

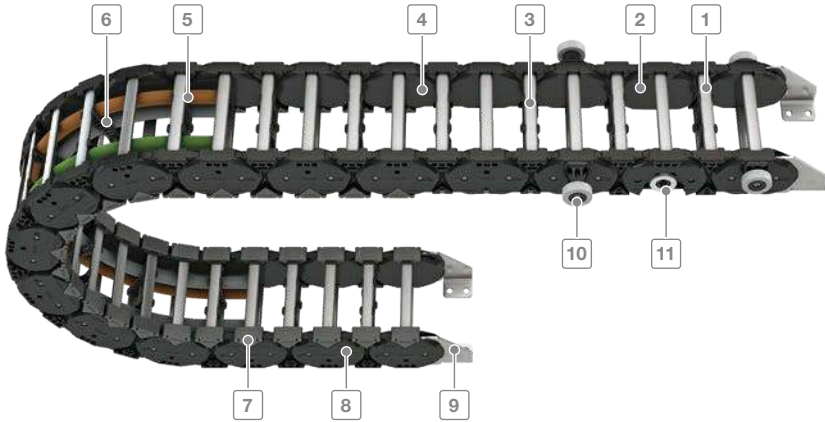
# TKHD series

Heavy duty cable carriers  
for long travel lengths and  
high additional loads



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Subject to change.



Inner heights



Inner widths



- 1 Aluminum stays available in **1 mm width sections**
- 2 Plastic chain link plates
- 3 Quick and easy opening to the inside or outside for cable laying
- 4 Cable-friendly interior – no interfering edges
- 5 Fixable dividers
- 6 Dividers and subdivision for separating the cables
- 7 Replaceable glide shoes for increased service life in gliding application
- 8 Robust, multiple stop system
- 9 Steel installation brackets
- 10 RSC-system with external role
- 11 With integrated roll for standard guide channels

[tsubaki-kabelschlepp.com/tkhd](http://tsubaki-kabelschlepp.com/tkhd)

## Features

- Massive, enclosed, stain-repellent stop system
- Massive sidebands through robust double fork-bracket-construction
- Sidebands easy to assemble
- Reinforced pin bore connection
- Integrated noise damping
- Quick and easy opening to the inside or outside for cable laying
- Soil-resistant outer contour
- Easy change of components
- Maintenance-free
- Symmetrical force curve in the sideband
- Quiet and low-wear operating through polygon-optimized contour and radii
- Reduce drive power through less friction



Variable vertical and horizontal inner distribution optional with fixable dividers



Suitable also for roller-mounted application (RSC)



Replaceable glide shoes for longer service life in gliding applications



Roller chain for travel distances up to 800 m

Key for abbreviations on page 62

Design guidelines from page 16

Technical support: [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

[online-engineer.de](http://online-engineer.de)  
Cable Carrier Configurator

Type	Opening variant	Stay variant	$h_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]	$B_k$ [mm]	$B_i$ - grid [mm]	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable- d <sub>max</sub> [mm]
<b>TKHD90</b>											
		RMF	87	117	100–800	170–870	1	91	250–500	100	69
<b>TKHD90-R</b>											
		RMF	87	117	100–800	170–870	1	91	250–500	60	69

# TKHD series | Overview

Unsupported arrangement			Gliding/Rolling arrangement			Inner distribution				Installation variants			Page
Travel length $\leq$ [m]	$v_{max} \leq$ [m/s]	$a_{max} \leq$ [m/s <sup>2</sup> ]	Travel length $\leq$ [m]	$v_{max} \leq$ [m/s]	$a_{max} \leq$ [m/s <sup>2</sup> ]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
13.5	5	2.5	200	8	20	•	•	-	-	•	-	-	388
-	-	-	800	10	50	•	•	-	-	-	-	-	394

Inner heights



Inner widths



[tsubaki-kabelschlepp.com/tkhd](https://tsubaki-kabelschlepp.com/tkhd)

# TKHD90

Key for abbreviations  
on page 62Pitch  
91 mmInner height  
87 mmInner widths  
100 – 800 mmBending radii  
250 – 500 mm

## Stay variants



**Aluminum stay RMF** ..... page 388

### Frame stay, solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- **Inside/outside:** Threaded joint easy to release.

