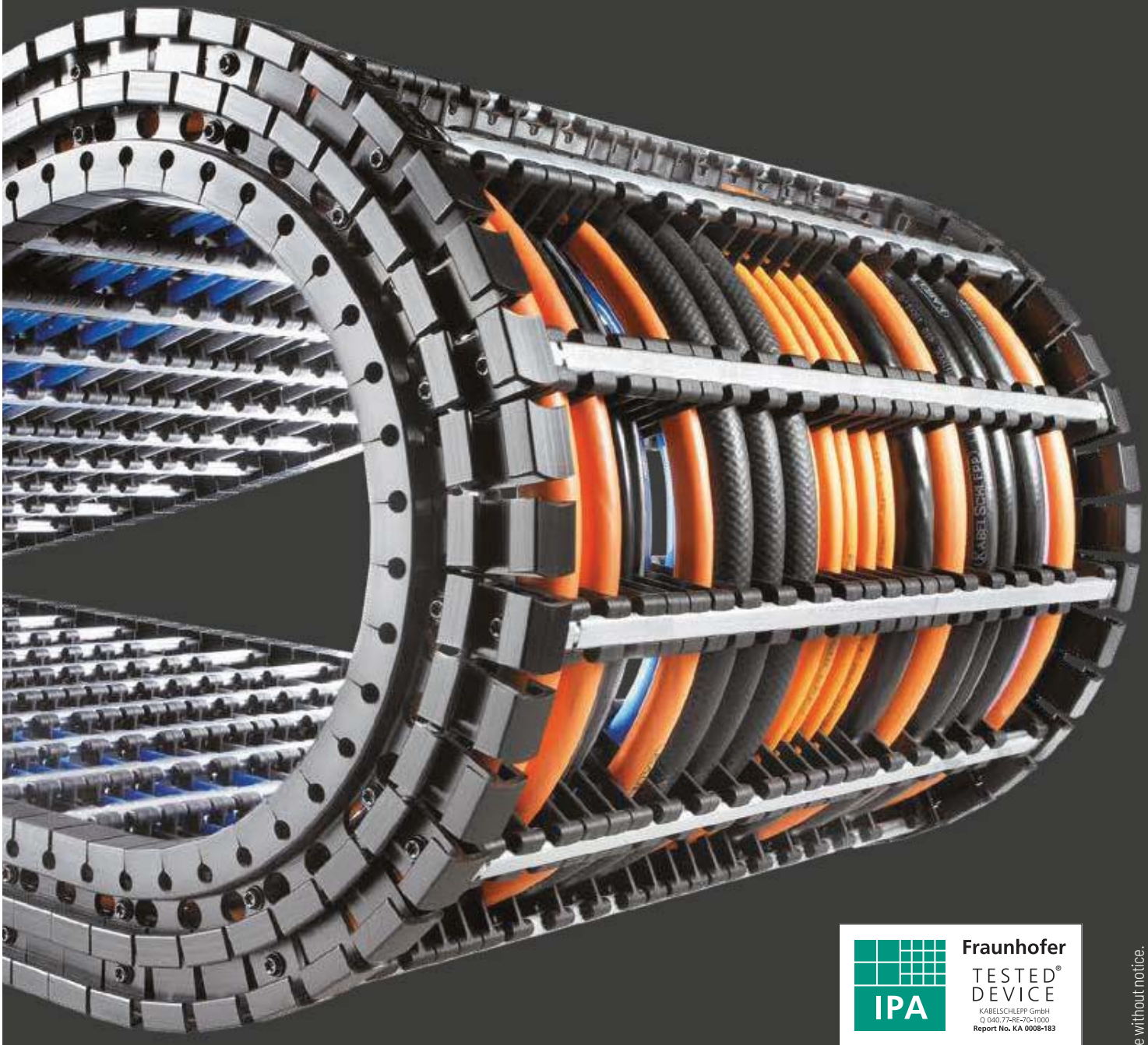
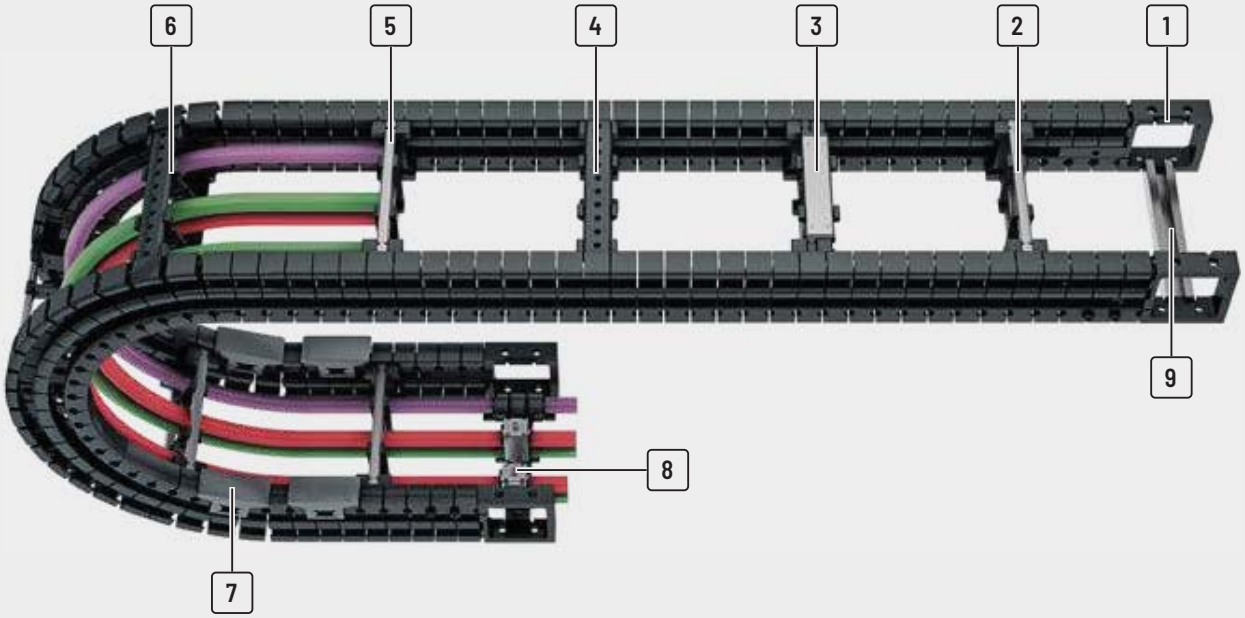
# QUANTUM® series

## Light, extremely quiet and low-vibration for high speeds and accelerations



Fraunhofer IPA TESTED® DEVICE
KABELSCHLEPP GmbH
Q 040.77-RE-70-1000
Report No. KA 0008-183




1 Universal end connectors (UMB)
2 Aluminum stays available in **1 mm width sections**
3 Aluminum stays in reinforced design
4 Plastic stays available in **8** or **16 mm width sections**
5 Can be opened quickly on the inside and the outside for cable laying
6 Fixable dividers
7 Replaceable glide shoes
8 Strain relief combs
9 C-rail for strain relief elements

**Virtually no polygon effect**

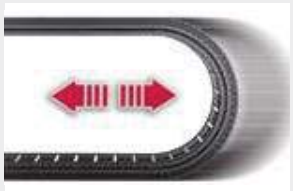
QUANTUM® Low-vibration operation

Cable carrier with polygon effect

## Features

» Cleanroom compatible: no links, no link wear
» Extremely quiet, 31 db (A)*
» Extremely light
» For high accelerations up to 300 m/s$^2$
» For high operating speeds up to 40 m/s
» Extremely long service life: ≥ 25 million motion cycles
» TÜV type tested as per 2PfG 1036/10.97
» Large selection of stay systems and separating options for cables


* Tested: Q060.100.100 by TÜV Rheinland. The sound pressure level for the measured area was measured at a distance of 0.5 m for smooth and jerky movements.



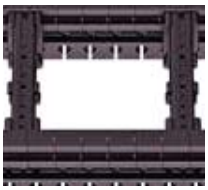
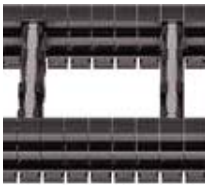
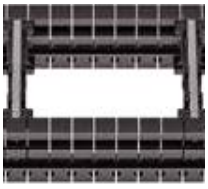
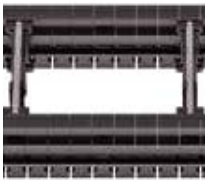
**Ideal for highly dynamic applications**

**3D movements: the driver connection can be moved laterally and can be rotated by up to ± 30°**

**Side bands made from special plastic and steel cables in the support floor for an extremely long service life**

# QUANTUM® series | Overview



| Type | Opening variant | Stay variant | $h_i$ [mm] | $h_G$ [mm] | $B_i$ [mm] | $B_k$ [mm] | $B_{i\text{-}grid}$ [mm] | t [mm] | KR [mm] | Additional load ≤ [kg/m] | Cable-$d_{max}$ [mm] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q040** | | | | | | | | | | | |
|  |  | RE | 28 | 40 | 28 – 284 | 68 – 324 | 8 | 15 | 60 – 180 | 2.5 | 22 |
| **Q060** | | | | | | | | | | | |
|  |  | RS | 38 | 60 | 38 – 500 | 90 – 552 | 1 | 20 | 100 – 300 | 5 | 30 |
| |  | RE | 42 | 60 | 68 – 276 | 120 – 328 | 8 | 20 | 100 – 300 | 5 | 33 |
| **Q080** | | | | | | | | | | | |
|  |  | RS | 58 | 80 | 50 – 600 | 122 – 672 | 1 | 25 | 170 – 500 | 8 | 46 |
| |  | RV | 58 | 80 | 50 – 600 | 122 – 672 | 1 | 25 | 170 – 500 | 8 | 46 |
| |  | RE | 58 | 80 | 58 – 570 | 130 – 642 | 16 | 25 | 170 – 500 | 8 | 46 |
| **Q100** | | | | | | | | | | | |
|  |  | RS | 72 | 98 | 70 – 600 | 152 – 682 | 1 | 30 | 180 – 600 | 12 | 57 |
| |  | RV | 72 | 98 | 70 – 600 | 152 – 682 | 1 | 30 | 180 – 600 | 12 | 57 |
| |  | RE | 72 | 98 | 74 – 570 | 156 – 652 | 16 | 30 | 180 – 600 | 12 | 57 |

## Cleanroom compatible and long service life

Continuous side bands are used. In contrast to conventional hole-and-bolt connections, hardly any wear occurs (link abrasion), which makes QUANTUM® ideal for use in cleanrooms.

**Extremely long service life through**

» No link abrasion due to absence of hole-and-bolt connections

» Continuous side bands made from special plastic with integrated steel cables

## Ideal for highly dynamic applications – extruded side bands

The QUANTUM® runs extremely quietly and with low vibrations. The absence of links and the very small pitch means that the so-called polygon effect is reduced to a minimum. Due to the very quiet running, the QUANTUM® cable carrier system is ideal for applications with low-vibration linear drives.

# QUANTUM® series | Overview

| Unsupported arrangement | | | Gliding arrangement | | | Inner Distribution | | | | Movement | | | Page |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Travel length ≤ [m] | $v_{max}$ ≤ [m/s] | $a_{max}$ ≤ [m/s²] | Travel length ≤ [m] | $v_{max}$ ≤ [m/s] | $a_{max}$ ≤ [m/s²] | TS0 | TS1 | TS2 | TS3 | vertical hanging or standing | lying on the side | rotating arrangement | |
| 3.2 | 40 | 300 | 30 | 2 | 3 | • | • | • | – | • | • | – | 498 |
| 5 | 30 | 160 | 50 | 3 | 2 – 3 | • | • | • | • | • | • | – | 504 |
| 5 | 30 | 160 | 50 | 3 | 2 – 3 | • | • | – | • | • | • | – | 508 |
| 6.4 | 25 | 100 | 80 | 3 | 2 – 3 | • | • | • | • | • | • | – | 514 |
| 6.4 | 25 | 100 | 80 | 3 | 2 – 3 | • | • | • | • | • | • | – | 518 |
| 6.4 | 25 | 100 | 80 | 3 | 2 – 3 | • | • | • | • | • | • | – | 522 |
| 7.8 | 20 | 70 | 95 | 3 | 2 – 3 | • | • | – | • | • | • | – | 528 |
| 7.8 | 20 | 70 | 95 | 3 | 2 – 3 | • | • | • | • | • | • | – | 532 |
| 7.8 | 20 | 70 | 95 | 3 | 2 – 3 | • | • | • | • | • | • | – | 536 |

# Q040

**Pitch**
15 mm

**Inner height**
28 mm

**Inner widths**
28 – 284 mm

**Bending radii**
60 – 180 mm

## Stay variants

### Plastic stay RE ..... page **498**

**Frame screw-in stay**

- Plastic profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.

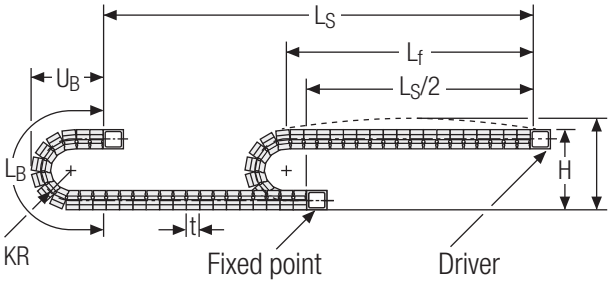
### TOTALTRAX® complete systems

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/totaltrax**

### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

## Unsupported arrangement

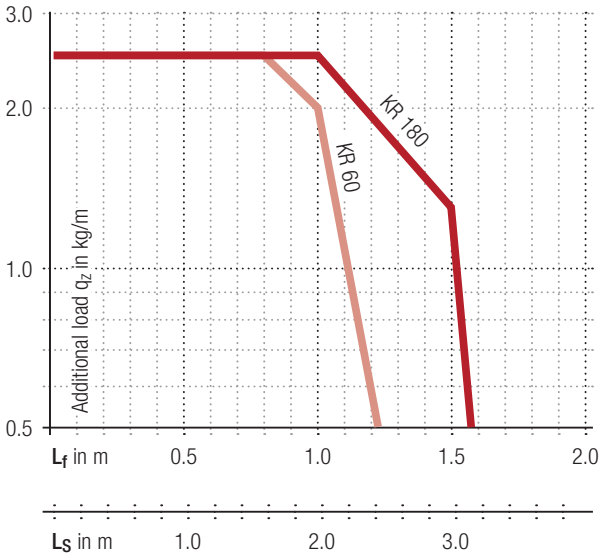



| KR [mm] | H [mm] | $L_B$ [mm] | $U_B$ [mm] |
|---|---|---|---|
| 60 | 175 | 369 | 178 |
| 75 | 205 | 416 | 193 |
| 90 | 235 | 463 | 208 |
| 110 | 275 | 526 | 228 |
| 150 | 355 | 651 | 268 |
| 180 | 415 | 746 | 298 |

**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 $q_k$ = 0.8 kg/m. For other inner widths, the maximum additional load changes.



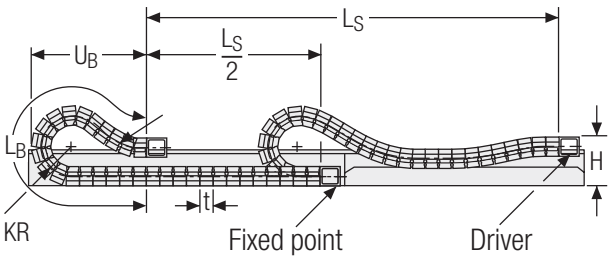

**Speed**
up to 40 m/s

**Acceleration**
up to 300 m/s²

**Travel length**
up to 3.2 m

**Additional load**
up to 2.5 kg/m

## Gliding arrangement




**Speed**
up to 2 m/s

**Acceleration**
up to 3 m/s²

**Travel length**
up to 30 m

**Additional load**
up to 2.5 kg/m

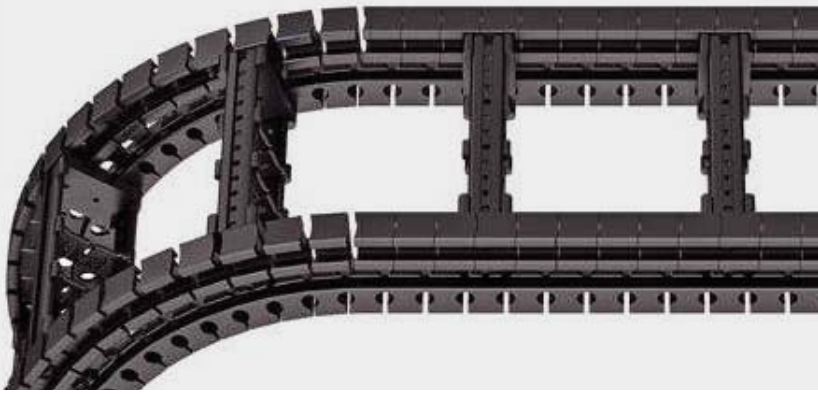
The gliding cable carrier has to be routed in a channel. See p. 850.

