

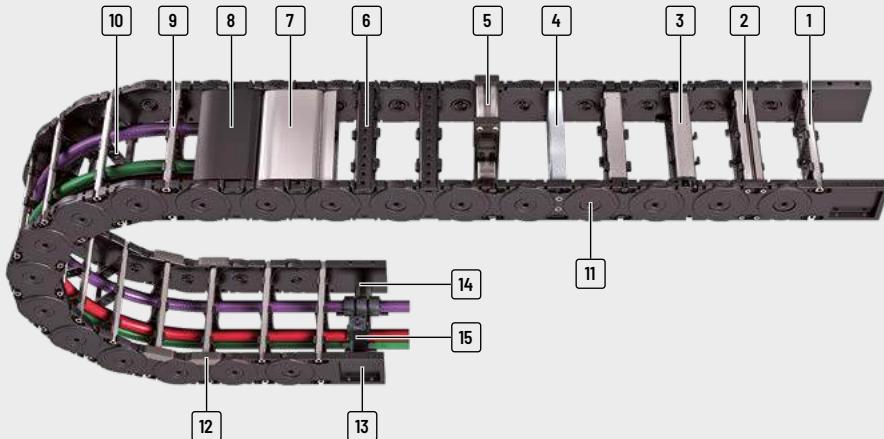
# M series

**Variable cable carrier  
with extensive accessories  
and stay variants**



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Subject to change without notice



1 Aluminum stays available in <b>1 mm width sections</b>	5 Mounting frame stays	8 Plastic cover available in <b>8 or 16 mm width sections</b>	12 Replaceable glide shoes
2 4-fold bolted aluminum stays for extreme loads	6 Plastic stays available in <b>4, 8 or 16 mm width sections</b>	9 Can be opened quickly on the inside and the outside for cable laying	13 Universal end connectors (UMB)
3 Aluminum stays with ball joint	7 Aluminum cover available in <b>1 mm width sections</b>	10 Fixable dividers	14 C-rail for strain relief elements
4 Aluminum hole stays		11 Locking bolts	15 Strain relief combs

## Features

- » Encapsulated, dirt-resistant stroke system
- » Durable sidebands through robust link plate design
- » Easy assembly of side bands through bars with easy-to-assemble locking bolts
- » Long service life due to minimized hinge wear owing to the "life extending 2 disc principle"
- » Large selection of vertical and horizontal stay systems and dividing options for your cables
- » Versions with aluminum stays in 1 mm width sections up to 800 mm inner width

- » Versions with plastic stays available in 4, 8 or 16 mm width sections



Minimized hinge wear owing to the "life extending 2 disc principle"



Sturdy link plate design, encapsulated stroke system



Easy to assemble through locking bolts



Replaceable glide shoes for long service life for gliding applications

	PROTUM® series	Type	Opening variant	Stay variant	 h <sub>1</sub> [mm]	 h <sub>G</sub> [mm]	 B <sub>1</sub> [mm]	 B <sub>k</sub> [mm]	 Bi-grid [mm]	 t [mm]	 KR [mm]	Additional load < [kg/m]	Cable-d <sub>max</sub> [mm]
	K series	<b>M0320</b>	 RS 01	 19	27.5	 25 - 280	36 - 291	1	32	 37 - 200	2.5	15	
	K series		 RS 02	 19	27.5	 25 - 280	36 - 291	1	32	 37 - 200	2.5	15	
UNIFLEX Advanced series			 RE	 19	27.5	 25 - 189	36 - 200	4	32	 37 - 200	2.5	15	
	M series	<b>M0475</b>	 RD 01	 28	39	 24 - 280	41 - 297	8	47.5	 55 - 300	3.0	22	
	M series		 RD 02	 28	39	 24 - 280	41 - 297	8	47.5	 55 - 300	3.0	22	
	TKHP® series	<b>M0650</b>	 RS	 38	57	 75 - 400	109 - 434	1	65	 75 - 350	25	30	
	XL series		 LG	 36	57	 75 - 600	109 - 634	1	65	 75 - 350	25	29	
	XL series		 RMAI	 38 (200)	57 (224)	 200 - 400	234 - 434	1	65	 220 - 350	25	30 (160)	
	XL series		 RMAO	 38 (200)	57 (224)	 200 - 400	234 - 434	1	65	 75 - 350	25	30 (160)	
	XL series		 RE	 42	57	 50 - 266	84 - 300	8	65	 75 - 350	25	33	
	XL series		 RD	 42	57	 50 - 266	84 - 300	8	65	 75 - 350	25	33	
	QUANTUM® series	<b>M0950</b>	 RS	 58	80	 75 - 400	114 - 439	1	95	 140 - 380	35	46	
	TKR series		 RV	 58	80	 75 - 500	114 - 539	1	95	 140 - 380	35	46	
	TKA series		 RM	 54	80	 75 - 600	114 - 639	1	95	 140 - 380	35	43	
	TKA series		 LG	 50	80	 75 - 600	114 - 639	1	95	 140 - 380	35	38	
	TKA series		 RMAI	 58 (200)	80 (224)	 200 - 500	239 - 539	1	95	 170 - 380	35	46 (160)	
	TKA series		 RMAO	 58 (200)	80 (224)	 200 - 500	239 - 539	1	95	 140 - 380	35	46 (160)	
	TKA series		 RMR	 51	80	 75 - 600	114 - 639	1	95	 140 - 380	35	46	
	UAT series		 RE	 58	80	 45 - 557	84 - 596	16	95	 140 - 380	35	46	
	UAT series		 RD	 58	80	 45 - 557	84 - 596	16	95	 140 - 380	35	46	



\* Further information on request.

Unsupported arrangement			Gliding arrangement			Inner Distribution				Movement		Page
Travel length ≤ [m]	v <sub>max</sub> ≤ [m/s]	a <sub>max</sub> ≤ [m/s <sup>2</sup> ]	Travel length ≤ [m]	v <sub>max</sub> ≤ [m/s]	a <sub>max</sub> ≤ [m/s <sup>2</sup> ]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side or rotating arrangement	
9.7	10	25	320	8	20	•	•	-	•	•	•	432
9.7	10	25	320	8	20	•	•	•	•	•	-	436
9.7	10	25	320	8	20	•	•	•	-	•	•	440
9.7	10	25	320	8	20	-	-	-	-	•	•	442
9.7	10	25	320	8	20	•	-	-	-	•	•	444
9.7	10	25	320	8	20	•	-	-	-	•	•	446
9.7	10	25	320	8	20	•	-	-	-	•	•	448
9.7	10	25	320	8	20	•	•	•	•	•	•	450
9.7	10	25	320	8	20	•	•	•	•	•	•	451
10.8	10	25	350	8	20	•	•	-	•	-	-	458
10.8	10	25	350	8	20	•	•	-	•	•	•	460
10.8	10	25	350	8	20	-	-	-	-	•	•	462
UAT series	TKA series	QUANTUM® series	TKR series	XL series	TKP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series			

# M0320

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series



**Pitch**  
32 mm



**Inner height**  
19 mm



**Inner widths**  
25 - 280 mm



**Bending radii**  
37 - 200 mm

## Stay variants



**Aluminum stay 01** ..... page 366

### Frame stay detachable inside

- » Aluminum profile bars for light to medium loads.
- Assembly without screws.
- » **Inside:** release by turning by 90°.



**Aluminum stay 02** ..... page 366

### Frame stay detachable outside "the standard"

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



**Plastic stay RE** ..... page 368

### Frame screw-in stay

- » Plastic profile bars for light to medium loads.
- Assembly without screws.
- » **Inside/outside:** release by turning by 90°.

## More product information online

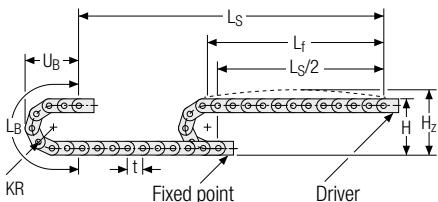


Assembly instructions etc.:  
Additional info via your  
smartphone or check online at  
[tsubaki-kabelschlepp.com/](http://tsubaki-kabelschlepp.com/downloads)  
downloads



Configure your custom  
cable carrier here:  
[online-engineer.de](http://online-engineer.de)

## Unsupported arrangement



KR [mm]	H [mm]	H <sub>z</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
37	101.5	121.5	181	83
47	121.5	141.5	212	93
77	181.5	201.5	306	123
100	227.5	247.5	379	146
200	427.5	427.5	693	246

**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  $q_k = 0.54 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



**Speed**  
up to 10 m/s



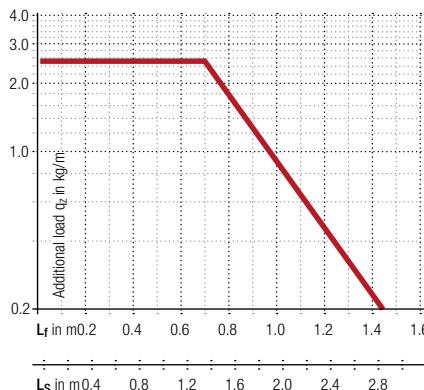
**Acceleration**  
up to 50 m/s<sup>2</sup>



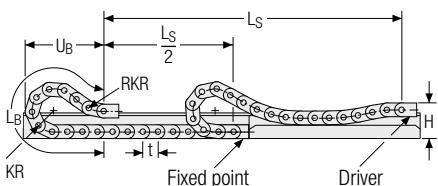
**Travel length**  
up to 2.8 m



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



## Gliding arrangement



**Speed**  
up to 2.5 m/s



**Acceleration**  
up to 25 m/s<sup>2</sup>



**Travel length**  
up to 80 m



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

The gliding cable carrier must be guided in a channel. See p. 866.

PROTUM®  
series

K  
series

UNIFLEX  
Advanced  
series

M  
series

TKHP®  
series

XL  
series

QUANTUM®  
series

TKR  
series

TKA  
series

UAT  
series



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

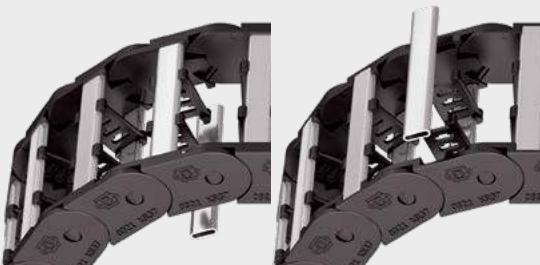
TKR series

TKA series

UAT series

## Aluminum stay 01/02 – frame stay detachable outside

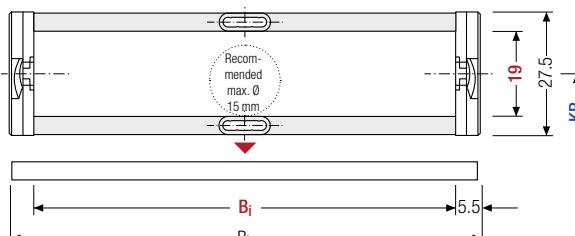
- Extremely quick to open and close
- Aluminum profile bars for light to medium loads.
- Assembly without screws.
- Available customized in **1 mm grid**.
- Outside/inside:** release by turning by 90°.



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

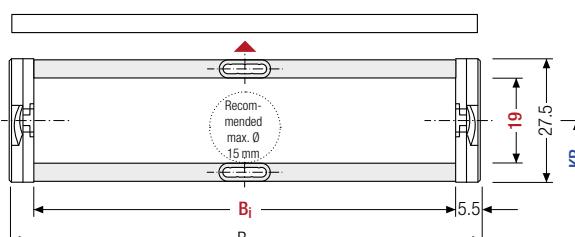
1 mm B<sub>i</sub> 25 – 280 mm  
in 1 mm width sections

### Aluminum stay 01 frame stay detachable inside



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

### Aluminum stay 02 frame stay detachable outside



#### Calculating the cable carrier length

##### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	B <sub>i</sub> [mm]*	B <sub>k</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]
19	27.5	25 – 280	B <sub>i</sub> + 11	37      47	77      100      200      0.47 – 1.70

\* in 1 mm width sections

#### Order example



MC0320

Type

200

B<sub>i</sub> [mm]

01

Stay variant

100

KR [mm]

1152

L<sub>k</sub> [mm]

VS

Stay arrangement

## Divider systems

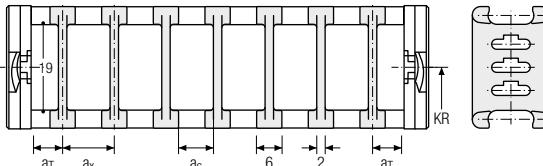
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	3	6	4	2

The dividers can be moved in the cross section.

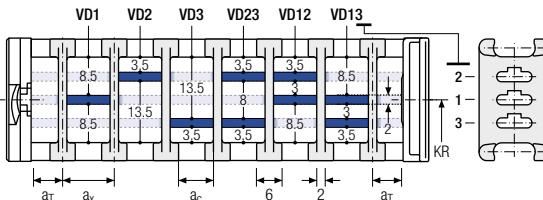


PROTUM® series

### 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	3	20	6	4	2

The dividers can be moved in the cross section.



M series

### Order example

	TS1	.	A	.	3	-	VD1	...	
Divider system	Version			$n_T$		-	Height separation		

QUANTUM® series

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

If using divider systems with height separation (TS1) please also state the positions [e.g. VD1] viewed from the left driver belt. You are welcome to add a sketch to your order.

TKA series

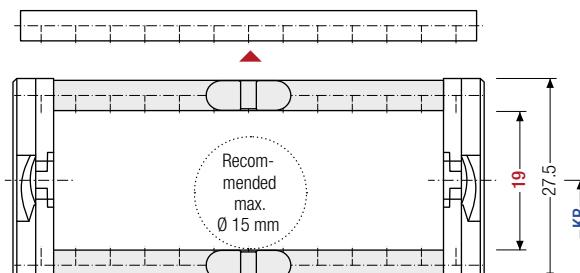
## Plastic stay RE – screw-in frame stay

- Plastic profile bars for light to medium loads. Assembly without screws.
- Available customized in **4 mm grid**.
- **Outside/Inside:** release by turning by 90°.



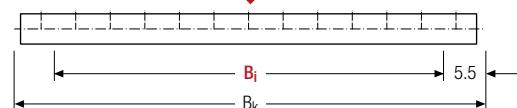
Stay arrangement on each chain link (**VS: fully-stayed**)  **4 mm**  $B_i$  25 – 189 mm in **4 mm width sections**

### M series



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

### XL series



### 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  $t$

### QUANTUM® series

	$h_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]										$B_k$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
TKR series	19	27.5	25	29	33	37	41	45	49	53	57	61	65	37	0.46
			69	73	77	81	85	89	93	97	101	105	109	77	—
			113	117	121	125	129	133	137	141	145	149		100	1.00

 For  $B_i > 149$  mm we recommend a multi-band chain.

### Order example

 **ME0320** Type . **105**  $B_i$  [mm] . **RE** Stay variant . **100**  $KR$  [mm] - **1152**  $L_k$  [mm] . **VS** Stay arrangement

### UAT series

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

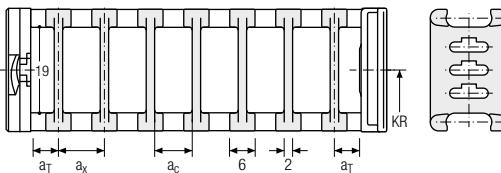
The dividers are easily attached to the stay for applications with lateral acceleration and for applications laying on their side by simply turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbars (**version B**).

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	3	6	4	—	—
B	4.5	8	6	4	—

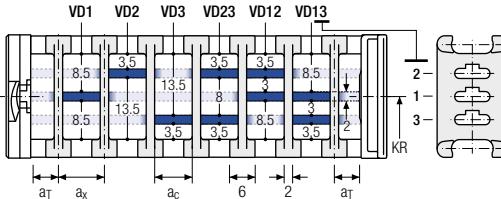
The dividers can be moved in the cross section.



### Divider system TS1 with continuous height separation

Vers.	$a_T$ min [mm]	$a_T$ max [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	3	20	6	4	—	2
B	4.5	20.5	8	6	4	2

The dividers can be moved in the cross section.



### Order example

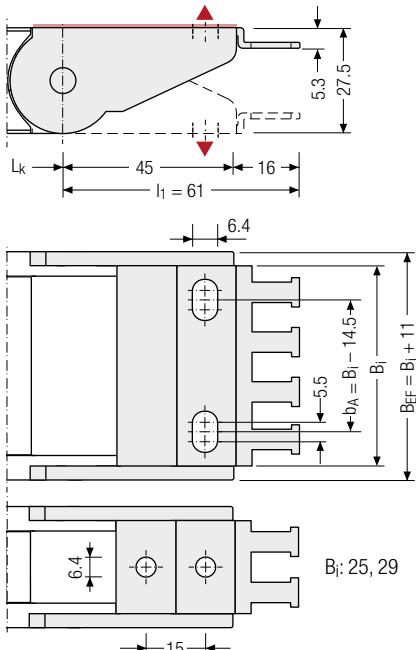
	TS1	.	A	.	3	-	VD1	...
Divider system	Version				$n_T$	-	Height separation	

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

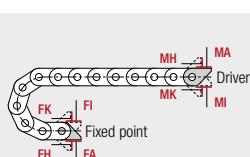
If using divider systems with height separation (TS1), please also state the positions [e.g. VD1] viewed from the left driver belt. You are welcome to add a sketch to your order.

### One part end connectors – plastic/aluminum (with integrated strain relief)

The plastic/aluminum end connectors can be **connected from above or below**. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



Quantum® series	$B_i$ [mm]	$n_z$									
	25	2		39	4		89	7		149	11
	29	2		49	4		109	8			
	37	3		69	5		124	10			



#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**A** – threaded joint outside (standard)  
**I** – threaded joint inside  
**H** – threaded joint, rotated 90° to the outside  
**K** – threaded joint, rotated 90° to the inside

### Order example

	Plastic/aluminum	.	F	A
	Plastic/aluminum	.	M	A

End connector      Connection point      Connection type



We recommend the use of strain reliefs at the driver and fixed point. See from p. 924.

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series

# M0475

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series



**Pitch**  
47.5 mm



**Inner height**  
28 mm



**Inner widths**  
24 – 280 mm



**Bending radii**  
55 – 300 mm

## Stay variants



### Plastic stay RD 01 ..... page 374

#### Frame stay with hinge in the inner radius

- » Plastic profile bars with hinge for light to medium loads.
- Assembly without screws.
- » **Outside:** release by turning by 90°.
- » **Inside:** swivable to both sides.



### Plastic stay RD 02 ..... page 376

#### Frame stay with hinge in the outer radius

- » Plastic profile bars with hinge for light to medium loads.
- Assembly without screws.
- » **Outside:** swivable to both sides.
- » **Inside:** release by turning by 90°.



#### MT series

Also available as covered variants with cover system.

More information can be found  
in chapter "MT series" from p. 628.

#### More product information online

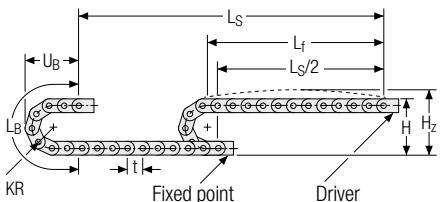


Assembly instructions etc.:  
Additional info via your smartphone  
or check online at  
[tsubaki-kabelschlepp.com/downloads](http://tsubaki-kabelschlepp.com/downloads)



Configure your custom  
cable carrier here:  
[online-engineer.de](http://online-engineer.de)

## Unsupported arrangement



**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  $q_k = 1.7 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



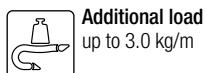
**Speed**  
up to 10 m/s



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

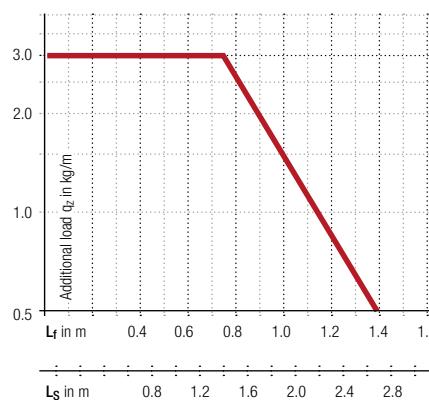


**Travel length**  
up to 2.7 m



**Additional load**  
up to 3.0 kg/m

KR [mm]	H [mm]	H <sub>z</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
55	149	174	268	122
75	189	214	331	142
100	239	264	410	167
130	299	324	504	197
160	359	384	598	227
200	439	464	724	267
250	539	564	881	317
300	639	664	1038	367



PROTUM®  
series

K  
series

UNIFLEX  
Advanced  
series

M  
series

TKHP®  
series

XL  
series

QUANTUM®  
series

TKR  
series

TKA  
series

UAT  
series

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Plastic stay RD 01 – frame stay with hinge in the inner radius

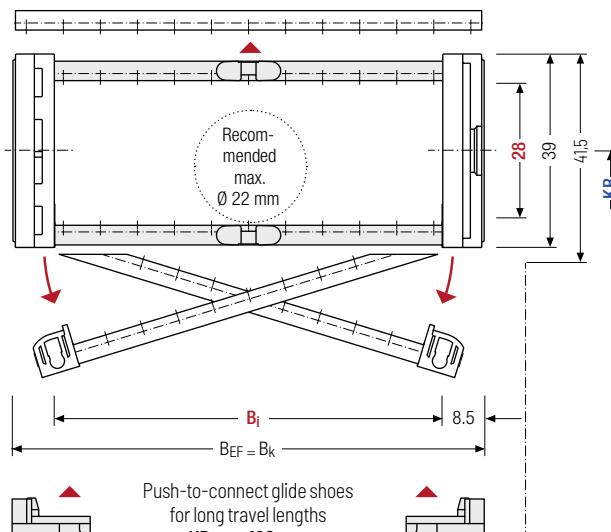
- Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- Available customized in **8 mm grid**.
- Outside:** release by turning by 90°.  
**Inside:** swivable to both sides.



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



**8 mm**  $B_i$  24 – 280 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]	$B_{EF}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]		
	28	39	24	32	40	48	56	64	72	80	88	$B_i + 17$	$B_i + 17$	55	75	0.79
			96	104	112	120	128	136	144	152	160			100	130	–
			168	176	184	192	200	208	216	224	232			160	200	3.03
			240	248	256	264	272	280						250	300	

### Order example



MK0475

Type

128

 $B_i$  [mm]

RD 01

Stay variant

100

 $KR$  [mm]

1425

 $L_k$  [mm]

VS

Stay arrangement

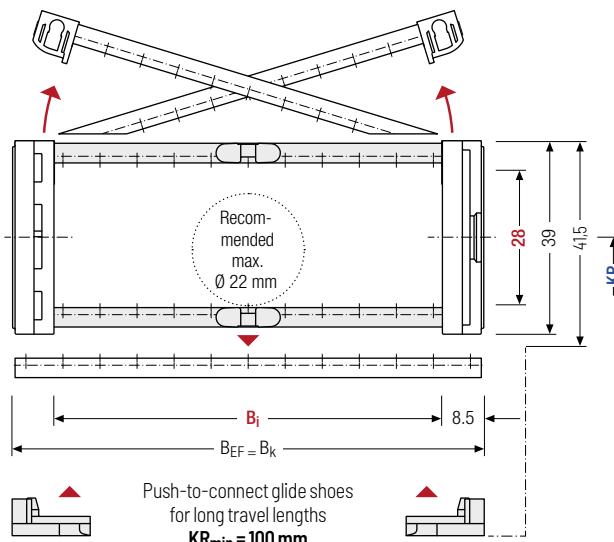


## Plastic stay RD 02 – frame stay with hinge in the outer radius

- Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- Available customized in **8 mm grid**.
- **Outside:** swivable to both sides.  
**Inside:** release by turning by 90°.



