QUANTUM® series

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



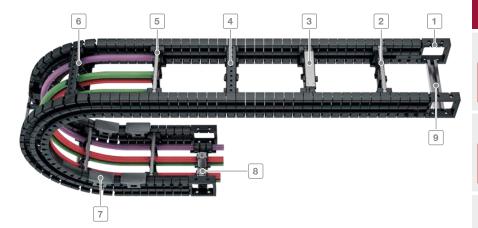
Inner heights

72

Inner widths

> 28 600

QUANTUM® series | Overview



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

Virtually no polygon effect



operation



I ow-vibration

with polygon effect

Features

- Cleanroom compatible: no links, no link wear
- Extremely quiet, 31 db (A)*
- Extremely light
- For high accelerations up to 300 m/s²
- For high operating speeds up to 40 m/s

- TÜV type tested as per 2PfG 1036/10.97
- Large selection of stay systems and separating options for cables



clean

















Ideal for highly dynamic applications



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





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

on page 12

QUANTUM® series | Overview

Туре	Opening variant	Stay variant	h _i [mm]	h _G [mm]	B _i [mm]	$\begin{matrix} B_k \\ [mm] \end{matrix}$	$\begin{array}{c} B_{i-} \\ \text{grid} \\ [\text{mm}] \\ \hline \\ \hline \end{array}$	t [mm] ↔	KR [mm]	Addi- tional load ≤ [kg/m]	Cable- d _{max} [mm]	
Q040		RE	28	40	28 – 284	B _i + 40	8	15	60 – 180	2.5	22	
Q060		RS RE	38 42	60 60	38 – 500 68 – 276	B _i + 52	1 8		100 – 300 100 – 300		30 33	
Q080		RS RV RE	58 58 58	80 80 80	50 - 600 50 - 600 58 - 570	B _i + 72	1 1 16	25	170 – 500 170 – 500 170 – 500	8 8 8	46 46 46	
Q100		RS RV RE	72 72 72	98 98 98	70 – 600 70 – 600 74 – 570	B _i + 82	1 1 16		180 - 600 180 - 600 180 - 600	12 12 12	57 57 57	

Cleanroom compatible and long service life

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

Extremely long service life through

- No link abrasion due to absence of hole-and-bolt connections
- Continuous side bands made from special plastic with integrated steel cables

Ideal for highly dynamic applications - extruded side bands

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

QUANTUM® series | Overview

Unsuppo	rted arraı	ngement	Glidin	g arrange	ment		Inner dis	tribution			ation va		Page
Travel length ≤ [m]	v _{max} ≤ [m/s]	a_{max} ≤ [m/s ²]		v _{max} ≤ [m/s]	a max ≤ [m/s²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	Pa
			←					H		vertica 0	Ē	arra	
3,2	40	300	30	2	3	•	•	•	-	•	•	-	398
		100	50		0 6								40.4
5	30	160	50	3	2-3	•	•	•	•	•	•	-	404
5	30	160	50	3	2-3	•	•	•	•	•	•	-	408
6.4	25	100	80	3	2-3	•	•	•	•	•	•	-	414
6.4	25	100	80	3	2-3	•	•	•	•	•	•	-	416
6.4	25	100	80	3	2-3	•	•	•	•	•	•	-	420
7.8	20	70	95	3	2-3	•	•	•	•	•	•	-	426
7.8	20	70	95	3	2-3	•	•	•	•	•	•	-	428
7.8	20	70	95	3	2 – 3	•	•	•	•	•	•	-	432

Key for abbreviations on page 12

Design guidelines

from page 60

technik@kabelschlepp.de Technical support:

online-engineer.de

040



Pitch 15 mm



Inner height 28 mm



Inner widths 28 - 284 mm



Bending radii 60 - 180 mm

Stay variants



Plastic stay RE page 398

Frame screw-in stay

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



TOTALTRAX® complete systems

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

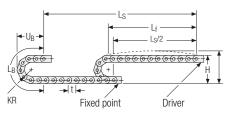


TRAXLINE® cables for cable carriers

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

I Installation dim. I Unsupported · Gliding Q040

Unsupported arrangement



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

Inner heights



Inner widths



tsubaki-kabelschlepp.com/

Load diagram for unsupported length depending on the additional load.