Our technical support can provide help for gliding arrangements:
**technik@kabelschlepp.de**

# Q040 RE | Dimensions · Technical data

## Plastic stay RE – screw-in frame stay

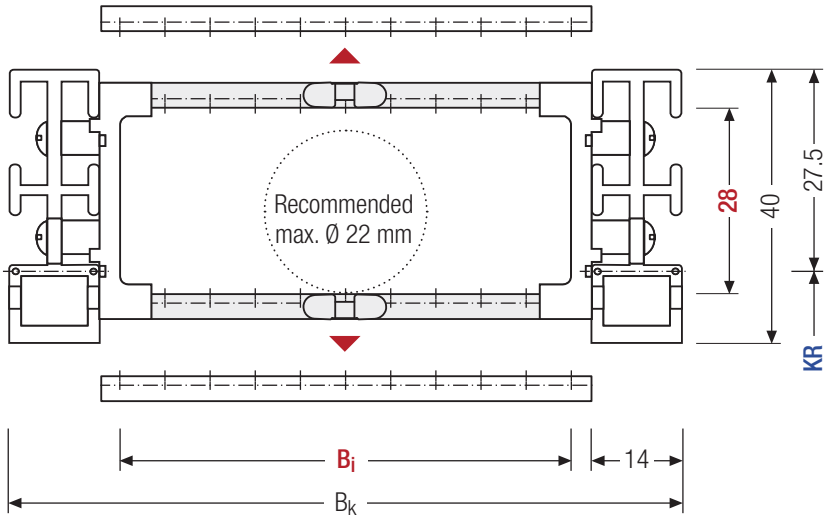
- Plastic profile bars for light to medium loads. Assembly without screws.
- Available customized in **8 mm sections**.
- **Outside/inside:** release by rotating 90°.



Stays on every 6th section, **standard (HS: half-stayed)**

Stays on every 3rd section **(VS: fully-stayed)**

8 mm — $B_i$ 28 – 284 mm in **8 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $B_i$ [mm] | | | | | | | | | | | $B_k$ [mm] | KR [mm] | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 40 | 28 | 36 | 44 | 52 | 60 | 68 | 76 | 84 | 92 | 100 | 108 | $B_i$ + 40 | 60 | 75 | 0.63 – 0.98 |
| | | 116 | 124 | 132 | 140 | 148 | 156 | 164 | 172 | 180 | 188 | 196 | | 90 | 110 | |
| | | 204 | 212 | 220 | 228 | 236 | 244 | 252 | 260 | 268 | 276 | 284 | | 150 | 180 | |

## Order example

| Q040 | . | 108 | . | RE | . | 150 | - | 1290 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 6th section for stay mounting (HS).

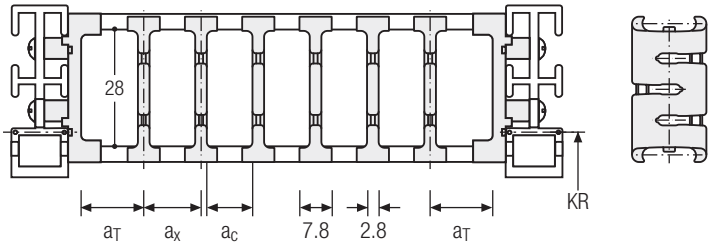
As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar **(version B)**. The groove in the frame stay faces outwards.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|
| A | 8 | 8 | 5.2 | – | – |
| B | 14 | 8 | 5.2 | 8 | – |

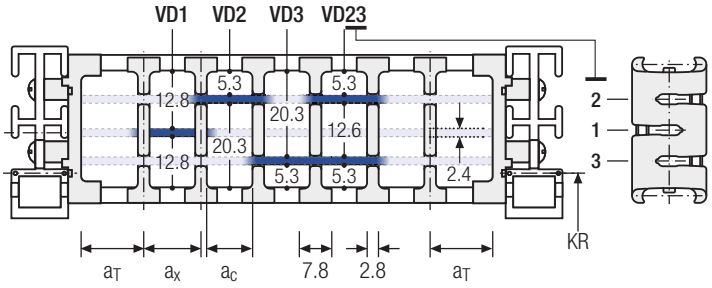
The dividers are movable within the cross section (version A) or fixed (version B).




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|---|
| A | 8 | 20 | 8 | 5.2 | – | 2 |
| B | 14 | 22 | 8 | 5.2 | 8 | 2 |

The dividers are movable within the cross section (version A) or fixed (version B).

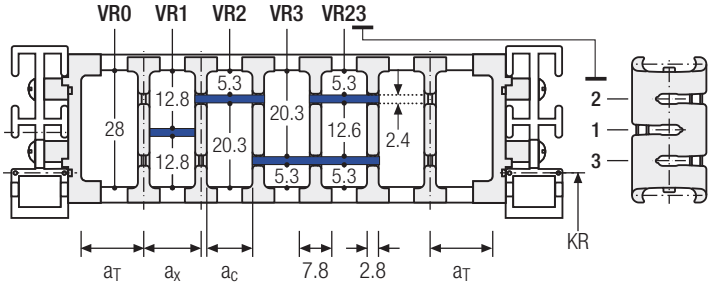



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|
| B | 14 | 8*/24 | 5.2*/21.2 | 8 | 2 |

* for VR0

With grid distribution **(8 mm grid)**. The dividers are attached by the height separation, the grid can be moved in the cross section (version A) or fixed (version B).




## Order example

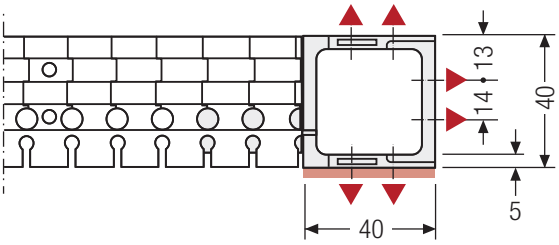
| TS2 | . A | . 3 | . K1 | . 34 | - VR1 |
|---|---|---|---|---|---|
| | | | ⋮ | ⋮ | ⋮ |
| | | | . K4 | . 38 | - VR3 |
| Divider system | Version | $n_T$ | Chamber | $a_x$ | Height separation |

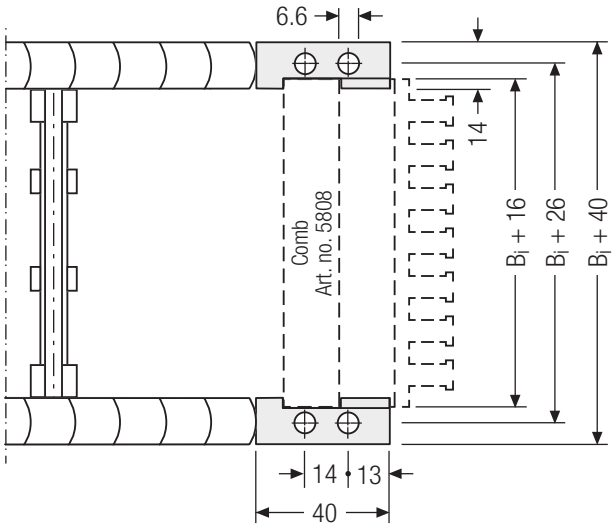
# Q040 | End connectors



## Universal end connectors UMB – **plastic** (standard)

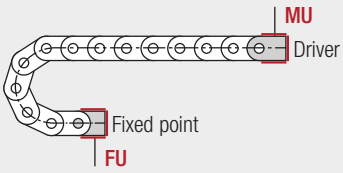
The universal end connectors (UMB) are made from plastic and can **be mounted from the top, from the bottom or face on**.




▲ Assembly options

Recommended tightening torque:
5 Nm for screws M5 - 8.8




**Connection point**
**F** – fixed point
**M** – driver

**Connection type**
**U** – universal end connector

## Order example

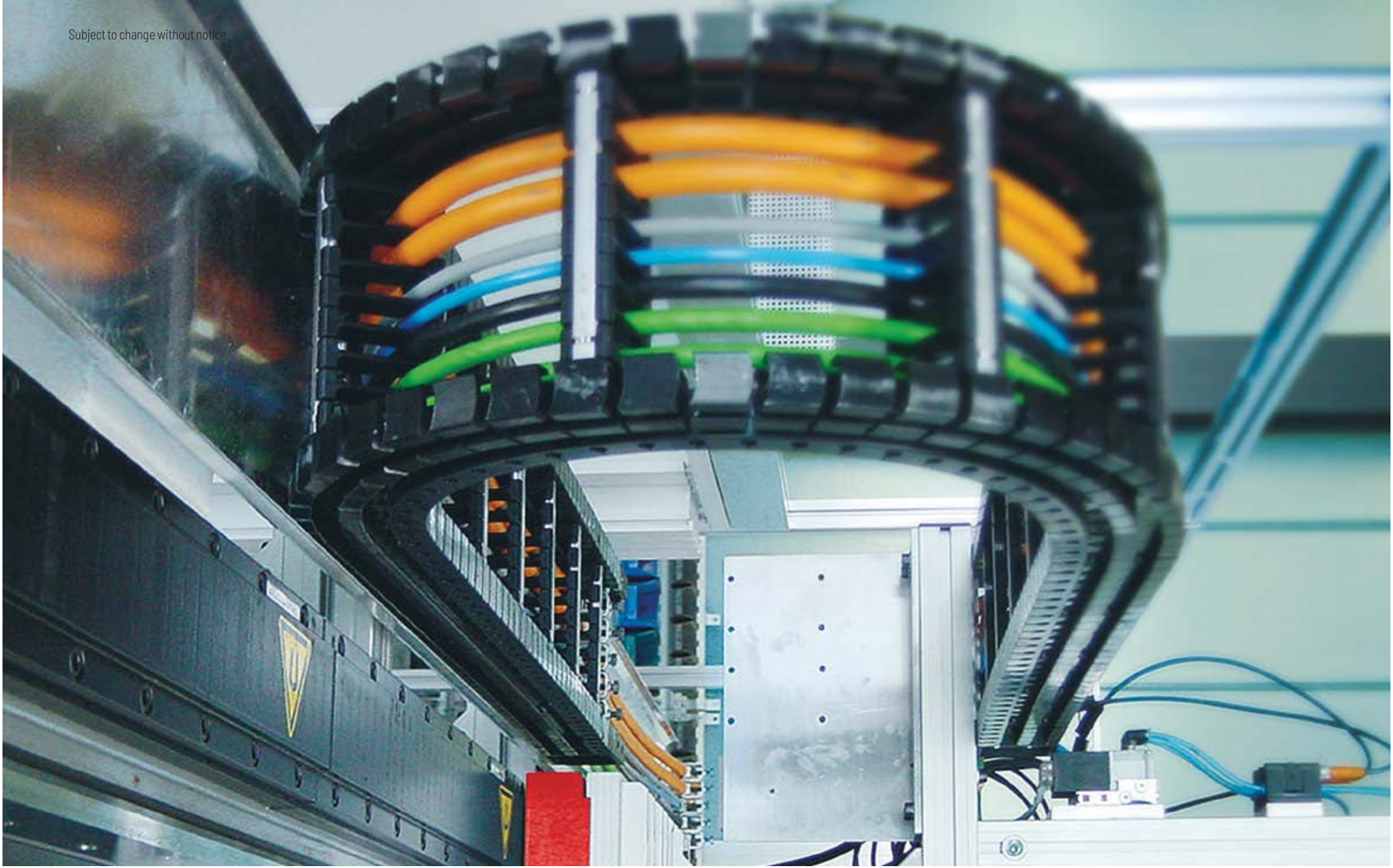
| UMB | . | F | U |
|---|---|---|---|
| UMB | . | M | U |
| End connector | | Connection point | Connection type |

We recommend the use of strain reliefs at the driver and fixed point. See from p. 908.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**



# Q060

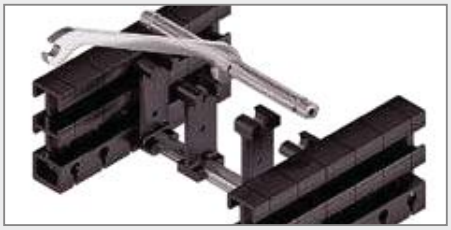
**Pitch**
20 mm

**Inner heights**
38 – 42 mm

**Inner widths**
38 – 500 mm

**Bending radii**
100 – 300 mm

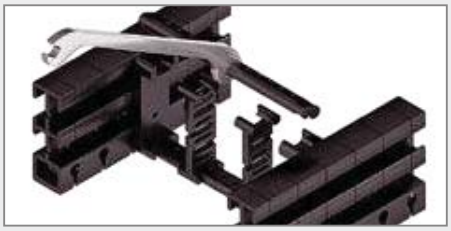
## Stay variants



### Aluminum stay RS ..... page **504**

**Frame stay, narrow "The standard"**

- Aluminum profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.



### Plastic stay RE ..... page **508**

**Frame screw-in stay**

- Plastic profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.

### TOTALTRAX® complete systems

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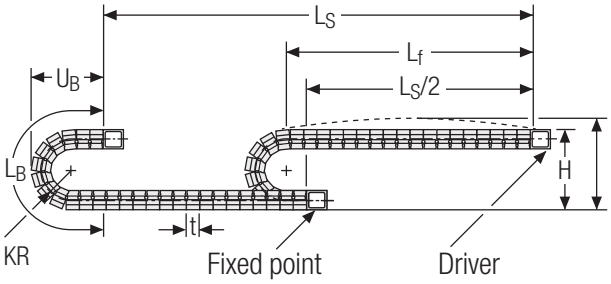
### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

## Unsupported arrangement

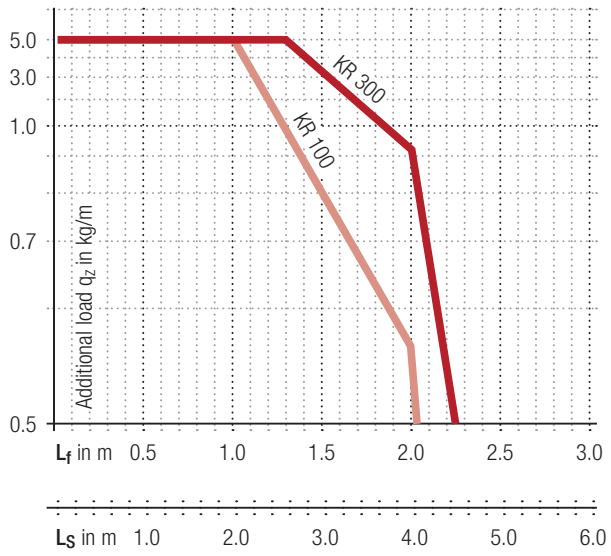



| KR [mm] | H [mm] | $L_B$ [mm] | $U_B$ [mm] |
|---|---|---|---|
| 100 | 288 | 554 | 264 |
| 120 | 328 | 617 | 284 |
| 150 | 388 | 711 | 314 |
| 190 | 468 | 837 | 354 |
| 250 | 588 | 1025 | 414 |
| 300 | 688 | 1182 | 464 |

**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 $q_k$ = 1.5 kg/m. For other inner widths, the maximum additional load changes.