Stay arrangement on every chain link (VS: fully-stayed)   **8 mm**  $B_i$  24 – 280 mm in 8 mm width sections



### 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  $t$

TKR series	$h_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]								$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]	
	28	39	24	32	40	48	56	64	72	80	88	$B_i + 17$	55	75	0.79
			96	104	112	120	128	136	144	152	160		100	130	–
			168	176	184	192	200	208	216	224	232		160	200	3.03
			240	248	256	264	272	280					250	300	

### Order example

 **MK0475** Type . **128**  $B_i$  [mm] . **RD 02** Stay variant . **100**  $KR$  [mm] - **1425**  $L_k$  [mm] . **VS** Stay arrangement

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

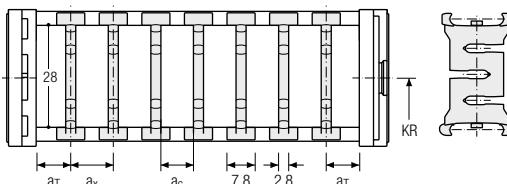
The dividers are easily attached to the stay for applications with lateral acceleration and for applications laying on their side by simply turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbars (**version B**).

The groove in the frame stay faces outwards.

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	6	7.8	5	—	—
B	12	8	5.2	8	—

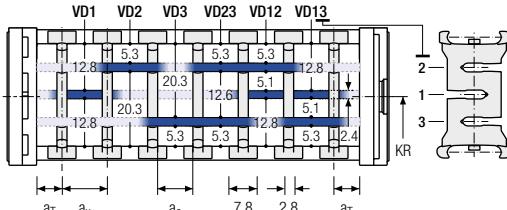
The dividers can be moved within the cross section (version A) or fixed (version B).



### 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	6	20	7.8	5	—	2
B	12	20	8	5.2	8	2

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

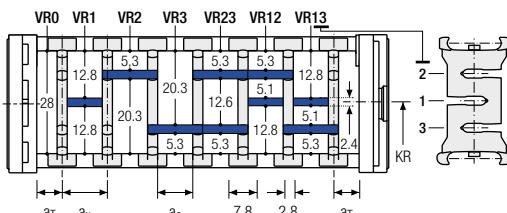


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
B	12	8*24	5.2*21.2	8	2

\* for VR0

With grid distribution (**8 mm grid**). The dividers are fixed by the height separation, the complete divider system is movable in the cross section (version A) or fixed (version B).



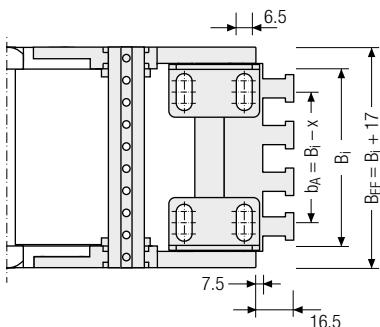
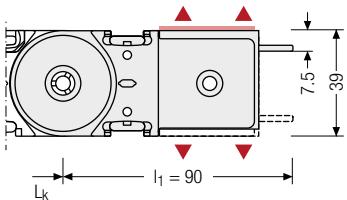
### Order example

	TS2	A	3	K1	34	-	VR1
				⋮	⋮	⋮	
				K4	38	-	VR3

Divider system      Version       $n_T$       Chamber       $a_x$       Height separation

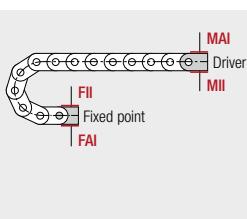
### End connectors – plastic/steel (with strain relief)

Link end connector made of plastic, end connector made of sheet steel with screw-fixed aluminum strain relief. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



▲ Assembly options

<b>B<sub>i</sub></b> [mm]	<b>x</b> [mm]	<b>n<sub>z</sub></b>
40	17.5	3
56	21.5	4
80	17.5	6
104	19.0	8
128	19.5	9
152	17.5	11
192	18.5	14



#### Connection point

**F** – fixed point  
**M** – driver

#### Connection surface

**I** – connection surface inside

#### Connection type

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

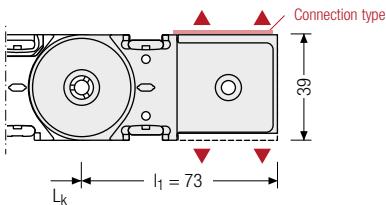
### Order example

	Plastic/steel	.	F	A	I
	Plastic/steel	.	M	A	I

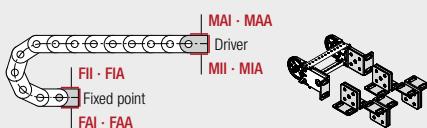
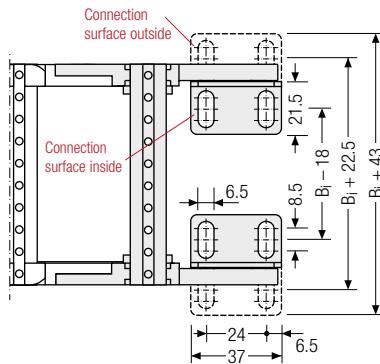
End connector      Connection point      Connection type      Connection surface

## End connectors – plastic/steel

Plastic link end connector, steel end connector. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



▲ Assembly options



### Connection point

**F** – fixed point  
**M** – driver

### Connection surface

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

### Connection type

**A** – threaded joint outside (standard)  
**I** – threaded joint inside  
**F** – flange connection

## Order example



Plastic/steel	.	F	A	A
Plastic/steel	.	M	A	I

End connector      Connection point      Connection type      Connection surface



We recommend the use of strain reliefs at the driver and fixed point. See from p. 924.

# M0650

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

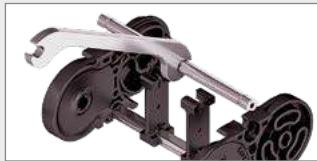
TKR series

TKA series

UAT series

Pitch  
65 mmInner heights  
36 - 42 mmInner widths  
50 - 600 mmBending radii  
75 - 350 mm

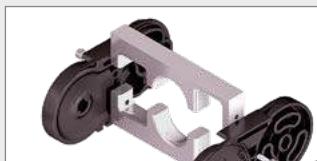
## Stay variants



**Aluminum stay RS** ..... page 384

### Frame stay, narrow "The standard"

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



**Aluminum stay LG** ..... page 388

### Hole stay, split version

- » Optimum cable routing in the neutral bending line.
- Split version for easy cable routing. Stays also available unsplit.
- » **Outside/inside:** Screw-fixing easy to release.



**Aluminum stay RMAI** ..... page 390

### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Inside:** Screw-fixing easy to release.



**Aluminum stay RMAO** ..... page 392

### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Outside:** Screw-fixing easy to release.



**Plastic stay RE** ..... page 394

### Frame screw-in stay

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

## Stay variants



### Plastic stay RD ..... page 395

#### Frame stay with hinge

- » Plastic profile bars with hinge for light to medium loads.
- Assembly without screws.
- » **Outside:** swivable to both sides.
- » **Inside:** release by turning by 90°.



### MT series

Also available as covered variants with cover system.  
More information can be found in chapter "MT series" from p. 628.



### 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](http://tsubaki-kabelschlepp.com/totaltrax)



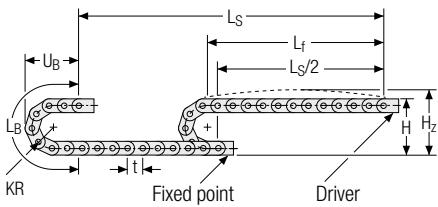
### TRAXLINE® cables for cable carriers

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

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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## Unsupported arrangement



KR [mm]	H [mm]	H <sub>s</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
75	207	242	366	169
95	247	282	429	189
115	287	322	492	209
145	347	382	586	239
175	407	442	680	269
220	497	532	822	314
260	577	612	948	354
275	607	642	994	369
300	657	692	1073	394
350	757	792	1230	444

PROTUM® series

K series

UNIFLEX Advanced series

M series

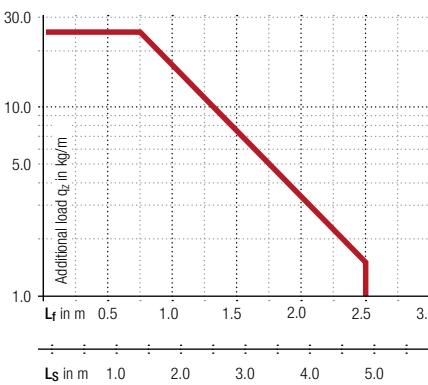
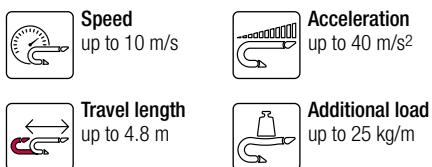
TKHP® series

XL series

**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  $q_k = 2.4 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



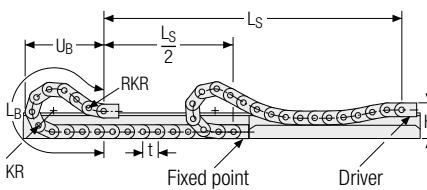
QUANTUM® series

TKR series

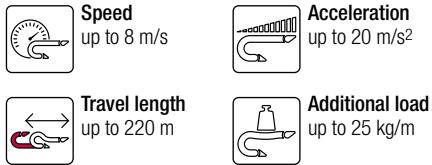
TKA series

UAT series

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



KR [mm]	H [mm]	GO module RKR [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
95	171	300	1180	560
115	171	300	1310	605
145	171	300	1440	640
175	171	300	1635	705
220	171	300	1950	810
260	171	300	2275	926
275	171	300	2405	973
300	171	300	2535	1014
350	171	300	2925	1152



The gliding cable carrier must be guided in a channel. See p. 866.

The GO module mounted on the driver is a defined sequence of 5 adapted KR/RKR link plates.

Glide shoes have to be used for gliding applications.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

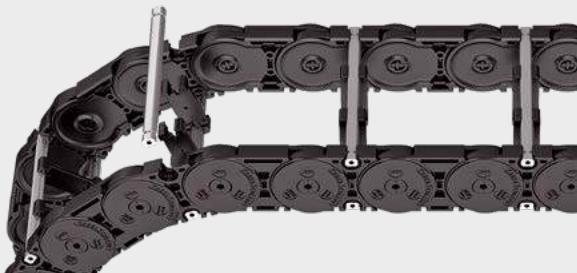
TKR series

TKA series

UAT series

## 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 grid**.
- Outside/inside:** release by turning by 90°.



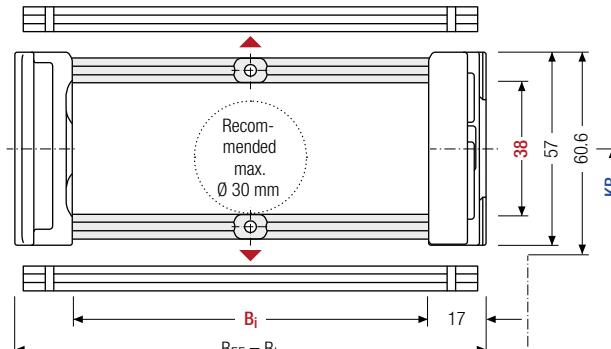
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm**  $B_i$  75 – 400 mm  
in **1 mm width sections**



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### 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]	$h_G$ Offroad [mm]	$B_i$ [mm]*	$B_k$ [mm]	$B_EF$ [mm]	$KR$ [mm]	$q_k$ [kg/m]				
TKR series	38	57	60.6	62.2	75 – 400	$B_i + 34$	$B_i + 34$	75 220	95 260	115 275	145 300	175 350	1.98 – 3.85

\* in 1 mm width sections

### Order example



**MC0650**  
Type

**300**  
 $B_i$  [mm]

**RS**  
Stay variant

**175**  
 $KR$  [mm]

**1430**  
 $L_k$  [mm]

**HS**  
Stay arrangement

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

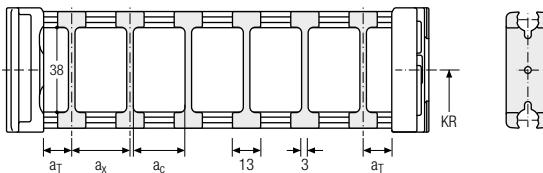
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping on a socket (available as an accessory).

The bushing additionally serves as a spacer between the dividers and is available in 1 mm sections between 3 – 50 mm. The inner height is reduced to 32 mm (**version B**).

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	6.5	13	10	2

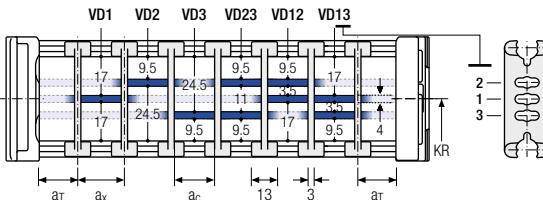
The dividers can be moved in the cross section.



### 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	6.5	25	13	10	2

The dividers can be moved in the cross section.



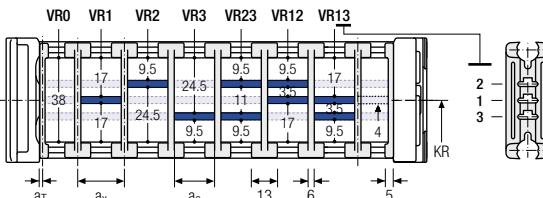
### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	1.5	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

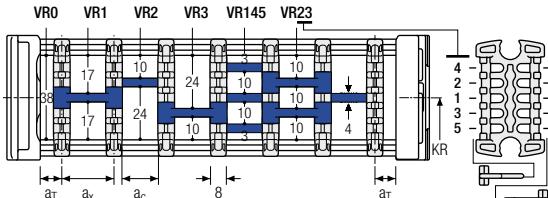
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at [tsubaki-kabelschiellepp.com/traxline](http://tsubaki-kabelschiellepp.com/traxline)

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

PROTUM® series

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16 / 42*	8	2

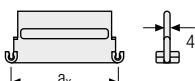
\* For aluminum partitions



K series

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

UNIFLEX Advanced series



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

M series

### $a_x$ (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** ( $a_T = 3$  mm). Twin dividers are also suitable for retrofitting in the partition system.

TKHP® series

## Order example

	TS3	A	3	K1	34	-	VR1
	Divider system	Version	$n_T$	Chamber	$a_x$	Height separation	

XL series

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.

QUANTUM® series

TKR series

TKA series

UAT series

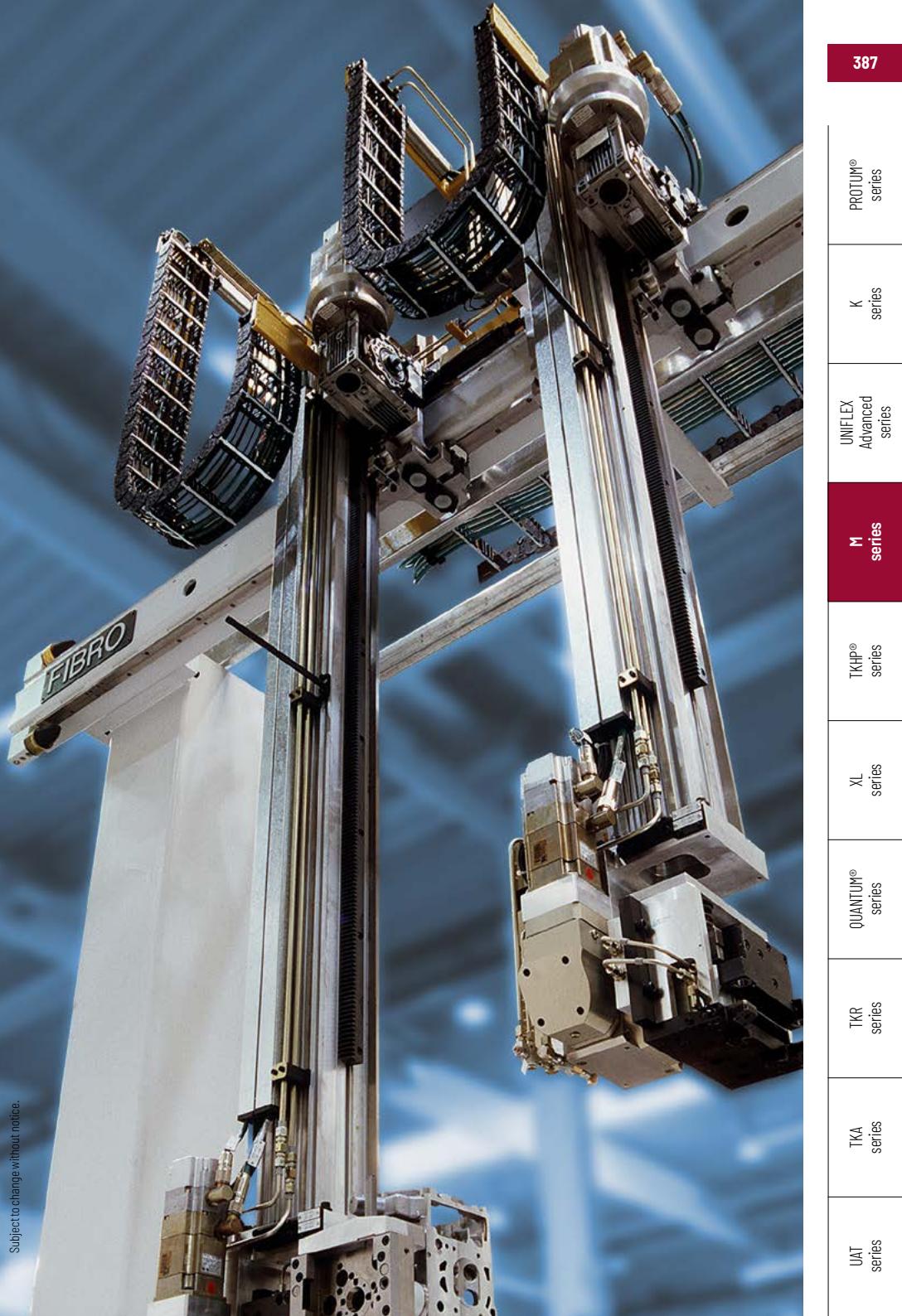
## More product information online



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



Configure your custom cable carrier here:  
[online-engineer.de](http://online-engineer.de)



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

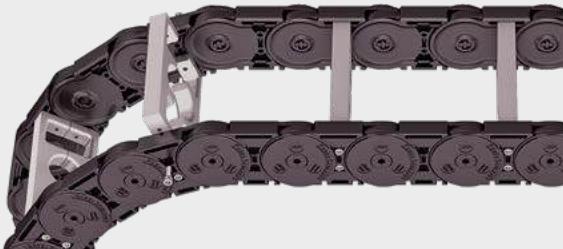
TKR series

TKA series

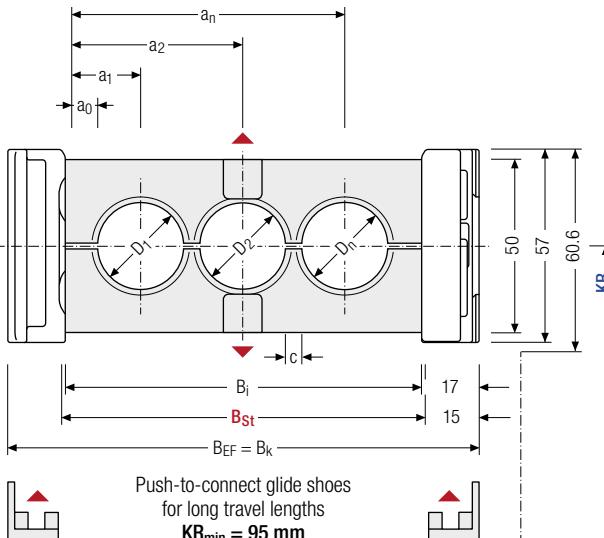
UAT series

## Aluminum stay LG – Hole stay, split version

- Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- Available customized in **1 mm width sections**.
- Outside/inside:** Screw-fixing easy to release.



**1 mm**  
B<sub>l</sub> 75 – 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<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

### Calculating the stay width

#### Stay width B<sub>St</sub>

$$B_{St} = \sum D + \sum c + 2 a_0$$

D <sub>max</sub> [mm]	D <sub>min</sub> [mm]	h <sub>G</sub> [mm]	B <sub>l</sub> [mm]	B <sub>St</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	c <sub>min</sub> [mm]	a <sub>0 min</sub> [mm]	KR [mm]				q <sub>k</sub> 50 %** [kg/m]
									75	95	115	145	
36	9	57	75 – 600	79 – 604	B <sub>St</sub> + 30	B <sub>St</sub> + 30	4	10	175	220	260	275	2.39 – 4.66
									300	350			

\* in 1 mm width sections

\*\* Hole ratio of the hole stay approx. 50 %

### Order example



**MC0650**  
Type

**300**  
B<sub>l</sub> [mm]

**LG**  
Stay variant

**175**  
KR [mm]

**1430**  
L<sub>k</sub> [mm]

**HS**  
Stay arrangement

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay RMAI – mounting frame stay

- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the inside in the bending radius.
- Available customized in **1 mm width sections**.
- Inside:** Screw-fixing easy to release.



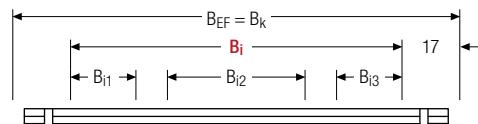
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



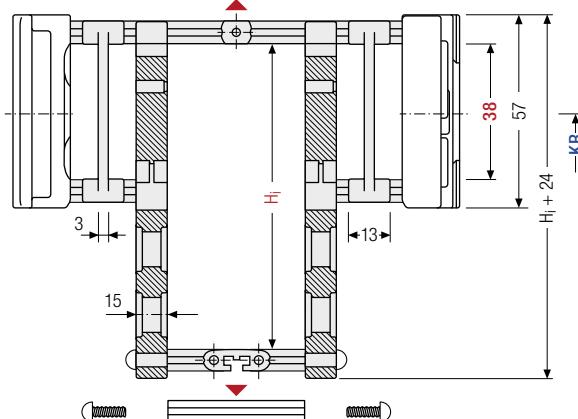
Stay arrangement on each chain link (**VS: fully-stayed**)



$B_i$  200 – 400 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  $t$



#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

$h_i$ [mm]	$H_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]	$B_{i1}$ min [mm]	$B_{i3}$ min [mm]	$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]
38	130	160	200 – 400	16	16	$B_i + 34$	$B_i + 34$	220
	200							260

### Order example

	MC0650	300	RMAI	175	1430	HS
Type	$B_i$ [mm]	Stay variant	$KR$ [mm]	$L_k$ [mm]		Stay arrangement

**RMAI – assembly to the inside:**

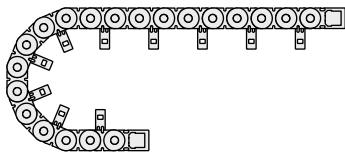
Gliding application is not possible when using assembly version RMAI.