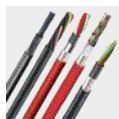
Design guidelines  
from page 16Technical support:  
[technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

online-engineer.de  
Cable Carrier Configurator



### TOTALTRAX® complete systems

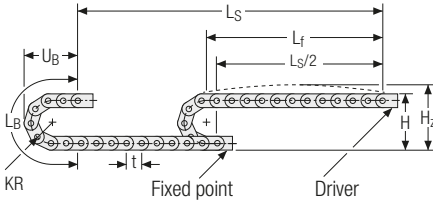
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source – with a warranty certificate on request! Learn more at [tsubaki-kabelschlepp.com](http://tsubaki-kabelschlepp.com)



### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were specially developed, optimised and tested for use in cable carriers can be found at [traxline.de](http://traxline.de).

## Unsupported arrangement



KR [mm]	H [mm]	H <sub>2</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
250	680	860	965	510
310	800	980	1154	570
360	900	1080	1311	620
500	1180	1360	1751	680

Inner heights



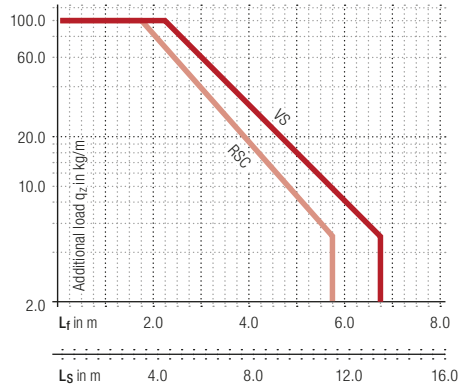
Inner widths



**Load diagram for unsupported length** depending on the additional load.

Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight  $q_k = 10 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.

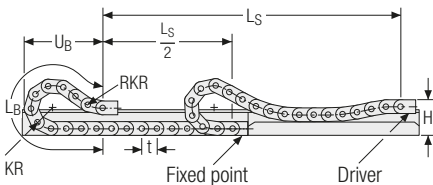


- Pre-tensioning of the cable carrier for unsupported arrangement, maximum H<sub>2</sub> dimension.
- Decreased pre-tensioning of the cable carrier for RSC (rolling system) application, reduced H<sub>2</sub> dimension.



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## Gliding arrangement | GO module with chain links optimized for gliding



KR [mm]	H [mm]	n <sub>RKR</sub>	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]	Q <sub>z</sub> max [kg/m]
250	351	6	2420	1090	100
310	351	6	2780	1208	100
360	351	6	3230	1380	90
500	351	6	4400	1820	75



The gliding cable carrier must be guided in a channel. See p. 732.

The GO module mounted on the driver is a defined sequence of 6 adapted KR/RKR link plates.

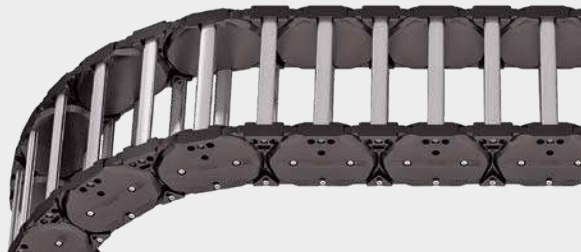
Glide shoes must be used for gliding applications.



Our technical support can provide help for gliding arrangements:  
[technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

## Aluminum stay RMF – frame stay solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- Available customized in **1 mm grid**.
- **Inside/outside:** Threaded joint easy to release.