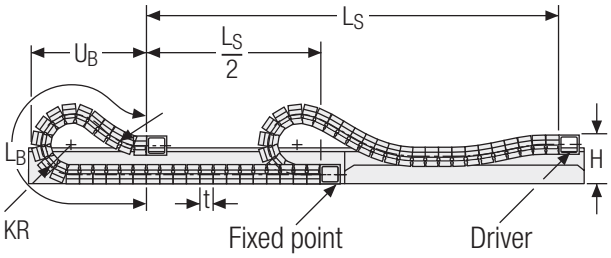

**Speed**
up to 30 m/s

**Acceleration**
up to 160 m/s²

**Travel length**
up to 5 m

**Additional load**
up to 5 kg/m

## Gliding arrangement




**Speed**
up to 3 m/s

**Acceleration**
up to 2 – 3 m/s²

**Travel length**
up to 50 m

**Additional load**
up to 5 kg/m

The gliding cable carrier has to be routed in a channel. See p. 850.

Glide shoes have to be used for gliding applications.

Our technical support can provide help for gliding arrangements:
**technik@kabelschlepp.de**

# Q060 RS | Dimensions · Technical data

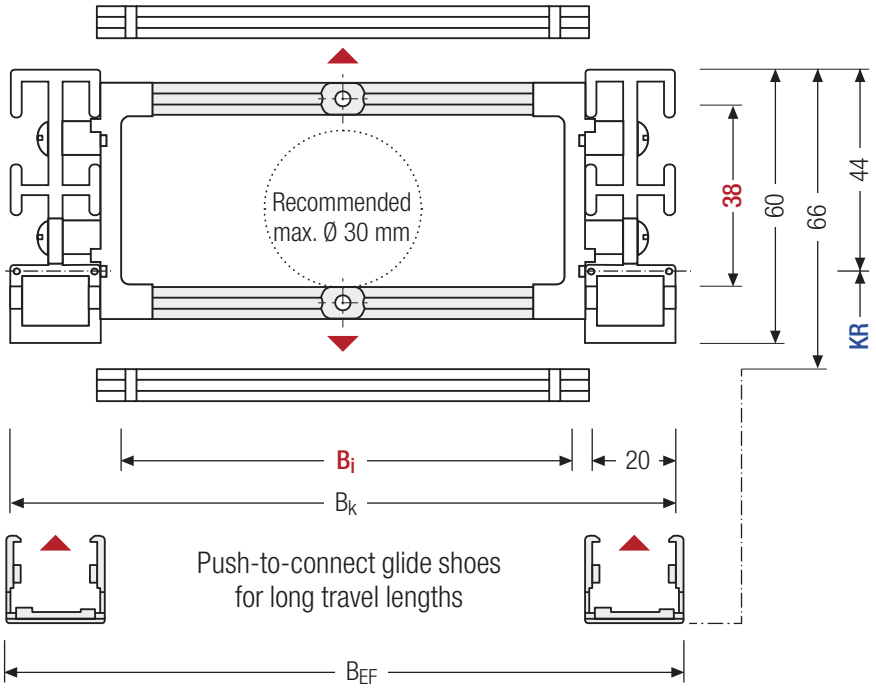
## Aluminum stay RS – frame stay narrow

- Extremely quick to open and close
- Aluminum profile bars for light to medium loads. Assembly without screws.
- Available customized in **1 mm sections**.
- **Outside/inside:** release by rotating 90°.

Stays on every 6th section, **standard (HS: half-stayed)**

Stays on every 3rd section **(VS: fully-stayed)**

1 mm — $B_i$ 38 – 500 mm in **1 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm]* | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | | | | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 38 | 60 | 66 | 38 – 500 | $B_i$ + 52 | $B_i$ + 56 | 100 | 120 | 150 | 190 | 250 | 300 | 1.25 – 2.40 |

* in 1 mm width sections

## Order example

| Q060 | . | 200 | . | RS | . | 150 | - | 1540 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 6th section for stay mounting (HS).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

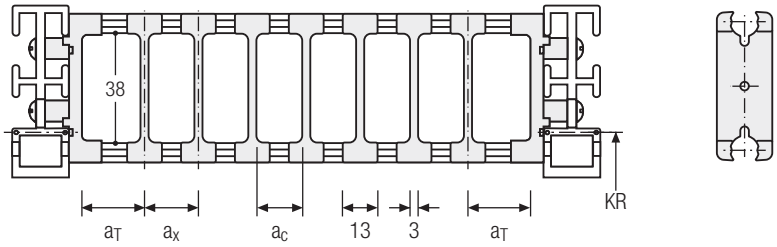
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping onto a socket (available as an accessory).

The socket additionally acts as a spacer between the dividers and is available in 1 mm sections between 3 – 50 mm **(version B)**.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 13.5 | 13 | 10 | 2 |

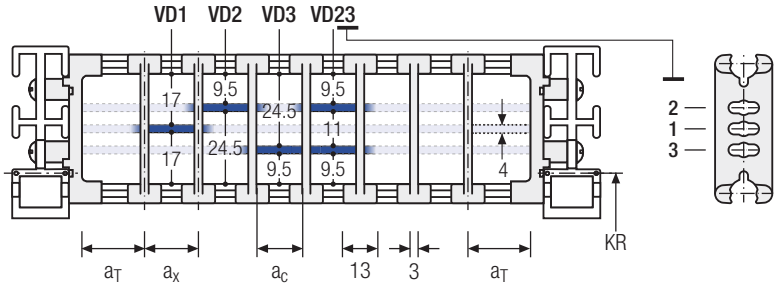
The dividers can be moved in the cross section.




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|
| A | 13.5 | 20 | 13 | 10 | 2 |

The dividers can be moved in the cross section.

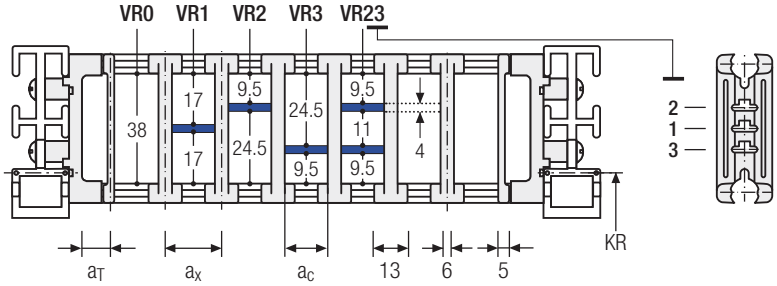



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 8.5 | 21 | 15 | 2 |

With grid distribution **(1 mm grid)**.
The dividers are attached by the height separation, the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 3 mm).




### TRAXLINE® cables for cable carriers

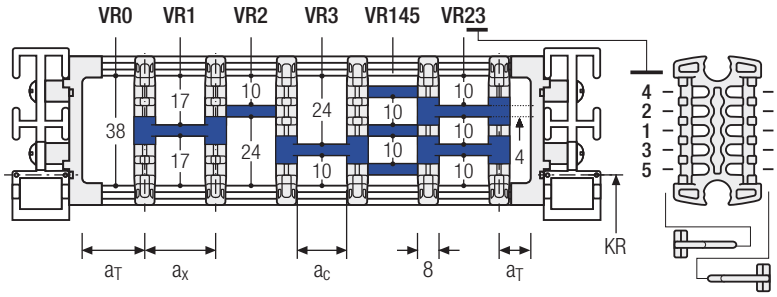
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

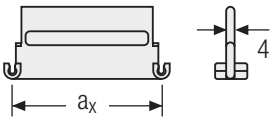
## Divider system TS3 with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 16 / 42* | 8 | 2 |

* For aluminum partitions

The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | |
| **16** | **18** | **23** | **28** | **32** | **33** | **38** | **43** | **48** | **58** | **64** | **68** |
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**, we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system.

## Order example

| TS3 | . | A | . | 3 | . | K1 | . | 34 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 38 | - | VR5 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

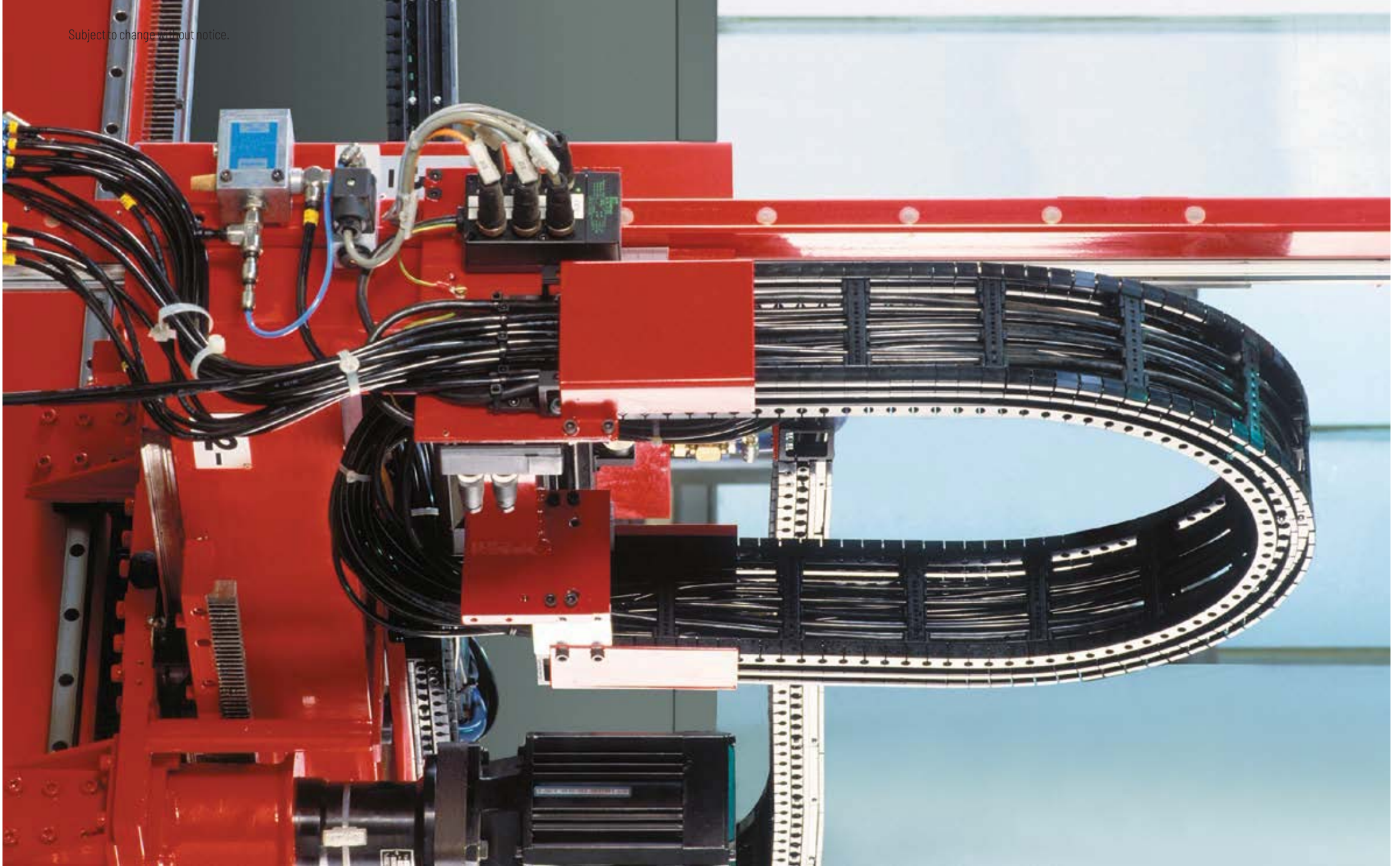
Please state the designation of the divider system **(TS0, TS1,...)**, the version, and the number of dividers per cross section [$n_T$]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**, please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**



# Q060 RE | Dimensions · Technical data

## Plastic stay RE –
frame screw-in stay

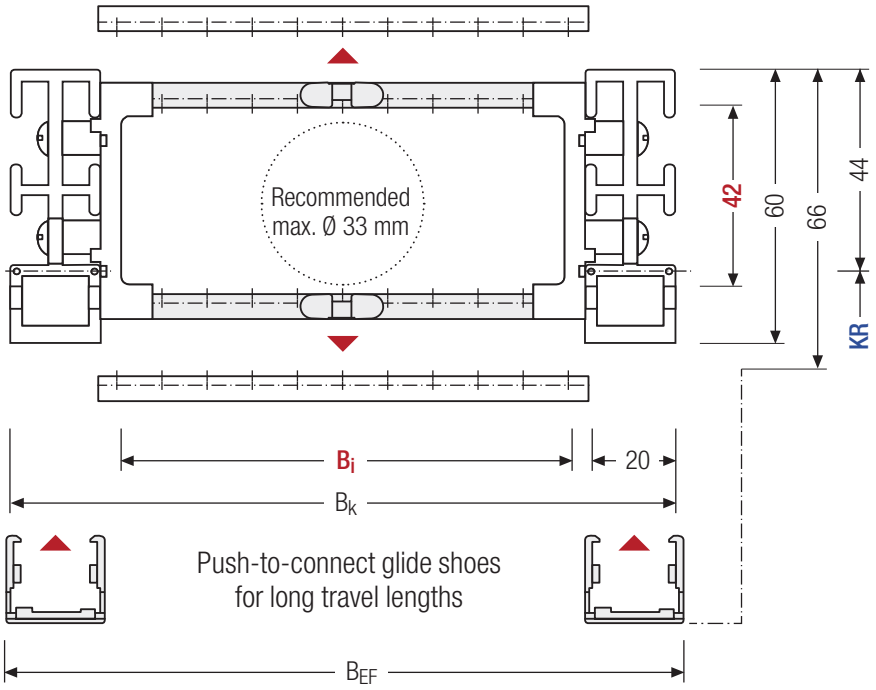
- Plastic profile bars for light to medium loads. Assembly without screws.
- Available customized in **8 mm sections**.
- **Outside/inside:** release by rotating 90°.

Stays on every 6th section, **standard (HS: half-stayed)**

Stays on every 3rd section **(VS: fully-stayed)**

8 mm

$B_i$ 68 – 276 mm in **8 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm] | | | | | | | | | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42 | 60 | 66 | 68 | 76 | 84 | 92 | 100 | 108 | 116 | 124 | 132 | $B_i$ + 52 | $B_i$ + 56 | 100 | 120 | 1.16 – 1.54 |
| | | | 140 | 148 | 156 | 164 | 172 | 180 | 188 | 196 | 204 | | | 150 | 190 | |
| | | | 212 | 220 | 228 | 236 | 244 | 252 | 260 | 268 | 276 | | | 250 | 300 | |

## Order example

| Q060 | . | 196 | . | RE | . | 150 | - | 1540 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 6th section for stay mounting (HS).

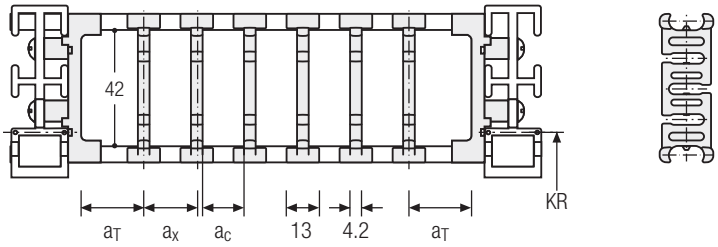
As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar **(version B)**. The groove in the frame stay faces outwards.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|
| A | 14 | 13 | 8.8 | – | – |
| B | 14 | 16 | 11.8 | 8 | – |

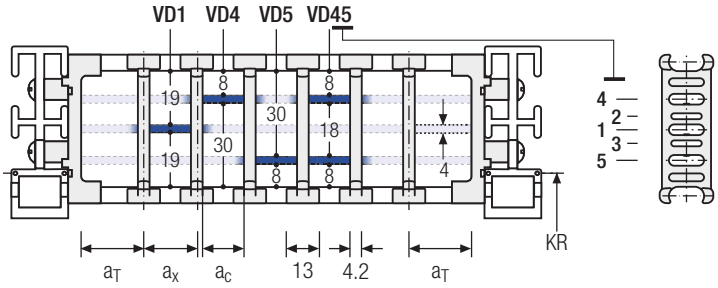
The dividers are movable within the cross section (version A) or fixed (version B).




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ Raster}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|---|
| A | 14 | 25 | 13 | 8.8 | – | 2 |

The dividers can be moved in the cross section.




