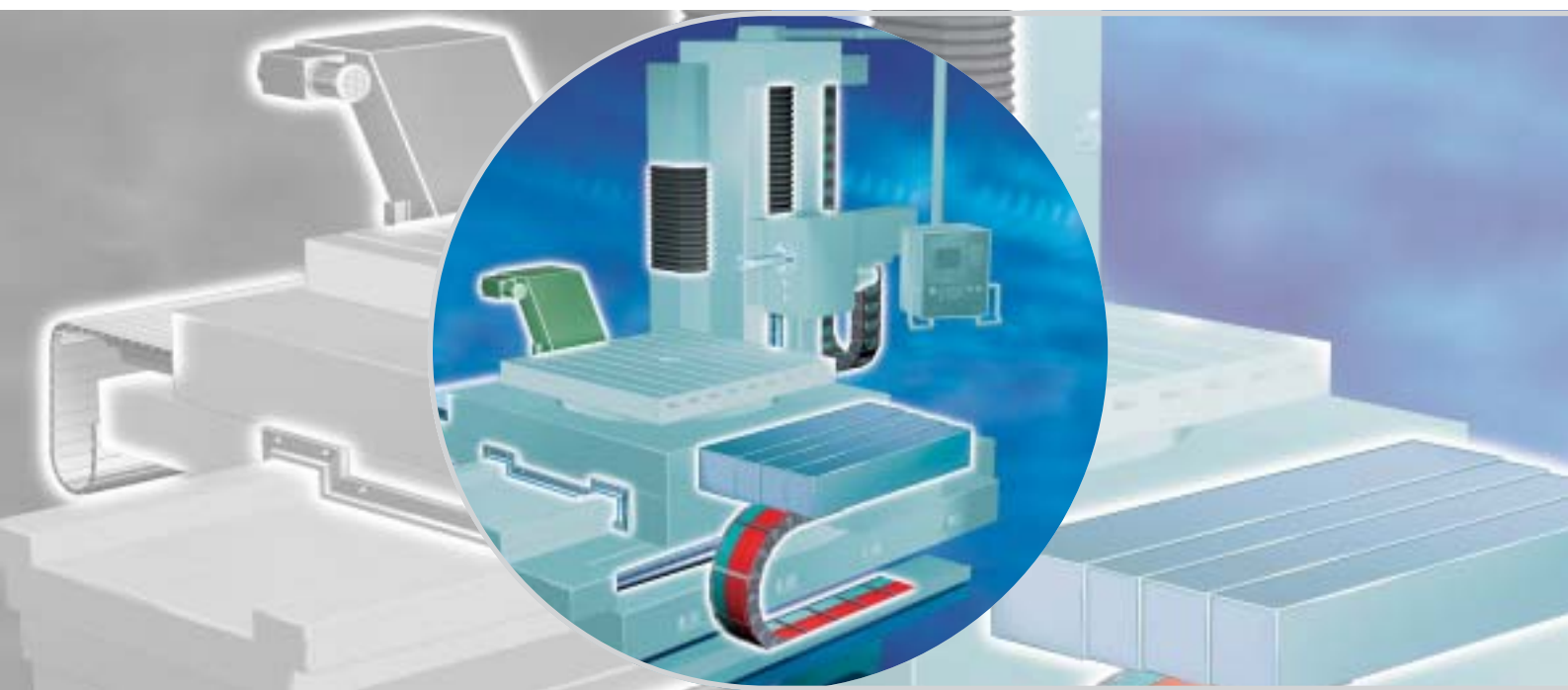
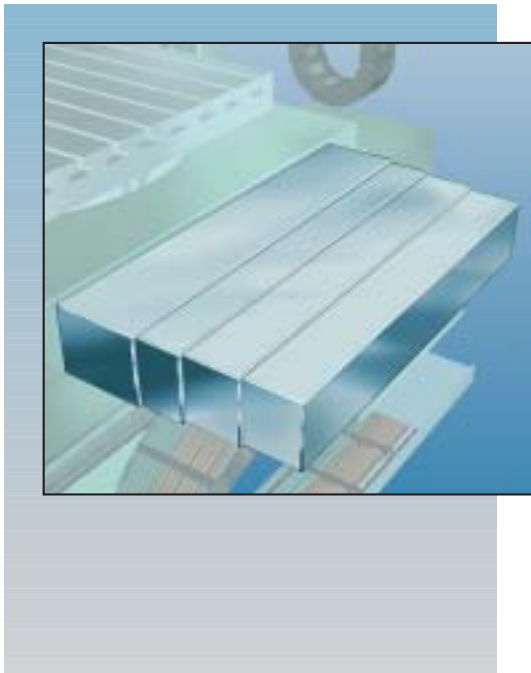


Guideway Protection and Conveyor Systems





For more than 40 years, **Kabelschlepp** has been supplying the machine tool industry worldwide with high-quality telescopic covers in all sizes and forms for maximum protection of guideways.

Material: Special quality steel - stainless steel on request.

Delivery options:

- For travel speeds up to 2 m/s
- For travel lengths up to 40 m
- Guideway width up to 5000 mm
- Customised solutions
- Available in all forms and shapes
- With or without enclosed discharge chute
- With buffer elements
- Optional: covers for step-on applications (machine not operating)

Driver wipers made of highly abrasion-resistant material are used on KABELSCHLEPP telescopic covers. You will find further information on this in pages 6, 7 and 8.

Please send us your drawing. We will be happy to design the correct telescopic cover for your use and will send you our quote.

Definitions Technical Explanations

B_A = maximum width of the telescopic covers

B_B = Guideway width

B_{U1} = Width of the lower handle - left

B_{U2} = Width of the lower handle - right

h_1 = Top sheet packet thickness

h_2 = Side package thickness

h_3 = Package thickness of the lower handle

φ = Angle on lower handle

$H_{1,1}$ = Height of the telescopic covers over the guideway – left

$H_{1,2}$ = Height of the telescopic covers over the guideway – right

$H_{2,1}$ = Height of the lateral limb – left

$H_{2,2}$ = Height of the lateral limb – right

H_G = Overall height of the telescopic covers

v = Travel speed

L_{SK} = Machine travel path

The machine travel path is the route that a mobile machine part covers from one end position to the other end position.

L_S = Travel path of the telescopic covers

$$L_S = L_{SK} + \text{Reserve}$$

L_Z = Compression

If the individual sheet elements are compressed in an end position, the length of the sheet package is the compression.

n = No. of sheets

s = Sheet thickness

D = Doubling (non-extending sheet length)