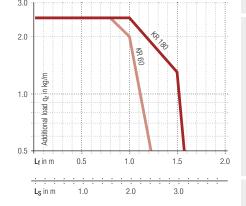
Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight $q_k = 0.8 \text{ kg/m}$. For other inner widths, the maximum additional load changes.



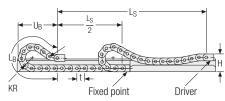






Gliding arrangement

up to 3.2 m





Speed up to 2 m/s



The gliding cable carrier has to be routed in a channel. See p. 702.



Travel length up to 30 m





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

Key for abbreviations

on page 12

Q040 RE | Dimensions · Technical data

Plastic stay RE -

screw-in frame stay

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





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



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



 $B_i 28 - 284 \text{ mm in}$ 8 mm width sections

Design guidelines from page 60

iik@kabelschlepp.de echnical support:

Recommended max. Ø 22 mm

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 Lk

$$L_{k} \approx \frac{L_{S}}{2} + L_{B}$$

Cable carrier length Lk rounded to pitch t

(online-engineer de	
8	Cable Carrier Configurator	4004
	Oable Carrier Cornigariate	ב

h _i [mm]	h _G [mm]	B _i [mm]*	B _k [mm]			[KR mm	 			q_k [kg/m]
28	40	28 – 284		60							 0.63 - 0.98

* in 8 mm width sections

Order example



Q040	. 108	. RE	. 150	- 1290	HS
Type	B _i [mm]	Stay variant	KR [mm]	L _k [mm]	Stay arrangement

Q040 RE | Inner distribution | TS0 · TS1 · TS2

Divider systems

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

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

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

Inner heights



Inner widths



Increments

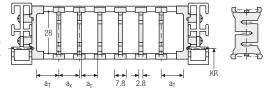


tsubaki-kabelschlepp.com/

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
Α	8	8	5.2	_	-
В	14	8	5.2	8	-

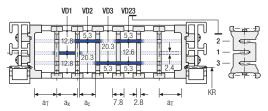
The dividers are movable within the cross section (version A) or fixed (version B).



Divider system TS1 with continuous height separation

Vers.					a _{x grid} [mm]	n _T min
Α	8	20	8	5.2	-	2
В	14	22	8	5.2	8	2

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

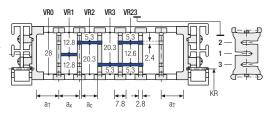


Divider system TS2 with partial height separation

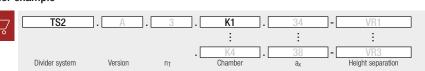
Vers.	[mm]	[mm]		a _{x grid} [mm]	n _T
В	14	8*/24	5.2*/21.2	8	2

* for VR0

With grid distribution (8 mm grid). The dividers are fixed by the height separation, the complete divider system is fixed (version B).



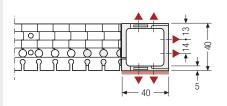
Order example

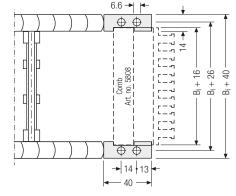


Q040 | End connectors

Universal end connectors UMB – plastic (standard)

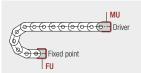
The universal end connectors (UMB) are made from plastic and can be mounted from the top, from the bottom or face on.





▲ Assembly options

Recommended tightening torque: 5 Nm for screws M5 - 8.8



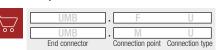
Connection point

F – fixed pointM – driver

Connection type

U – universal end connector

Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 756.