Observe minimum KR:

$H_i = 130 \text{ mm}$ :  $KR_{\min} = 220 \text{ mm}$

$H_i = 160 \text{ mm}$ :  $KR_{\min} = 300 \text{ mm}$

$H_i = 200 \text{ mm}$ :  $KR_{\min} = 300 \text{ mm}$

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PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay RMAO – mounting frame stay

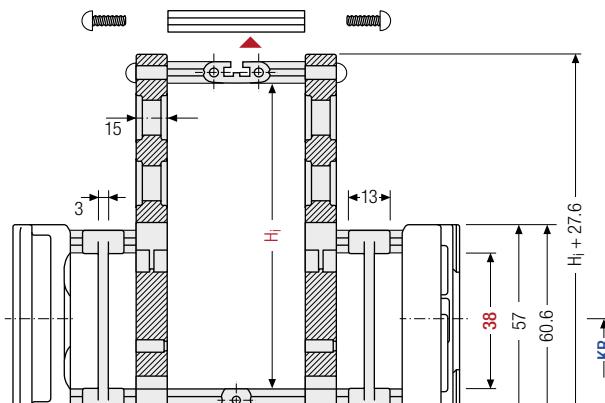
- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the outside in the bending radius.
- Available customized in **1 mm width sections**.
- Outside:** Screw-fixing easy to release.



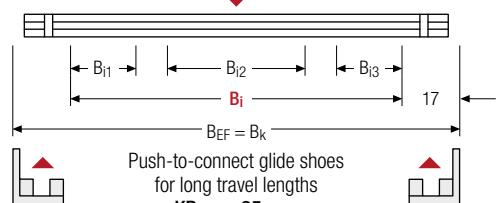
Stay arrangement on every 2<sup>nd</sup> chain link, **standard** (HS: half-stayed)

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

B<sub>i</sub> 200 – 400 mm in **1 mm width sections**



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



<b>h<sub>1</sub></b> [mm]	<b>H<sub>1</sub></b> [mm]	<b>H<sub>G</sub></b> [mm]	<b>B<sub>i</sub></b> [mm]	<b>B<sub>i1</sub> min</b> [mm]	<b>B<sub>i3</sub> min</b> [mm]	<b>B<sub>k</sub></b> [mm]	<b>B<sub>EF</sub></b> [mm]	<b>KR</b> [mm]
38	130	160	200 – 400	16	16	B <sub>i</sub> + 34	B <sub>i</sub> + 34	75
	200					B <sub>i</sub> + 34	220	95

### Order example

MC0650 Type . 300 B<sub>i</sub> [mm] . RMAO Stay variant . 175 KR [mm] - 1430 L<sub>k</sub> [mm] . HS Stay arrangement

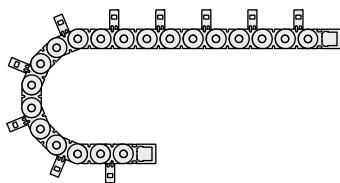
**RMAO – assembly to the outside:**

The cable carrier has to rest on the side bands and not on the stays.

Guiding in a **channel** is required for support.

Please contact our technical support at [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de) to find the corresponding guide channel.

Please note the operating and installation height.



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

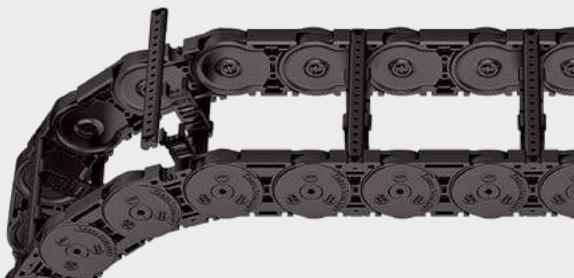
TKR series

TKA series

UAT series

## Plastic stay RE – screw-in frame stay

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



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

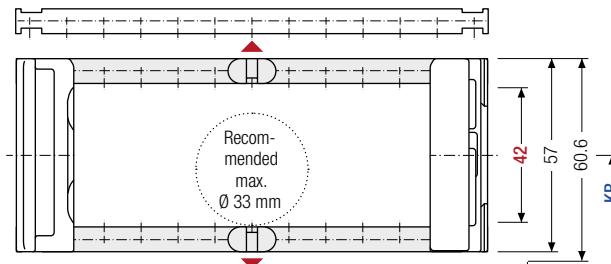
TKA series

UAT series

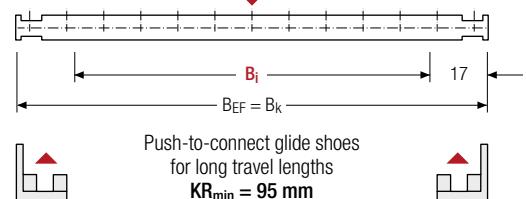
Stay arrangement on every 2<sup>nd</sup> chain link, **standard** (HS: half-stayed)

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

**8 mm** B<sub>i</sub> 50 – 266 mm in **8 mm width sections**



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



For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G'</sub> Offroad [mm]	B <sub>i</sub> [mm]					B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]	
				50	58	66	74	82					
42	57	60.6	62.2	98	106	114	122	130	138	B <sub>i</sub> + 34	75	95	2.00
				146	154	162	170	178	186	B <sub>i</sub> + 34	115	145	—
				194	202	210	218	226	234		175	220	2.84
				242	250	258	266				260	275	
											300	350	

### Order example

	ME0650	210	RE	175	1430	HS
Type	B <sub>i</sub> [mm]	Stay variant	KR [mm]	L <sub>k</sub> [mm]	Stay arrangement	

## Plastic stay RD – Frame stay with hinge

- Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- Available customized in **8 mm grid**.
- **Outside:** swivable to both sides.
- **Inside:** release by turning by 90°.



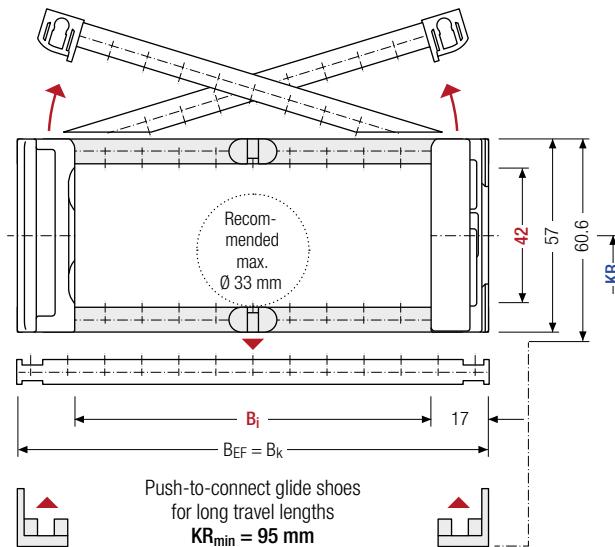
Stay arrangement on every  
2<sup>nd</sup> chain link, standard  
(HS: half-stayed)



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



**8 mm**  $B_i$ : 50 – 266 mm  
in 8 mm width sections



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### 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]	$h_{G'}$ Offroad [mm]	$B_i$ [mm]						$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]	
42	57	60.6	62.2	50	58	66	74	82	90			75	95	
				98	106	114	122	130	138			115	145	2.00
				146	154	162	170	178	186			175	220	–
				194	202	210	218	226	234			260	275	2.84
				242	250	258	266					300	350	

### Order example

MK0650 Type 210  $B_i$  [mm] RD Stay variant 175  $KR$  [mm] 1430  $L_k$  [mm] HS Stay arrangement

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

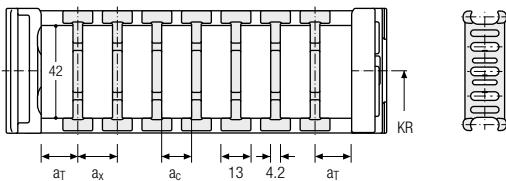
The dividers are easily attached to the stay for applications with lateral acceleration and for applications laying on their side by simply turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbars (**version B**).

The groove in the frame stay faces outwards.

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ Raster [mm]	$n_T$ min
A	6.5	13	8.8	—	—
B	13	16	11.8	8	—

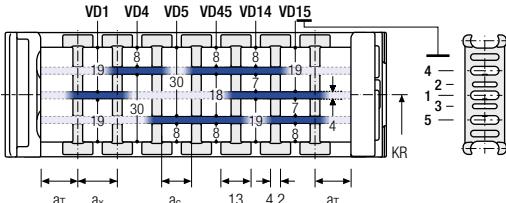
The dividers can be moved within the cross section (version A) or fixed (version B).



### 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	6.5	25	13	8.8	—	2

The dividers can be moved within 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](http://tsubaki-kabelschlepp.com/totaltrax)

### TRAXLINE® cables for cable carriers



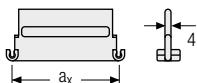
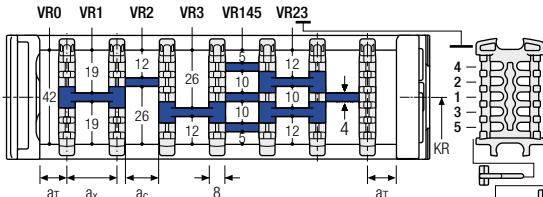
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at [tsubaki-kabelschlepp.com/traxline](http://tsubaki-kabelschlepp.com/traxline)

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

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16 / 42*	8	2

\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable 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** ( $S_T = 3$  mm). Twin dividers are also suitable for retrofitting in the partition system.

## Order example

	TS3	.	A	.	2	.	K1	.	34	-	VR1
						.				.	
Divider system	Version			$n_T$			Chamber	$a_x$			Height separation
						.	K4	.	38	-	VR3

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.

## More product information online

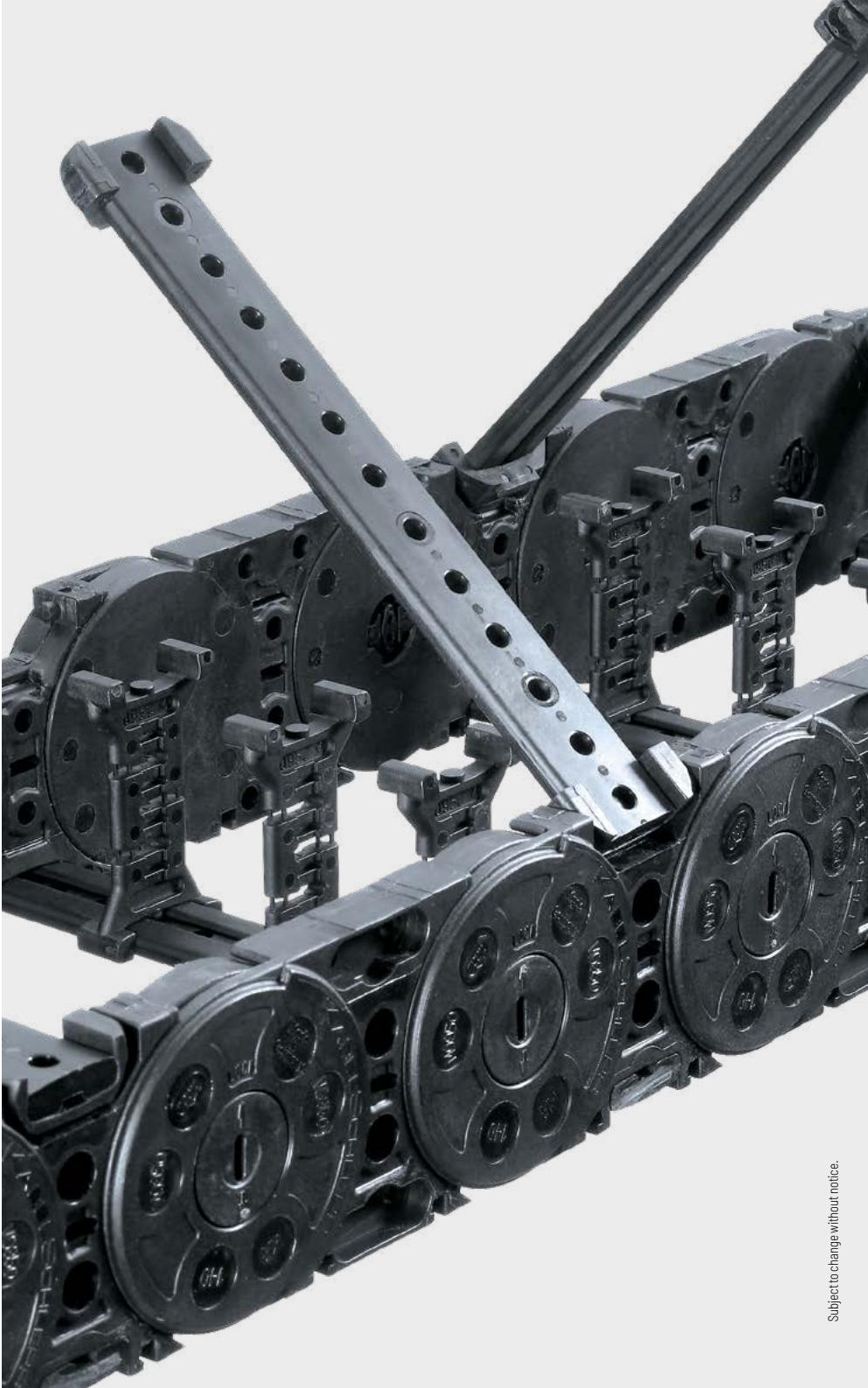


Assembly instructions etc.:  
Additional info via your smartphone or check online at [tsubaki-kabelschlepp.com/downloads](http://tsubaki-kabelschlepp.com/downloads)



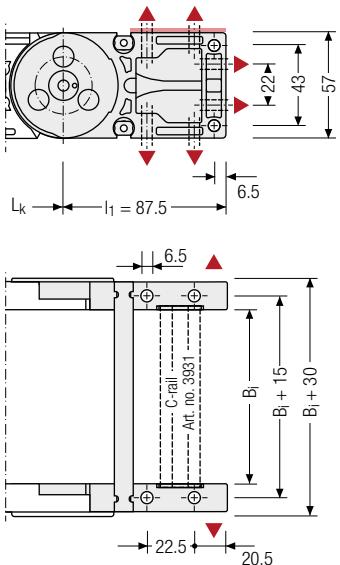
Configure your custom cable carrier: here  
[online-engineerde.de](http://online-engineerde.de)

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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### Universal end connectors UMB – plastic (standard)

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



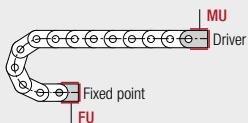
Recommended tightening torque: 11 Nm for cheese-head screws ISO 4762 - M6 - 8.8

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**U** – universal mounting bracket

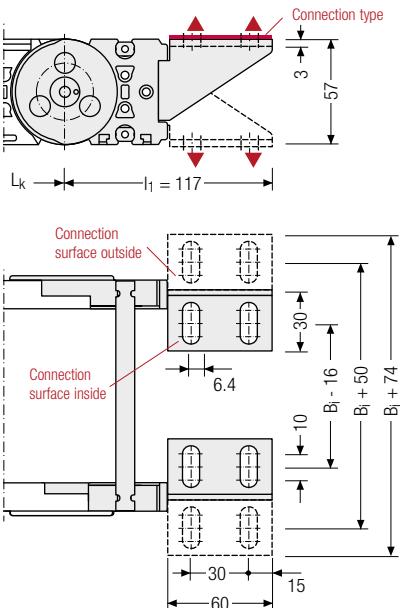


### Order example

	Plastic/steel	F	A	A
UMB	End connector	M	U	Connection point Connection type Connection surface

### End connectors – plastic/steel

Plastic link end connector, steel end connector. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



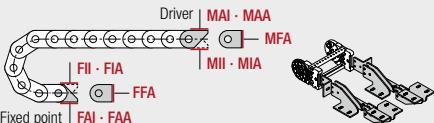
Assembly options

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**A** – threaded joint outside (standard)  
**I** – threaded joint inside  
**F** – flange connection



We recommend the use of strain reliefs at the driver and fixed point. See from p. 924.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

# M0950

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

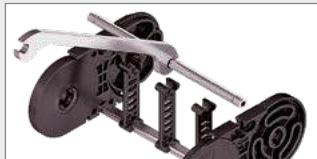
TKR series

TKA series

UAT series

Pitch  
95 mmInner heights  
50 - 58 mmInner widths  
45 - 600 mmBending radii  
140 - 380 mm

## Stay variants



### Aluminum stay RS ..... page 404

#### Frame stay, narrow "The standard"

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



### Aluminum stay RV ..... page 408

#### 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 turning by 90°.



### Aluminum stay RM ..... page 412

#### Frame stay, solid

- » Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides "Heavy Duty".
- » **Inside/outside:** Threaded joint easy to release.



### Aluminum stay LG ..... page 414

#### Hole stay, split version

- » Optimum cable routing in the neutral bending line.
- Split version for easy cable routing. Stays also available unsplit.
- » **Outside/inside:** Screw-fixing easy to release.



#### MT series

Also available as covered variants with cover system.  
More information can be found in chapter "MT series" from p. 628.

## Stay variants



### Aluminum stay RMAI ..... page 416

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Inside:** Screw-fixing easy to release.



### Aluminum stay RMAO ..... page 418

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Outside:** Screw-fixing easy to release.



### Aluminum stay RMR ..... page 420

#### Frame rolling stay

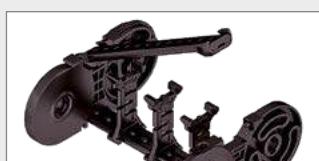
- » Aluminum profile bars with rotating plastic rolling stay for highest requirements with gentle cable guiding. Double threaded joint on both sides.
- » **Inside/outside:** threaded joint easy to release.



### Plastic stay RE ..... page 422

#### Frame screw-in stay

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

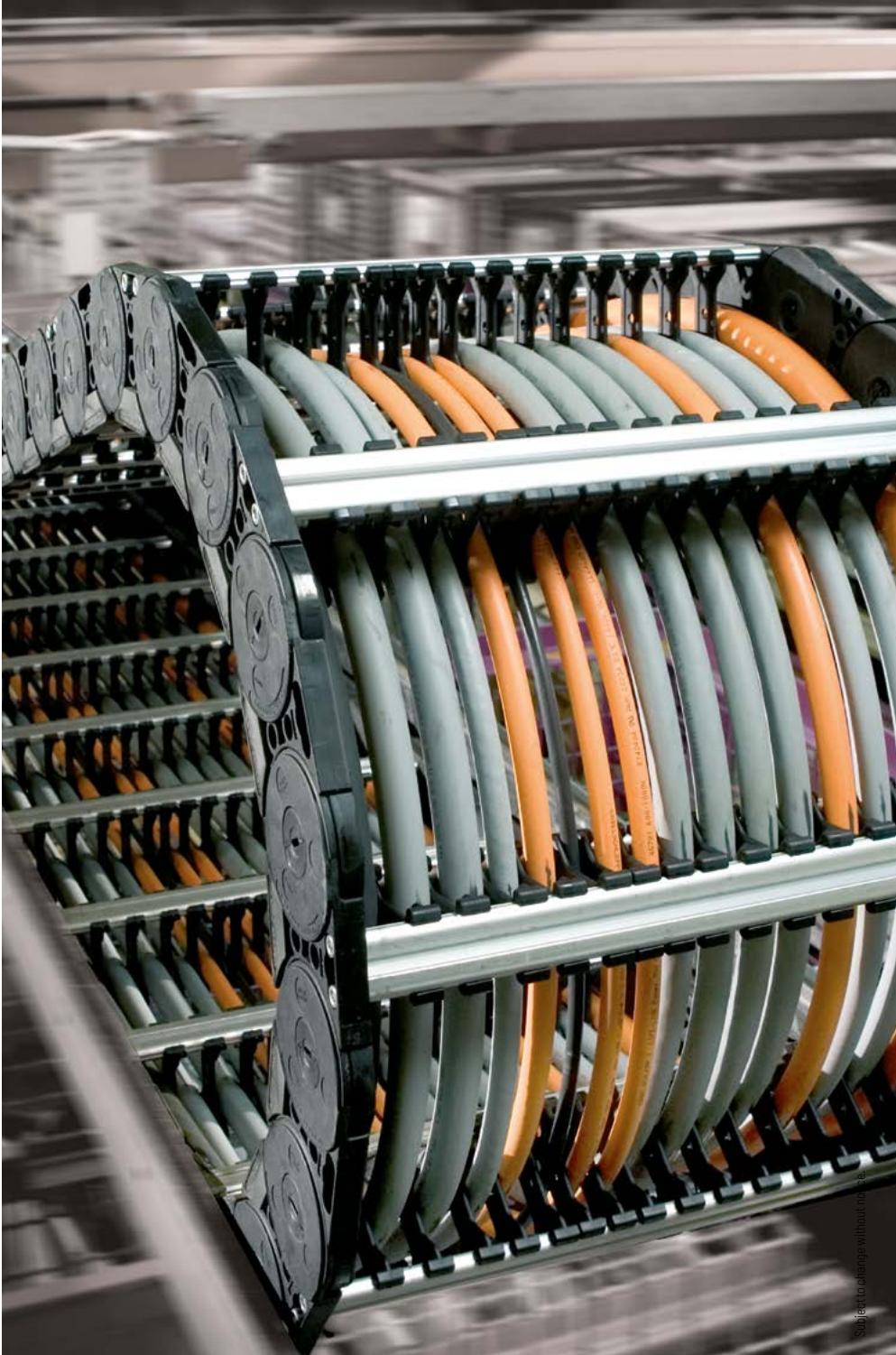


### Plastic stay RD ..... page 423

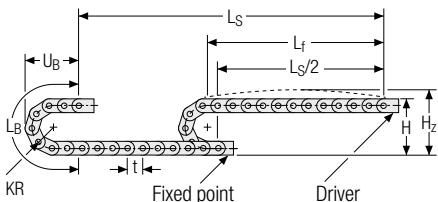
#### Frame stay with hinge

- » Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- » **Outside:** swivable to both sides.
- » **Inside:** release by turning by 90°.

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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## Unsupported arrangement



KR [mm]	H [mm]	Hz [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
140	360	405	630	275
170	420	465	725	305
200	480	525	819	335
260	600	645	1007	395
290	660	705	1102	425
320	720	765	1196	445
380	840	885	1384	515

**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  $q_k = 4.5 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



**Speed**  
up to 10 m/s



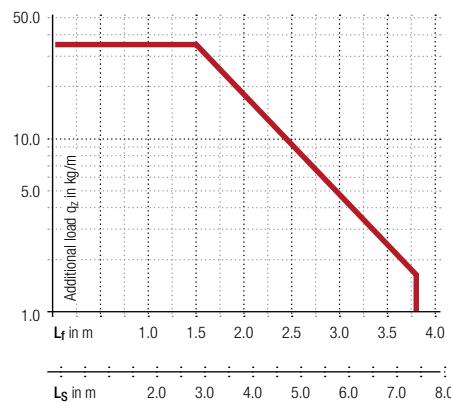
**Acceleration**  
up to 30 m/s<sup>2</sup>



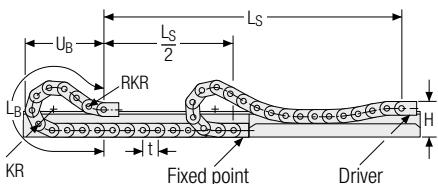
**Travel length**  
up to 7.4 m



**Additional load**  
up to 35 kg/m



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



KR [mm]	H [mm]	GO module RKR [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
140	240	500	1580	740
170	240	500	1710	773
200	240	500	1995	888
260	240	500	2565	1114
290	240	500	2755	1183
320	240	500	3040	1296
380	240	500	3610	1523



**Speed**  
up to 8 m/s



**Acceleration**  
up to 20 m/s<sup>2</sup>



**Travel length**  
up to 260 m



**Additional load**  
up to 35 kg/m

The gliding cable carrier must be guided in a channel. See p. 866.

