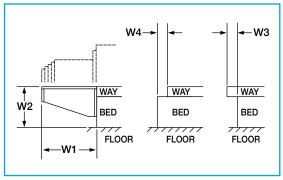




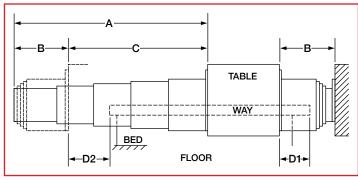




# **WAY EXTENSION BRACKETS**



#### SIDE VIEW



# **QUOTE REQUEST (WAY COVER REPAIR)**

Please complete this form and email to vertrieb@hennig-gmbh.de. \*Required fields

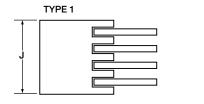
COMPANY						
*Company Name		*Name				
*Company Address		*Title				
		r none				
<b>EXISTING COVER INFO</b> (plea	se provide the details found on th	ne product identific	ation tag)			
*Part #	omoto O Hennig France (Sermeto)	*OEM Part #				
Quantity O each O set	*Number of Boxes	*Photos Available	O yes O no	*DWGs or Sketches	O yes	O no
*UOM O inch O mm	*Width of Cover (WOC)		*Compres	d Length ssed Length		
APPLICATION  *Machine Make	*Machine Model		*Avie () Y ()	V O 7 O Othor		
Operating Temperature Range	Wachine Woder	*Maximum Travel	Speed	1 0 2 0 0thet		
*Cover Orientation O horizontal	O vertical O cross rail O slant l	bed O column/table	o other			
	☐ grinding ☐ hot chips ☐ heavy					
*Rollers O yes O no *Scis	sors O yes O no					
ADDITIONAL INFO/NOTES						

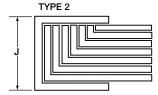
\*IN ORDER TO RECEIVE A QUOTE, PLEASE PROVIDE PICTURES OF THE DAMAGED WAY COVER.

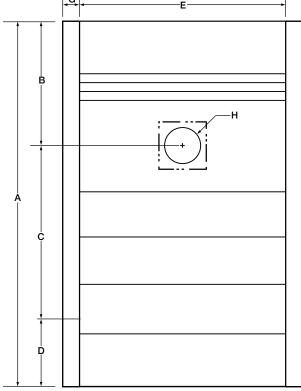
# **QUOTE REQUEST (VERTICAL SLIDING PLATE)**

COMPANY	
COMPANY	
*Company Name*Company Address	*Name *Title_ *E-mail Phone
<b>EXISTING COVER INFO</b> (if you have an existing cover, please p	provide the details found on the product identification tag)
	O Cobsen O Other  *OEM Part #  *Photos Available O yes O no *DWGs or Sketches O yes O no
Quantity O each O set *Number of Boxes	*Photos Available O yes O no *DWGs or Sketches O yes O no
APPLICATION	
Operating Temperature Range *Maximum T	ravel Speed *Movements/Day
	ed O column/table O other coolant  other

## **RAIL TYPE**







PLEASE INCLUDE ADDITIONAL SKETCHES OR CAD FILES IF AVAILABLE.

# **FACILITIES & CONTACTS**



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