### 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/totaltrax**

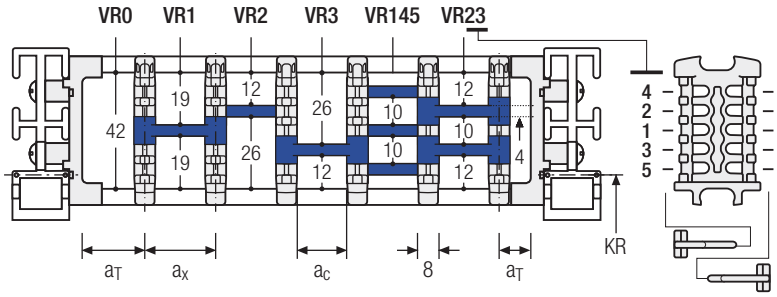
### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

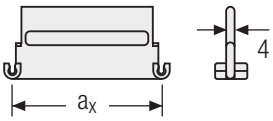
## Divider system TS3 with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 16 / 42* | 8 | 2 |

* For aluminum partitions




The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | |
| **16** | **18** | **23** | **28** | **32** | **33** | **38** | **43** | **48** | **58** | **64** | **68** |
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**, we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system. The height separations VR4 and VR5 are not possible when using twin dividers.

## Order example

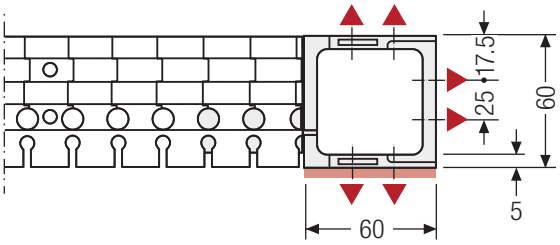
| TS3 | . | A | . | 2 | . | K1 | . | 16 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 208 | - | VR5 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

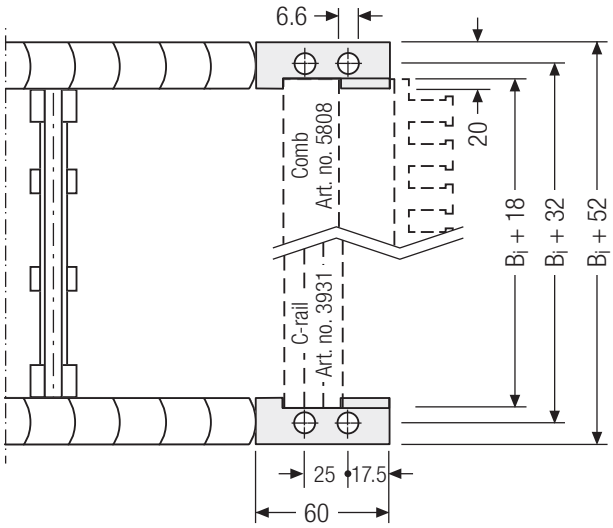
Please state the designation of the divider system **(TS0, TS1,...)**, the version, and the number of dividers per cross section [$n_T$]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**, please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

## Universal end connectors UMB – plastic (standard)

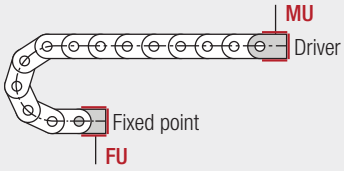
The universal end connectors (UMB) are made from plastic and can **be mounted from the top, from the bottom or face on**.




▲ Assembly options

Recommended tightening torque:
10 Nm




**Connection point**
**F** – fixed point
**M** – driver

**Connection type**
**U** – universal end connector

## Order example

| UMB | . | F | U |
|---|---|---|---|
| UMB | . | M | U |
| End connector | | Connection point | Connection type |

We recommend the use of strain reliefs at the driver and fixed point. See from p. 908.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**

# Q080

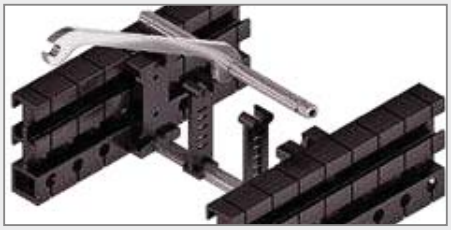
**Pitch**
25 mm

**Inner height**
58 mm

**Inner widths**
50 – 600 mm

**Bending radii**
170 – 500 mm

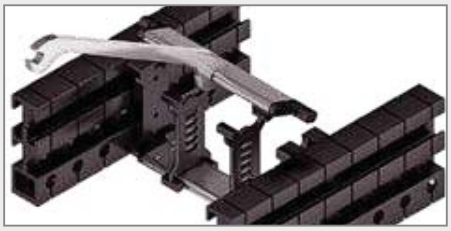
## Stay variants



### Aluminum stay RS page 514

**Frame stay. narrow "The standard"**

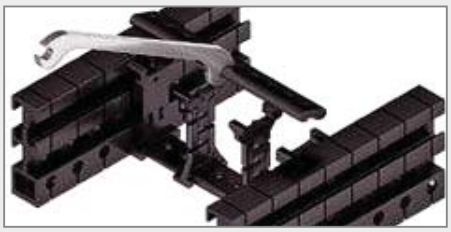
- Aluminum profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.



### Aluminum stay RV page 518

**Frame stay. reinforced**

- Aluminum profile bars with plastic adapter for medium to high loads and large cable carrier widths. Assembly without screws.
- **Outside/inside:** release by rotating 90°.



### Plastic stay RE page 522

**Frame screw-in stay**

- Plastic profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.

### 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/totaltrax**

### TRAXLINE® cables for cable carriers

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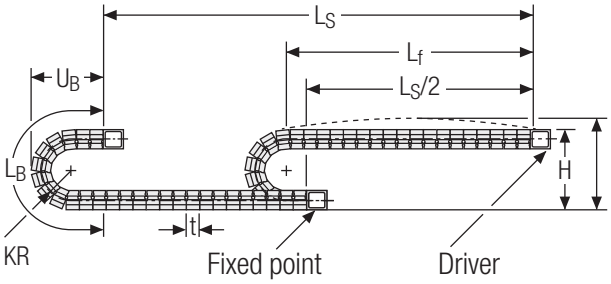
**tsubaki-kabelschlepp.com/traxline**

## Unsupported arrangement

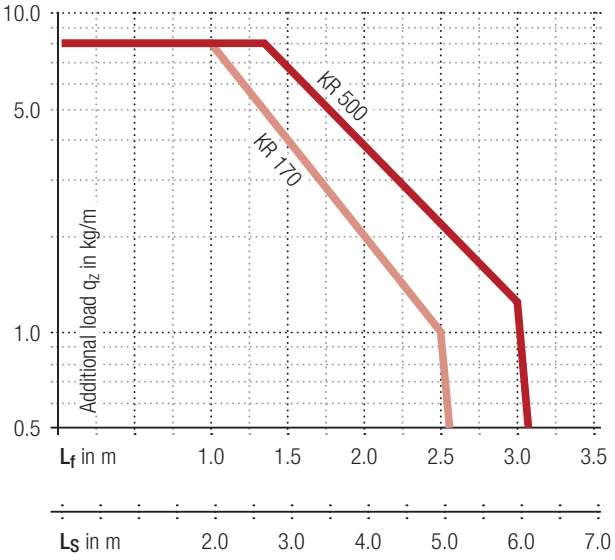



| KR [mm] | H [mm] | $L_B$ [mm] | $U_B$ [mm] |
|---|---|---|---|
| 170 | 457 | 834 | 379 |
| 200 | 517 | 928 | 409 |
| 250 | 617 | 1085 | 459 |
| 320 | 757 | 1305 | 529 |
| 420 | 957 | 1619 | 629 |
| 500 | 1117 | 1870 | 709 |

**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 $q_k$ = 2.5 kg/m. For other inner widths. the maximum additional load changes.



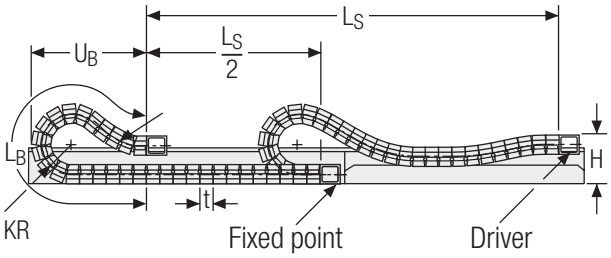

**Speed**
up to 25 m/s

**Acceleration**
up to 100 m/s²

**Travel length**
up to 6.4 m

**Additional load**
up to 8 kg/m

## Gliding arrangement




**Speed**
up to 3 m/s

**Acceleration**
up to 2 – 3 m/s²

**Travel length**
up to 80 m

**Additional load**
up to 8 kg/m

The gliding cable carrier has to be routed in a channel. See p. 850.

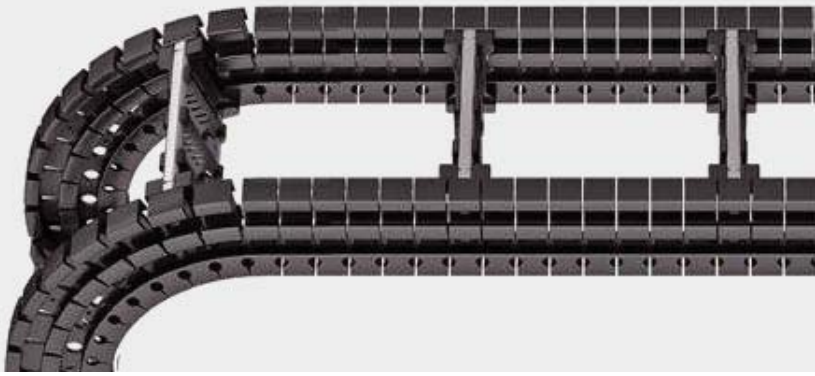
Glide shoes have to be used for gliding applications.

Our technical support can provide help for gliding arrangements:
**technik@kabelschlepp.de**

# Q080 RS | Dimensions · Technical data

## Aluminum stay RS – frame stay narrow

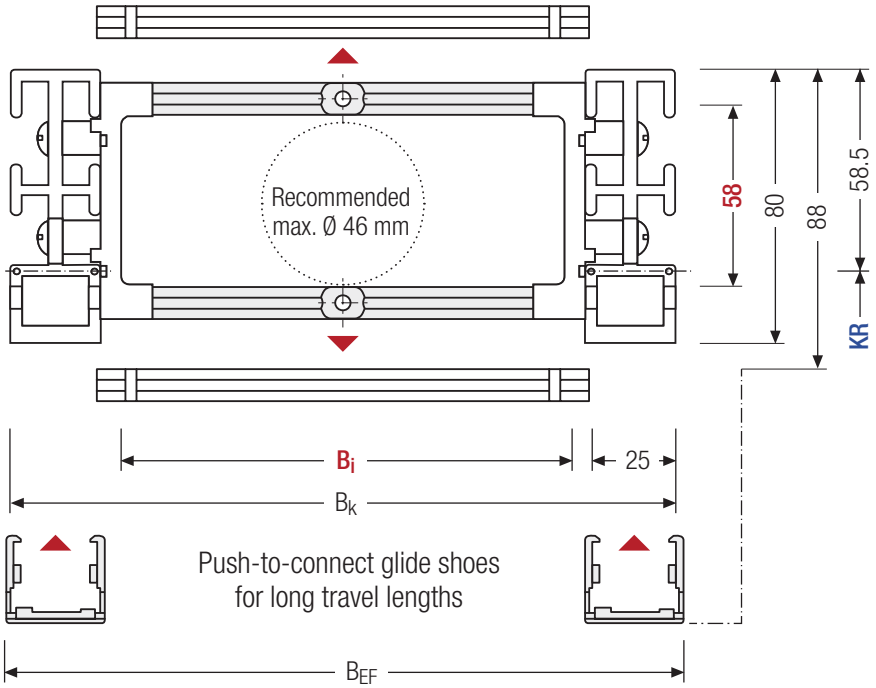
- Extremely quick to open and close
- Aluminum profile bars for light to medium loads. Assembly without screws.
- Available customized in **1 mm sections**.
- **Outside/inside:** release by rotating 90°.



Stays on every 8th section. **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

1 mm — $B_i$ 50 – 600 mm in **1 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm]* | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | | | | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 80 | 88 | 50 – 600 | $B_i$ + 72 | $B_i$ + 79.5 | 170 | 200 | 250 | 320 | 420 | 500 | 1.90 – 2.25 |

* in 1 mm width sections

### Order example

| Q080 | . | 400 | . | RS | . | 250 | - | 1600 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

As a standard. dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

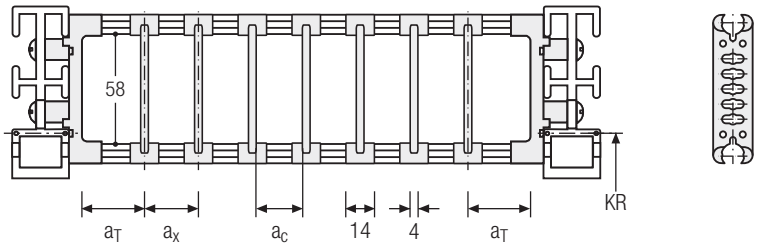
For applications with lateral acceleration and rotated by 90°. the dividers can be attached by simply clipping onto a socket (available as an accessory).

This socket additionally acts as a spacer between the dividers and is available in a 1 mm grid between 3 – 50 mm. as well as 16.5 and 21.5 mm **(version B)**.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 14 | 10 | 2 |

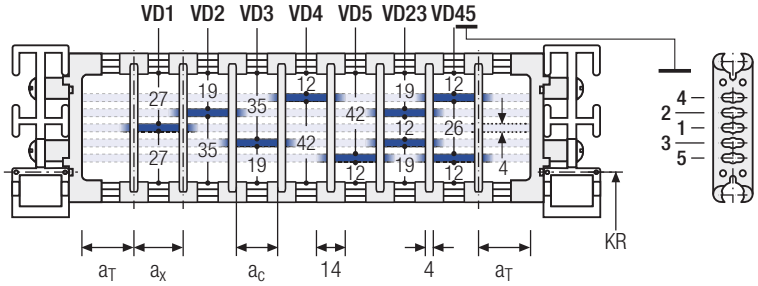
The dividers can be moved in the cross section.




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|
| A | 11 | 25 | 14 | 10 | 2 |

The dividers can be moved in the cross section.

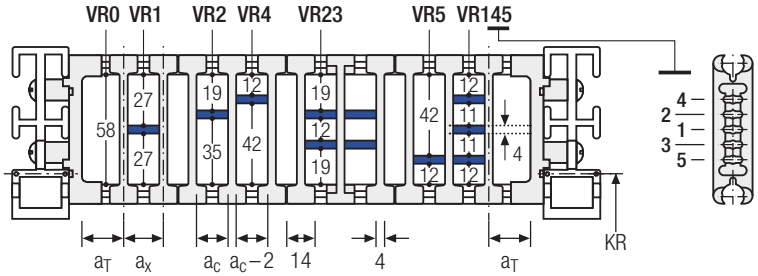



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 23 | 19 | 2 |

With grid distribution **(1 mm grid)**. The dividers are attached by the height separation. the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 4 mm).




Please note that the real dimensions may deviate slightly from the values indicated here.

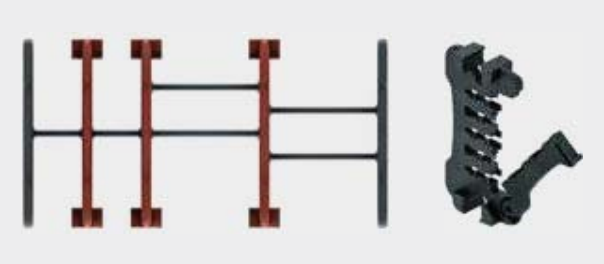
### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

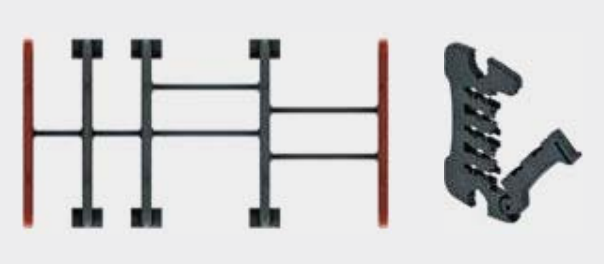
## **Divider system TS3** with height separation consisting of plastic partitions

As a standard. the divider **version A** is used for vertical partitioning within the cable carrier. The complete divider system can be moved within the cross section.