UE = Distance between the sheets on the support

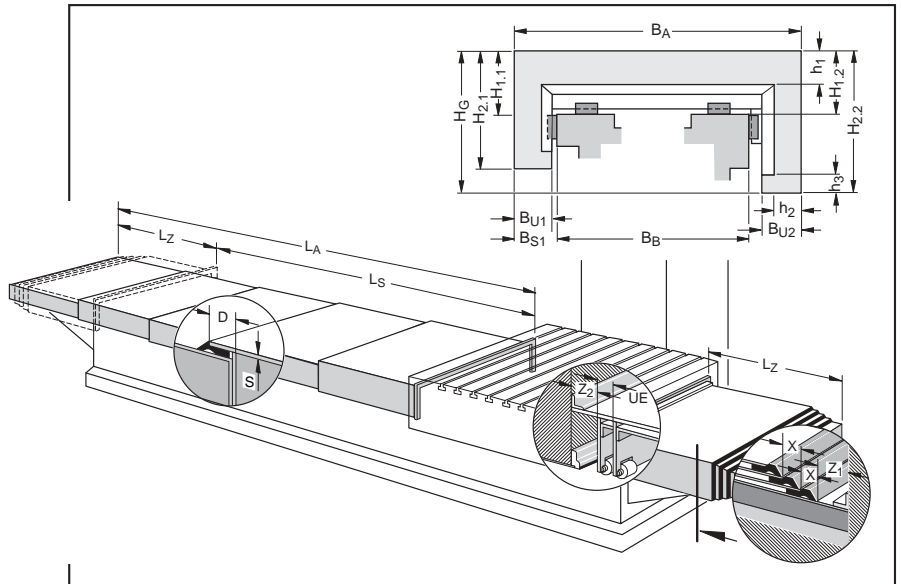
X = Sheet graduation on driver wiper

l = Sheet length

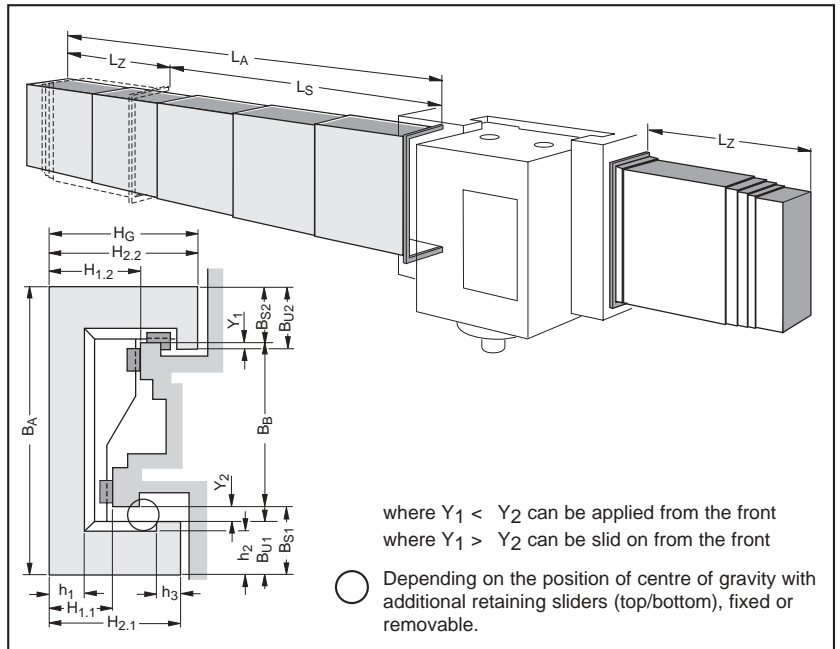
A ratio of sheet length to sheet width of up to 1:8 can be chosen

Installation variants

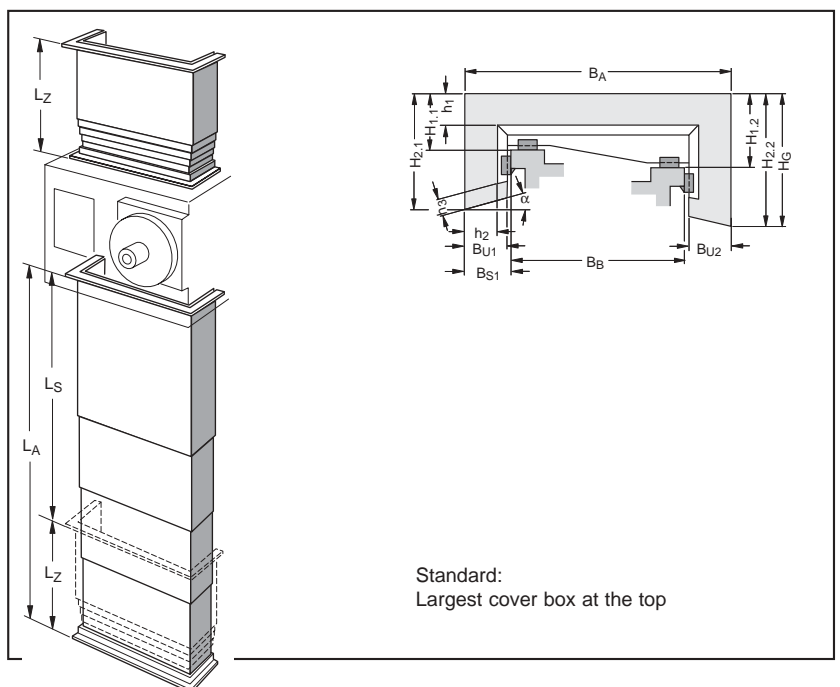
Horizontally installed telescopic covers



Horizontally suspended telescopic covers



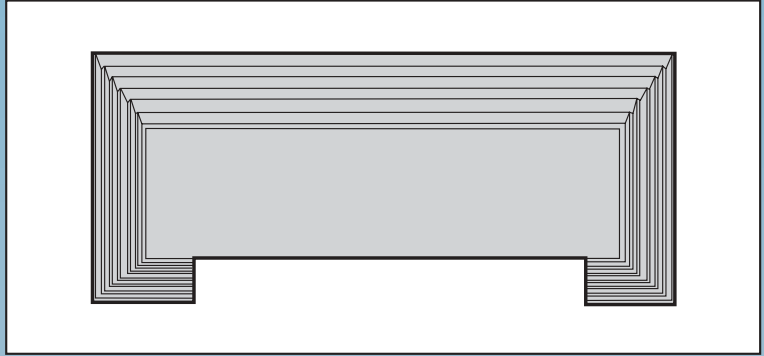
Vertically installed telescopic covers



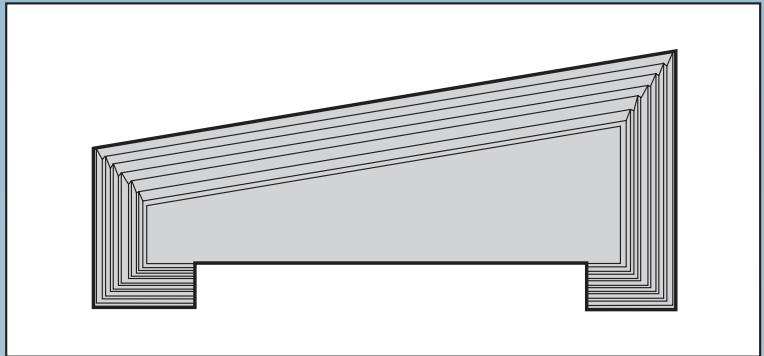
**Designs
of telescopic covers**

(in principle, possible for all installation
positions)