The GO module mounted on the driver is a defined sequence of 4 adapted KR/RKR link plates.

Glide shoes have to be used for gliding applications.



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

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

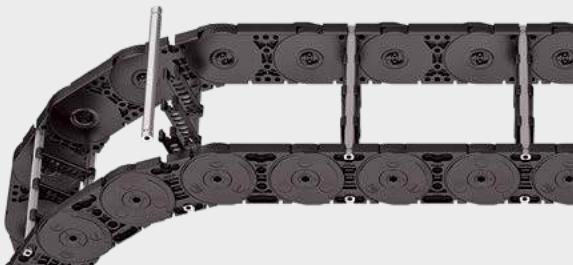
TKR series

TKA series

UAT series

## 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 grid**.
- Outside/inside:** release by turning by 90°.



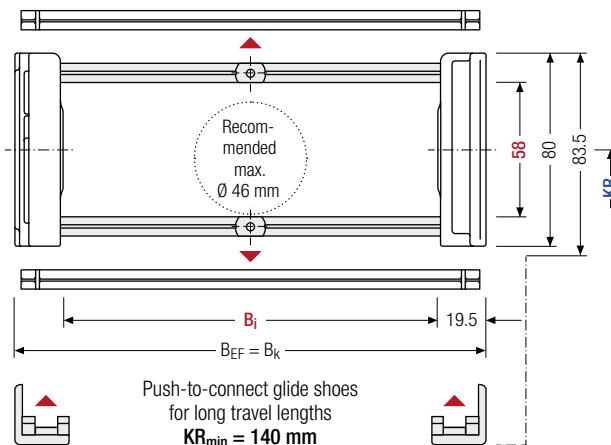
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm** B<sub>i</sub> 75 – 400 mm  
in **1 mm width sections**



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

TKR series	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G</sub> Offroad [mm]	B <sub>i</sub> [mm]*	B <sub>K</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]
	58	80	83.5	75 – 400	B <sub>i</sub> + 39	B <sub>i</sub> + 39	140 170 200 260 290 320 380	2.93 – 4.71

\* in 1 mm width sections

### Order example

	MC0950	400	RS	200	2850	HS
Type	B <sub>i</sub> [mm]	Stay variant	KR [mm]	L <sub>k</sub> [mm]	Stay arrangement	

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

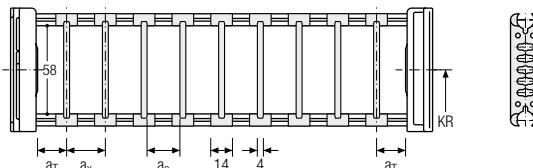
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping on a socket (available as an accessory).

The socket additionally serves as a spacer between the dividers and is available in 1 mm sections between 3 – 50 mm. The inner height is reduced to 54 mm (**version B**)

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4.5	14	10	2

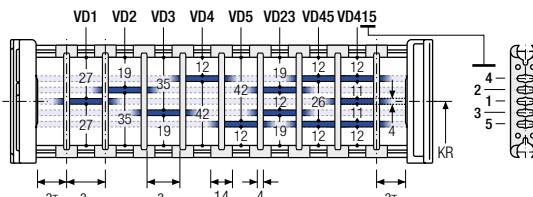
The dividers can be moved in the cross section.



### 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	4.5	25	14	10	2

The dividers can be moved in the cross section.

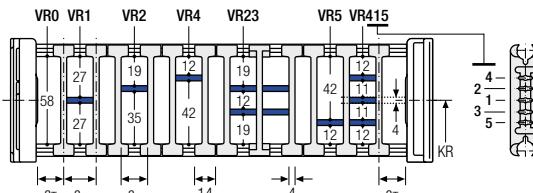


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4.5	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.

### Order example

	TS2	.	A	.	3	.	K1	.	34	-	VR1
						.			.		
	Divide system		Version		$n_T$		Chamber		$a_x$		Height separation

## 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.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

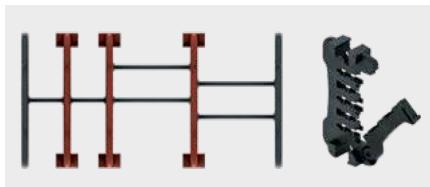
QUANTUM® series

TKR series

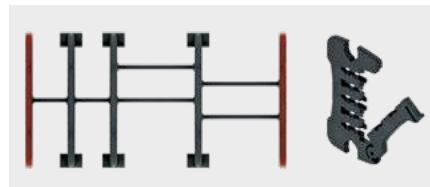
TKA series

UAT series

### Divider version A



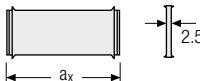
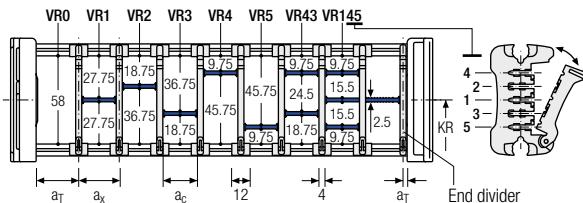
### End divider



Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	6/2*	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
10	12	15	19	20	24	25	28	29	30	34	35	39	40	44
58	59	64	68	69	74	78	79	80	84	88	89	94	96	112
54	55	60	64	65	70	74	75	76	80	84	85	90	92	108

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

### Order example

	TS3	.	A	.	3	.	K1	.	34	-	VR1	...	...		
						.				.	K4	.	38	-	VR3

Divider system

Version

 $n_T$ 

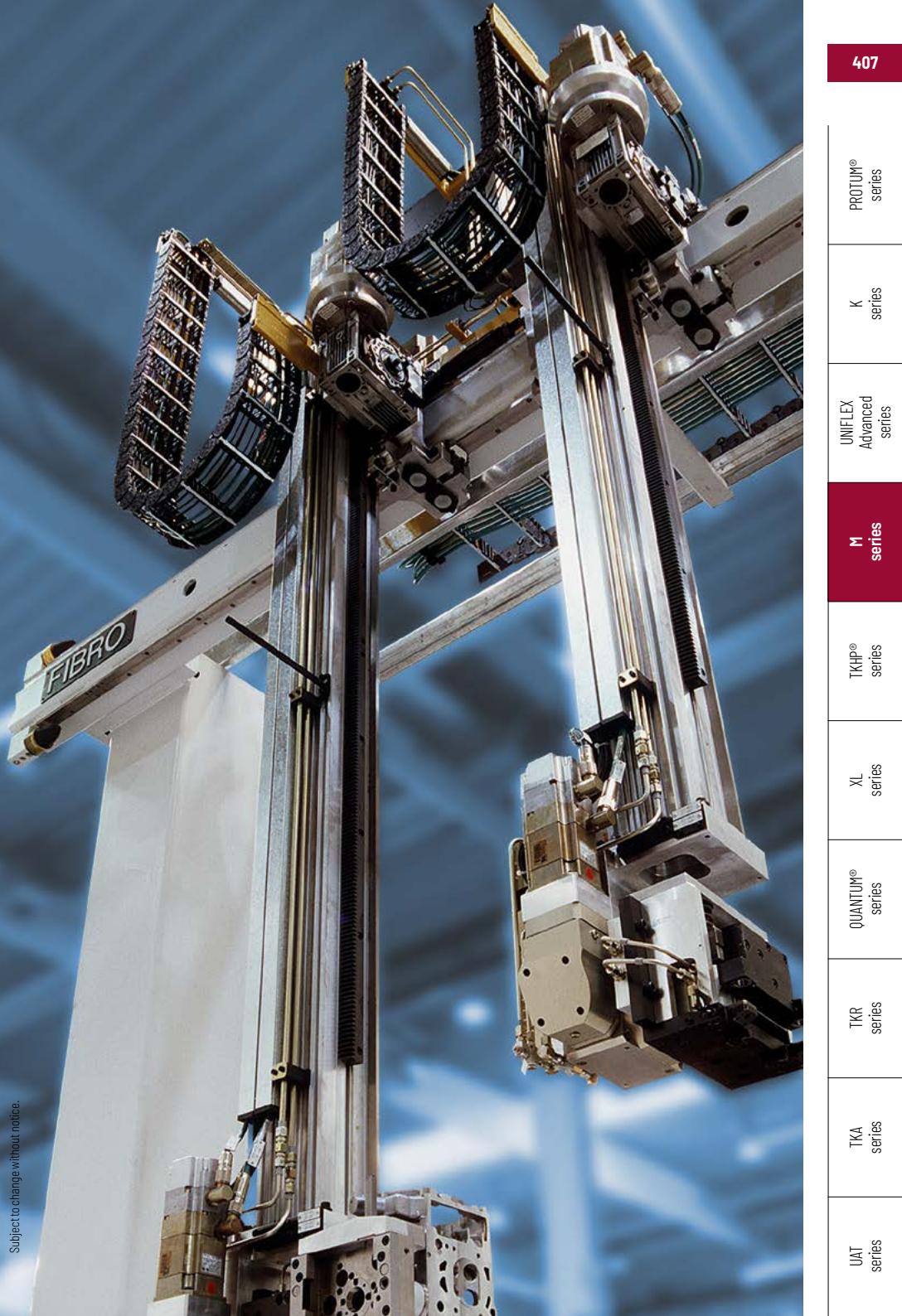
Chamber

 $a_x$ 

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.



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

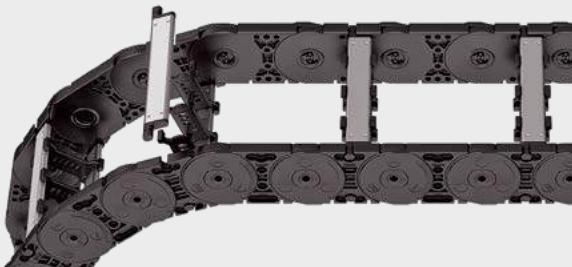
TKR series

TKA series

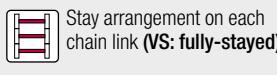
UAT series

## 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 grid**.
- Outside/inside:** release by turning by 90°.



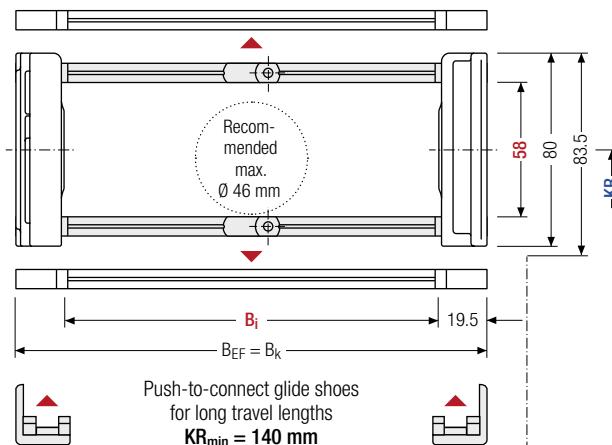
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm** B<sub>i</sub> 75 – 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.

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G'</sub> Offroad [mm]	B <sub>i</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>E</sub> F [mm]	KR [mm]	q <sub>k</sub> [kg/m]
TKR series	58	80	83.5	86	75 – 500	B <sub>i</sub> + 39	B <sub>i</sub> + 39	140 170 200 260 290 320 380	3.32 – 6.02

\* in 1 mm width sections

### Order example



**MC0950**  
Type

**400**  
B<sub>i</sub> [mm]

**RV**  
Stay variant

**200** KR [mm]  
**2850** L<sub>k</sub> [mm]

**HS**  
Stay arrangement

## Divider systems

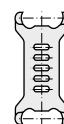
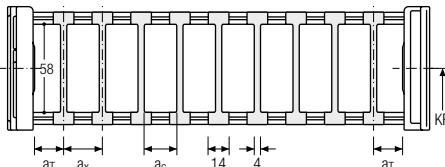
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4.5	14	10	2

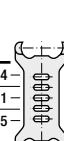
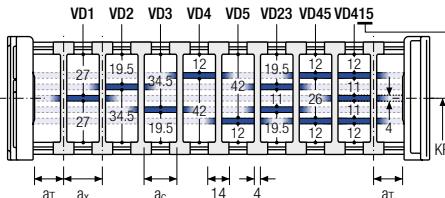
The dividers can be moved in the cross section.



### 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	4.5	25	14	10	2

The dividers can be moved in the cross section.

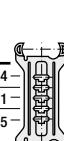
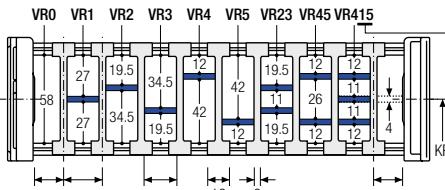


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	5.5	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 = 4 mm).



### 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](http://tsubaki-kabelschlepp.com/totaltrax)



### TRAXLINE® cables for cable carriers

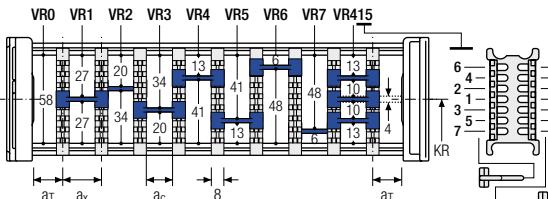
Hi-flex electric cables which were especially developed, optimized  
and tested for use in cable carriers can be found at  
[tsubaki-kabelschlepp.com/traxline](http://tsubaki-kabelschlepp.com/traxline)

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

PROTUM® series

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16 / 42*	8	2

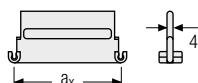
\* For aluminum partitions



K series

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

UNIFLEX Advanced series



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

M series

$a_x$ (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** ( $a_T = 4$  mm). Twin dividers are also suitable for retrofitting in the partition system.

TKHP® series

### Order example

	TS3	.	A	.	3	.	K1	.	34	-	VR1
	Divider system	Version		$n_T$			Chamber		$a_x$		Height separation

XL series

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).

QUANTUM® series

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.

TKR series

TKA series

### More product information online

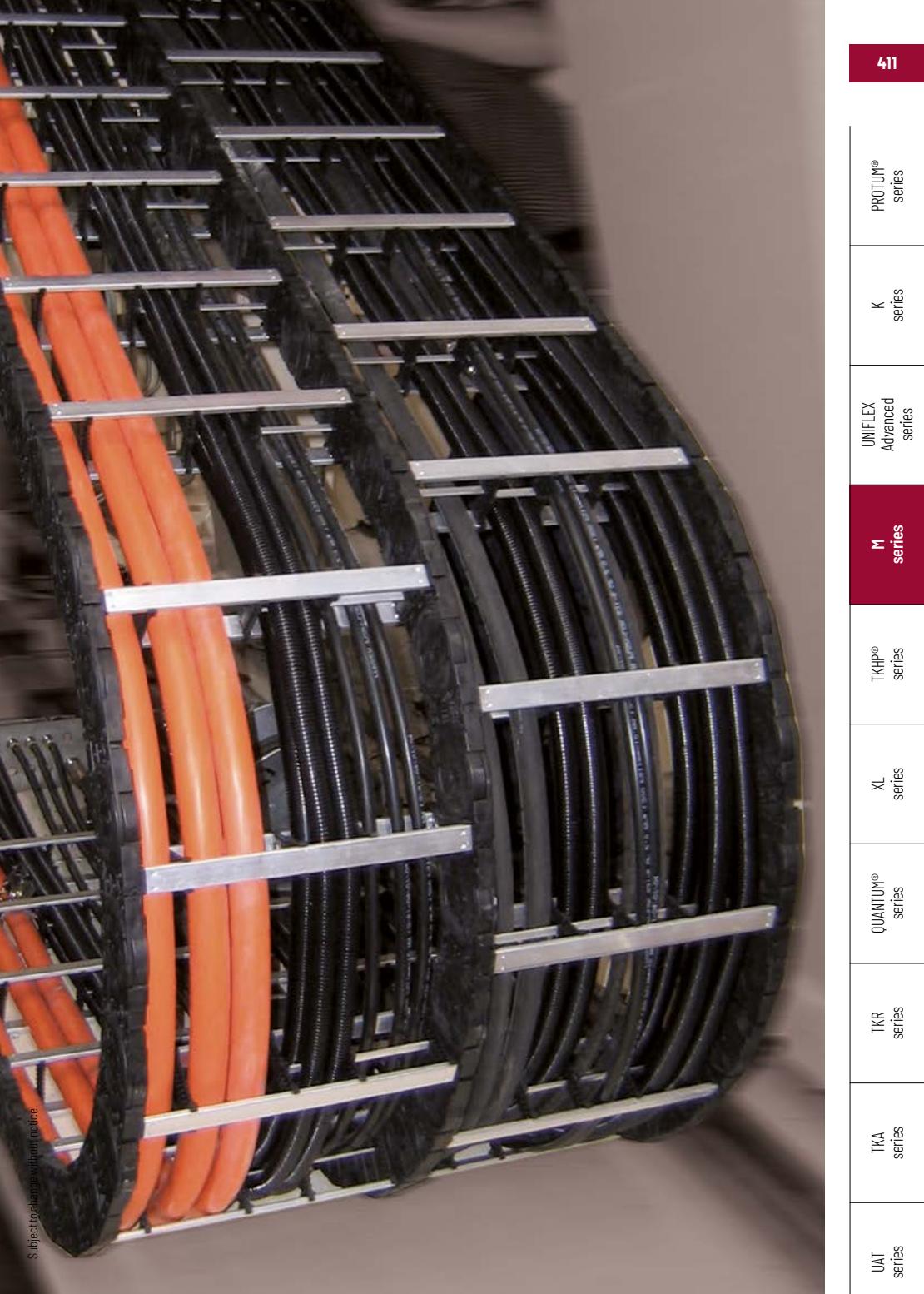


Assembly instructions etc.:  
Additional info via your smartphone or check online at [tsukuba-kabelschiellepp.com/downloads](http://tsukuba-kabelschiellepp.com/downloads)



Configure your custom cable carrier here:  
[online-engineer.de](http://online-engineer.de)

UAT series

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
									

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay RM – frame stay solid

- Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides "Heavy Duty".
- Available customized in **1 mm grid**.
- Inside/outside:** Threaded joint easy to release.

**HEAVY DUTY**  
TSUBAKI KABELSCHLEPP



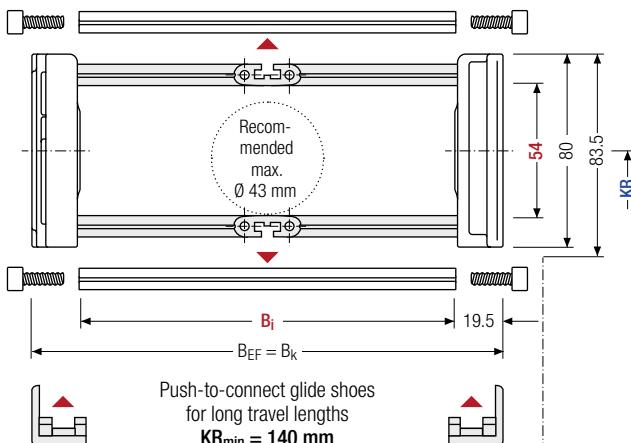
Stay arrangement on every  
2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm** B<sub>i</sub> 75 – 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.

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

TKR series	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G</sub> Offroad [mm]	B <sub>i</sub> [mm]*	B <sub>K</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]
	54	80	83.5	86	75 – 600	B <sub>i</sub> + 39	B <sub>i</sub> + 39	140 170 200 260 290 320 380	3.63 – 6.55

\* in 1 mm width sections

### Order example



**MC0950**  
Type

400  
B<sub>i</sub> [mm]

RM  
Stay variant

200  
KR [mm]

2850  
L<sub>k</sub> [mm]

HS  
Stay arrangement

## Divider systems

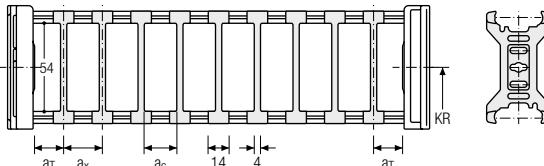
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4.5	14	10	–

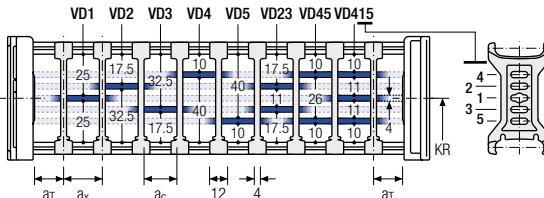
The dividers can be moved in the cross section.



### 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	3.5	25	12	8	2

The dividers can be moved in the cross section.

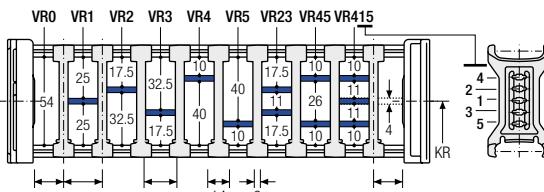


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4.5	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 = 4 mm).



### Order example

	TS2	.	A	.	3	.	K1	.	34	-	VR1
						.				⋮	⋮
	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, TS2**) please also state the positions [e.g. VD23] viewed from the left driver belt. You are welcome to add a sketch to your order.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay LG – Hole stay, split version

- Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- Available customized in **1 mm width sections**.
- Outside/inside:** Screw-fixing easy to release.



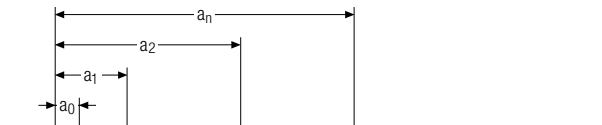
Stay arrangement on every  
2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



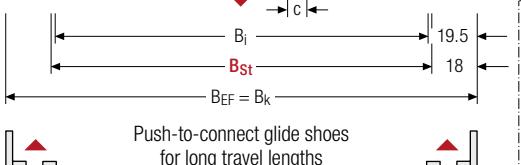
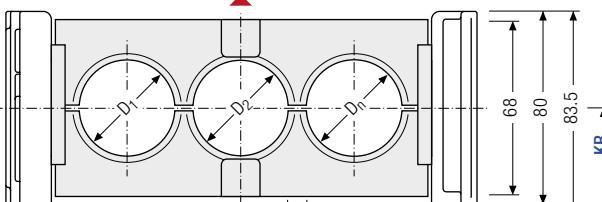
Stay arrangement on each  
chain link (**VS: fully-stayed**)



**1 mm**  
B<sub>1</sub> 75 – 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.



Push-to-connect glide shoes  
for long travel lengths  
**KR<sub>min</sub> = 140 mm**

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

### Calculating the stay width

#### Stay width B<sub>st</sub>

$$B_{st} = \sum D + \sum c + 2 a_0$$

TKR series	D <sub>max</sub> [mm]	D <sub>min</sub> [mm]	h <sub>G</sub> [mm]	B <sub>1</sub> [mm]	B <sub>st</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	C <sub>min</sub> [mm]	a <sub>0 min</sub> [mm]	KR [mm]	q <sub>k</sub> 50 %** [kg/m]			
	50	12	80	75 – 600	<b>78 – 603</b>	B <sub>st</sub> + 39	B <sub>st</sub> + 39	4	11	140 290	170 320	200 380	260	3.89 – 8.25

\* in 1 mm width sections

\*\* Hole ratio of the hole stay approx. 50 %

### Order example



**MC0950**

Type

**400**

B<sub>1</sub> [mm]

**LG**

Stay variant

**200**

KR [mm]

**2850**

L<sub>k</sub> [mm]

**HS**

Stay arrangement

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

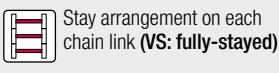
TKR series

TKA series

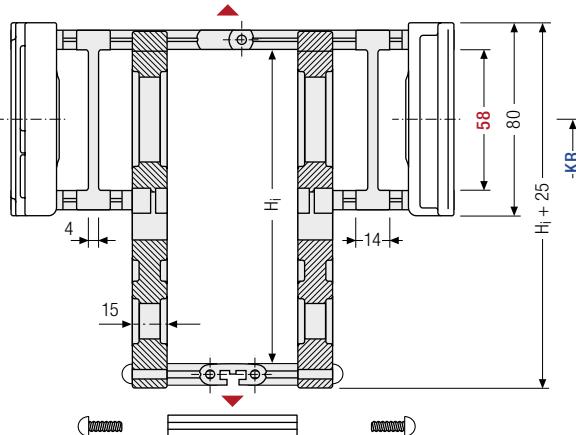
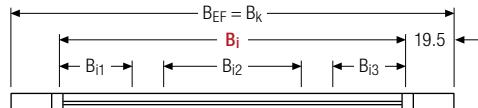
UAT series

## Aluminum stay RMAI – mounting frame stay

- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the inside in the bending radius.
- Available customized in **1 mm width sections**.
- Inside:** Screw-fixing easy to release.