Key for abbreviations  
on page 62

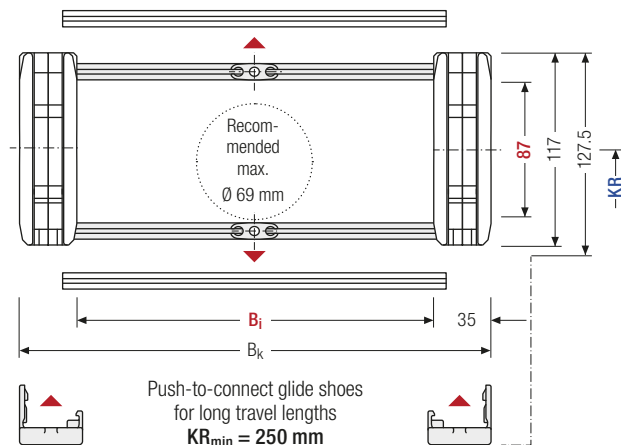


Stay arrangement on each chain link (**VS: fully-stayed**)



**1 mm**  $B_i$  100 – 800 mm  
in 1 mm width sections

Design guidelines  
from page 16



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

### Calculating the cable carrier length

#### Cable carrier length $L_k$

$$L_k \approx \frac{L_S}{2} + L_B$$

Cable carrier length  $L_k$   
rounded to pitch  $t$

Technical support:  
technik@kabelschlepp.de

$h_i$ [mm]	$h_G$ [mm]	$h_G^*$ [mm]	$B_i$ [mm]*	$B_k$ [mm]	KR [mm]				$q_k$ [kg/m]
87	117	127,5	100 – 800	$B_i + 70$	250	310	360	500	10.37 – 17.47

\* in 1 mm width sections

### Order example



TKHD90

Type

400

$B_i$  [mm]

RMF

Stay variant

310

KR [mm]

2700

$L_k$  [mm]

VS

Stay arrangement

## Divider systems

As a standard, the divider system is mounted on every 2<sup>nd</sup> chain link on the center bracket.

As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

For applications with lateral acceleration and free hanging on the side, the dividers can be attached by simple insertion of a fixing profile into the RMF stay, available as an accessory (**version B**).

Inner heights



Inner widths



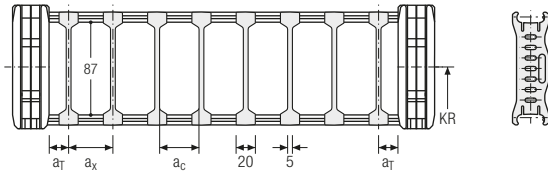
Increments



## Divider system TSO without height separation

Vers.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	a <sub>x</sub> Raster [mm]	Π <sub>T</sub> min
A	10	20	15	—	—
B	12.5	20	15	5	—

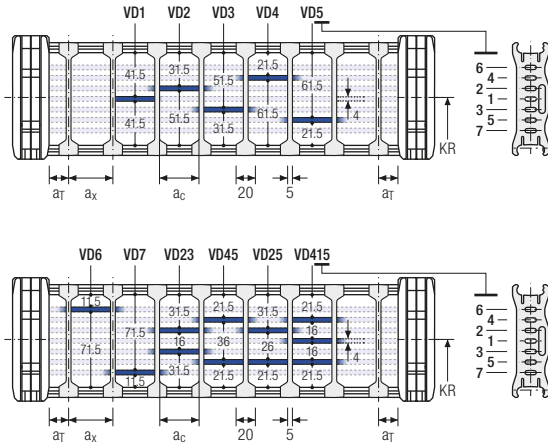
The dividers can be moved within the cross section (version A) or fixed (version B).



## Divider system TS1 with continuous height separation

Vers.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	a <sub>x</sub> Raster [mm]	Π <sub>T</sub> min
A	10	20	15	—	2
B	12.5	20	15	5	2

The dividers can be moved within the cross section (version A) or fixed (version B).