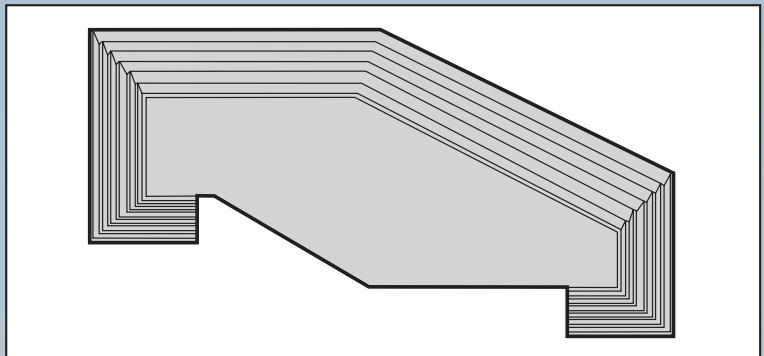
Flat form



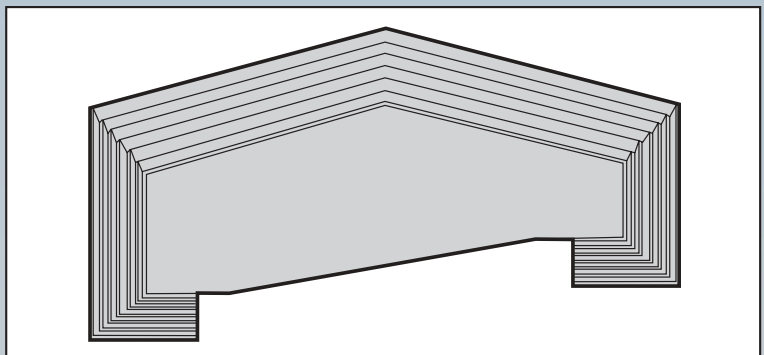
Left inclination (right)



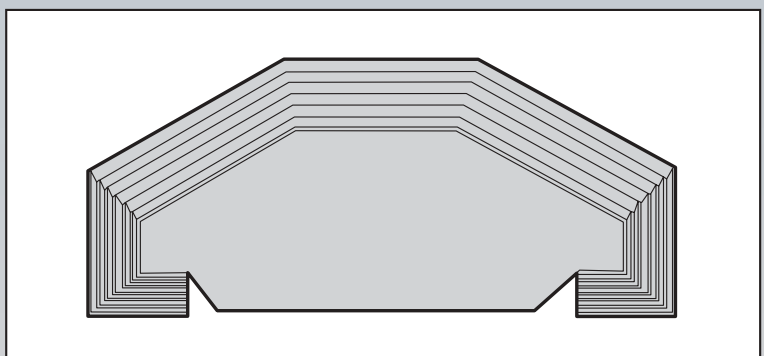
Right diagonal (left)



Roof shape – central (off-centre)



Hipped roof shape
– central (off-centre)



Other forms are possible.

KABELSCHLEPP GMBHPostfach 100654
D-57006 SiegenMarienborner Straße 75
D-57074 Siegen**Telephone: 0271/5801-0**

Date: _____ Sheet No.: _____ No. of sheets.: _____

Sender:

Company: _____

responsible: _____ Department: _____

Telephone: _____ Direct dial telephone No.: _____

Fax: _____

We need the following information to make an offer:

1.00 Machine data

- .10 Machine type _____
- .20 Use of the telescopic covers Machine bed Stand Cross beam
- .30 Travel path _____ mm
- .40 Travel speed _____ m/min
- .50 Guideway width _____ mm
- .51 Guideway cross section according to drawing: _____
- .60 Drawing or sketch of the installation situation: _____
- .70 Guideway lubrication: hydrostatic aerostatic other
which: _____

2.00 Data for the design of the telescopic covers

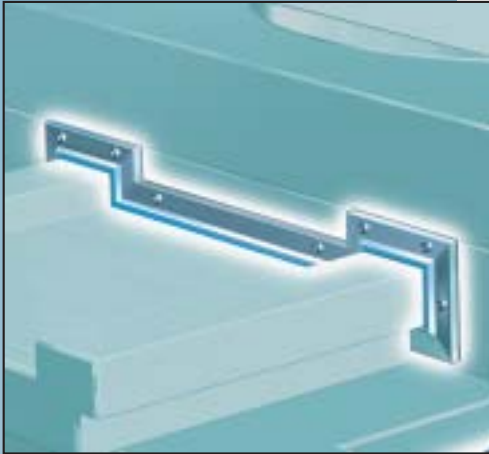
- .10 Largest possible compression of the telescopic covers _____ mm
- .20 Possible width of the telescopic covers _____ mm
- .30 Possible height of the telescopic covers over the guideway _____ mm
- .40 Possible overall height of the telescopic covers _____ mm
- .50 Connection of the telescopic covers _____
- .60 Wipers with shaped bar to protect against hot swarf yes no

3.00 Supplementary information

- .10 The above-mentioned components around the telescopic covers (way wipers, cables, etc.):

- .20 Design of the telescopic covers: Not accessible Accessible at standstill
- .40 Amount of swarf _____ kg/h
- .50 Coolant Art: _____ Amount: _____ l/min

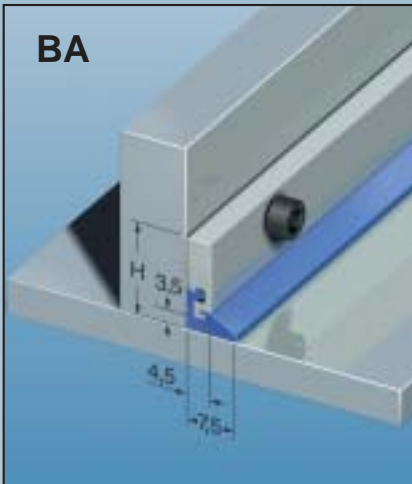
4.00 Other information:



KABELSCHLEPP way wipers protect slide and guideways from impurities and ensure trouble-free operation.

Advantages:

- Customised solutions
- Easy to install
- Highly wear-resistant polyurethane lip
- Heat resistant up to +100°C
- Flexible at low temperatures up to -40°C
- Resistant to oils, grease, alkalis, water



BA

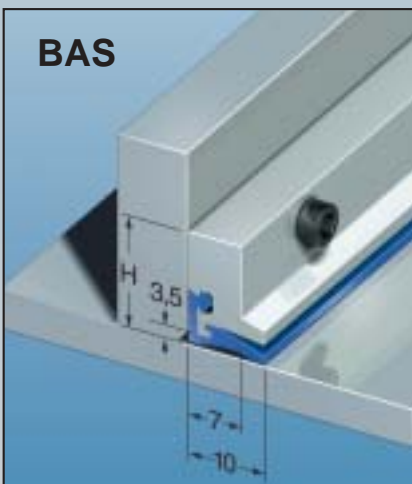
Type BA

These way wipers are mostly used in areas where space is restricted or where wipers are protected by telescopic covers, bellows or link apron covers and in areas where no chips are produced.

Dimensions: (in mm)

Type	Installation height (fitted)
BA 18	17.5
BA 25	23.5

Standard length: 1000 mm



BAS

Type BAS

With this type the light metal frame has a built-in protection for the wiper lip. These wipers are used where chips (no hot chips) are produced.

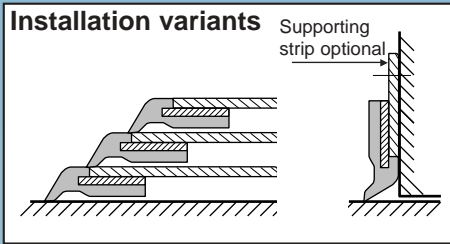
Dimensions: (in mm)

Type	Installation height H (clamped)
BAS 18	17.5
BAS 25	23.5
BAS 40	39.5

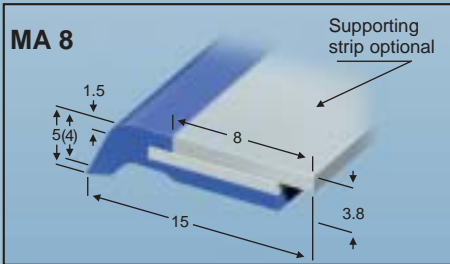
Standard length: 1000 mm

To protect the wiper lip from hot chips and to clean the guideway of coarse and solid dirt particles, the wipers must be fitted with an additional protective lip made of stainless spring steel or brass. The protective strip and light metal clamping piece are fitted to the machine using wiper fixing screws. For straight way wipers with suitable hole pattern (hole spacing ≤ 80 mm) no clamping piece is required.