**1 mm**  $B_i$  200 – 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  $t$

#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

$h_i$ [mm]	$H_i$ [mm]	$h_g$ [mm]	$B_i$ [mm]	$B_{i1}$ min [mm]	$B_{i3}$ min [mm]	$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]
58	130	160	200 – 500	40	40	$B_i + 39$	$B_i + 39$	170
	200	80						200

### Order example

	MC0950	400	RMAI	200	2850	HS
	Type	$B_i$ [mm]	Stay variant	$KR$ [mm]	$L_k$ [mm]	Stay arrangement

**RMAI – assembly to the inside:**

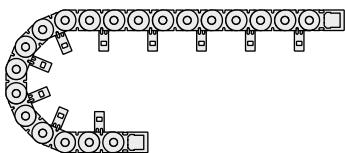
Gliding application is not possible when using assembly version RMAI.

Observe minimum KR:

$H_i = 130 \text{ mm}$ :  $KR_{\min} = 170 \text{ mm}$

$H_i = 160 \text{ mm}$ :  $KR_{\min} = 200 \text{ mm}$

$H_i = 200 \text{ mm}$ :  $KR_{\min} = 260 \text{ mm}$



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay RMAO – mounting frame stay

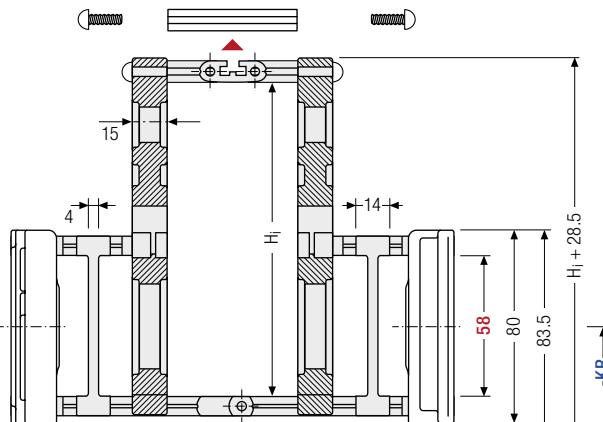
- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the outside in the bending radius.
- Available customized in **1 mm width sections**.
- **Outside:** Screw-fixing easy to release.



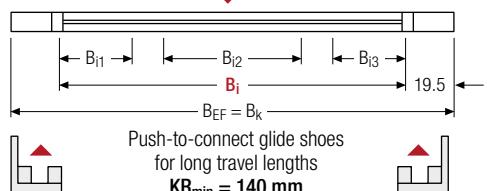
 Stay arrangement on every 2<sup>nd</sup> chain link, **standard** (HS: half-stayed)

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

 **1 mm**  $B_i$  200 – 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.



Push-to-connect glide shoes  
for long travel lengths  
 $KR_{min} = 140$  mm

### 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

#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

$h_i$ [mm]	$H_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]	$B_{11}$ min [mm]	$B_{13}$ min [mm]	$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]
58	130	160	200 – 500	40	40	$B_i + 39$	$B_i + 39$	140
	200							170

### Order example

 <b>MC0950</b> Type	<b>400</b> $B_i$ [mm]	<b>RMAO</b> Stay variant	<b>200</b> $KR$ [mm]	<b>2850</b> $L_k$ [mm]	<b>HS</b> Stay arrangement
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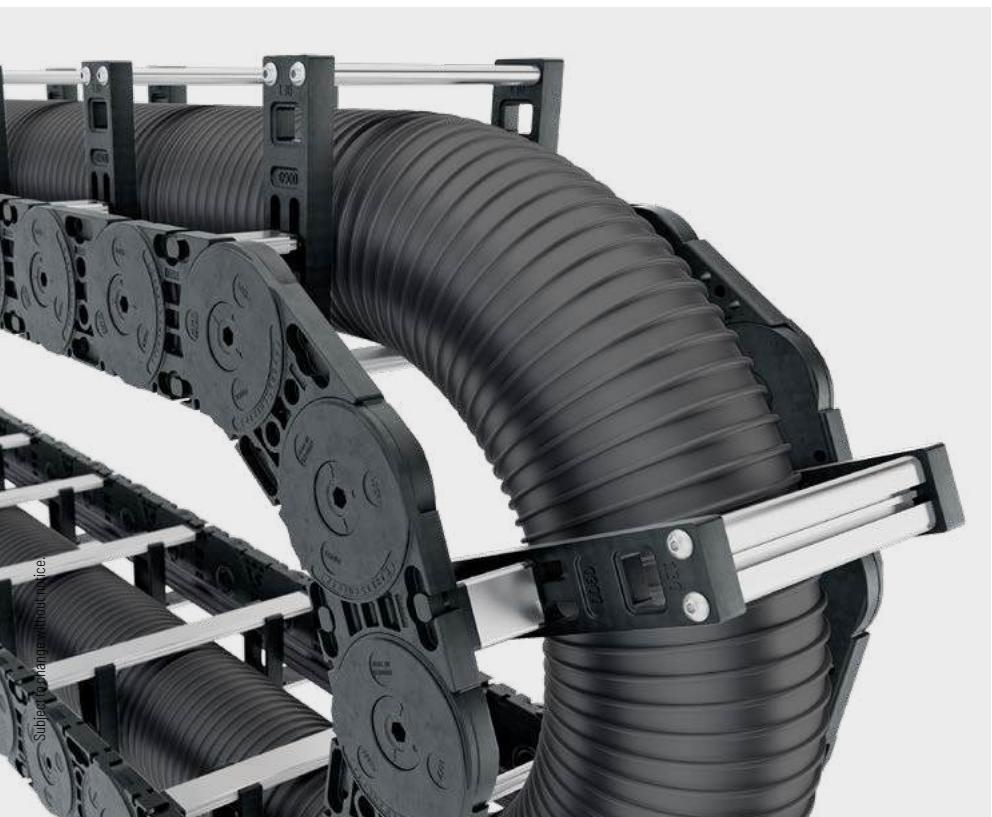
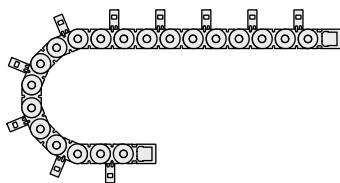
**RMAO – assembly to the outside:**

The cable carrier has to rest on the side bands and not on the stays.

Guiding in a **channel** is required for support.

Please contact our technical support at [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de) to find the corresponding guide channel.

Please note the operating and installation height.



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

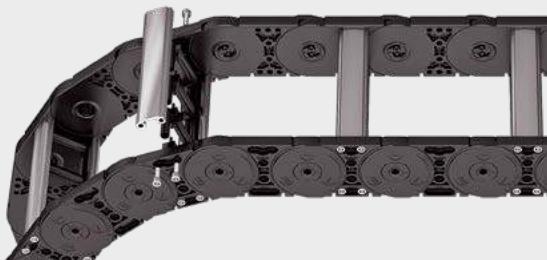
TKR series

TKA series

UAT series

## Aluminum stay RMR – Frame rolling stay

- Aluminum profile bars with rotating plastic rolling stay for highest requirements with gentle cable guiding.
- Double threaded joint on both sides.
- Available customized in **1 mm grid**.
- Inside/outside:** Threaded joint easy to release.



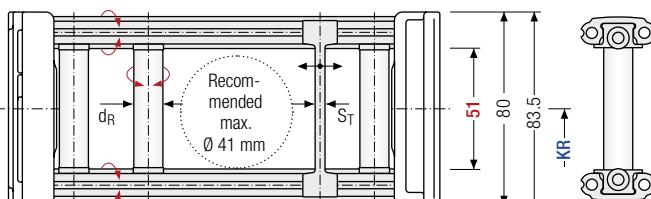
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm**  
B<sub>i</sub> 75 – 600 mm  
in **1 mm width sections**

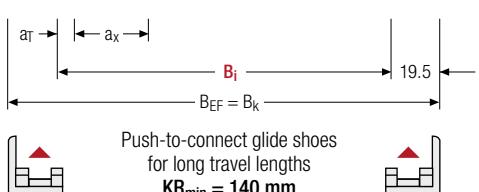


Calculating the cable carrier length

**Cable carrier length L<sub>k</sub>**

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

Cable carrier length L<sub>k</sub> rounded to pitch t



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



For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

TKR series	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G</sub> Offroad [mm]	B <sub>i</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	d <sub>R</sub> [mm]	S <sub>T</sub> [mm]	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	KR [mm]	q <sub>k</sub> [kg/m]	
	51	80	83.5	86	75 – 600	B <sub>i</sub> + 39	B <sub>i</sub> + 39	10	4	6.5	37	140	170	3.63
												200	260	–
												290	320	6.55
												380		

\* in 1 mm width sections

### Order example



MC0950

Type

400

B<sub>i</sub> [mm]

RMR

Stay variant

200

KR [mm]

2850

L<sub>k</sub> [mm]

HS

Stay arrangement



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

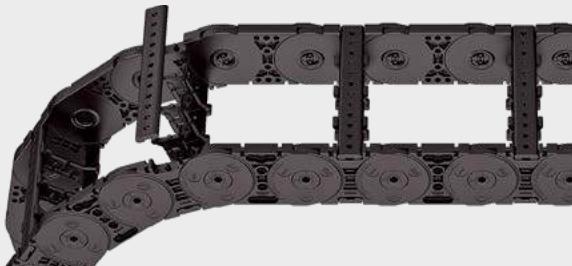
TKR series

TKA series

UAT series

## Plastic stay RE – screw-in frame stay

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



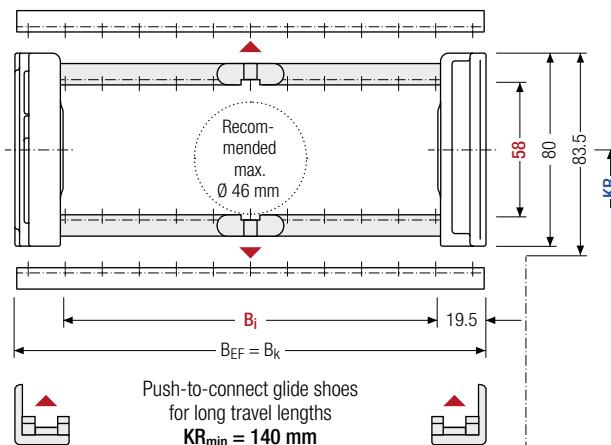
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**16 mm**  
B<sub>i</sub> 45 – 557 mm  
in **16 mm width sections**



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G'</sub> Offroad [mm]	B <sub>i</sub> [mm]						B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]	
TKR series					45	61	77	93	109	125	141				
					157	173	189	205	221	237	253				
					269	285	301	317	333	349	365				
					381	397	413	429	445	461	477				
					493	509	525	541	557						
TKA series	58	80	83.5	86								B <sub>i</sub> + 39			
												B <sub>i</sub> + 39			
													140	170	3.0
													200	260	–
													290	320	6.2
													380		

### Order example



ME0950

Type

413

B<sub>i</sub> [mm]

RE

Stay variant

200

KR [mm]

2850

L<sub>k</sub> [mm]

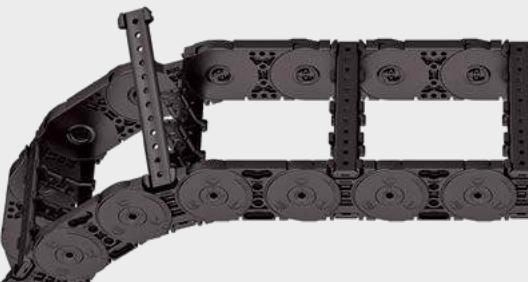
HS

Stay arrangement

## Plastic stay RD –

### Frame stay with hinge

- Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- Available customized in **16 mm** grid.
- Outside:** swivable to both sides.
- Inside:** release by turning by 90°.



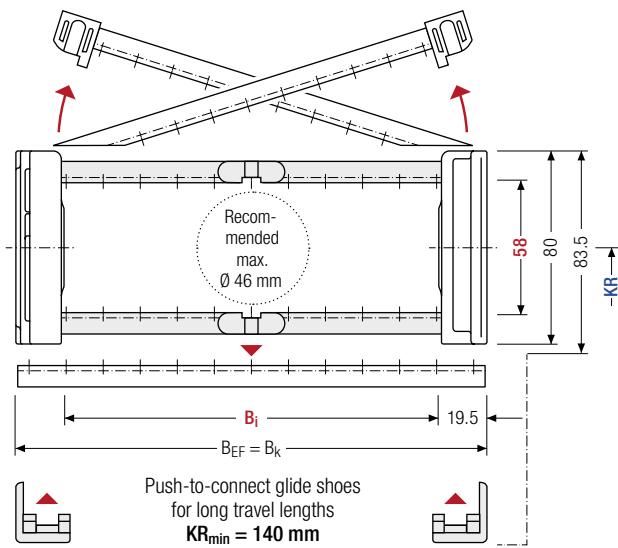
Stay arrangement on every 2<sup>nd</sup> chain link, standard (HS: half-stayed)



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



**16 mm**  $B_i$  45 – 557 mm  
in **16 mm** width sections



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

#### 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]	$h_{G'}$ Offroad [mm]	$B_i$ [mm]	$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
58	80	83.5	86	45 61 77 93 109 125 141			140 170	
				157 173 189 205 221 237 253			200 260	3.0
				269 285 301 317 333 349 365			290 320	–
				381 397 413 429 445 461 477	$B_i + 39$	$B_i + 39$	380	6.2
				493 509 525 541 557				

#### Order example



**MK0950** .  $B_i$  [mm] . RD . 200 . 2850

HS  
Stay arrangement

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

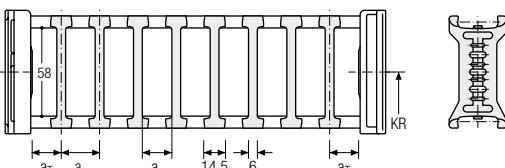
As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

The dividers are easily attached to the stay for applications with lateral acceleration and for applications laying on their side by simply turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbars (**version B**).

The groove in the frame stay faces outwards.

### Divider system TSO without height separation

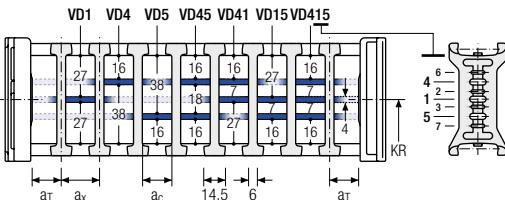
Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	5.5	14.5	8.5	—	—
B	6.5	16	10	16	—



The dividers can be moved 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	5.5	25	14.5	8.5	—	2
B	6.5	25	16	10	16	2

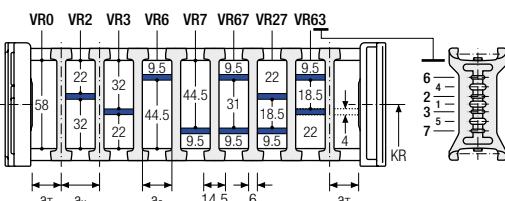


The dividers can be moved within the cross section (version A) or fixed (version B).

### 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	5.5	14.5/21	8.5/15	—	2
B	6.5	16/32	10/26	16	2

\* for VR0



With grid distribution (**16 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).

#### More product information online



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



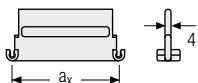
Configure your custom  
cable carrier here:  
[online-engineer.de](http://online-engineer.de)

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

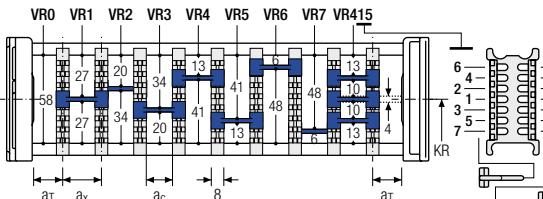
Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16 / 42*	8	2

\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable 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
						.			⋮	⋮	⋮
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.

## TOTALTRAX® complete systems



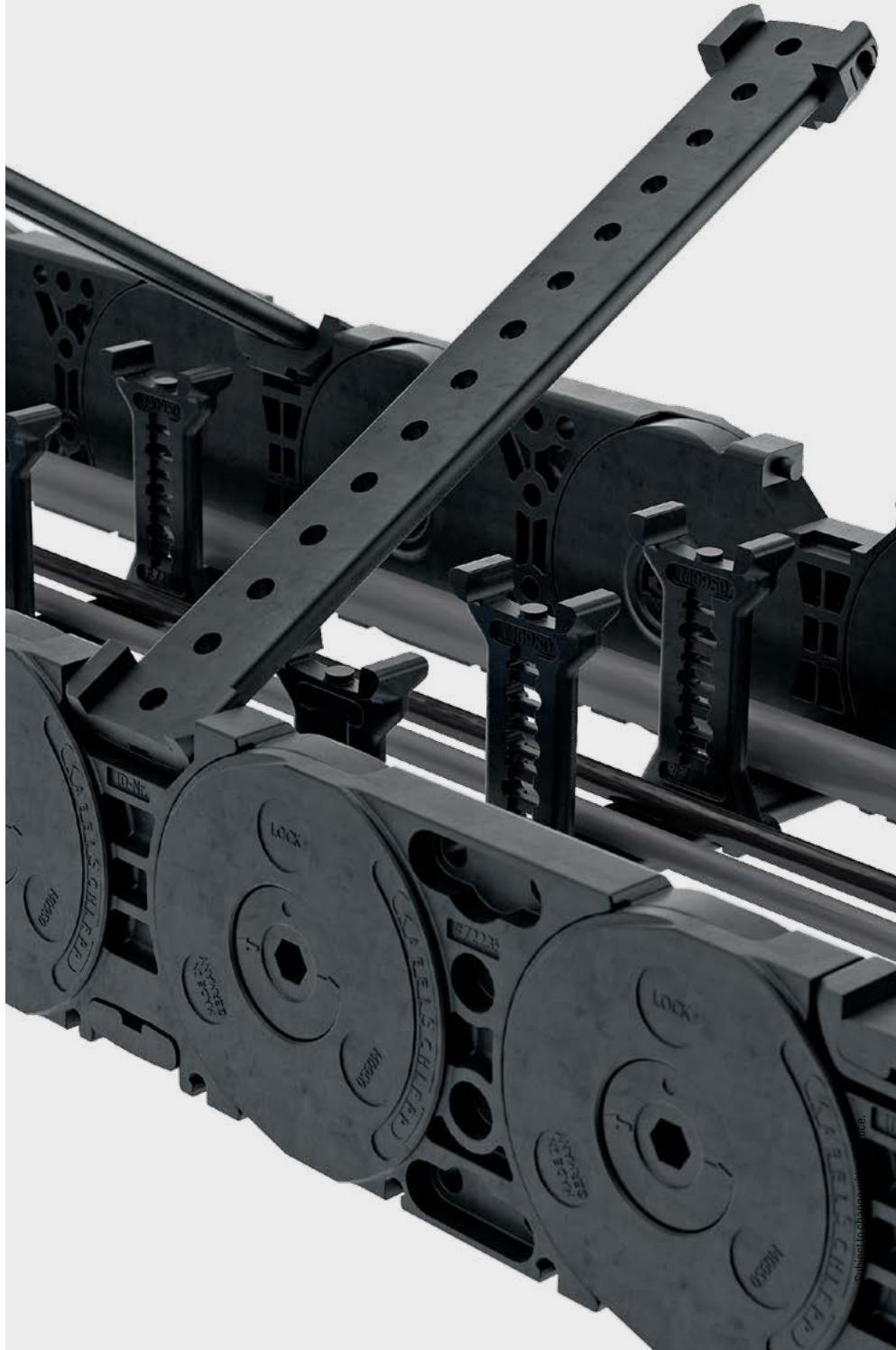
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source – with a warranty certificate on request! Learn more at [tsubaki-kabelschlepp.com/totaltrax](http://tsubaki-kabelschlepp.com/totaltrax)

## TRAXLINE® cables for cable carriers



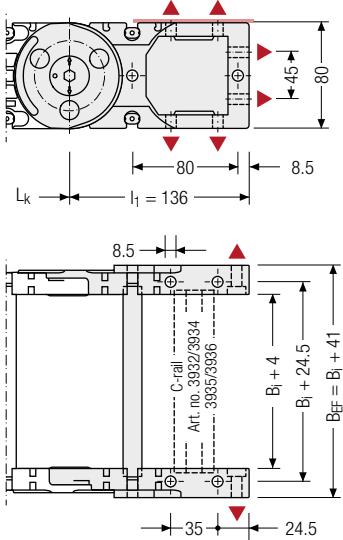
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at [tsubaki-kabelschlepp.com/traxline](http://tsubaki-kabelschlepp.com/traxline)

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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### Universal end connectors UMB – plastic (standard)

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



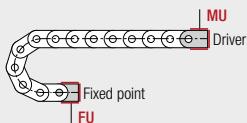
Recommended tightening torque: 27 Nm for cheese-head screws ISO 4762 - M8 - 8.8

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**U** – universal mounting bracket

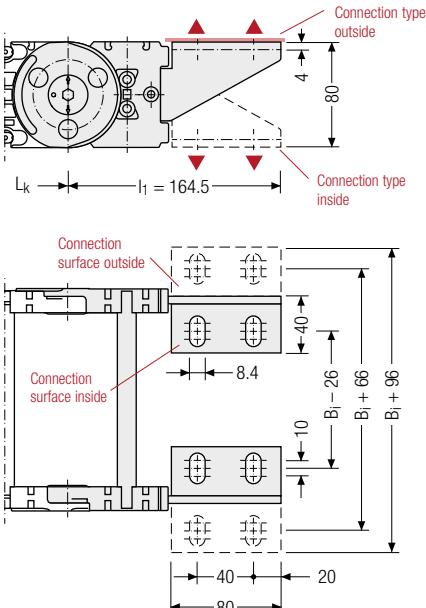


### Order example

	Plastic/steel	F	A	A
UMB	End connector	M	U	Connection point Connection type Connection surface

### End connectors – plastic/steel

Plastic link end connector, steel end connector. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



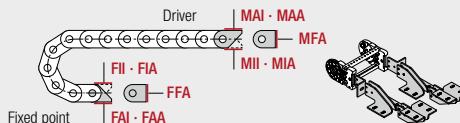
Assembly options

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**A** – threaded joint outside (standard)  
**I** – threaded joint inside  
**F** – flange connection



We recommend the use of strain reliefs at the driver and fixed point. See from p. 924.