### Divider version A



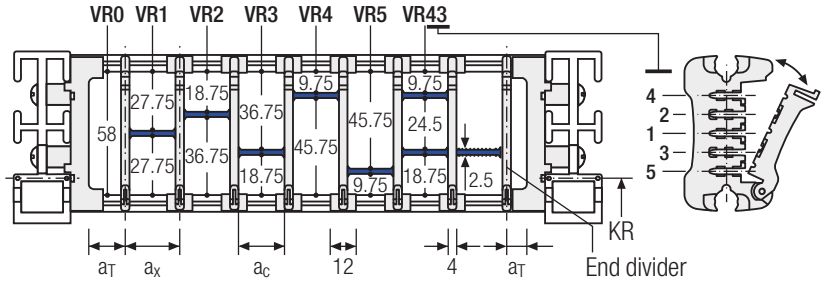
### End divider

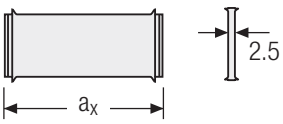


| Vers. | $a_T$ min [mm] | $a_x$ min [mm] | $a_C$ min [mm] | $n_T$ min |
|---|---|---|---|---|
| A | 10.5 / 6.5* | 14 | 10 | 2 |

* For End divider

The dividers are fixed by the partitions. the complete divider system is movable in the cross section.




| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | | | | | | |
| **14** | **16** | **19** | **23** | **24** | **28** | **29** | **32** | **33** | **34** | **38** | **39** | **43** | **44** | **48** | **49** | **54** |
| 10 | 12 | 15 | 19 | 20 | 24 | 25 | 28 | 29 | 30 | 34 | 35 | 39 | 40 | 44 | 45 | 50 |
| **58** | **59** | **64** | **68** | **69** | **74** | **78** | **79** | **80** | **84** | **88** | **89** | **94** | **96** | **99** | **112** | |
| 54 | 55 | 60 | 64 | 65 | 70 | 74 | 75 | 76 | 80 | 84 | 85 | 90 | 92 | 95 | 108 | |

When using **partitions with $a_x$ > 49 mm** we recommended an additional preferential central support.

## Order example

| TS3 | . | A | . | 3 | . | K1 | . | 34 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 38 | - | VR3 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

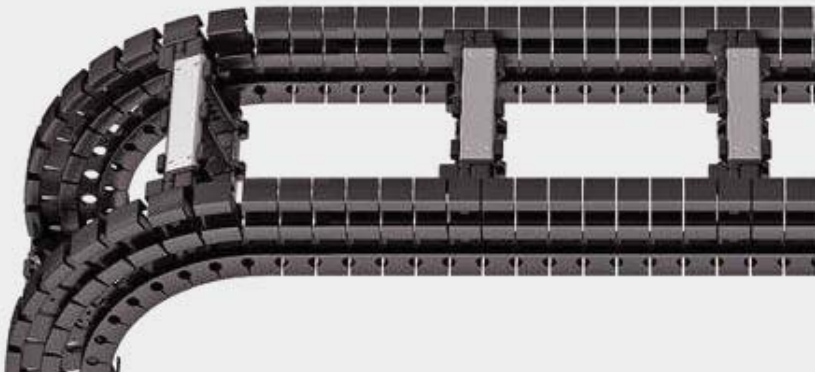
Please state the designation of the divider system **(TS0. TS1....)**. version and number of dividers per cross section [$n_T$]. In addition. please also enter the chambers [K] from left to right. as well as the assembly distances [$a_T$/$a_X$] (as seen from the driver).

If using divider systems with height separation **(TS1. TS3)** please also state the positions [e.g. VD23] viewed from the left driver belt. You are welcome to add a sketch to your order.

# Q080 RV | Dimensions · Technical data

## Aluminum stay RV – Frame stay reinforced

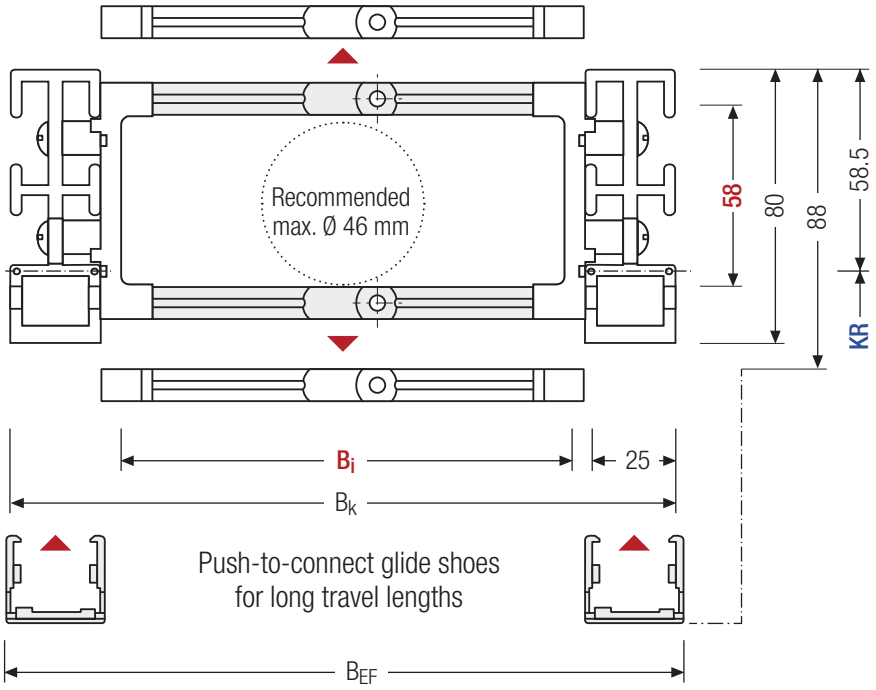
- Aluminum profile bars with plastic adapter for medium to high loads and large cable carrier widths. Assembly without screws.
- Available customized in **1 mm sections**.
- **Outside/inside:** release by rotating 90°.



Stays on every 8th section. **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

1 mm — $B_i$ 50 – 600 mm in **1 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm]* | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | | | | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 80 | 88 | 50 – 600 | $B_i$ + 72 | $B_i$ + 79.5 | 170 | 200 | 250 | 320 | 420 | 500 | 2.10 – 2.90 |

* in 1 mm width sections

## Order example

| Q080 | . | 400 | . | RV | . | 250 | - | 1600 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

# Q080 RV | Inner distribution | TS0 · TS1 · TS2

## Divider systems

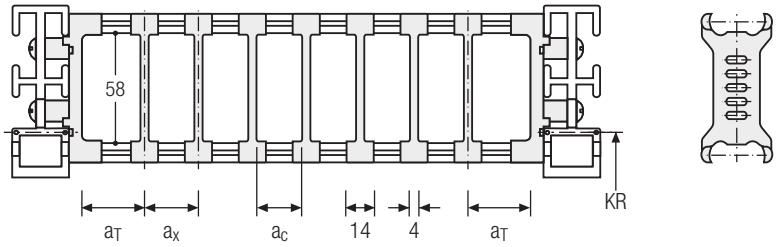
The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

As a standard. dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 14 | 10 | 2 |

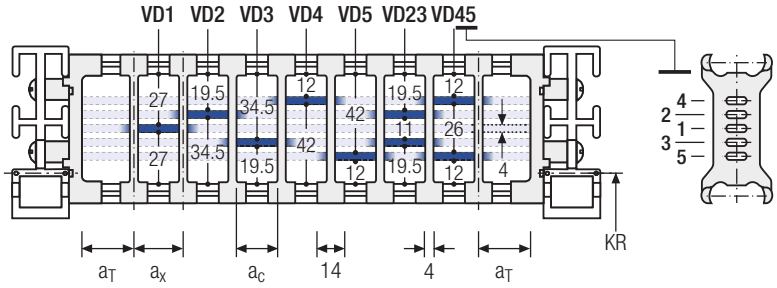
The dividers can be moved in the cross section.




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|
| A | 11 | 25 | 14 | 10 | 2 |

The dividers can be moved in the cross section.

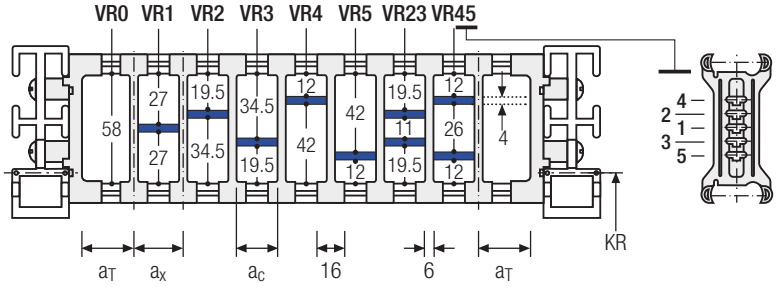



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 12 | 21 | 15 | 2 |

With grid distribution **(1 mm grid)**.
The dividers are attached by the height separation. the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 4 mm).



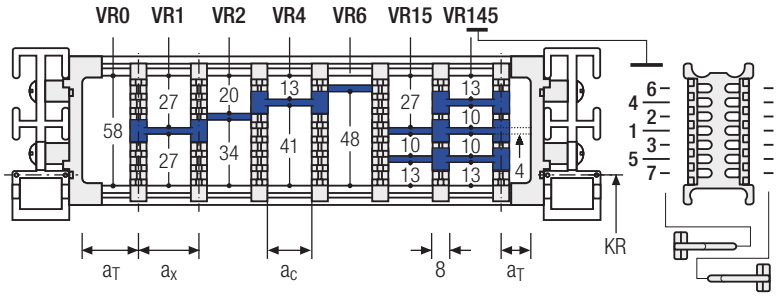

### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-ka-belschlepp.com/traxline**

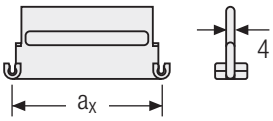
## Divider system TS3 with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 8 | 16 / 42* | 8 | 2 |

* For aluminum partitions




The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | |
| **16** | **18** | **23** | **28** | **32** | **33** | **38** | **43** | **48** | **58** | **64** | **68** |
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**. we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system. The height separations VR6 and VR7 are not possible when using twin dividers.

## Order example

| TS3 | . | A | . | 3 | . | K1 | . | 16 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 208 | - | VR7 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

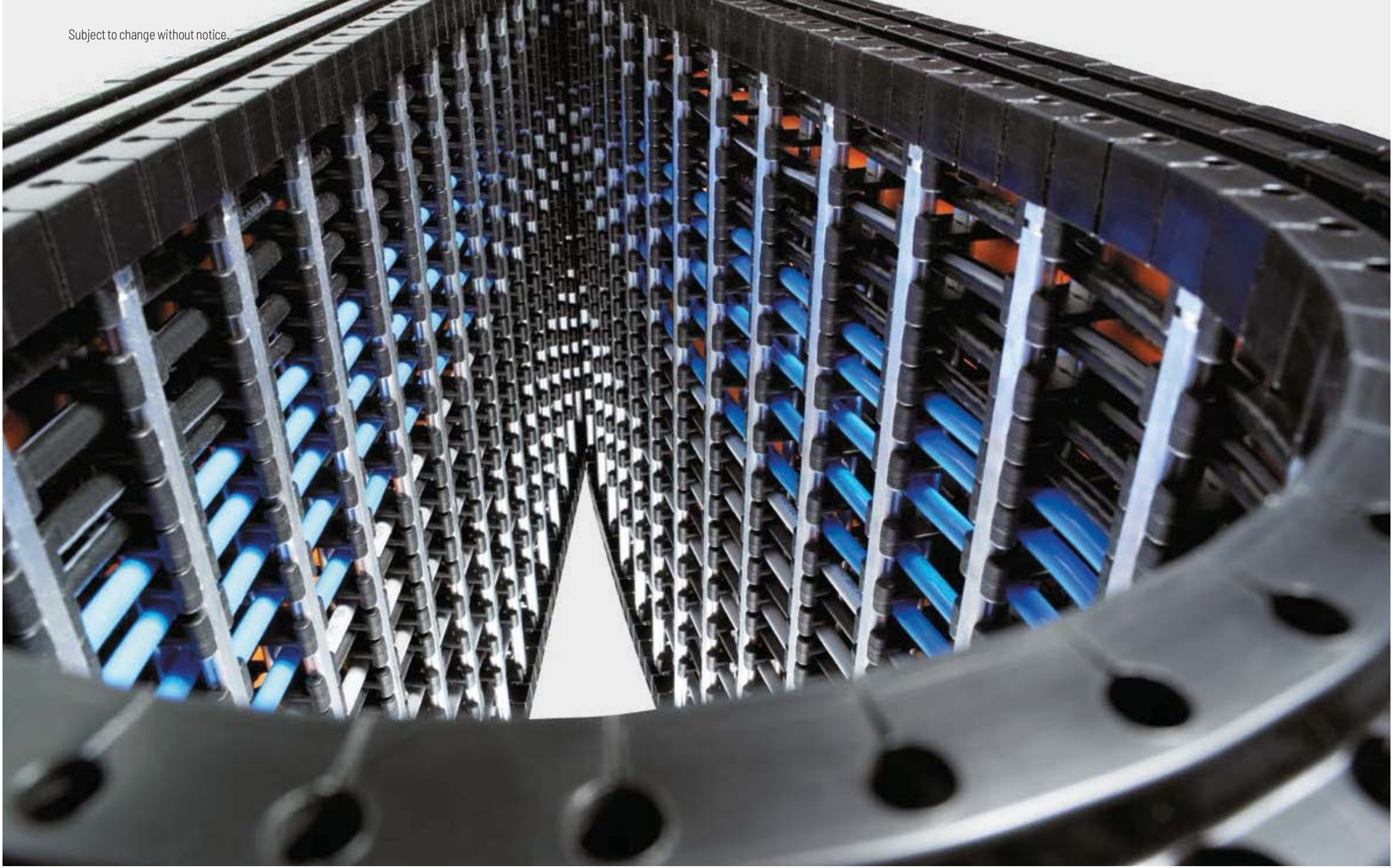
Please state the designation of the divider system **(TS0. TS1....)**. the version. and the number of dividers per cross section [$n_T$]. In addition. please also enter the chambers [K] from left to right. as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**. please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

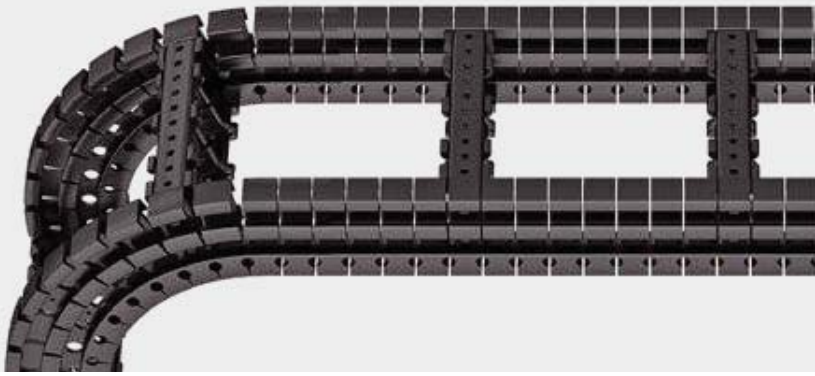
Configure your custom cable carrier here: **online-engineer.de**



# Q080 RE | Dimensions · Technical data

## Plastic stay RE –
frame screw-in stay

- Plastic profile bars for light to medium loads. Assembly without screws.
- Available customized in **16 mm sections**.
- **Outside/inside:** release by rotating 90°.