Types MA 8 and MA 12



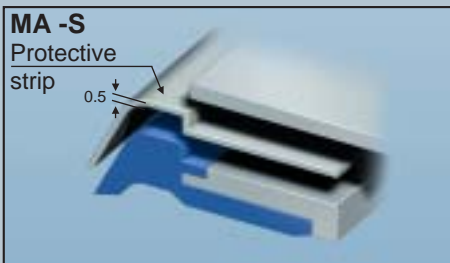
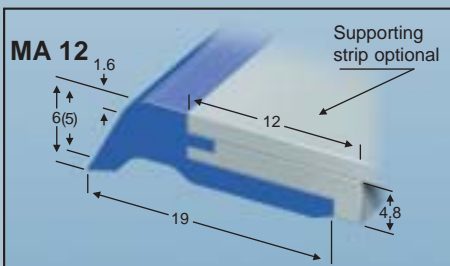
Type MA 8 and MA 12 way wipers mainly operate on telescopic covers providing wiping as well as pulling action. In case of space restrictions wipers can be fitted vertically to the guideway by means of a carrier plate



The wipers are made of sheet steel profile with a vulcanised highly abrasion resistant wiper lip. Resistant to mineral oils and coolants.

Standard length: 500 mm

The supporting strip can also be designed wider.

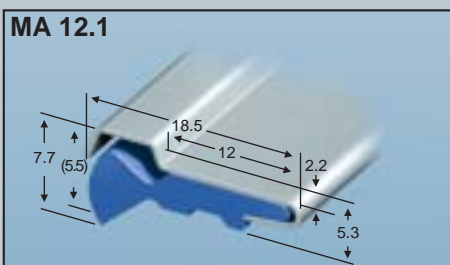


A high-grade steel protective strip is used to protect the wiper lip from hot swarf.

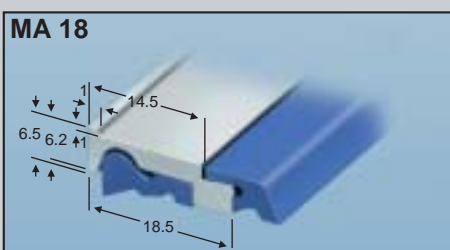
In this case, the wiper can be used only in parallel to the guideway!

Type designation of the protective strip: **Type (MA 8) S** for wiper MA 8
Type (MA 12) S for wiper MA 12

Type series MA 12.1 and MA 18



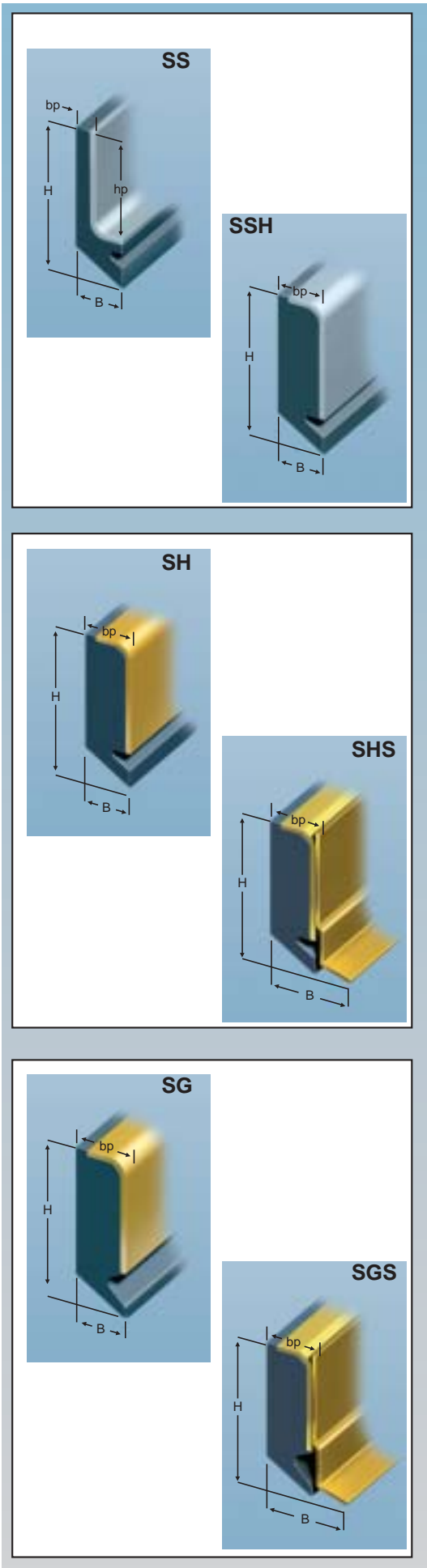
the wipers in type series MA 12.1 and MA 18 should be used only with telescopic covers. The wiper lip can be exchanged.



Structure and material as described under MA 8 and 12.

Standard length: 3000 mm

Fabricated versions are possible individually according to your drawing.



Type S

Type S way wipers are only available as strip material (length 300 mm) and have a metal carrier plate on which a high-quality sharp-edged wiper lip is vulcanised.

Delivery options:

- Type SS** - Steel carrier plate
Wiper lip made of synthetic rubber
- Type SSH** - Material as for type SS
- Type SH** - Brass carrier plate
Wiper lip made of synthetic rubber
- Type SHS** - Material as for type SH,
but with brass protection lip
- Type SG** - Brass carrier plate,
Wiper lip made of polyurethane
- Type SGS** - Material as for type SG
but with brass protection lip

Type	Heights		Widths		Admissible Temperature
	H	h _p	B	b _p	
SS - 0	18.0	12.7	5.0	2.0	120 °C
SS - 4	30.0	23.5	6.0	2.6	
SS - 6	40.0	33.4	6.0	2.6	
SSH - 0	18.0	—	5.0	5.0	120 °C
SSH - 3	25.0	—	6.0	6.0	
SH - 0	18.0	—	5.0	5.0	120 °C
SH - 3	25.0	—	6.0	6.0	
SHS - 0	18.0	—	10.0	5.2	120 °C
SHS - 3	25.0	—	10.0	6.2	
SG - 0	18.0	—	5.0	5.0	80 °C
SG - 3	25.0	—	6.0	6.0	
SGS - 0	18.0	—	10.0	5.2	80 °C
SGS - 3	25.0	—	10.0	6.2	

For detailed technical clarification and for a customised quotation, please contact us, we will be happy to answer your questions.

Fax: 0271/5801-220

KABELSCHLEPP GMBHPostfach 100654
D-57006 SiegenMarienborner Straße 75
D-57074 Siegen**Telephone: 0271/5801-0**

Date: _____ Sheet No.: _____ No. of sheets.: _____

Sender:

Company: _____

responsible: _____ Department: _____

Telephone: _____ Direct dial tel. No.: _____

Fax: _____

Please send a drawing/sketch
with all dimensions
of the guideway to be wiped.

Position and dimensions of the drill holes,
in relation to the guideway.