## Order example

TS1

·

A

·

3

-

VD1

⋮

-

VD3

Divider system
Version
Π<sub>T</sub>
Height separation

Please state the designation of the divider system (TS0, TS1,...), the version, and the number of dividers per cross section [Π<sub>T</sub>].

When using divider systems with height separation (TS1), please additionally state the position (e.g. VD1) viewed from the left driver belt. You are welcome to add a sketch to your order.



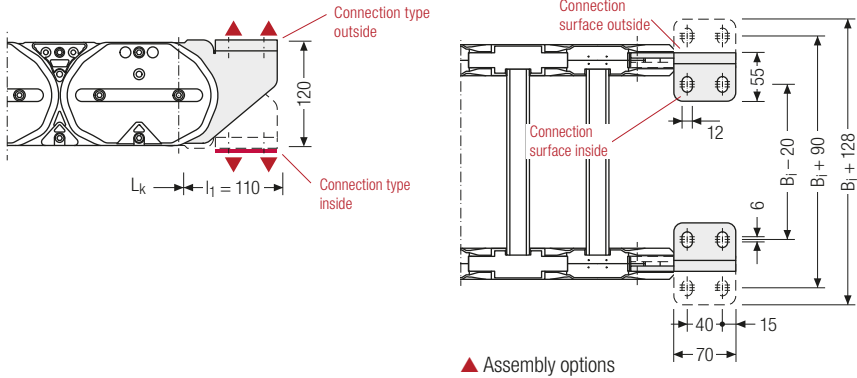
## End connectors – steel short

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.

Key for abbreviations on page 62

Design guidelines from page 16

Technical support: [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)



### Connection point

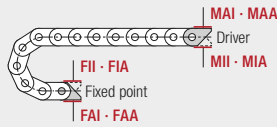
- F** – fixed point
- M** – driver

### Connection surface

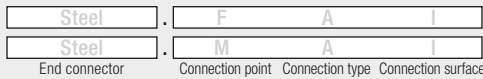
- I** – connection surface inside
- A** – connection surface outside

### Connection type

- A** – threaded joint to outside (standard)
- I** – threaded joint to inside



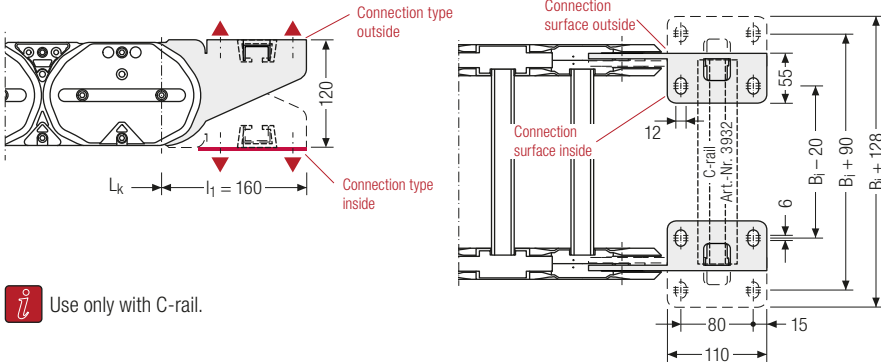
## Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 794.

## End connectors LF – steel long

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



Inner heights



Inner widths



Use only with C-rail.

▲ Assembly options

### Connection point

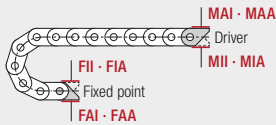
- F – fixed point
- M – driver

### Connection surface

- I – connection surface inside
- A – connection surface outside

### Connection type

- A – threaded joint to outside (standard)
- I – threaded joint to inside



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## Order example

Steel . F A I  
Steel . M A I  
End connector . Connection point Connection type Connection surface

## More product information online



Assembly instructions etc.:  
Additional info via your  
smartphone or check online at  
[tsubaki-kabelschlepp.com/  
support](http://tsubaki-kabelschlepp.com/support)



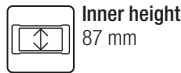
Configure your custom  
cable carrier here:  
[onlineengineer.de](http://onlineengineer.de)