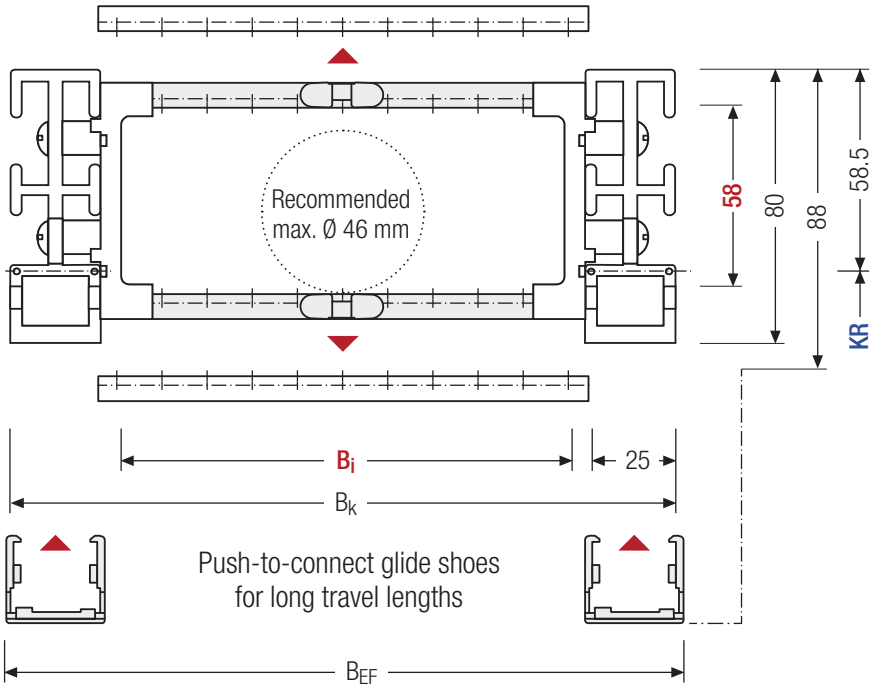


Stays on every 8th section. **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

8 mm

$B_i$ 58 – 570 mm in **16 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm] | | | | | | | | | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 80 | 88 | 58 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 | $B_i$ + 72 | $B_i$ + 79.5 | 170 | 200 | 1.93 – 2.70 |
| | | | 202 | 218 | 234 | 250 | 266 | 282 | 298 | 314 | 330 | | | 250 | 320 | |
| | | | 346 | 362 | 378 | 394 | 410 | 426 | 442 | 458 | 474 | | | 420 | 500 | |
| | | | 490 | 506 | 522 | 538 | 554 | 570 | | | | | | | | |

## Order example

| Q080 | . | 196 | . | RE | . | 250 | - | 1600 | HS |
|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

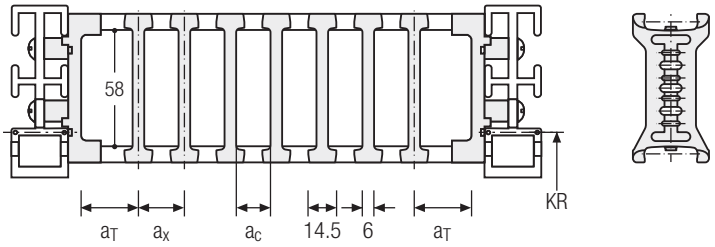
As a standard. dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar **(version B)**. The groove in the frame stay faces outwards.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|
| A | 12 | 14.5 | 8.5 | – | – |
| B | 13 | 16 | 10 | 16 | – |

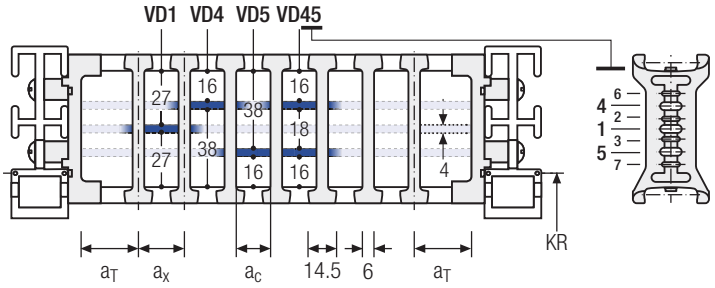
The dividers are movable within the cross section (version A) or fixed (version B).




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ Raster}$ [grid] | $n_{T\ min}$ |
|---|---|---|---|---|---|---|
| A | 12 | 25 | 14.5 | 8.5 | – | 2 |
| B | 13 | 25 | 16 | 10 | 16 | 2 |

The dividers are movable within the cross section (version A) or fixed (version B).

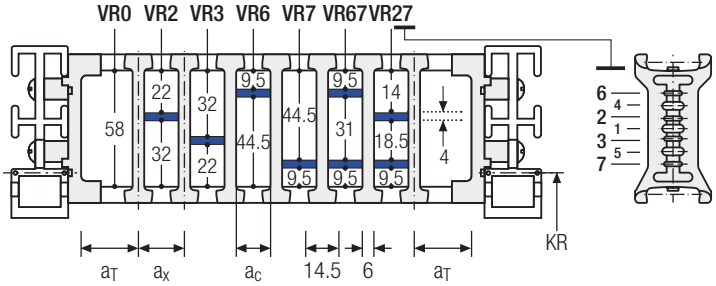



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 12 | 14.5*/21 | 8.5*/15 | 2 |
| B | 13 | 16*/32 | 10*/26 | 2 |

* for VR0

With grid distribution **(8 mm grid)**. The dividers are attached by the height separation. the grid can be moved in the cross section (version A) or fixed (version B).



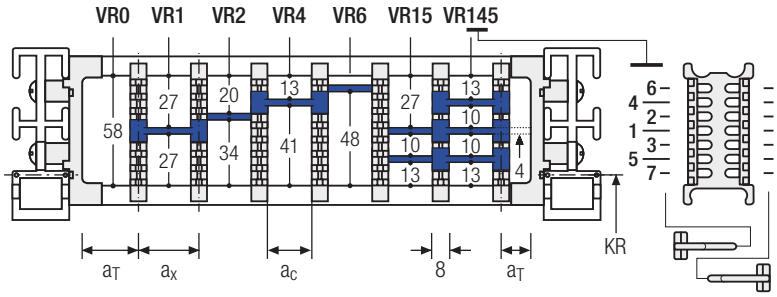

### TOTALTRAX® complete systems

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/totaltrax**

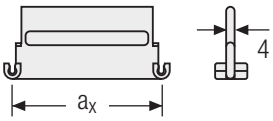
## **Divider system TS3** with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 8 | 16 / 42* | 8 | 2 |

* For aluminum partitions




The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | |
| **16** | **18** | **23** | **28** | **32** | **33** | **38** | **43** | **48** | **58** | **64** | **68** |
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**. we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system.

## Order example

| TS3 | . A | . 2 | . K1 | . 16 | - VR1 |
|---|---|---|---|---|---|
| | | | ⋮ | ⋮ | ⋮ |
| | | | . K4 | . 208 | - VR5 |
| Divider system | Version | $n_T$ | Chamber | $a_x$ | Height separation |

Please state the designation of the divider system **(TS0. TS1....)**. the version. and the number of dividers per cross section [$n_T$]. In addition. please also enter the chambers [K] from left to right. as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**. please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

### TOTALTRAX® complete systems

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### TRAXLINE® cables for cable carriers

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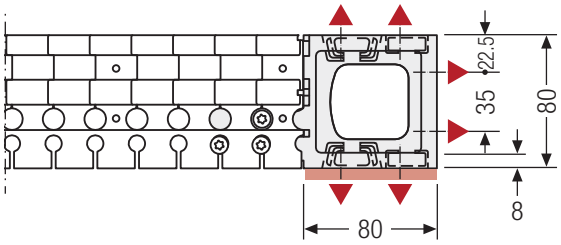
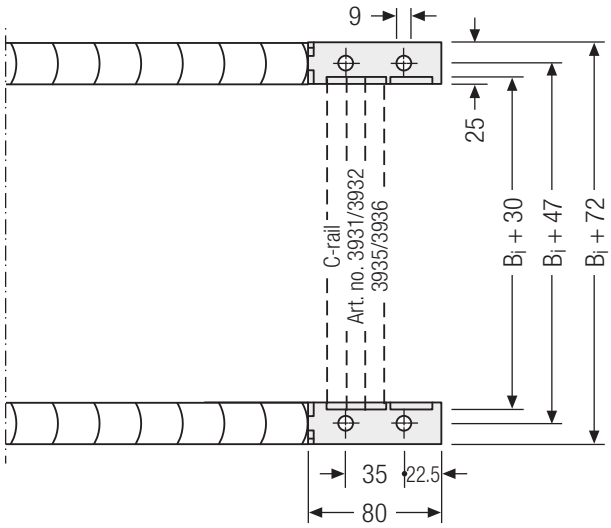
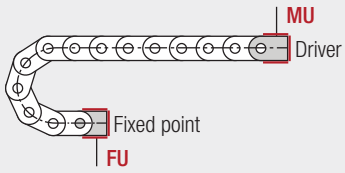
## Universal end connectors UMB – plastic (standard)

The universal end connectors (UMB) are made from plastic and can **be mounted from the top. from the bottom or face on**.




▲ Assembly options




**Connection point**
**F** – fixed point
**M** – driver

**Connection type**
**U** – universal end connector

## Order example

| UMB | . | F | U |
|---|---|---|---|
| UMB | . | M | U |
| End connector | | Connection point | Connection type |

We recommend the use of strain reliefs at the driver and fixed point. See from p. 908.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**

# Q100

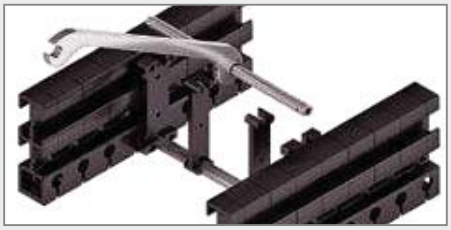
**Pitch**
30 mm

**Inner height**
72 mm

**Inner widths**
70 – 600 mm

**Bending radii**
180 – 600 mm

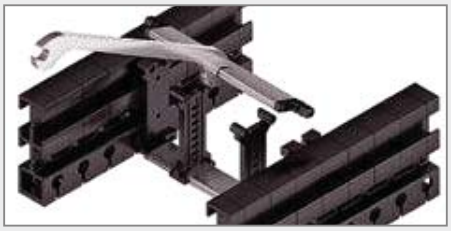
## Stay variants



### Aluminum stay RS page 528

**Frame stay narrow "The standard"**

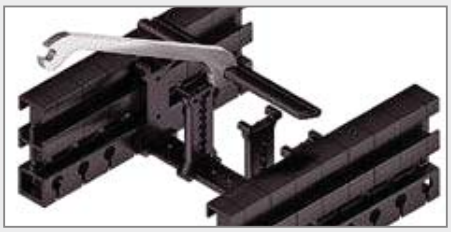
- Aluminum profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.



### Aluminum stay RV page 532

**Frame stay, reinforced**

- Aluminum profile bars with plastic adapter for medium to high loads and large cable carrier widths. Assembly without screws.
- **Outside/inside:** release by rotating 90°.



### Plastic stay RE page 536

**Frame screw-in stay**

- Plastic profile bars for light to medium loads. Assembly without screws.
- **Outside/inside:** release by rotating 90°.

### TOTALTRAX® complete systems

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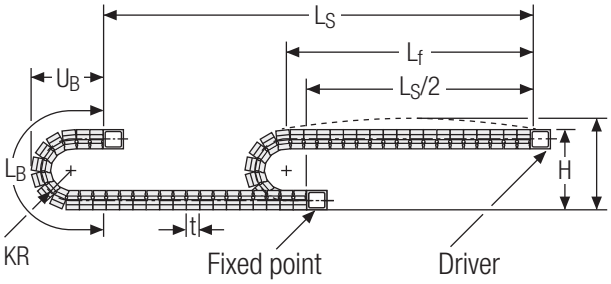
## Unsupported arrangement

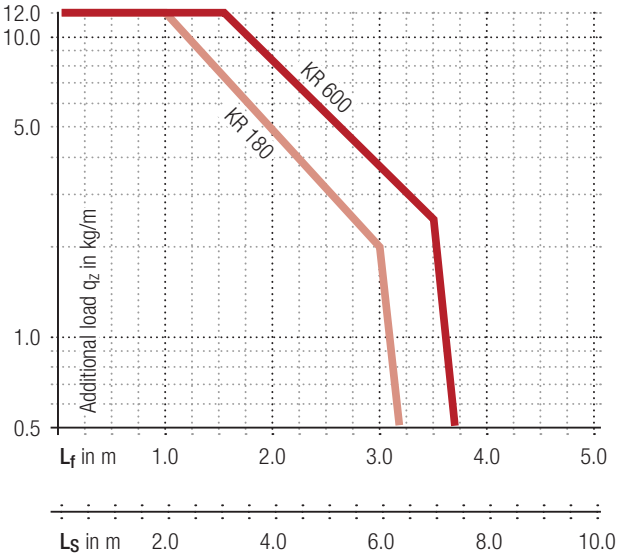



| KR [mm] | H [mm] | $L_B$ [mm] | $U_B$ [mm] |
|---|---|---|---|
| 180 | 503 | 926 | 432 |
| 250 | 643 | 1145 | 502 |
| 300 | 743 | 1302 | 552 |
| 370 | 883 | 1522 | 622 |
| 460 | 1063 | 1805 | 712 |
| 600 | 1343 | 2244 | 852 |

**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 $q_k$ = 3.25 kg/m. For other inner widths, the maximum additional load changes.



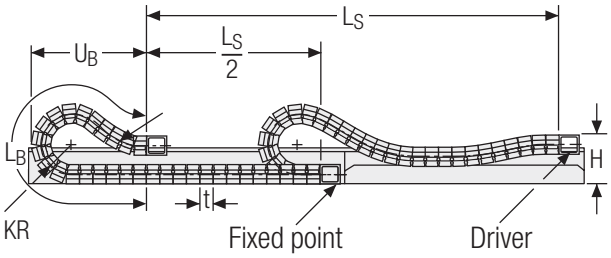

**Speed**
up to 20 m/s

**Acceleration**
up to 70 m/s²

**Travel length**
up to 7.8 m

**Additional load**
up to 12 kg/m

## Gliding arrangement




**Speed**
up to 3 m/s

**Acceleration**
up to 2 – 3 m/s²

**Travel length**
up to 95 m

**Additional load**
up to 12 kg/m

The gliding cable carrier has to be routed in a channel. See p. 850.

Glide shoes have to be used for gliding applications.

Our technical support can provide help for gliding arrangements:
**technik@kabelschlepp.de**

# Q100 RS | Dimensions · Technical data

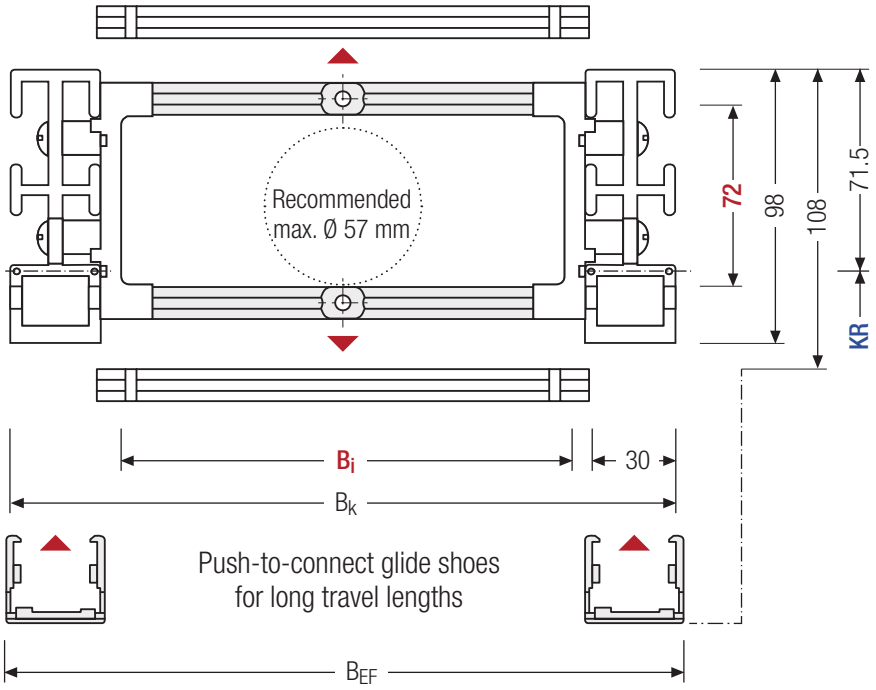
## Aluminum stay RS – frame stay narrow

- Extremely quick to open and close.
- Aluminum profile bars for light to medium loads. Assembly without screws.
- Available customized in **1 mm sections**.
- **Outside/inside:** release by rotating 90°.