PROTUM®  
series

# M1250



**Pitch**  
125 mm



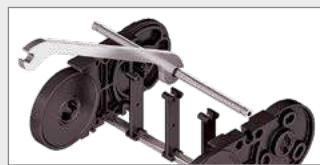
**Inner heights**  
66 - 76 mm



**Inner widths**  
71 - 800 mm



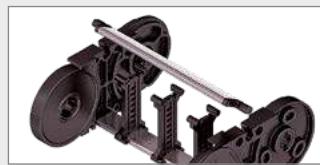
**Bending radii**  
180 - 500 mm

UNIFLEX  
Advanced  
seriesM  
seriesTKHP®  
seriesXL  
seriesQUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
series

## Aluminum stay RS ..... page 432

### Frame stay, narrow "The standard"

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



## Aluminum stay RV ..... page 436

### 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 turning by 90°.



## Aluminum stay RM ..... page 440

### Frame stay, solid

- » Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides "Heavy Duty".
- » **Inside/outside:** Threaded joint easy to release.



## Aluminum stay LG ..... page 442

### Hole stay, split version

- » Optimum cable routing in the neutral bending line.
- » Split version for easy cable routing. Stays also available unsplit.
- » **Outside/inside:** Screw-fixing easy to release.



### Serie MT

Also available as covered variants with cover system.  
More information can be found in  
chapter "MT series" from p. 628.

## Stay variants



### Aluminum stay RMAI ..... page 444

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Inside:** Screw-fixing easy to release.



### Aluminum stay RMAO ..... page 446

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » **Outside:** Screw-fixing easy to release.



### Aluminum stay RMR ..... page 448

#### Frame rolling stay

- » Aluminum profile bars with rotating plastic rolling stay for highest requirements with gentle cable guiding. Double threaded joint on both sides.
- » **Inside/outside:** threaded joint easy to release.



### Plastic stay RE ..... page 450

#### Frame screw-in stay

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

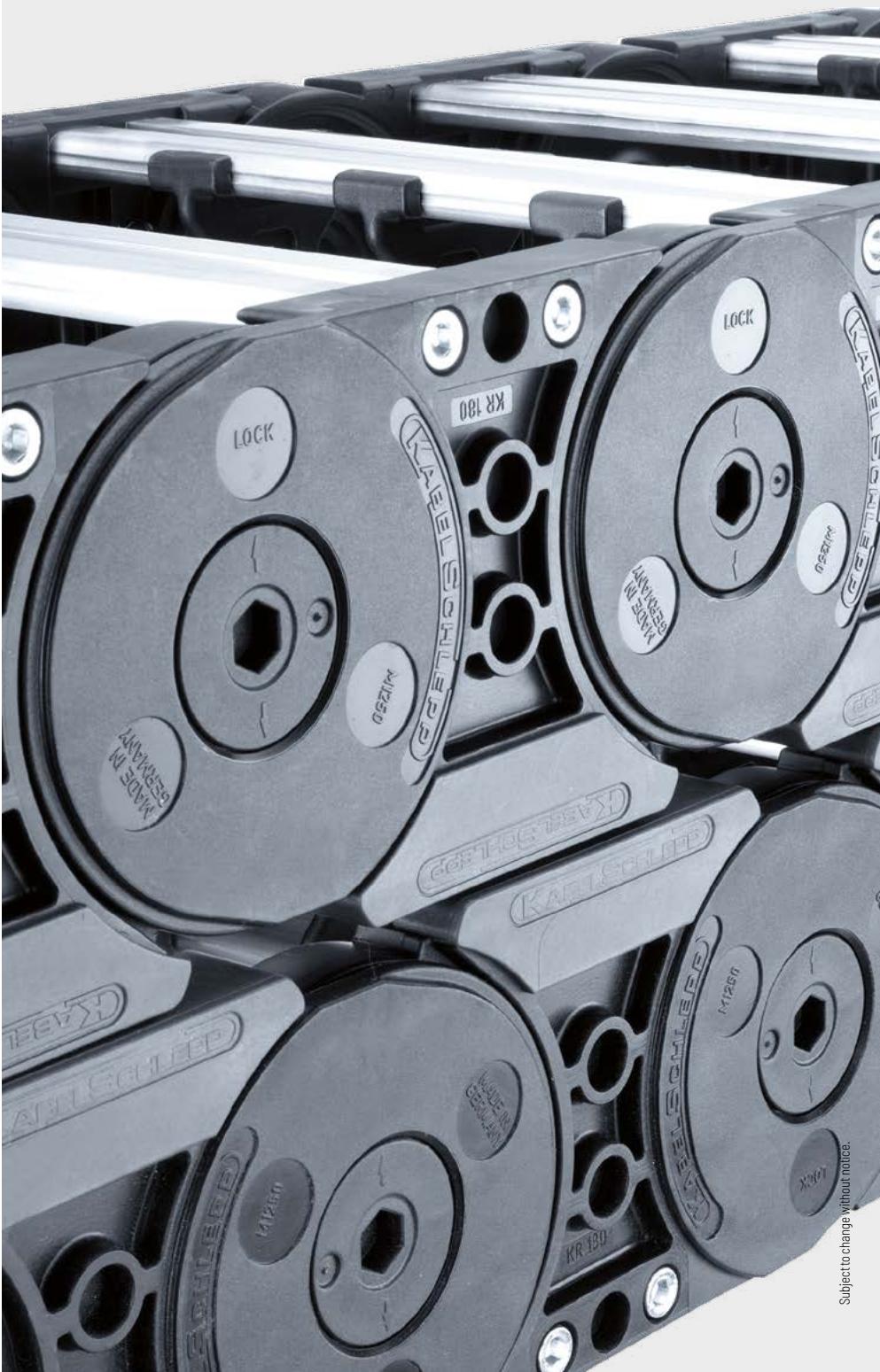


### Plastic stay RD ..... page 451

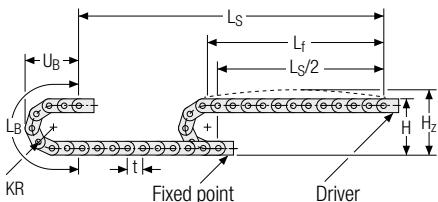
#### Frame stay with hinge

- » Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- » **Outside:** swivable to both sides.
- » **Inside:** release by turning by 90°.

UAT series	TKA series	TKR series	Quantum® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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## Unsupported arrangement

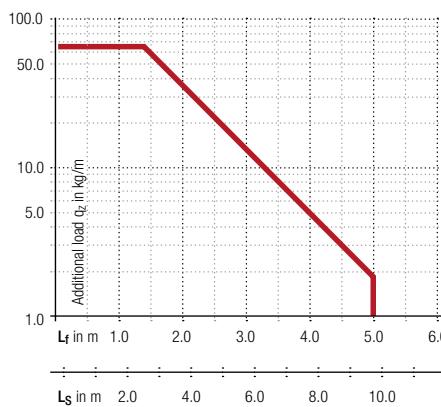
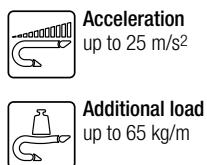
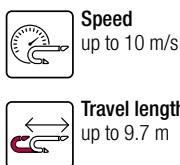


KR [mm]	H [mm]	H <sub>s</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
180	456	506	816	353
220	536	586	942	393
260	616	666	1067	433
300	696	746	1193	473
340	776	826	1319	513
380	856	906	1444	553
500	1096	1146	1821	673

**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  $q_k = 4.5 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



PROTUM® series

K series

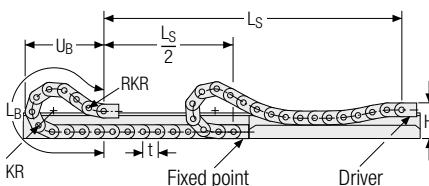
UNIFLEX Advanced series

M series

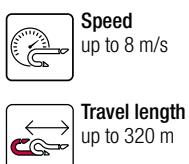
TKHP® series

XL series

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



KR [mm]	H [mm]	GO module RKR [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
180	288	500	2000	930
220	288	500	2250	1015
260	288	500	2500	1095
300	288	500	2750	1177
340	288	500	3125	1318
380	288	500	3375	1403
500	288	500	4375	1770



The gliding cable carrier must be guided in a channel. See p. 866.

The GO module mounted on the driver is a defined sequence of 4 adapted KR/RKR link plates.

Glide shoes have to be used for gliding applications.

QUANTUM® series

TKR series

TKA series

UAT series

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

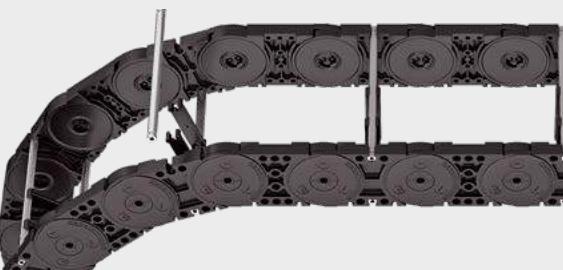
TKR series

TKA series

UAT series

## 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 grid**.
- Outside/inside:** release by turning by 90°.



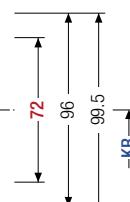
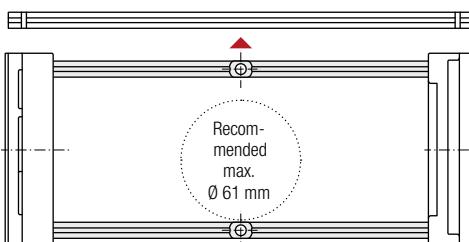
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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

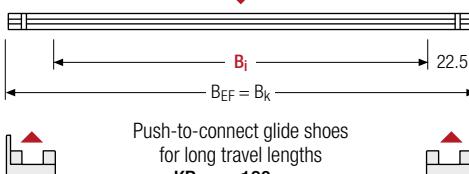


**1 mm**  $B_I$  75 – 400 mm  
in **1 mm width sections**



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.



### 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  $t$

TKR series	$h_I$ [mm]	$h_G$ [mm]	$h_G$ Offroad [mm]	$B_I$ [mm]*	$B_K$ [mm]	$B_EF$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
	72	96	99.5	103	75 – 400	$B_I + 45$	180 220 260 300 340 380 500	4.10 – 4.97

\* in 1 mm width sections

### Order example



**MC1250**  
Type

400  
 $B_I$  [mm]

RS  
Stay variant

300  
 $KR$  [mm]

4250  
 $L_k$  [mm]

HS  
Stay arrangement

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

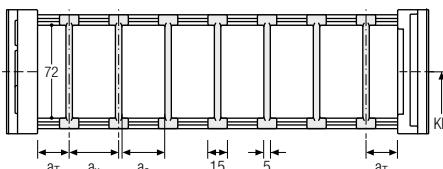
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping on a socket (available as an accessory).

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

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	7.5	15	10	2

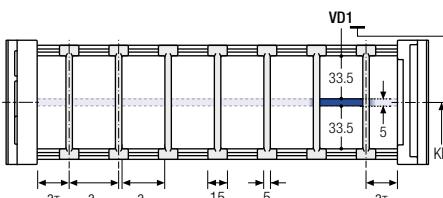
The dividers can be moved in the cross section.



### 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	7.5	25	15	10	2

The dividers can be moved in the cross section.



### TOTALTRAX® complete systems

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### TRAXLINE® cables for cable carriers

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## 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.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

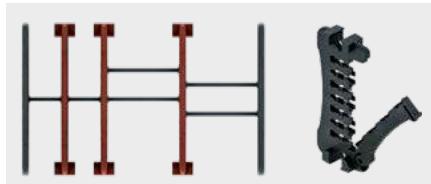
QUANTUM® series

TKR series

TKA series

UAT series

### Divider version A



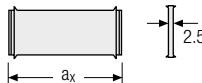
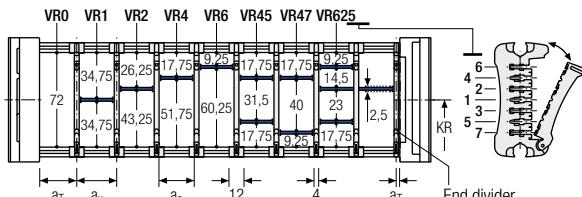
### End divider



Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	6/2*	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	

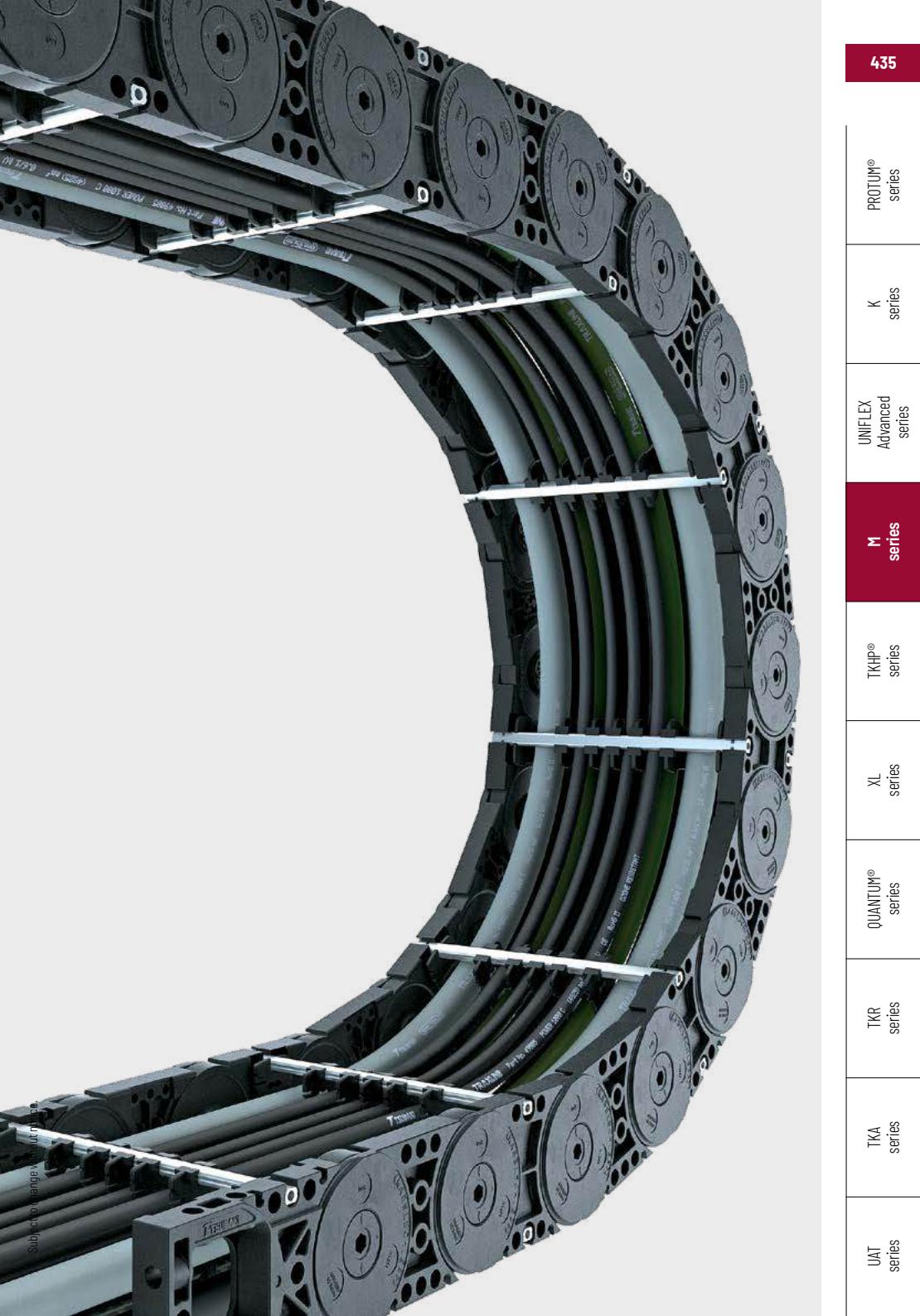
When using **partitions with  $a_x > 49$  mm** we recommend an additional preferential central support.

### Order example

	TS3	.	A	.	3	.	K1	.	34	-	VR1				
												⋮	⋮	⋮	⋮
						.	K4	.	38	-	VR3				

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.

UAT  
seriesTKA  
seriesTKR  
seriesTKHP®  
seriesPROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesXL  
seriesQUANTUM®  
series

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## 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 grid**.
- Outside/inside:** release by turning by 90°.



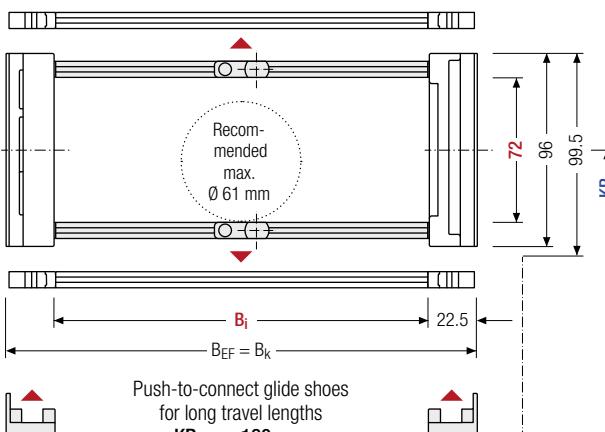
Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm**  $B_I$  100 – 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.

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

### 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  $t$

TKR series	$h_I$ [mm]	$h_G$ [mm]	$h_G$ Offroad [mm]	$B_I$ [mm]*	$B_K$ [mm]	$B_EF$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
	72	96	99.5	103	100 – 600	$B_I + 45$	180 340 220 380 260 500 300	4.40 – 6.18

\* in 1 mm width sections

### Order example



**MC1250**  
Type

**400**  
 $B_I$  [mm]

**RV**  
Stay variant

**300**  
 $KR$  [mm]

**4250**  
 $L_k$  [mm]

**HS**  
Stay arrangement

## Divider systems

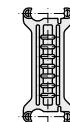
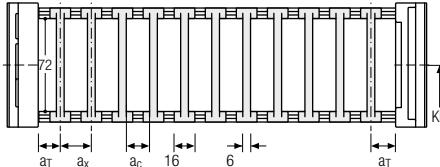
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	8	16	10	2

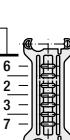
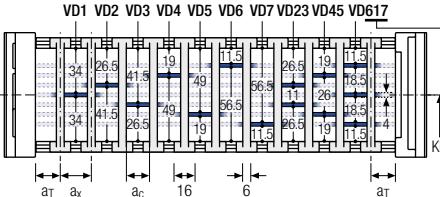
The dividers can be moved in the cross section.



### 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	8	25	16	10	2

The dividers can be moved in the cross section.

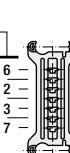
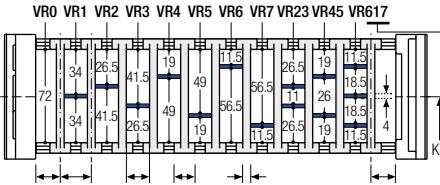


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	8	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).



#### 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](http://tsubaki-kabelschlepp.com/totaltrax)



#### TRAXLINE® cables for cable carriers

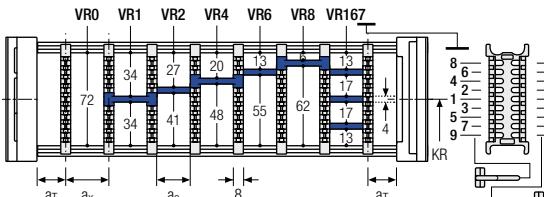
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at [tsubaki-kabelschlepp.com/traxline](http://tsubaki-kabelschlepp.com/traxline)

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

PROTUM® series

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16/42*	8	2

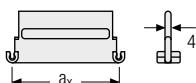
\* For aluminum partitions



K series

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

UNIFLEX Advanced series



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

M series

$a_x$ (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** ( $a_T = 4$  mm). Twin dividers are also suitable for retrofitting in the partition system.

TKHP® series

### Order example

	TS3	.	A	.	3	.	K1	.	34	-	VR1
	Divider system	Version		$n_T$			Chamber		$a_x$		Height separation

XL series

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.

QUANTUM® series

TKR series

TKA series

UAT series

### More product information online



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



Configure your custom cable carrier here:  
[online-engineer.de](http://online-engineer.de)

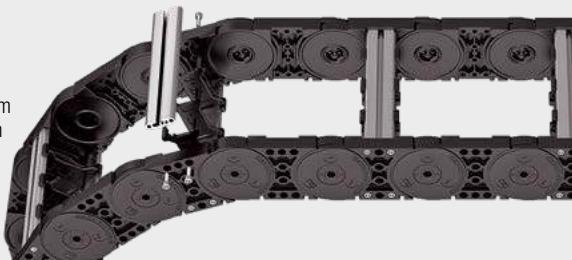
UAT series	TKA series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series

PROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesTKHP®  
seriesXL  
seriesQUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
series

## Aluminum stay RM – frame stay solid

- Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides "Heavy Duty".
- Available customized in **1 mm grid**.
- Inside/outside:** Threaded joint easy to release.

**HEAVY DUTY**  
TSUBAKI KABELSCHLEPP



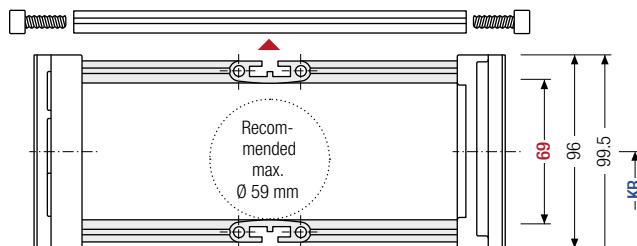
Stay arrangement on every  
2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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

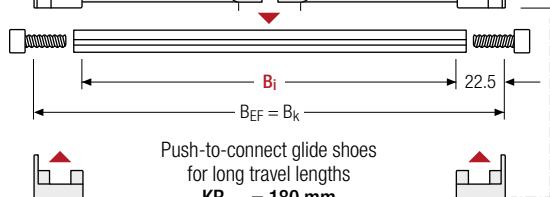


**1 mm**  
 $B_i$  100 – 800 mm  
in **1 mm width sections**



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.