Possible installation height: _____m

Wiper with first wiper in steel or brass
to protect the wiper lip from hot swarf:

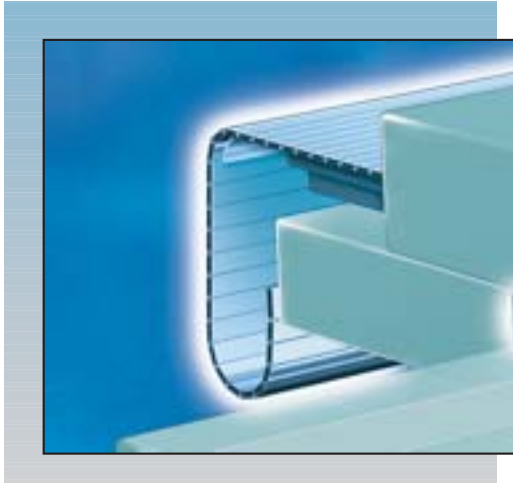
 yes no

Travel speed: _____m/s

Travel frequency: _____x/h

Ambient conditions:

(temperature, coolant, dirt, etc.)



These link apron covers consist of aluminium profiles and are available in three different types (see figures).

Advantages:

- Minimum space required
- Easy to install
- Optimal protection against chips, Coolants and lubricants
- Quick delivery
- Non-corroding
- Lightweight
- Long life expectancy
- Minimise risk of accidents
- Low-cost solution
- Heat-resistant up to 100°C continuous ambient temperature
- Customised type of connection

So that we can prepare our quotation, please submit the following data:

- Drawing/sketch of cross section to be protected
- Travel speed
- Total extended length
- Machine stroke
- Max. external diameter
- Type of connection
- Mounting position (with/without angle)
- Ambient conditions (temperature, use of emulsions etc.)

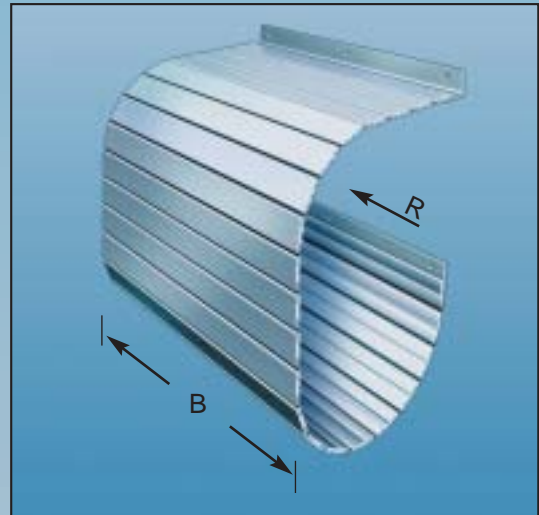
We will be happy to send you an offer.

KABELSCHLEPP link apron covers are ideal for areas where space is restricted and where no telescopic covers can be installed.

Link apron covers are positioned directly on the guideways and can either hang down at the end of the guideway, be fixed by screws or wound up.

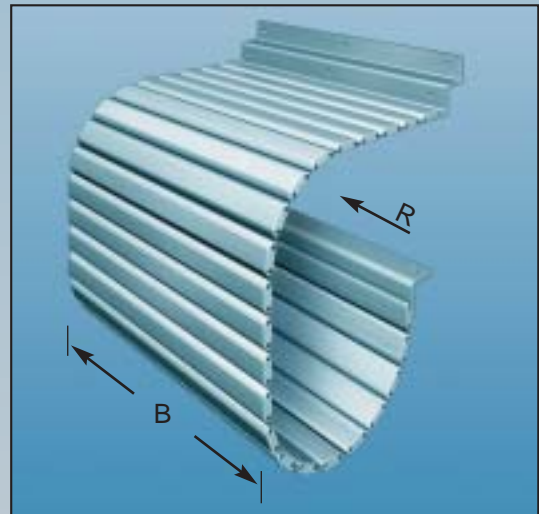
Type 1

B_{min} = 100 mm
 B_{max} = 950 mm
 R_{min} = 25 mm
 weight = 5.6 kg/m²
 Aluminium profiles
 19 x 3.0 mm



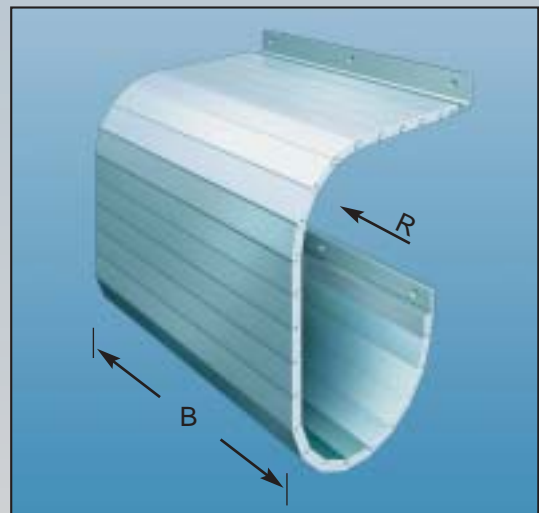
Type 2

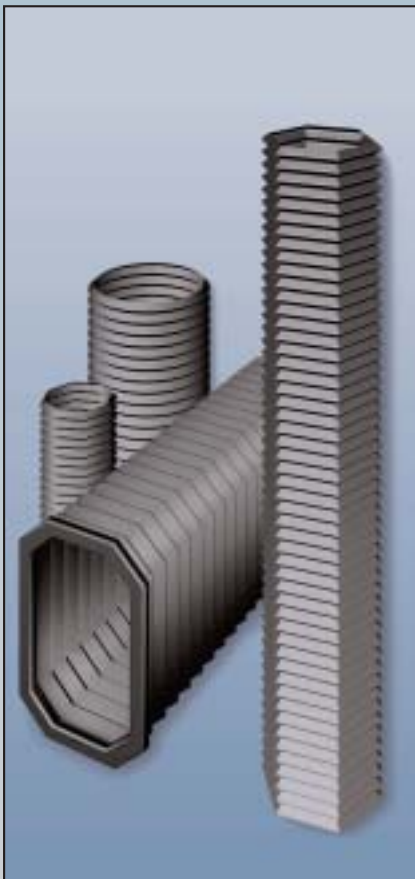
B_{min} = 100 mm
 B_{max} = 2950 mm
 R_{min} = 50 mm
 weight = 14.2 kg/m²
 Aluminium profiles
 20 x 5.5 mm



Type 3

B_{min} = 100 mm
 B_{max} = 2000 mm
 R_{min} = 60 mm
 weight = 16.5 kg/m²
 Aluminium profiles
 18 x 6 mm





Kabelschlepp bellows are used on all kind of machines to protect guideways and spindles where no hot chips are produced and where guideways do not have to be stepped on.

On request, bellows can be supplied in different materials according to individual requirements.