Stays on every 8th section, **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

1 mm — $B_i$ 70 – 600 mm in **1 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm]* | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | | | | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 98 | 108 | 70 – 600 | $B_i$ + 82 | $B_i$ + 89.5 | 180 | 250 | 300 | 370 | 460 | 600 | 2.6 – 3.4 |

* in 1 mm width sections

## Order example

| Q100 | . | 400 | . | RS | . | 370 | - | 1860 | | HS |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

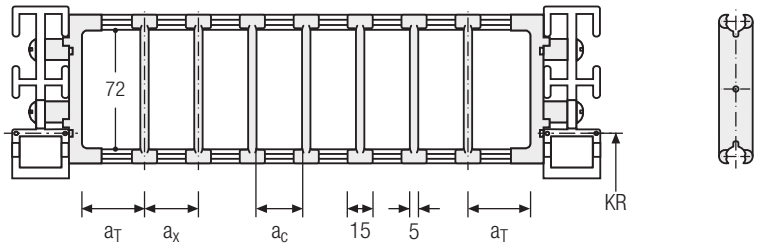
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping onto a socket (available as an accessory).

The socket additionally acts as a spacer between the dividers and is available in 1 mm sections between 3 – 50 mm **(version B)**.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 11 | 15 | 10 | 2 |

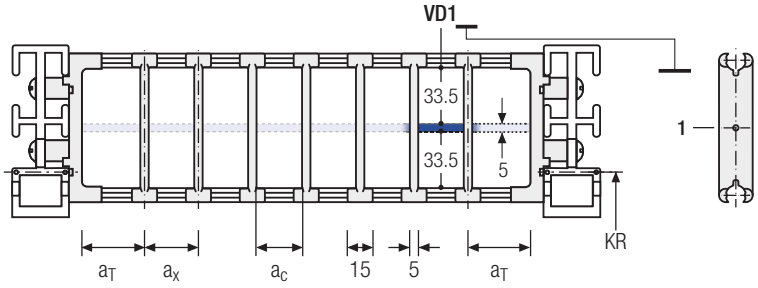
The dividers can be moved in the cross section.



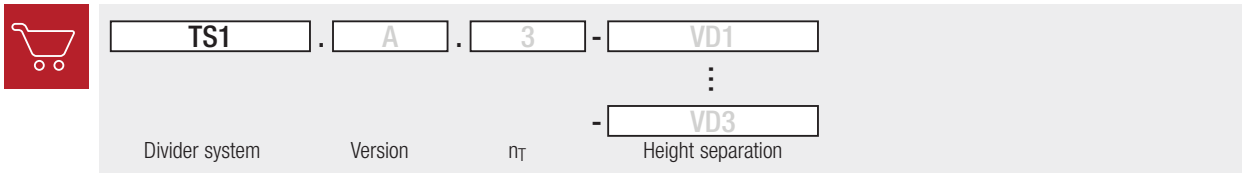

## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T}$ min |
|---|---|---|---|---|---|
| A | 11 | 25 | 15 | 10 | 2 |

The dividers can be moved in the cross section.




## Order example



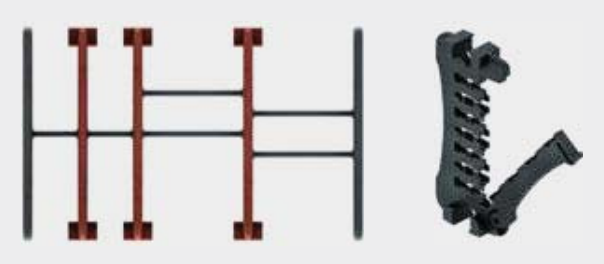

Please state the designation of the divider system **(TS0, TS1,...)**, the version, and the number of dividers per cross section [$n_T$].

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

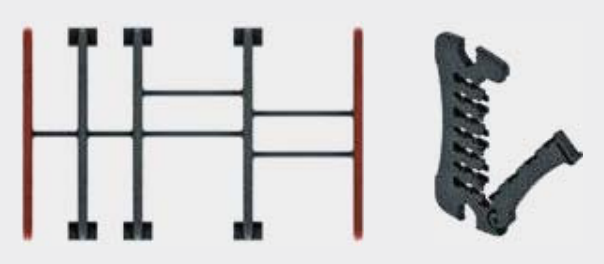
## **Divider system TS3** with height separation consisting of plastic partitions

As a standard, the divider **version A** is used for vertical partitioning within the cable carrier. The complete divider system can be moved within the cross section.

### Divider version A



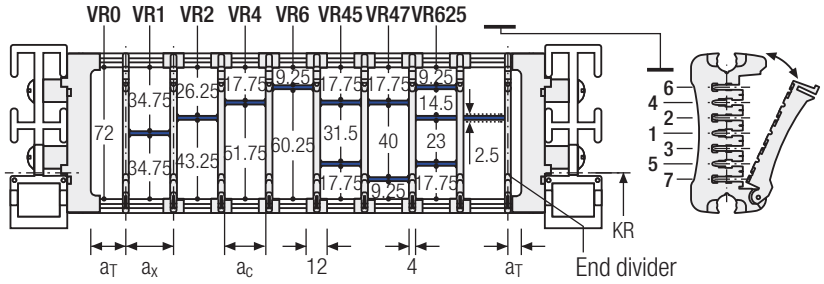
### End divider

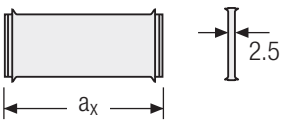


| Vers. | $a_T$ min [mm] | $a_x$ min [mm] | $a_C$ min [mm] | $n_T$ min |
|---|---|---|---|---|
| A | 10.5 / 6.5* | 14 | 10 | 2 |

* For End divider

The dividers are fixed by the partitions, the complete divider system is movable in the cross section.




| **$a_x$ (center distance of dividers)** [mm] | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $a_C$ (nominal width of inner chamber) [mm] | | | | | | | | | | | | | | | | |
| **14** | **16** | **19** | **23** | **24** | **28** | **29** | **32** | **33** | **34** | **38** | **39** | **43** | **44** | **48** | **49** | **54** |
| 10 | 12 | 15 | 19 | 20 | 24 | 25 | 28 | 29 | 30 | 34 | 35 | 39 | 40 | 44 | 45 | 50 |
| **58** | **59** | **64** | **68** | **69** | **74** | **78** | **79** | **80** | **84** | **88** | **89** | **94** | **96** | **99** | **112** | |
| 54 | 55 | 60 | 64 | 65 | 70 | 74 | 75 | 76 | 80 | 84 | 85 | 90 | 92 | 95 | 108 | |

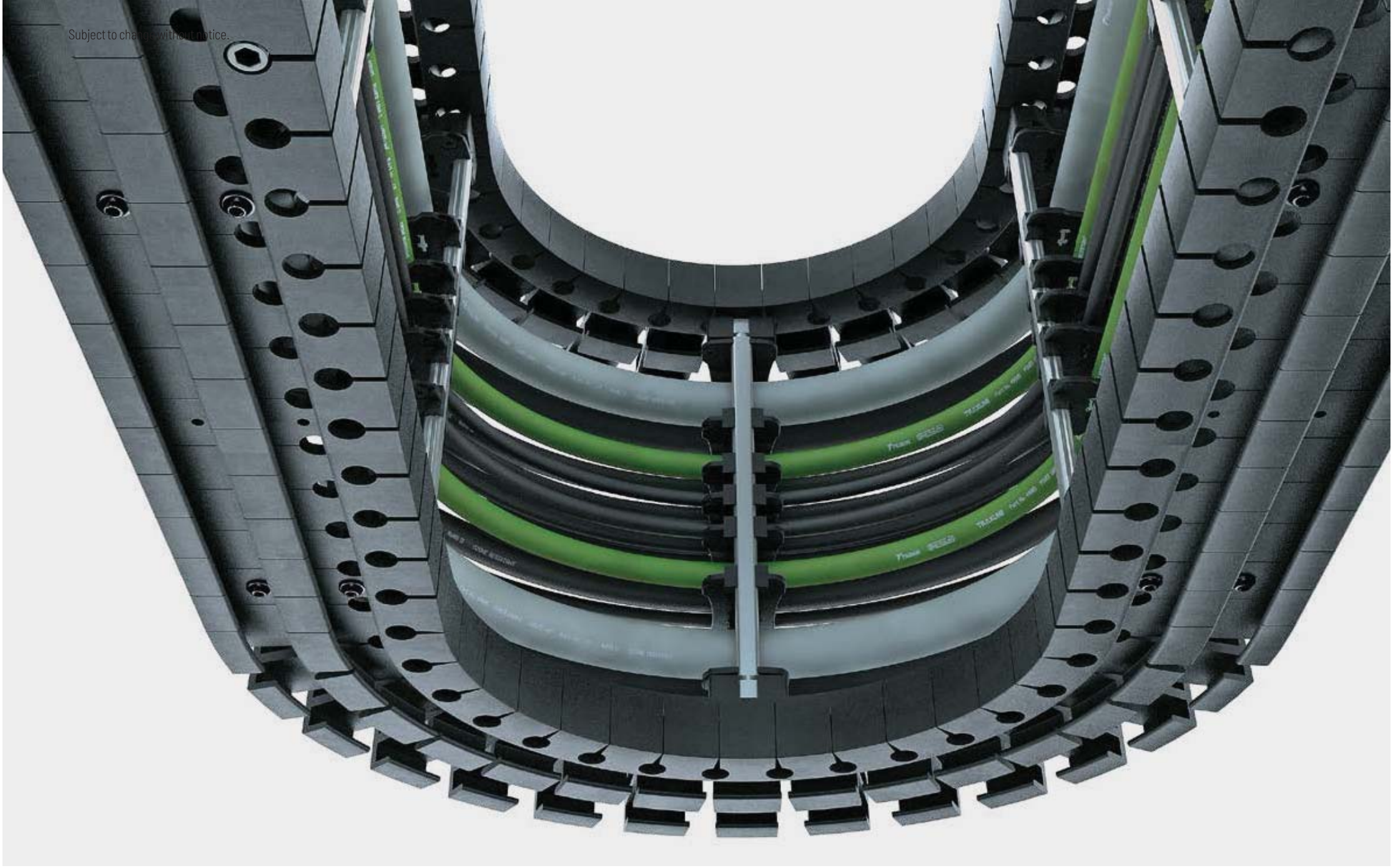
When using **partitions with $a_x$ > 49 mm** we recommended an additional preferential central support.

## Order example

| TS3 | . | A | . | 3 | . | K1 | . | 34 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 38 | - | VR3 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

Please state the designation of the divider system **(TS0, TS1,...)**, version and number of dividers per cross section [$n_T$]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [$a_T$/$a_X$] (as seen from the driver).

If using divider systems with height separation **(TS1, TS3)** please also state the positions [e.g. VD23] viewed from the left driver belt. You are welcome to add a sketch to your order.



# Q100 RV | Dimensions · Technical data

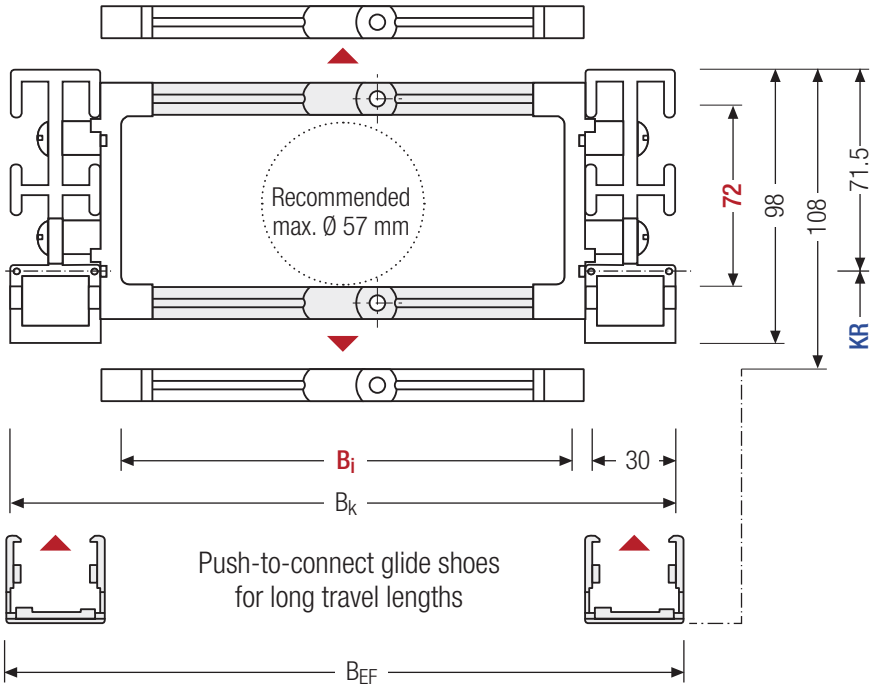
## Aluminum stay RV – Frame stay reinforced

- Aluminum profile bars with plastic adapter for medium to high loads and large cable carrier widths. Assembly without screws.
- Available customized in **1 mm sections**.
- **Outside/inside:** release by rotating 90°.

Stays on every 8th section, **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

1 mm — $B_i$ 70 – 600 mm in **1 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm]* | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | | | | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 98 | 108 | 70 – 600 | $B_i$ + 82 | $B_i$ + 89.5 | 180 | 250 | 300 | 370 | 460 | 600 | 2.8 – 4.6 |

* in 1 mm width sections

## Order example

| Q100 | . | 400 | . | RV | . | 370 | - | 1860 | HS |
|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | Stay arrangement |

## Divider systems

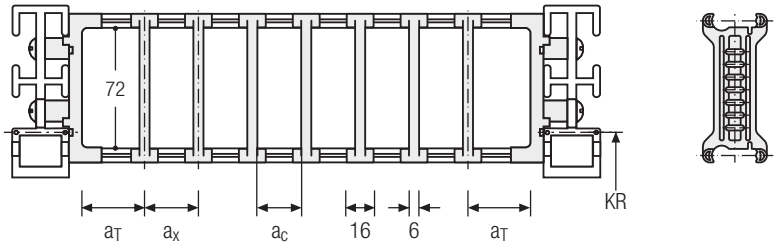
The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 13 | 16 | 10 | 2 |

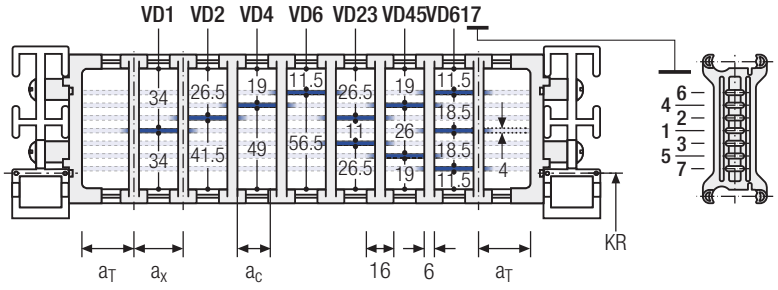
The dividers can be moved in the cross section.




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_T$ min |
|---|---|---|---|---|---|
| A | 13 | 25 | 16 | 10 | 2 |

The dividers can be moved in the cross section.

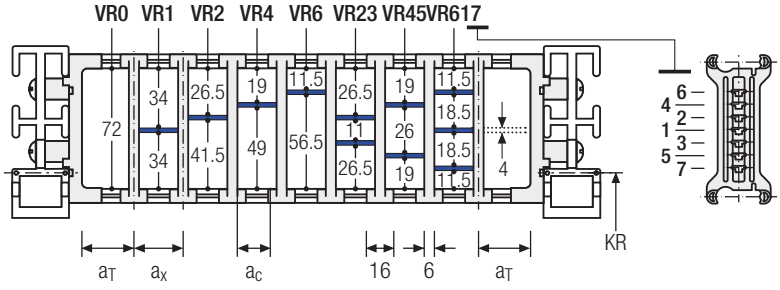



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{c\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 13 | 21 | 15 | 2 |

With grid distribution **(1 mm grid)**.
The dividers are attached by the height separation, the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 6 mm).