# TKHD90-R

## Heavy-duty cable carrier with integrated roller



Pitch  
90 mm



Inner height  
87 mm



Inner widths  
100 – 800 mm



Bending radii  
250 – 500 mm

Stainless steel ball bearings with application-specific lubrication and plastic rollers ensure quiet and smooth

- suitable for all long travel applications
- lower drive power required
- quiet and low-vibration operation
- space-saving and cost-optimized
- long service life – low maintenance
- easy access to rollers
- minimized loads on cable carrier and cables

operation. Integrated, wear-free damping systems minimize the mechanical load for the entire system.

- low push and pull forces
- high travel speed and acceleration
- large additional loads possible
- using proved standard cable carriers
- retrofit of existing systems
- exchange other makes up to 100 %
- integration of existing guide channels

### Stay variants



**Aluminum stay RMF** ..... page 394

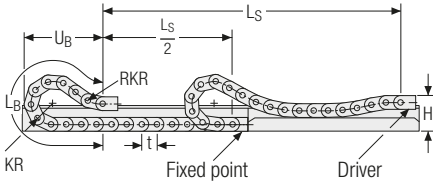
#### Frame stay, solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- **Inside/outside:** Threaded joint easy to release.

# TKHD90-R | Installation dim. | Unsupported · Rolling

TKHD series

## Rolling arrangement | Cable carrier with integrated roller



KR [mm]	H [mm]	n <sub>RKR</sub>	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]	q <sub>z</sub> max [kg/m]
250	351	6	2420	1090	100
310	351	6	2780	1208	100
360	351	6	3230	1380	90
500	351	6	4400	1820	75



**Speed**  
up to 10 m/s



**Acceleration**  
up to 50 m/s<sup>2</sup>



The rolling cable carrier must be guided in a channel. See p. 732.



**Travel length**  
up to 800 m



**Additional load**  
up to 100 kg/m

The GO module mounted on the driver is a defined sequence of 6 adapted KR/RKR link plates.



Our technical support can provide help for rolling arrangements:  
[technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

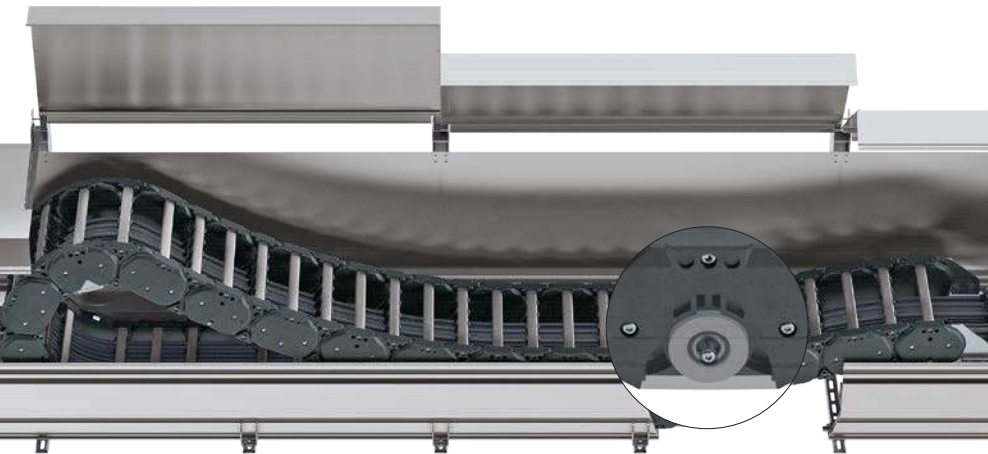
Inner heights



Inner widths



[tsubaki-kabelschlepp.com/tkhd](http://tsubaki-kabelschlepp.com/tkhd)



## Aluminum stay RMF – frame stay solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- Available customized in **1 mm grid**.
- **Inside/outside:** Threaded joint easy to release.