Advantages:

- Easy to install
- High travel speed
- Minimum compressed length
- High-quality material

Installation variants:

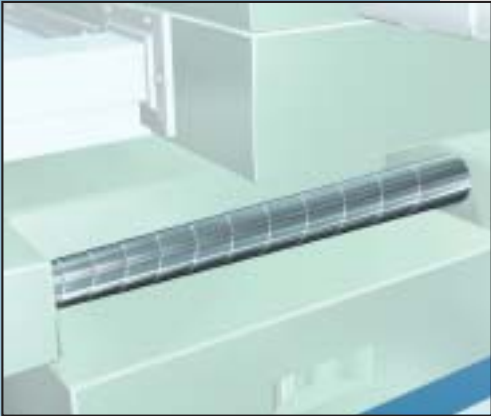
- Mounted horizontally
- Suspended horizontally
- Mounted vertically

Delivery Options:

- For travel speeds up to 1.5 m/s
- Manufactured according to individual customer specifications
- All forms and shapes

So that we can prepare our quotation, please submit the following data

- Drawing/sketch of cross section to be protected
- Travel speed _____ m/s
- Total extended length _____ mm
- Compressed length _____ mm
- Machine stroke _____ mm
- Max. external diameter _____ mm
- Type of connection _____
- Mounting position _____
- Ambient conditions (temperature etc.) _____
- Emulsions used (kind and amount l/min) _____



Kabelschlepp steel spring band covers offer the utmost protection for machine spindles, guide columns and shafts.

Material: High-quality tempered spring steel, stainless steel on request

Installation variants:

- Horizontally
- Vertically

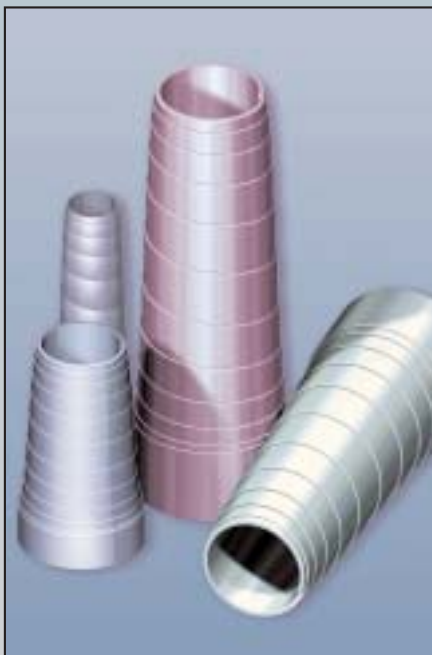
Tandem-installation possible on request. For technical reasons this information has to be specified in the order.

Advantages:

- Protection of operators from accidents caused by rotating spindles and shafts
- Down-times caused by contamination are reduced significantly
- Consistent machine/equipment accuracy
- Spring band coils are adapted to machine design resulting in good overall appearance
- Extended machine life expectancy
- Retrofitting possible under certain conditions

So that we can prepare our quotation, please submit the following data:

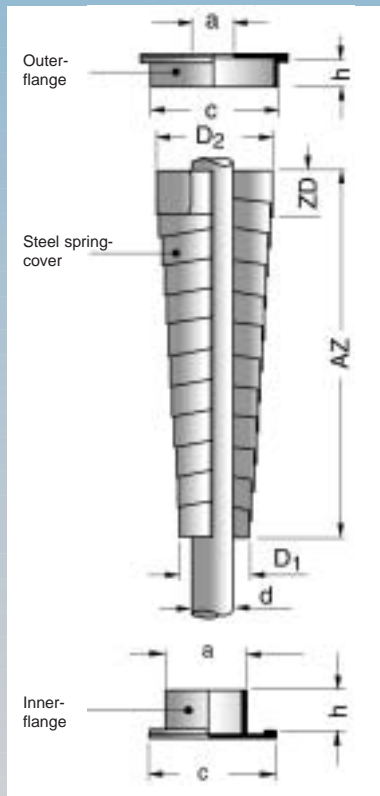
- Drawing/sketch of cross section to be protected
- Shaft/spindle diameter _____ mm
- Total extended length _____ mm
- Compressed length _____ mm
- Travel speed _____ m/s
- Machine stroke _____ mm
- Max. external diameter _____ mm
- Type of connection _____
- Mounting position _____
- Ambient conditions (temperature, use of emulsions etc.) _____



This is just a short overview giving you basic information.

We will be glad to send you our detailed brochure.

Technical Data and Abbreviations



Steel spring cover

All dimensions in mm

d = Shaft/spindle diameter

a = Diameter of the guide bushes

= Hole diameter in the outer flange

$a < D_1 - 4 \text{ mm}$

D₁ = Spiral inner diameter

D₂ = Spiral outer diameter

c = Outer diameter of the inner flange

Inner diameter of the outer flange

$c > D_2 + 6 \text{ mm}$

h = Flange height ($0.6 \times ZD \leq h \leq (ZD - 2 \text{ mm})$)

ZD = Compressed width

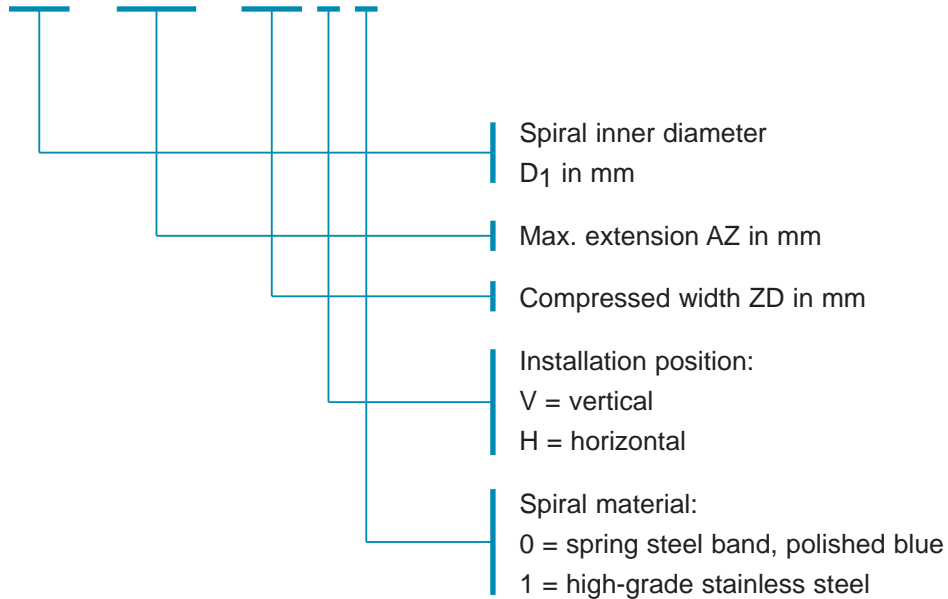
AZ = Extension/extension length

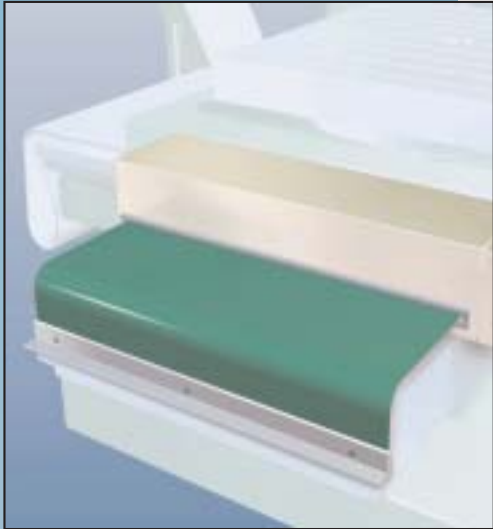
The guide flange is not part of the delivery scope, but it can also be supplied on request.