### TRAXLINE® cables for cable carriers

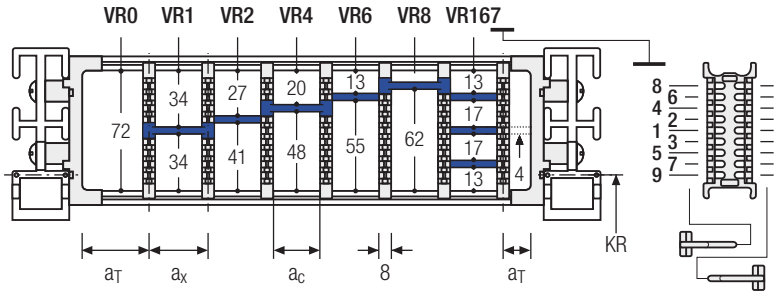
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

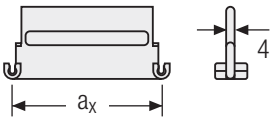
## Divider system TS3 with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 8 | 16/42* | 8 | 2 |

* For aluminum partitions

The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

**$a_x$ (center distance of dividers)** [mm]

$a_C$ (nominal width of inner chamber) [mm]

| 16 | 18 | 23 | 28 | 32 | 33 | 38 | 43 | 48 | 58 | 64 | 68 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**, we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system. The height separations VR8 and VR9 are not possible when using twin dividers.

## Order example

| TS3 | . | A | . | 3 | . | K1 | . | 16 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 208 | - | VR9 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

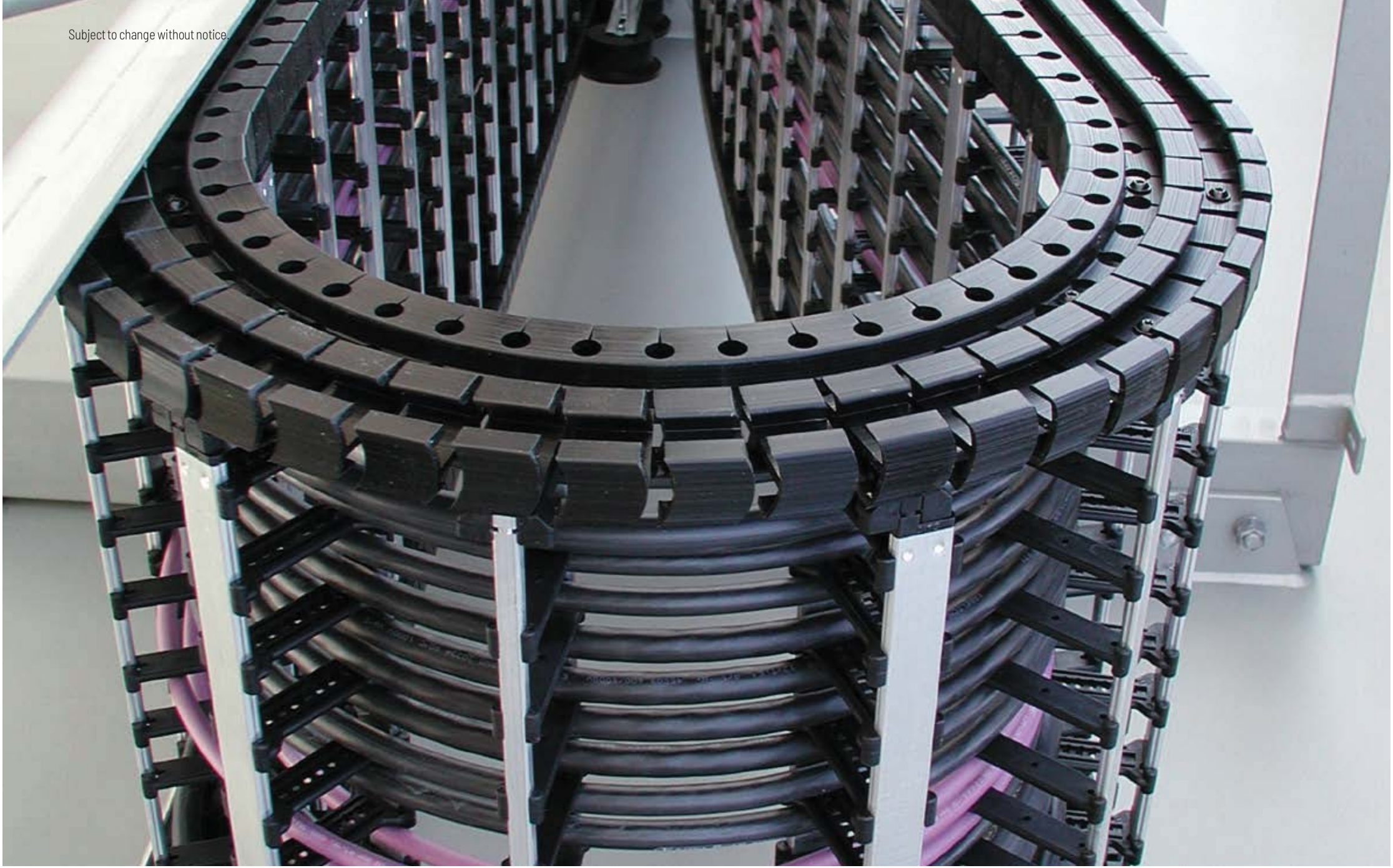
Please state the designation of the divider system **(TS0, TS1,...)**, the version, and the number of dividers per cross section [$n_T$]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**, please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

### More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**



# Q100 RE | Dimensions · Technical data

## Plastic stay RE – frame screw-in stay

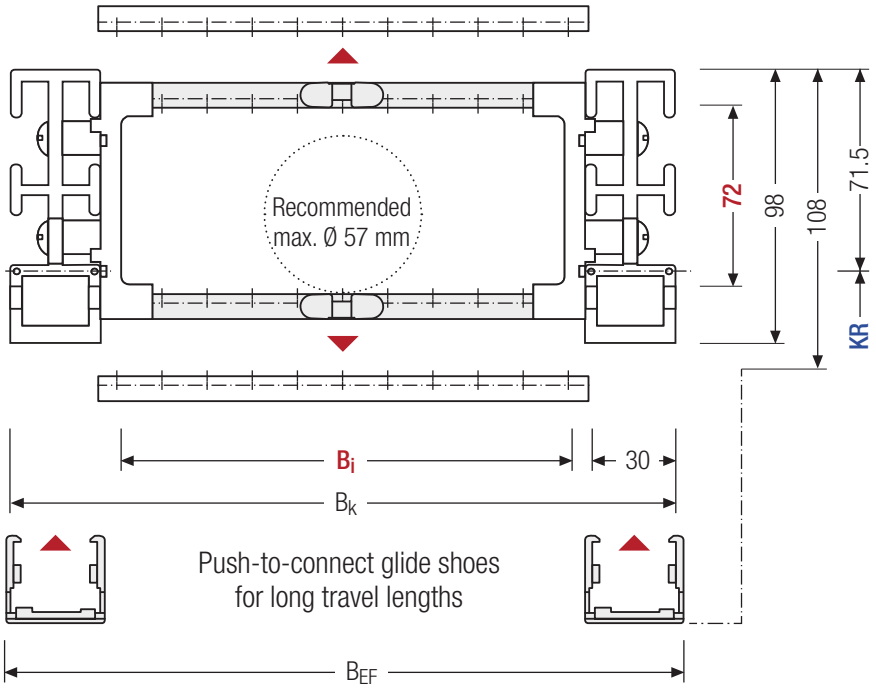
- Plastic profile bars for light and medium loads. Assembly without screws.
- Available customized in **16 mm sections**.
- **Outside/inside:** release by rotating 90°.

Stays on every 8th section, **standard (HS: half-stayed)**

Stays on every 4th section **(VS: fully-stayed)**

8 mm

$B_i$ 74 – 570 mm in **16 mm width sections**




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

| $h_i$ [mm] | $h_G$ [mm] | $h_{G'}$ [mm] | $B_i$ [mm] | | | | | | | | | $B_k$ [mm] | $B_{EF}$ [mm] | KR [mm] | | $q_k$ [kg/m] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 98 | 108 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 | 202 | $B_i$ + 82 | $B_i$ + 89.5 | 180 | 250 | 2.74 – 3.67 |
| | | | 218 | 234 | 250 | 266 | 282 | 298 | 314 | 330 | 346 | | | 300 | 370 | |
| | | | 362 | 378 | 394 | 410 | 426 | 442 | 458 | 474 | 490 | | | 460 | 600 | |
| | | | 506 | 522 | 538 | 554 | 570 | | | | | | | | | |

## Order example

| Q100 | . | 346 | . | RE | . | 370 | - | 1860 | HS |
|---|---|---|---|---|---|---|---|---|---|
| Type | | $B_i$ [mm] | | Stay variant | | KR [mm] | | $L_k$ [mm] | Stay arrangement |

## Divider systems

The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS).

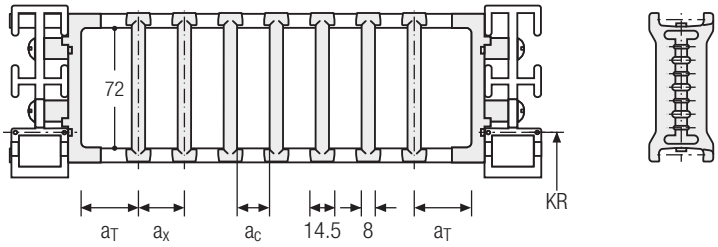
As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section **(version A)**.

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar **(version B)**.
The groove in the frame stay faces outwards.

## Divider system TS0 without height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|
| A | 12 | 14.5 | 6.5 | – | – |
| B | 13 | 16 | 8 | 16 | – |

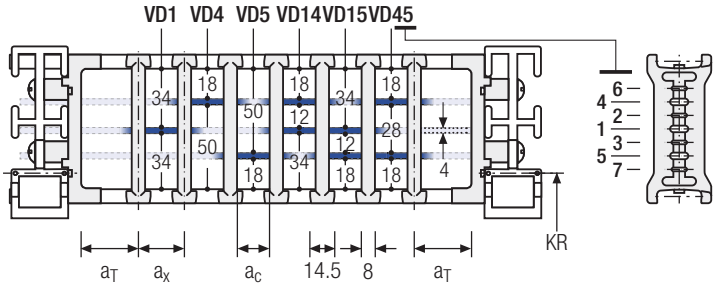
The dividers are movable within the cross section (version A) or fixed (version B).




## Divider system TS1 with continuous height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{T\ max}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|---|
| A | 12 | 25 | 14.5 | 6.5 | – | 2 |
| B | 13 | 29 | 16 | 8 | 16 | 2 |

The dividers are movable within the cross section (version A) or fixed (version B).

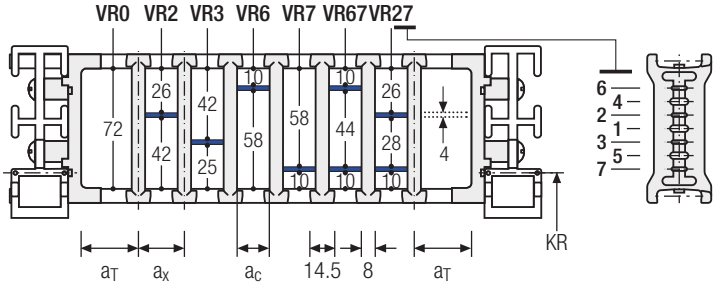



## Divider system TS2 with partial height separation

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $a_{x\ grid}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|---|
| A | 12 | 14.5*/20 | 6.5*/12 | – | 2 |
| B | 13 | 16*/32 | 8*/24 | 16 | 2 |

* for VR0

With grid distribution **(16 mm grid)**. The dividers are fixed by the height separation; the grid is movable in the cross section (version A) or fixed (version B).

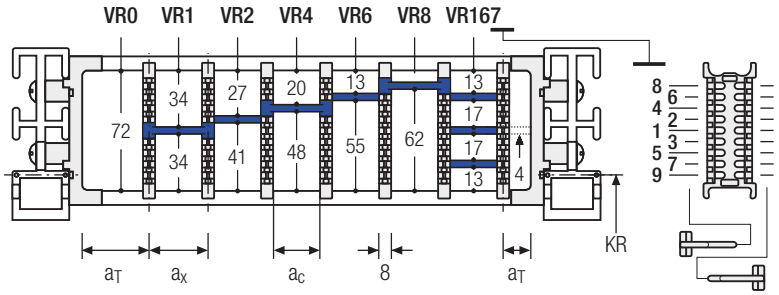


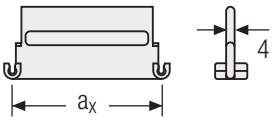
## Divider system TS3 with height separation consisting of plastic partitions

| Vers. | $a_{T\ min}$ [mm] | $a_{x\ min}$ [mm] | $a_{C\ min}$ [mm] | $n_{T\ min}$ |
|---|---|---|---|---|
| A | 8 | 16/42* | 8 | 2 |

* For aluminum partitions

The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.




Aluminum partitions in 1 mm increments with **$a_x$ > 42 mm** are also available.

**$a_x$ (center distance of dividers)** [mm]

$a_C$ (nominal width of inner chamber) [mm]

| 16 | 18 | 23 | 28 | 32 | 33 | 38 | 43 | 48 | 58 | 64 | 68 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 10 | 15 | 20 | 24 | 25 | 30 | 35 | 40 | 50 | 56 | 60 |
| **78** | **80** | **88** | **96** | **112** | **128** | **144** | **160** | **176** | **192** | **208** | |
| 70 | 72 | 80 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | |

When using **plastic partitions with $a_x$ > 112 mm**, we recommend an additional center support with a **twin divider** ($S_T$ = 4 mm). Twin dividers are also suitable for retrofitting in the partition system. The height separations VR8 and VR9 are not possible when using twin dividers.

## Order example

| TS3 | . | A | . | 2 | . | K1 | . | 16 | - | VR1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ⋮ | | ⋮ | | ⋮ |
| | | | | | . | K4 | . | 208 | - | VR9 |
| Divider system | | Version | | $n_T$ | | Chamber | | $a_x$ | | Height separation |

Please state the designation of the divider system **(TS0, TS1,...)**, the version, and the number of dividers per cross section [$n_T$]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [$a_T$/$a_x$].

When using divider systems with height separation **(TS1 – TS3)**, please additionally state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

### TOTALTRAX® complete systems

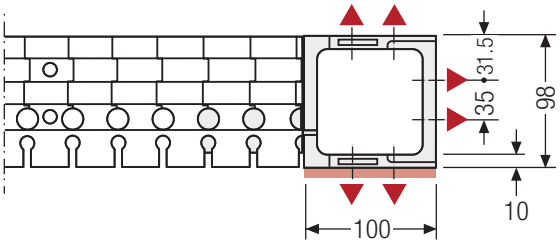
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source – with a warranty certificate on request! Learn more at **tsubaki-kabelschlepp.com/totaltrax**

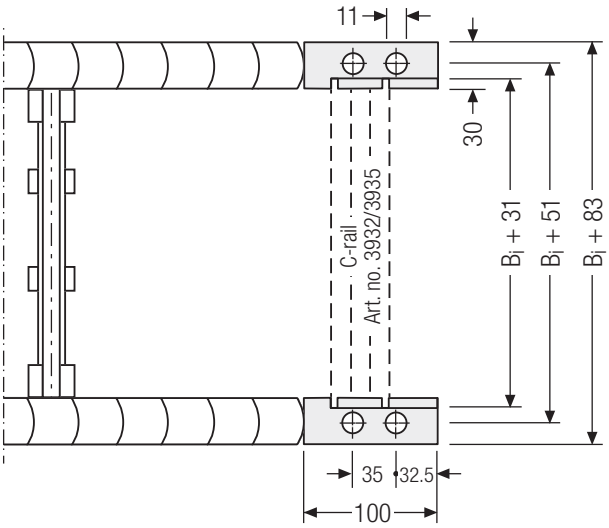
### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-kabelschlepp.com/traxline**

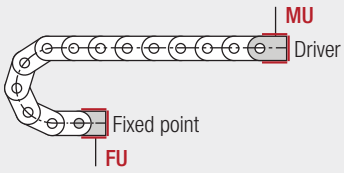
## Universal end connectors UMB – plastic (standard)

The universal end connectors (UMB) are made from plastic and can **be mounted from the top, from the bottom or face on**.




▲ Assembly options




**Connection point**
**F** – fixed point
**M** – driver

**Connection type**
**U** – universal end connector

## Order example

| UMB | . | F | U |
|---|---|---|---|
| UMB | . | M | U |
| End connector | | Connection point | Connection type |

We recommend the use of strain reliefs at the driver and fixed point. See from p. 908.

## More product information online

Assembly instructions etc.: Additional info via your smartphone or check online at **tsubaki-kabelschlepp.com/downloads**

Configure your custom cable carrier here: **online-engineer.de**