Key for abbreviations  
on page 62

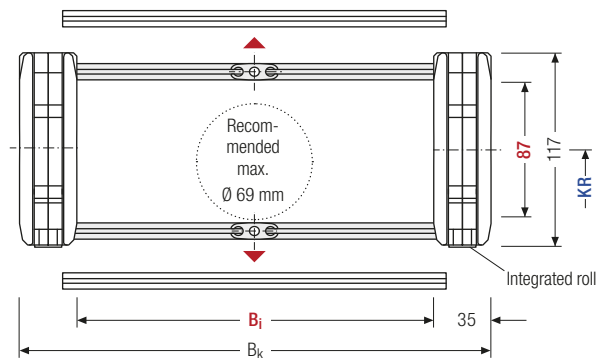


Stay arrangement on each chain link (**VS: fully-stayed**)



**1 mm**  $B_i$  100 – 800 mm  
in 1 mm width sections

Design guidelines  
from page 16



**i** The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

### Calculating the cable carrier length

#### Cable carrier length $L_k$

$$L_k \approx \frac{L_s}{2} + L_B$$

Cable carrier length  $L_k$   
rounded to pitch  $t$

Technical support:  
[technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

$h_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]*	$B_k$ [mm]	KR [mm]				$q_k$ [kg/m]
87	117	100 – 800	$B_i + 70$	250	310	360	500	10.37 – 17.47

\* in 1 mm width sections

\*\* When using this KR please contact our technical support.

### Order example



TKHD90-R

Type

400

$B_i$  [mm]

RMF

Stay variant

310

KR [mm]

2700

$L_k$  [mm]

VS

Stay arrangement

## Divider systems

As a standard, the divider system is mounted on every 2<sup>nd</sup> chain link on the center bracket.

As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

For applications with lateral acceleration and free hanging on the side, the dividers can be attached by simple insertion of a fixing profile into the RMF stay, available as an accessory (**version B**).

Inner heights



Inner widths



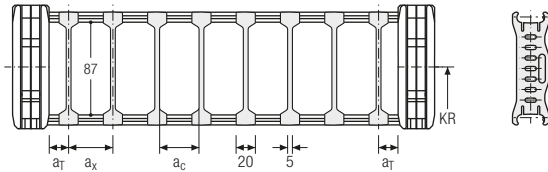
Increments



## Divider system TSO without height separation

Vers.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	a <sub>x</sub> Raster [mm]	Π <sub>T</sub> min
A	10	20	15	—	—
B	12.5	20	15	5	—

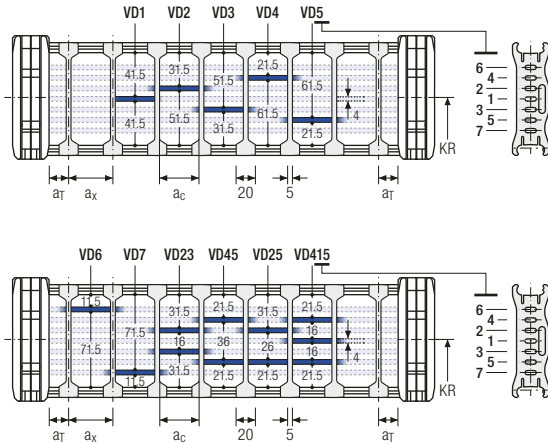
The dividers can be moved within the cross section (version A) or fixed (version B).



## Divider system TS1 with continuous height separation

Vers.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	a <sub>x</sub> Raster [mm]	Π <sub>T</sub> min
A	10	20	15	—	2
B	12.5	20	15	5	2

The dividers can be moved within the cross section (version A) or fixed (version B).



## Order example

TS1

·

A

·

3

-

VD1

⋮

-

VD3

Divider system
Version
Π<sub>T</sub>
Height separation

Please state the designation of the divider system (**TS0, TS1,...**), the version, and the number of dividers per cross section [Π<sub>T</sub>].