Push-to-connect glide shoes  
for long travel lengths  
 $KR_{min} = 180$  mm

### 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  $t$

TKR series	$h_1$ [mm]	$h_6$ [mm]	$h_G$ [mm]	$h_G$ Offroad [mm]	$B_i$ [mm]*	$B_k$ [mm]	$B_{ef}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
	69	96	99.5	103	100 – 800	$B_i + 45$	$B_i + 45$	180 340 380 500	220 260 300 4250 $L_k$ [mm]

\* in 1 mm width sections

### Order example



**MC1250**  
Type

400  
 $B_i$  [mm]

RM  
Stay variant

300  
 $KR$  [mm]

4250  
 $L_k$  [mm]  
Stay arrangement

## Divider systems

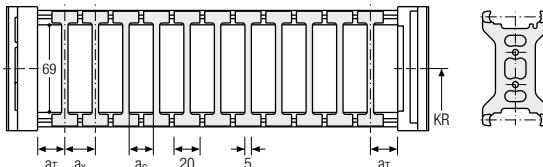
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

## Divider system TSO without height separation

Vers.	aT min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	n <sub>T</sub> min
A	10	20	15	—

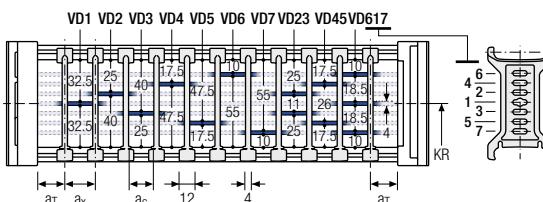
The dividers can be moved in the cross section



## 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	6	25	12	8	2

The dividers can be moved in the cross section

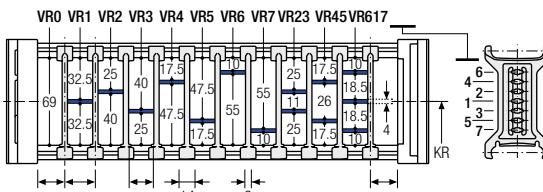


## Divider system TS2 with partial height separation

Vers.	aT min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	n <sub>T</sub> min
A	7	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).



## Order example

	TS2	A	3	K1	34	VR1
				⋮	⋮	⋮
				K4	38	VR3
	Divider system	Version	DT	Chamber	$a_x$	Height separation

Please state the designation of the divider system (**TS0, TS1 ...**), version and number of dividers per cross-section [ $n_{\text{TS}}$ ]. In addition, please also enter the chambers [**K**] from left to right, as well as the assembly distances [ $a_{\text{TS}/2}$ ] (as seen from the driver).

If using divider systems with height separation (TS1 – TS2) please also state the positions [e.g. VD23] viewed from the left driver belt. You are welcome to add a sketch to your order.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Aluminum stay LG – Hole stay, split version

- Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- Available customized in **1 mm width sections**.
- Outside/inside:** Screw-fixing easy to release.



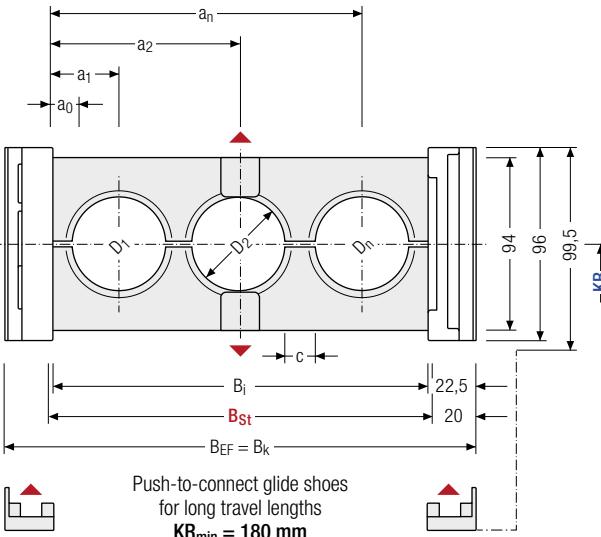
Stay arrangement on every  
2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)



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



**1 mm**  
B<sub>1</sub> 100 – 800 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<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

### Calculating the stay width

#### Stay width B<sub>st</sub>

$$B_{st} = \sum D + \sum c + 2 a_0$$

D <sub>max</sub> [mm]	D <sub>min</sub> [mm]	h <sub>G</sub> [mm]	B <sub>1</sub> [mm]	B <sub>st</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	c <sub>min</sub> [mm]	a <sub>0 min</sub> [mm]	KR [mm]	q <sub>k</sub> 50 %** [kg/m]		
76	12	96	100 – 800	105 – 805	B <sub>st</sub> + 40	B <sub>st</sub> + 40	4	12	180 300 500	220 340 380	260	4.75 – 11.17

\* in 1 mm width sections

\*\* Hole ratio of the hole stay approx. 50 %

### Order example



**MC1250**

Type

**400**

B<sub>1</sub> [mm]

**LG**

Stay variant

**300**

KR [mm]

**4250**

L<sub>k</sub> [mm]

**HS**

Stay arrangement

UAT series	TKA series	TKR series	QUANTUM® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
									

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

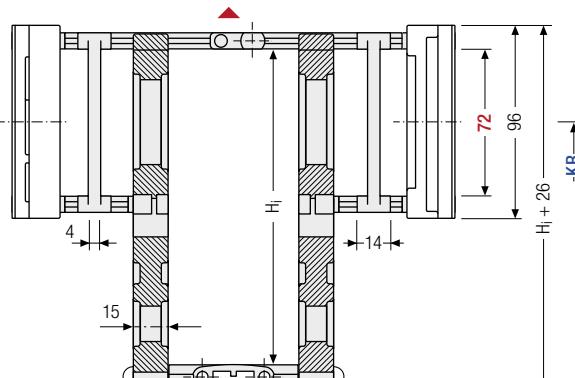
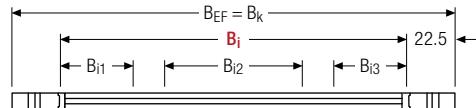
UAT series

## Aluminum stay RMAI – mounting frame stay

- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the inside in the bending radius.
- Available customized in **1 mm width sections**.
- Inside:** Screw-fixing easy to release.



**1 mm** B<sub>i</sub> 200 – 800 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<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

<b>h<sub>i</sub></b> [mm]	<b>H<sub>i</sub></b> [mm]	<b>h<sub>G</sub></b> [mm]	<b>B<sub>i</sub></b> [mm]	<b>B<sub>i1</sub> min</b> [mm]	<b>B<sub>i3</sub> min</b> [mm]	<b>B<sub>k</sub></b> [mm]	<b>B<sub>EF</sub></b> [mm]	<b>KR</b> [mm]		
72	130 160	96	<b>200 – 800</b>	40	40	B <sub>i</sub> + 45	B <sub>i</sub> + 45	180	220	260
	200							340	380	500

### Order example

	<b>MC1250</b>	<b>400</b>	<b>RMAI</b>	<b>300</b>	<b>4250</b>	<b>HS</b>
	Type	B <sub>i</sub> [mm]	Stay variant	KR [mm]	L <sub>k</sub> [mm]	Stay arrangement

**RMAI – assembly to the inside:**

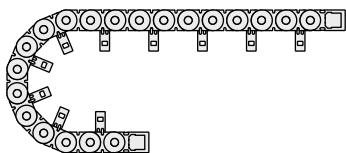
Gliding application is not possible when using assembly version RMAI.

Observe minimum KR:

$H_i = 130 \text{ mm: } KR_{\min} = 180 \text{ mm}$

$H_i = 160 \text{ mm: } KR_{\min} = 180 \text{ mm}$

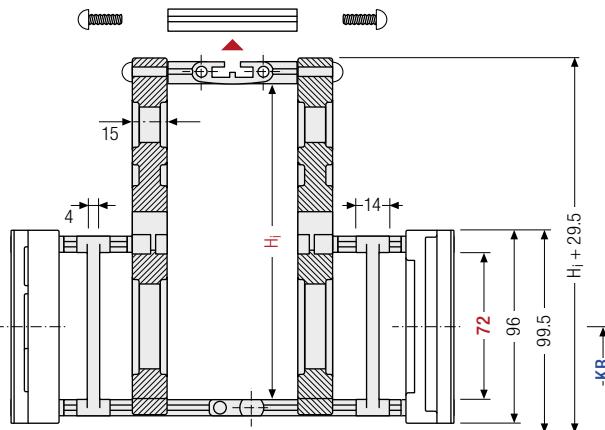
$H_i = 200 \text{ mm: } KR_{\min} = 220 \text{ mm}$



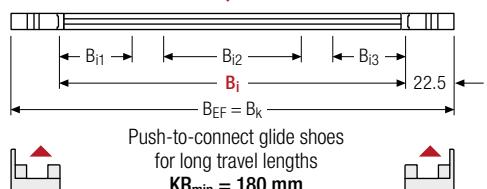
PROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesTKHP®  
seriesXL  
seriesQUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
series

## Aluminum stay RMAO – mounting frame stay

- Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- The mounting frame stay is mounted on the outside in the bending radius.
- Available customized in **1 mm width sections**.
- **Outside:** Screw-fixing easy to release.

B<sub>i</sub> 200 – 800 mmin **1 mm width sections**

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



Push-to-connect glide shoes  
for long travel lengths  
**KR<sub>min</sub> = 180 mm**

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub>  
rounded to pitch t

#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

<b>h<sub>i</sub> [mm]</b>	<b>H<sub>i</sub> [mm]</b>	<b>h<sub>G</sub> [mm]</b>	<b>B<sub>i</sub> [mm]</b>	<b>B<sub>i1</sub> min [mm]</b>	<b>B<sub>i3</sub> min [mm]</b>	<b>B<sub>k</sub> [mm]</b>	<b>B<sub>EF</sub> [mm]</b>	<b>KR [mm]</b>		
72	130 160	96	<b>200 – 800</b>	40	40	B <sub>i</sub> + 45	B <sub>i</sub> + 45	180	220	260
	200							340	380	500

### Order example

	MC1250 Type	400 B <sub>i</sub> [mm]	RMAO Stay variant	300 KR [mm]	4250 L <sub>k</sub> [mm]	HS Stay arrangement
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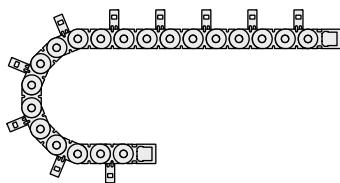
**RMAO – assembly to the outside:**

The cable carrier has to rest on the side bands and not on the stays.

Guiding in a **channel** is required for support.

Please contact our technical support at [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de) to find the corresponding guide channel.

Please note the operating and installation height.



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

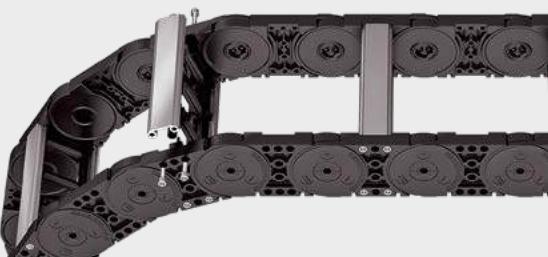
TKR series

TKA series

UAT series

## Aluminum stay RMR – Frame rolling stay

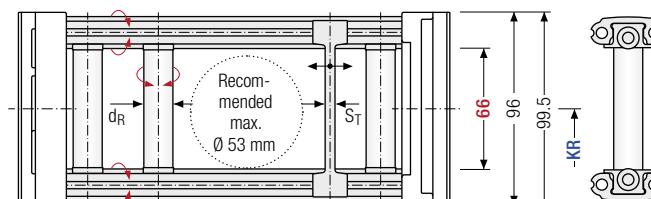
- Aluminum profile bars with rotating plastic rolling stay for highest requirements with gentle cable guiding.
- Double threaded joint on both sides.
- Available customized in **1 mm grid**.
- Inside/outside:** Threaded joint easy to release.



 Stay arrangement on every 2<sup>nd</sup> chain link, **standard**  
(HS: half-stayed)

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

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

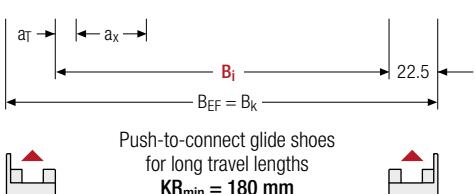


**Calculating the cable carrier length**

**Cable carrier length  $L_k$**

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

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



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

 For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

TKR series	$h_i$ [mm]	$h_G$ [mm]	$h_G'$ [mm]	$h_C$ Offroad [mm]	$B_i$ [mm]*	$B_k$ [mm]	$B_{EF}$ [mm]	$d_R$ [mm]	$ST$ [mm]	$a_T$ min [mm]	$a_x$ min [mm]	$KR$ [mm]	$q_k$ [kg/m]		
	66	96	99.5	103	100 – 800	$B_i$ + 45	$B_i$ + 45	10	6	6.5	37	180	4.13		
												300	340	260	–
												500		8.39	

\* in 1 mm width sections

### Order example



**MC1250**  
Type

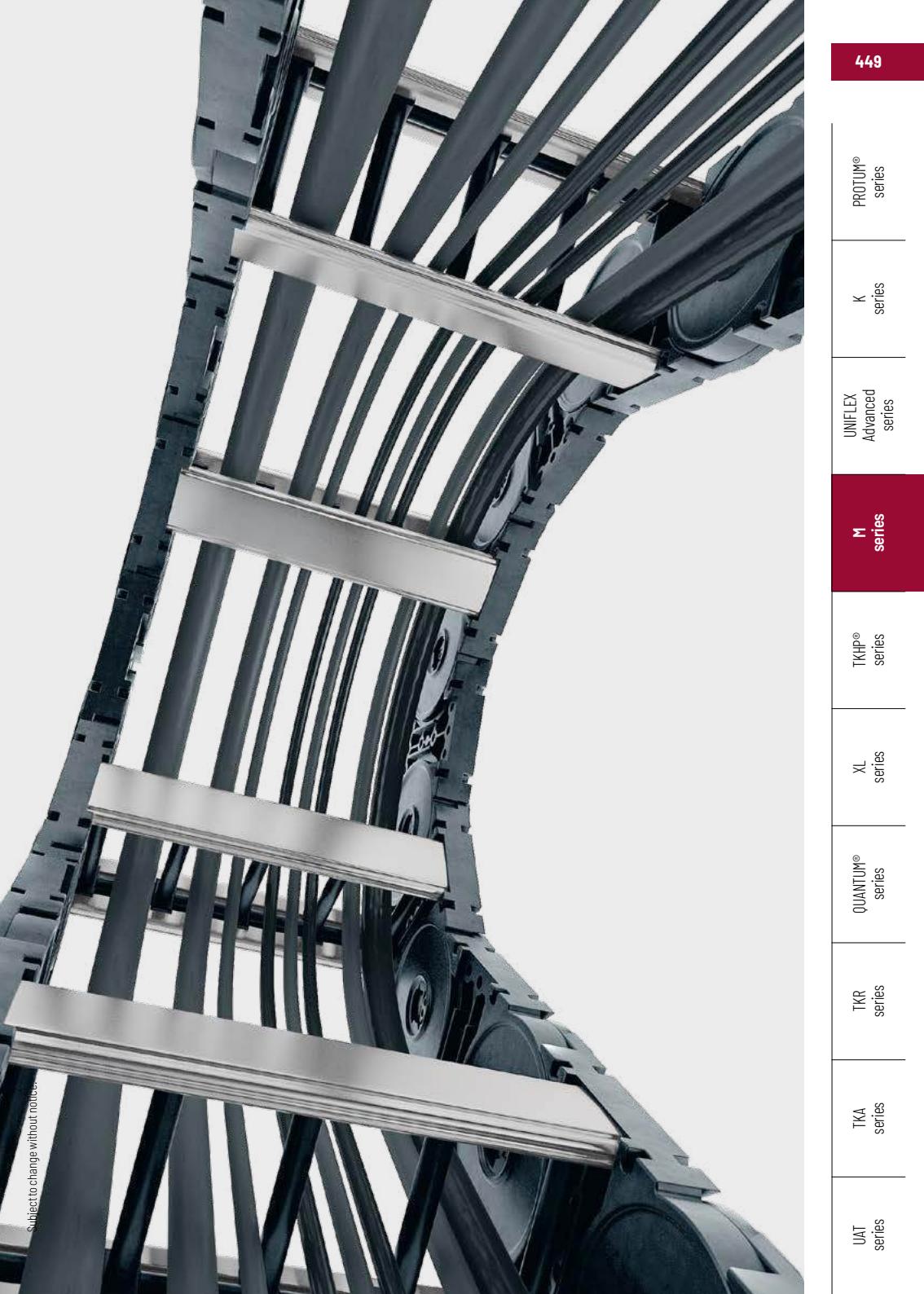
**400**  
 $B_i$  [mm]

**RMR**  
Stay variant

**300**  
 $KR$  [mm]

**4250**  
 $L_k$  [mm]

**HS**  
Stay arrangement

PROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesTKHP®  
seriesXL  
seriesQUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
series

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

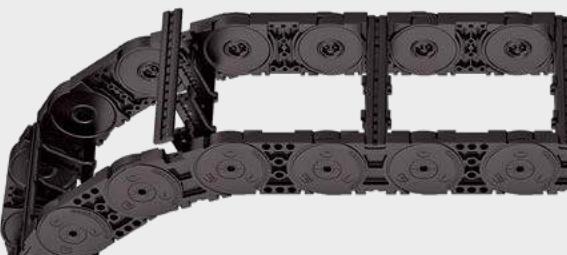
TKR series

TKA series

UAT series

## Plastic stay RE – screw-in frame stay

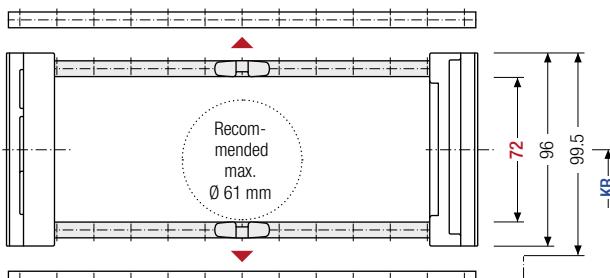
- Plastic profile bars for light to medium loads. Assembly without screws.
- Available customized in **16 mm grid**.
- Outside/Inside:** release by turning by 90°.



 Stay arrangement on every 2<sup>nd</sup> chain link, **standard** (HS: half-stayed)

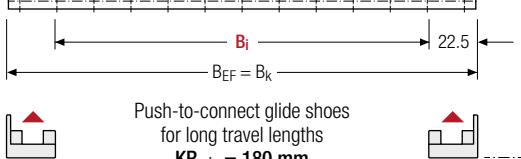
 Stay arrangement on each chain link (**VS: fully-stayed**)

 **16 mm** B<sub>i</sub> 71 – 551 mm in **16 mm width sections**



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

 For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.



Push-to-connect glide shoes for long travel lengths  
KR<sub>min</sub> = 180 mm

### Calculating the cable carrier length

#### Cable carrier length L<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	h <sub>G'</sub> Offroad [mm]	B <sub>i</sub> [mm]								B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]	
				71	87	103	119	135	151	167	B <sub>i</sub> + 45					
72	96	99.5	103	71	87	103	119	135	151	167	B <sub>i</sub> + 45	180	220	4.30		
				183	199	215	231	247	263	279		260	300			
				295	311	327	343	359	375	391		340	380			
				407	423	439	455	471	487	503		500				5.80
				519	535	551										

### Order example

 ME1250 Type 407 B<sub>i</sub> [mm] . RE Stay variant 300 KR [mm] - 4250 L<sub>k</sub> [mm] . HS Stay arrangement

## Plastic stay RD –

### Frame stay with hinge

- Plastic profile bars with hinge for light to medium loads. Assembly without screws.
- Available customized in **16 mm grid**.
- Outside:** swivable to both sides.
- Inside:** release by turning by 90°.



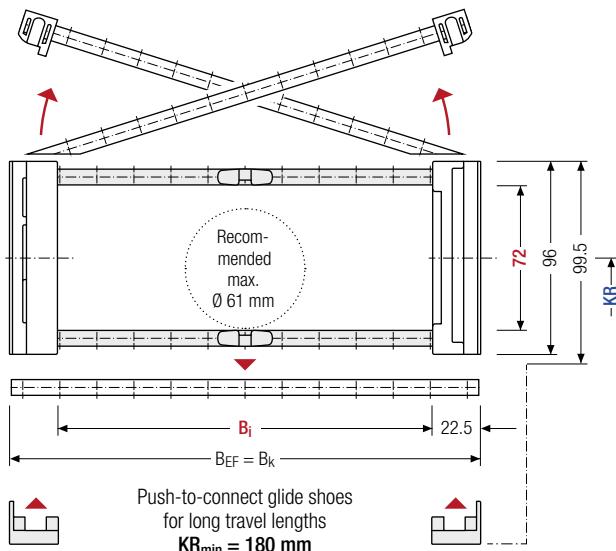
Stay arrangement on every 2<sup>nd</sup> chain link, standard (HS: half-stayed)



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



16 mm  $B_i$  71 – 551 mm  
in 16 mm width sections



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

For rough environmental conditions, we recommend the use of OFFROAD glide shoes with 80 % higher wear volume.

#### 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]	$h_G$ · Offroad [mm]	$B_i$ [mm]	$B_k$ [mm]	$B_{EF}$ [mm]	$KR$ [mm]	$q_k$ [kg/m]
72	96	99.5	103	71 87 103 119 135 151 167	180 220	260 300	4.30	
				183 199 215 231 247 263 279	300	340 380	–	
				295 311 327 343 359 375 391	340	500	5.80	
				407 423 439 455 471 487 503	380			
				519 535 551	500			

#### Order example



MK1250 . 407 . RD . 300 . 4250

$B_i$  [mm]

Stay variant

KR [mm]

$L_k$  [mm]

HS  
Stay arrangement

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

TKA series

UAT series

## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS).

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

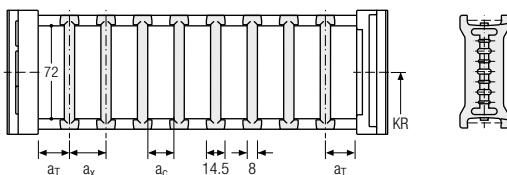
The dividers are easily attached to the stay for applications with lateral acceleration and for applications laying on their side by simply turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbars (**version B**).

The groove in the frame stay faces outwards.

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	5	14.5	6.5	–	–
B	19.5	16	8	16	–

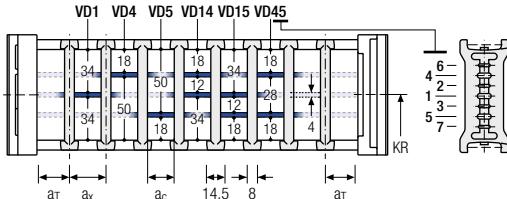
The dividers can be moved within the cross section (version A) or fixed (version B).



### 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	5	25	14.5	6.5	–	2
B	19.5	19.5	16	8	16	2

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

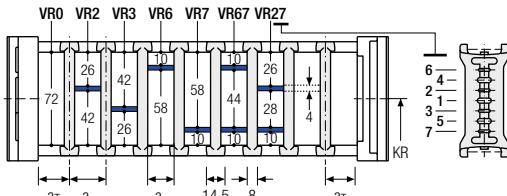


### Divider system TS2 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	5	14.5/20	6.5/12	–	2
B	19.5	16/32	8/24	16	2

\* for VR0

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

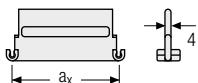


## Divider system TS3 with height separation made of plastic partitions

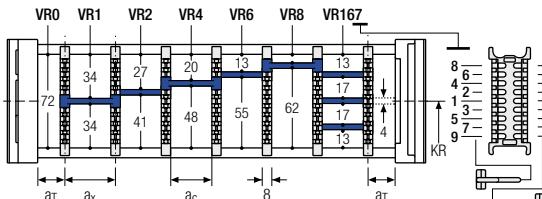
Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	4	16 / 42*	8	2

\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable 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
						.			⋮	⋮	⋮
Divider system	Version					.	Chamber		$a_x$		Height separation
						.	K4	.	38	-	VR3

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.