In an order, please state the installation position and spiral material. Cf. type designation

Type designation

025 – 0100 – 020 V 0





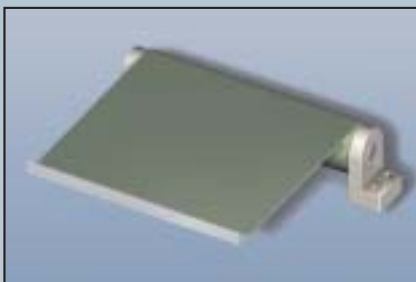
KABELSCHLEPP Roll-up covers are used to protect slide- and guide ways of any kind of machine.

Advantages:

- For high travel speeds
- Takes up little space
- Customised solutions
- Easy to install
- Minimise risk of accidents
- Long life expectancy
- Low-cost solution

Material: plastic fibre or stainless steel

So that we can prepare our quotation, please submit the following data:



without housing



with housing

- Drawing/ sketch of cross section to be protected
- Travel speed _____ m/s
- Total extended length _____ mm
- Machine stroke _____ mm
- Max. external diameter _____ mm
- Type of connection _____
- Installation position _____
- Mounting position type
 - With housing
 - Without housing
- Type of band
 - Stainless steel
 - Plastic fibre
- Ambient conditions (temperature, use of emulsions etc.) _____

There is more information in our "Roller Covers" brochure. Please send for it.

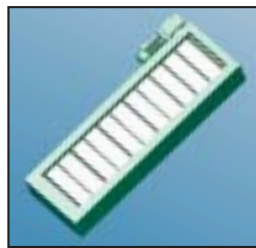


KABELSCHLEPP conveyors are manufactured according to customer specifications and can therefore meet almost any technical requirement, such as kind of materials to be conveyed, volume, space available at customer site, production methods and individual conditions on site.

Advantages:

- Reduced unproductive man-hours
- Machine accuracy maintained by continuous removal of swarf from the machine body
- Reduced pollution
- Separation and possible recovery of coolant

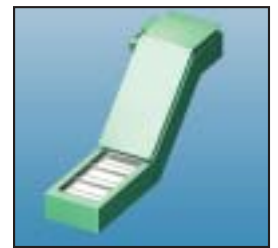
Standard types:



Straight
(horizontal or inclined)
(max 45°)



Straight - inclined
(max 45°)



Straight - inclined - straight
(max 60°)

Hinged Belt and Scraper Conveyors

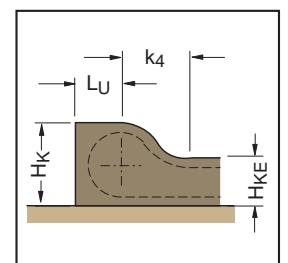
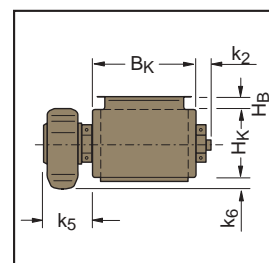
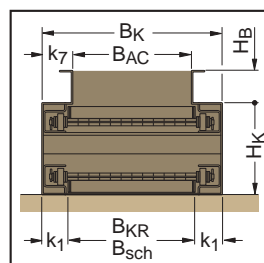
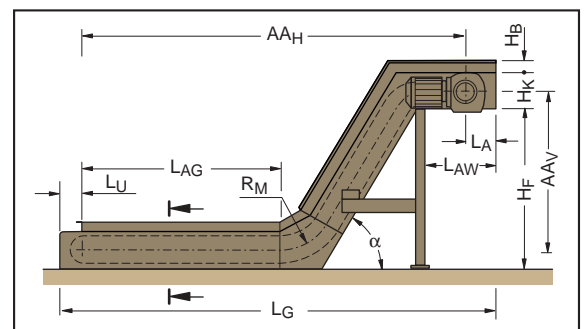
Conveyor case

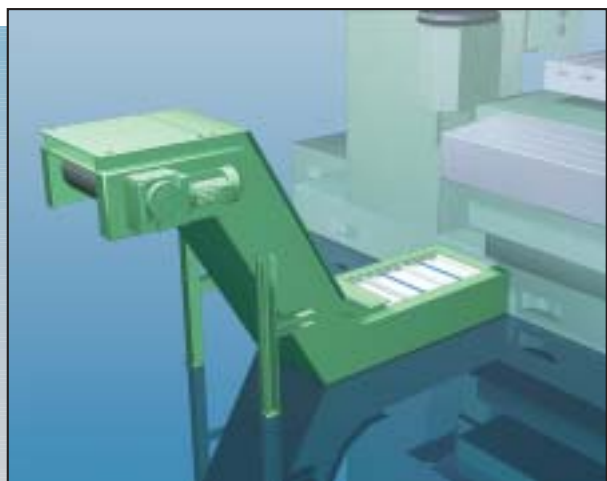
Variable dimensions:

- BKR = Width of scraper belt
- BSCH = Hinge width
- BK = Width of conveyor case
- BAG = Feed width
- HB = Screen height (only with hinged belt conveyor)
(depending on material and amount to be conveyed)
- HF = Conveying height
- AAH = Distance between axes horizontal
- AAV = Distance between axes vertical
- LAG = Loading length
- LAW = Length discharge end
- LG = Total length of conveyor
- α = Angle of elevation

Dimensions depending on construction:

- HK = Height of conveyor case
- HKE = Min. case height in loading length
- LA = Length of idler shaft
- LU = Length of drive shaft
- RM = Mean radius of curved part
- k1... k6 = Constant dimensions





Hinged belt conveyors

For years, **hinged belt conveyors** have been operating in areas where wet or dry chips in all forms, scrap metal, warm forged or moulded pieces, trimmings, garbage and other sharp-edged and wear-intensive materials need to be conveyed.

Chips are transported via the upper side of the revolving conveyor steel belt.

In order to maximise the flow rate of collected coolant, the hinged steel belt plates are available in a perforated version.

Inclinations

Hinged steel belt conveyors can have an inclination angle α of 0° up to 60°

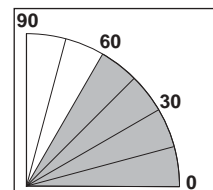


Table of dimensions:

Dimensions in mm

Type	Tension adjustment	H _B	H _K	H _{KE}	L _{AW min}	L _A	L _U	R _M	k ₁	k ₂	k ₄	k ₅	k ₆	k ₇
SRF 040.00	On drive shaft	40 60	140	110	250	180	73	250	37.5	50	150	200	30	47.5
SRF 063.00	On drive shaft	40 80 150	216	153	360	240	111	282	60	80	220	300	80	70
SRF 100.00	On drive shaft	150	360	260	850	600	185	853	75	110	500	350	30	90
SRF 100.20	On idler shaft	250	360	260	550	345	185	853	75	110	500	350	30	90
SRF 150.00	On drive shaft	150	540	390	850	600	270	900	95	150	800	420	70	120
SRF 150.20	On idler shaft	250	540	390	550	300	350	900	95	150	800	420	70	120



Scraper Conveyors

Scraper conveyors are used wherever waste in the form of chips are to be transported.

The drivers in the lower section transport the chips over the base of the conveyor housing, reinforced with slit metal sheets depending on the application.