When using divider systems with height separation (**TS1**), please additionally state the position (e.g. VD1) viewed from the left driver belt. You are welcome to add a sketch to your order.

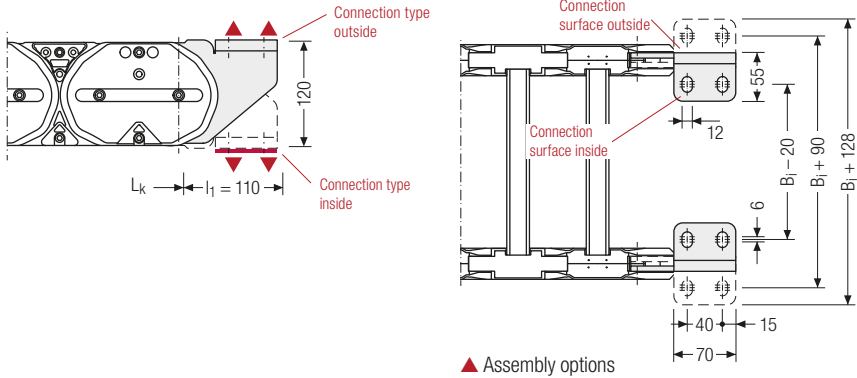
## End connectors – steel short

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.

Key for abbreviations on page 62

Design guidelines from page 16

Technical support: [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)



### Connection point

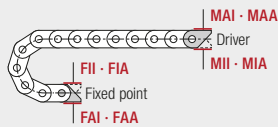
- F** – fixed point
- M** – driver

### Connection surface

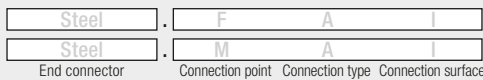
- I** – connection surface inside
- A** – connection surface outside

### Connection type

- A** – threaded joint to outside (standard)
- I** – threaded joint to inside



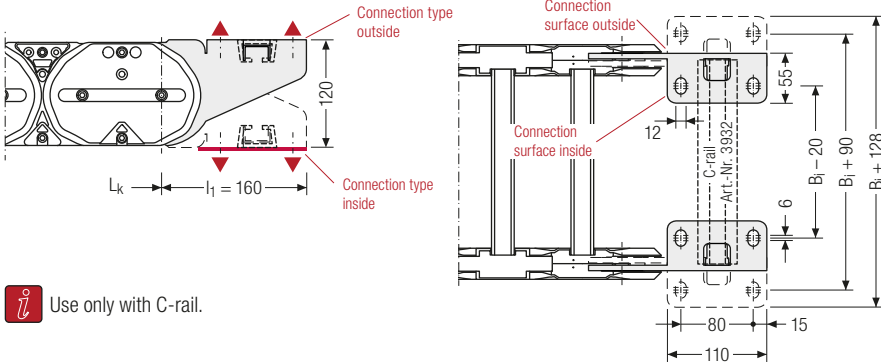
## Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 794.

## End connectors LF – steel long

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



Inner heights



Inner widths



Use only with C-rail.

Assembly options

### Connection point

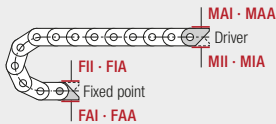
- F – fixed point
- M – driver

### Connection surface

- I – connection surface inside
- A – connection surface outside

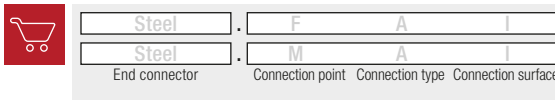
### Connection type

- A – threaded joint to outside (standard)
- I – threaded joint to inside



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## Order example



## More product information online



Assembly instructions etc.:  
Additional info via your  
smartphone or check online at  
[tsubaki-kabelschlepp.com/  
support](http://tsubaki-kabelschlepp.com/support)



Configure your custom  
cable carrier here:  
[onlineengineer.de](http://onlineengineer.de)