## More product information online

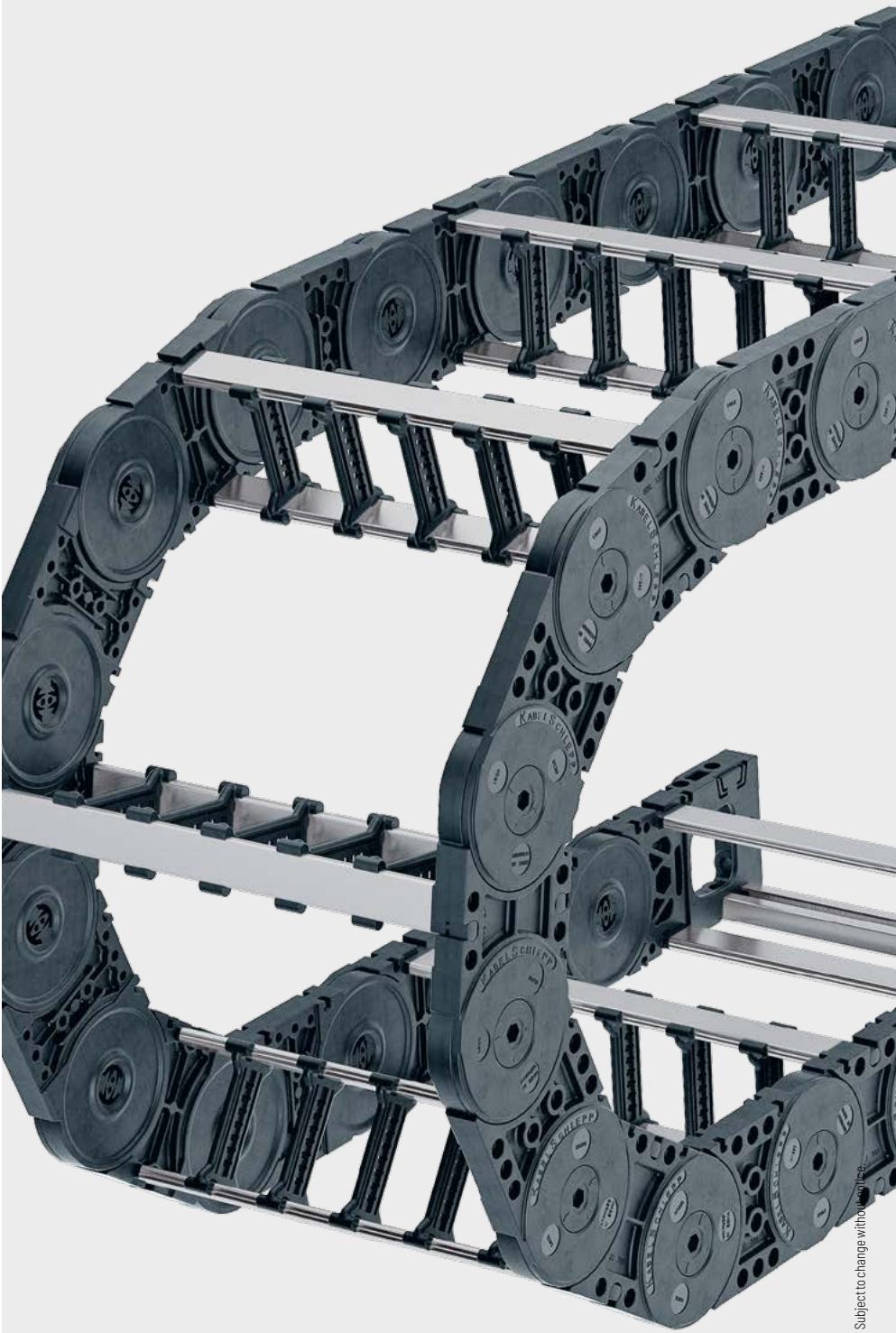


Assembly instructions etc.:  
Additional info via your smartphone or check online at [tsubaki-kabelschlepp.com/downloads](http://tsubaki-kabelschlepp.com/downloads)



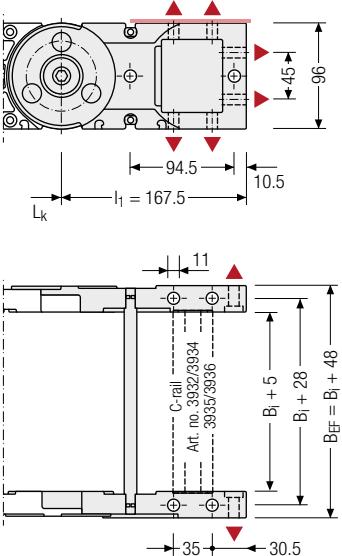
Configure your custom cable carrier: here [online-engineerde.de](http://online-engineerde.de)

UAT series	TKA series	TKR series	Quantum® series	XL series	TKHP® series	M series	UNIFLEX Advanced series	K series	PROTUM® series
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### Universal end connectors UMB – plastic (standard)

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



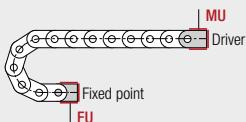
Recommended tightening torque: 54 Nm for cheese-head screws ISO 4762 - M10 - 8.8

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**U** – universal mounting bracket

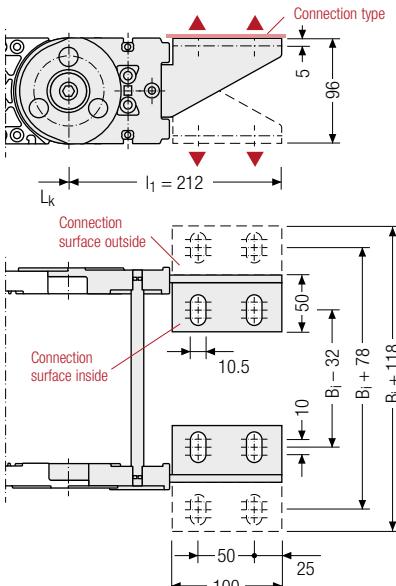


#### Order example

	Plastic/steel	F	A	A
UMB	End connector	M	U	Connection point Connection type Connection surface

### End connectors – plastic/steel

Plastic link end connector, steel end connector. The connection variants on the fixed point and on the driver can be combined and, if required, changed afterwards.



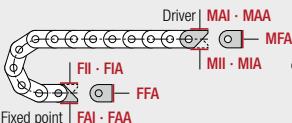
Assembly options

#### Connection point

**F** – fixed point  
**M** – driver

#### Connection type

**A** – threaded joint outside (standard)  
**I** – threaded joint inside  
**F** – flange connection



We recommend the use of strain reliefs at the driver and fixed point. See from p. 924.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

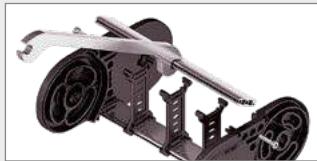
TKA series

UAT series

# M1300

PROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesTKHP®  
seriesXL  
seriesQUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
seriesPitch  
130 mmInner height  
87 - 98 mmInner widths  
100 - 800 mmBending radii  
150 - 500 mm

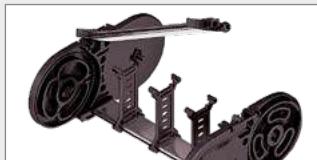
## Stay variants



**Aluminum stay RMF** ..... page 458

### Frame stay solid with optional fixing profile

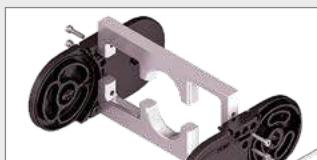
- » Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- » **Inside/outside:** Threaded joint easy to release.



**Aluminum stay RMS** ..... page 460

### Frame stay solid with ball joint

- » Aluminum profile bars with plastic ball joint for heavy loads and large cable carrier widths. Assembly without screws.
- » **Inside/outside:** Swivable and detachable.

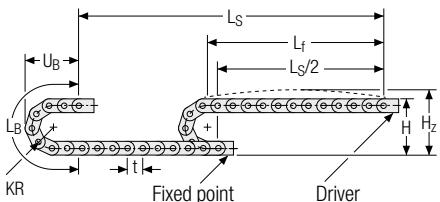


**Aluminum stay LG** ..... page 462

### Hole stay, split version

- » Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- » **Outside/inside:** Screw-fixing easy to release.

## Unsupported arrangement



KR [mm]	H [mm]	H <sub>s</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
150	480	540	732	340
195	570	630	873	385
240	660	720	1014	430
280	740	800	1140	470
320	820	880	1266	510
360	900	960	1391	550
400	980	1040	1517	590
500	1180	1240	1831	690

**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  $q_k = 8.0 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



**Speed**  
up to 10 m/s



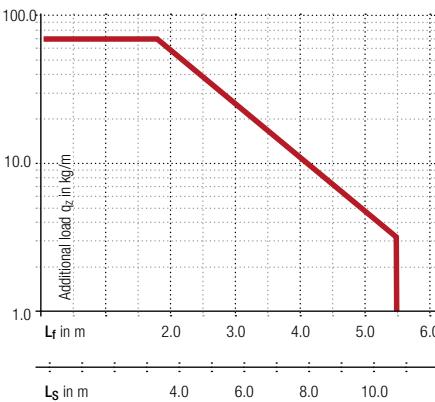
**Acceleration**  
up to 25 m/s<sup>2</sup>



**Travel length**  
up to 10.8 m



**Additional load**  
up to 70 kg/m



PROTUM®  
series

K  
series

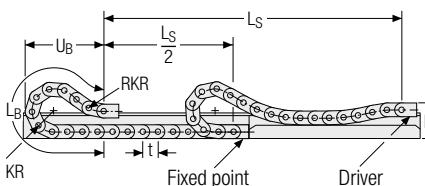
UNIFLEX  
Advanced  
series

M  
series

TKHP®  
series

XL  
series

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



KR [mm]	H [mm]	GO module RKR [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
195	360	500	2210	1040
240	360	500	2470	1125
320	360	500	2880	1240
360	360	500	3140	1331
500	360	500	4310	1756

The cable carrier is to be used gliding only **without pre-tensioning!**



**Speed**  
up to 8 m/s



**Acceleration**  
up to 20 m/s<sup>2</sup>



**Travel length**  
up to 350 m



**Additional load**  
up to 70 kg/m

The gliding cable carrier must be guided in a channel. See p. 866.

The GO module mounted on the driver is a defined sequence of 4 adapted KR/RKR link plates.

Glide shoes are required for gliding applications.

QUANTUM®  
series

TKR  
series

TKA  
series

UAT  
series



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

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

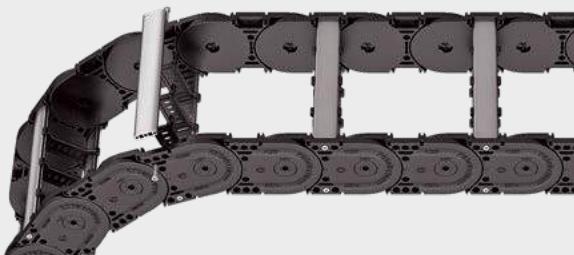
TKR series

TKA series

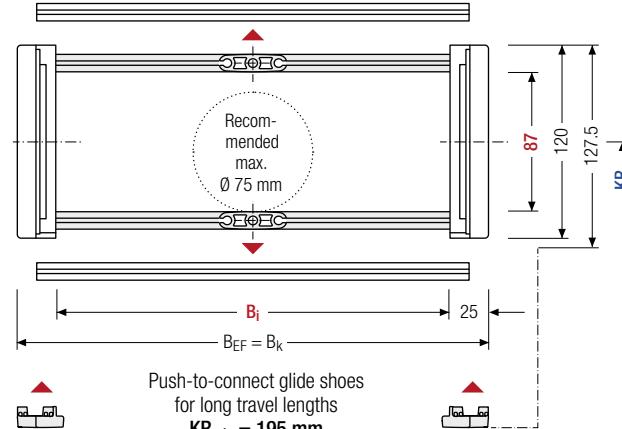
UAT series

## Aluminum stay RMF – frame stay solid with optional fixing profile

- 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.



**1 mm**  $B_i$  100 – 800 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]
TKR series	87	120	127.5	100 – 800	$B_i + 50$	$B_i + 50$	150 320 360 400 500	195 240 360 400 500

\* in 1 mm width sections

### Order example

MC1300 . 400 . RMF . 360 - 6500 . HS

Type       $B_i$  [mm]      Stay variant       $KR$  [mm]       $L_k$  [mm]      Stay arrangement

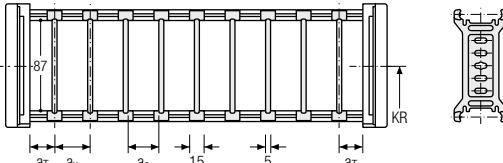
## Divider systems

As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS). 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 lying 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**).

### Divider system TSO without height separation

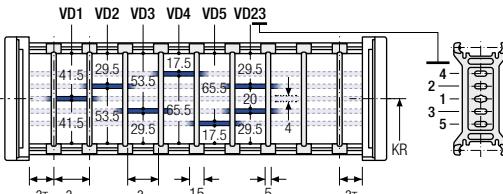
Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$\pi_T$ min
A	7.5	15	10	—	—
B	10	15	10	5	—



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

### Divider system TS1 with continuous height separation

Vers.	$a_T$ min [mm]	$a_T$ max [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$\pi_T$ min
A	7.5	25	15	10	—	2
B	10	25	15	10	5	2



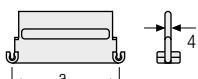
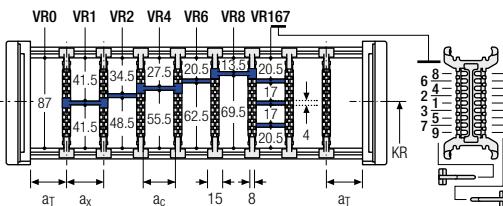
The dividers can be moved within the cross section (version A) or fixed (version B).

### Divider system TS3 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$\pi_T$ min
A	7.5	16/42*	8	2

\* For aluminum partitions

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



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

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

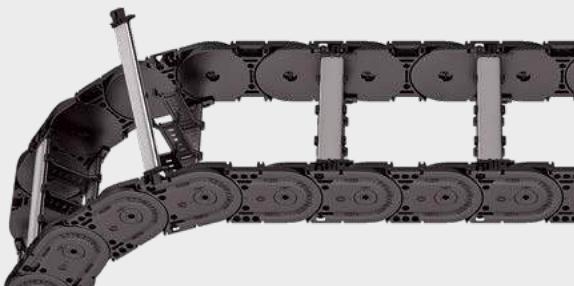
16	18	23	28	32	33	38	43	48	58	64	68
8	10	15	20	24	25	30	35	40	50	56	60
78	80	88	96	112	128	144	160	176	192	208	—
70	72	80	88	104	120	136	152	168	184	200	—

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

When using **plastic partitions** with  $a_x > 112$  mm, we recommend an additional center support with a **twin divider** ( $S_T = 5$  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.

## Aluminum stay RMS – frame stay reinforced

- Aluminum profile bars with plastic ball joint for heavy loads and large cable carrier widths. Assembly without screws.
- Available customized in **1 mm grid**.
- **Inside/outside:** Swivable and detachable.



PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

TKR series

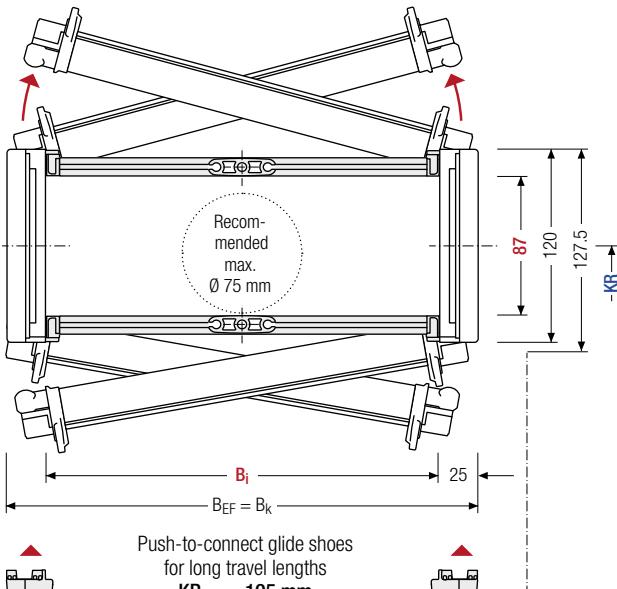
TKA series

UAT series

Stay arrangement on every 2<sup>nd</sup> chain link, **standard** (HS: half-stayed)

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

**1 mm** B<sub>i</sub> 100 – 800 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<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	B <sub>i</sub> [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	q <sub>k</sub> [kg/m]
TKR series	87	120	127.5	100 – 800	B <sub>i</sub> + 50	B <sub>i</sub> + 50	150 320 195 360 240 400 280 500	6.31 – 9.65

\* in 1 mm width sections

### Order example

MC1300 . 400 . RMS . 360 - 6500 . HS

Type B<sub>i</sub> [mm] Stay variant KR [mm] L<sub>k</sub> [mm] Stay arrangement

## Divider systems

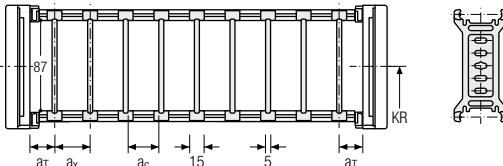
As a standard, the divider system is mounted on each crossbar – for stay mounting on every 2<sup>nd</sup> chain link (HS). As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

For applications with lateral acceleration and lying on the side, the dividers can be attached by a fixing profile, available as an accessory (**version B**). The fixing profile must be installed at the factory.

### Divider system TSO without height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	15.5	15	10	—	—
B	18.5	15	10	5	—

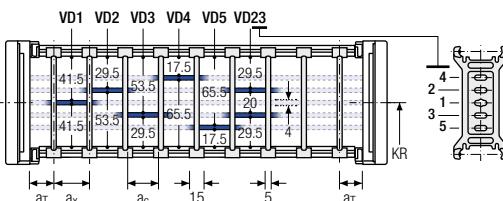
The dividers can be moved within the cross section (version A) or fixed (version B).



### Divider system TS1 with continuous height separation

Vers.	$a_T$ min [mm]	$a_T$ max [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$a_x$ grid [mm]	$n_T$ min
A	15.5	25	15	10	—	2
B	18.5	25	15	10	5	2

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

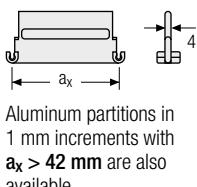
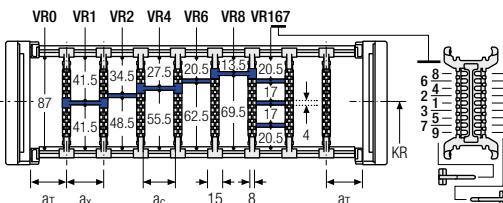


### Divider system TS3 with partial height separation

Vers.	$a_T$ min [mm]	$a_x$ min [mm]	$a_c$ min [mm]	$n_T$ min
A	15.5	16/42*	8	2

\* For aluminum partitions

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



$a_x$  (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** ( $S_T = 5$  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.

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP® series

XL series

QUANTUM® series

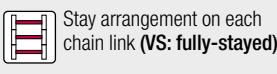
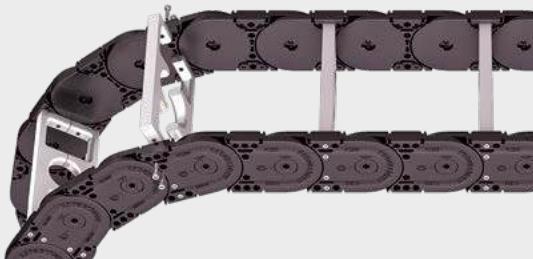
TKR series

TKA series

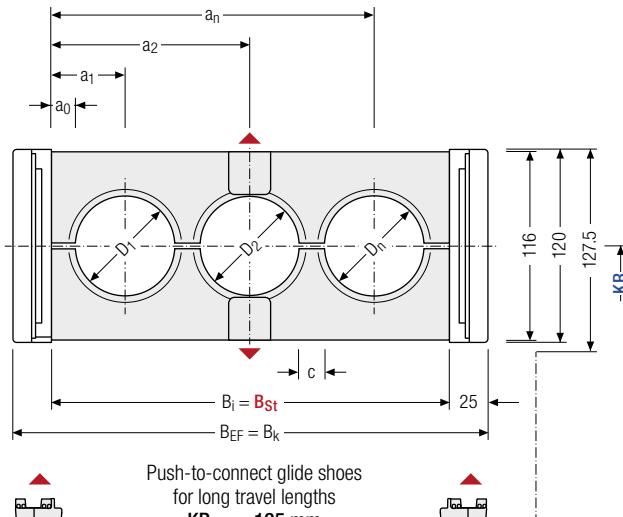
UAT series

## Aluminum stay LG – Hole stay, split version

- Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- Available customized in **1 mm width sections**.
- Outside/inside:** Screw-fixing easy to release.



**1 mm**  $B_1$  100 – 800 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  $t$

### Calculating the stay width

#### Stay width $B_{St}$

$$B_{St} = \sum D + \sum c + 2 a_0$$

$D_{max}$ [mm]	$D_{min}$ [mm]	$h_G$ [mm]	$B_1$ [mm]	$B_{St}$ [mm]*	$B_k$ [mm]	$B_{EF}$ [mm]	$c_{min}$ [mm]	$a_0\ min$ [mm]	$KR$ [mm]	$q_k\ 50\%**$ [kg/m]
98	12	120	100 – 800	100 – 800	$B_{St} + 50$	$B_{St} + 50$	4	13	150 280 400	195 320 500
									240 360	7.04 13.53

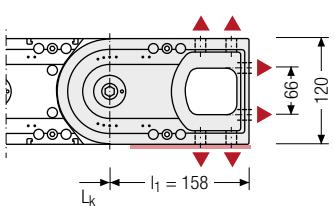
\* In 1 mm width sections   \*\* Hole ratio of the hole stay approx. 50 %

### Order example

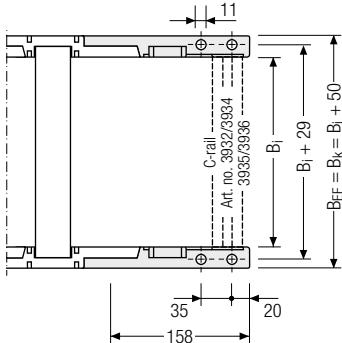
MC1300 Type . 400  $B_1$  [mm] . LG Stay variant . 360  $KR$  [mm] - 6500  $L_k$  [mm] . HS Stay arrangement

## Universal end connectors UMB – plastic (standard)

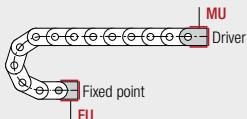
The universal mounting brackets (UMB) are made from plastic and can be mounted **from the top, from the bottom, face on or from the side**.



▲ Assembly options



Recommended tightening torque: 54 Nm for cheese-head screws ISO 4762 - M10 - 8.8



## Connection point

**F** – fixed point  
**M** – driver

## Connection type

**U** – universal mounting bracket

## 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. 924.

## More product information online



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



Configure your custom cable carrier here:  
[online-engineer.de](http://online-engineer.de)