Inclinations

Scraper Conveyors can have an inclination angle α of 0° up to 45°

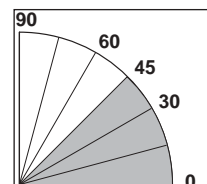
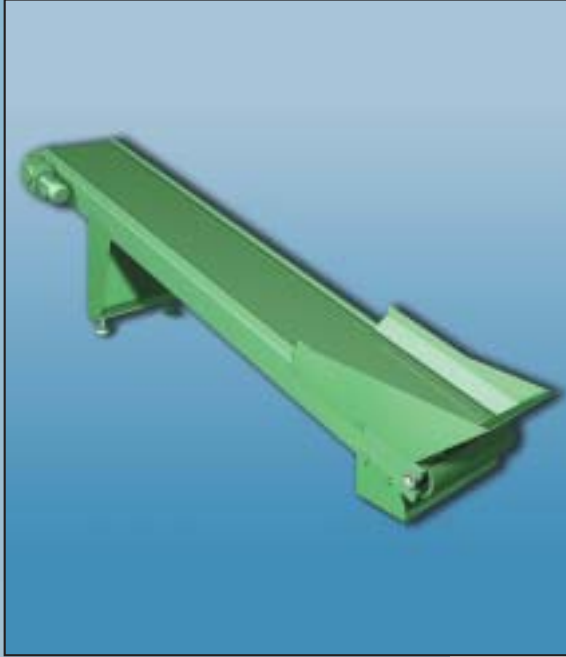


Table of dimensions:

Dimensions in mm

Type	Tension adjustment	H _K	H _{KE}	L _{AW min}	L _A	L _U	R _M	k ₁	k ₂	k ₄	k ₅	k ₆	k ₇
KRF 040	On drive shaft	163	110	250	180	81.5	300	45	50	150	200	30	45
KRF 063	On drive shaft	216	150	360	240	106	282	55	80	220	300	80	55
KRF 100	On drive shaft	420	340	850	450	220	853	82	110	500	350	30	87



Belt Conveyors

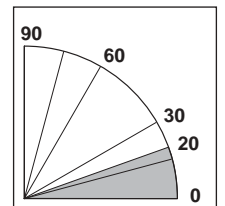
Belt conveyors have been specially developed for use with plastic injection moulding machine and for transporting small waste from punching operations and chips.

The conveyor belt is resistant to oils and fats.

- Belt width from 200 to 600 mm
- Conveyor length from 1000 to 5000 mm
- Standard box height 144 mm
-

Inclinations

Belt conveyors should have an inclination angle of α 0°...20°.



For detailed technical advice and for an individual quote please send us the following FAX-Questionnaire or get in touch with us.

We will be happy to help.

You will find more
information on our website
<http://www.kabelschlepp.de>

KABELSCHLEPP GMBHPostfach 100654
D-57006 SiegenMarienborner Straße 75
D-57074 Siegen

Telephone: 0271/5801-0

Date: _____ Sheet No.: _____ No. of sheets.: _____

Sender:

Company: _____

responsible: _____ Department: _____

Telephone: _____ Direct dial tel. No.: _____

Fax: _____

 I would like a consultation! Offer to: **Hinged belt conveyors** **Scraper conveyors** **Belt conveyors**

We need the following information to make an unbinding offer:

1.00 Intended use of the conveyor:

.10 Installation situation (drawing/sketch) _____

2.00 Material to be conveyed

.10 Parts to be conveyed _____

.20 Material _____

.30 Amount to be conveyed _____ m³/h _____ kg/h

.40 Type of material to be conveyed (type of chip in the case of chips) _____

.50 max. dimensions of the material to be conveyed _____

3.00 Coolant.10 Type of coolant Emulsion Oil _____

.20 Amount of coolant _____ l/min

.30 Coolant tank on conveyor housing with pump separate tank with float switch**4.00 Where should the material be conveyed to?**.10 To container Dimensions: _____ mm.20 _____**5.00 Electrical connected loads**

.10 Operating voltage _____ Volt

.20 Control voltage _____ Volt

.30 Frequency _____ Hz

6.00 Electrical control Delivery by KABELSCHLEPP GMBH Provision by customer Implementation of the control: _____**7.00 Overload protection**.10 Electrical overload protection (e.g. motor protection switch) Implementation by KABELSCHLEPP GMBH Implementation by customer.20 Current measuring relay.30 Torque switch-off via limit switch**8.00 Paint** Priming Paint - RAL _____**9.00 Supplementary information**

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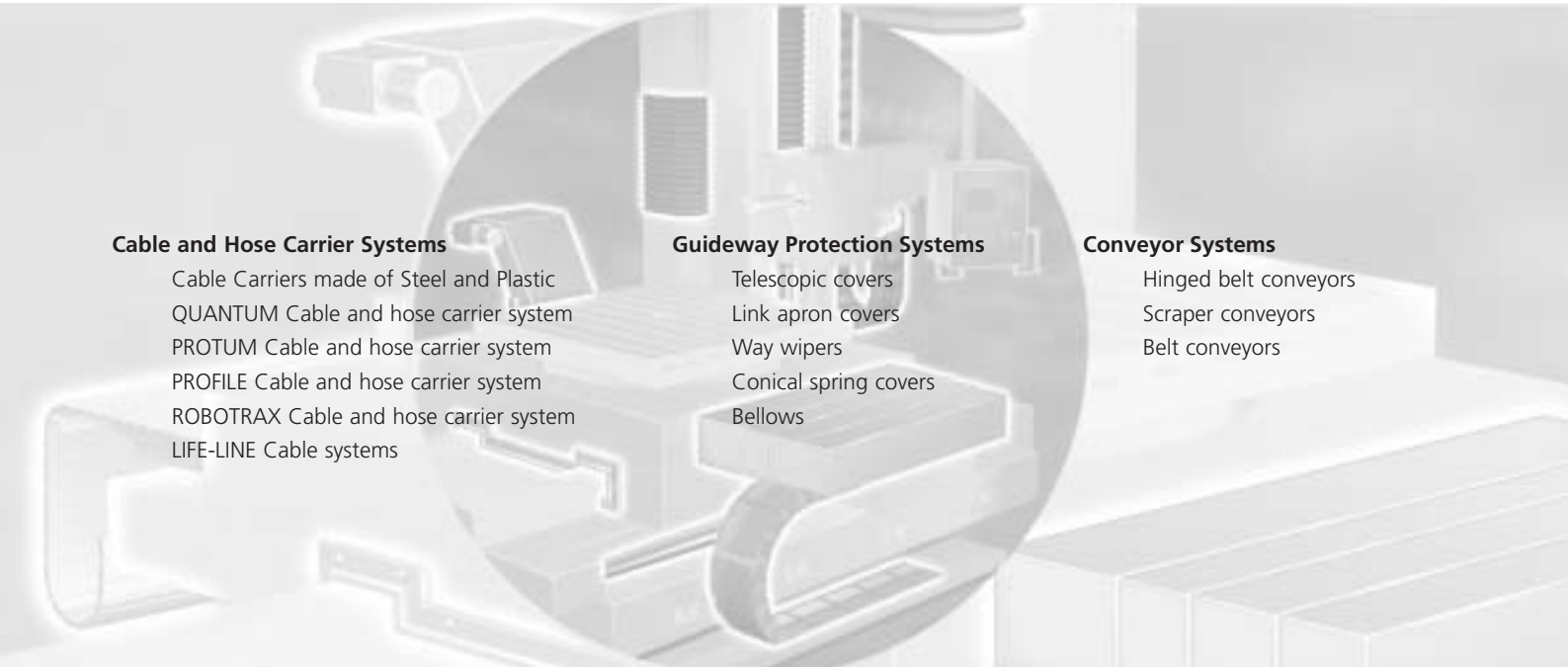
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Conveyor Systems

Hinged belt conveyors
Scraper conveyors
Belt conveyors

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