More product information online



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



Configure your custom cable carrier here: onlineengineer.de



Inner widths



Incre-ments



tsubaki-kabelschlepp.com/ quantum



Q060



Pitch 20 mm



Inner heights 38 – 42 mm



Inner widths 38 - 500 mm



Bending radii 100 - 300 mm

Stay variants



Aluminum stay RSpage 404

Frame stay, narrow "The standard"

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



Plastic stay RE page 408

Frame screw-in stay

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



TOTALTRAX® complete systems

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

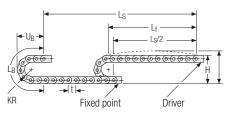


TRAXLINE® cables for cable carriers

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

Installation dim. | Unsupported · Gliding

Unsupported arrangement



KR	Н	L_{B}	U_B
[mm]	[mm]	[mm]	[mm]
100	288	554	264
120	328	617	284
150	388	711	314
190	468	837	354
250	588	1025	414
300	688	1182	464

Inner heights

Inner widths

38 500

tsubaki-kabelschlepp.com/

Load diagram for unsupported length depending on the additional load.

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

Intrinsic cable carrier weight $q_k = 1.5$ kg/m. For other inner widths, the maximum additional load changes.



Speed up to 30 m/s

Travel length

up to 5 m

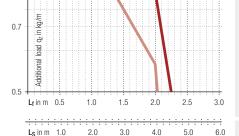


Acceleration up to 160 m/s² 5.0 3.0

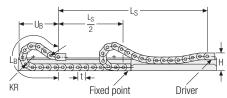
1.0



Additional load up to 5 kg/m



Gliding arrangement

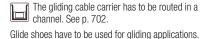




Speed up to 3 m/s



Acceleration up to $2 - 3 \text{ m/s}^2$





Travel length up to 50 m



Additional load up to 5 ka/m

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

Key for abbreviations

on page 12

Q060 RS | Dimensions · Technical data

Aluminum stay RS -

frame stay narrow

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





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



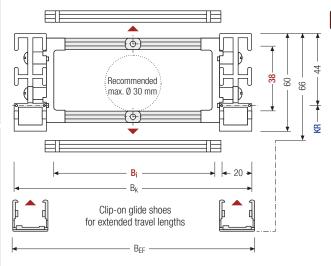
Stays on every 3rd section (VS: fully-stayed)



 $B_i 38 - 500 \text{ mm in}$ 1 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk

$$L_{k}\approx\frac{-L_{S}}{2} \ + L_{B}$$

Cable carrier length Lk rounded to pitch t

h _i h _G h _{G'} B _i	B_k B_{FF}	KR	q_k
[mm] [mm] [mm]*	[mm] [mm]	[mm]	[kg/m]
38 60 66 38 – 500	$B_i + 52 B_i + 56$		1.25 - 2.40

^{*} in 1 mm width sections

Order example



Q060	200	۱. [
Type	B _i [mm]	

Γ	RS	٦.	Γ
Ī	Stay variant		



HS	
Stay arrangement	

online-engineer.de

Q060 RS | Inner distribution | TS0 · TS1 · TS2

Divider systems

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

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

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

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

Inner heights



Inner widths



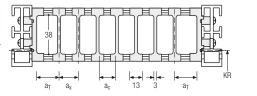
Increments



Divider system TS0 without height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}			
Α	13.5	13	10				

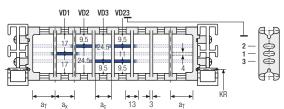
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.		a _{T max} [mm]			
Α	13.5	20	13	10	2

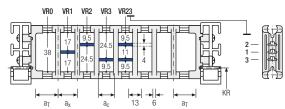
The dividers can be moved in the cross section.



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	13.5	13	7	2

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



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 traxline.de

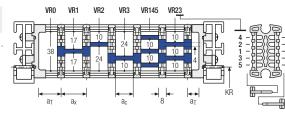
Q060 RS | Inner distribution | TS3

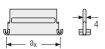
Divider system TS3 with height separation consisting of plastic partitions



* For aluminum partitions

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



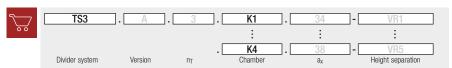


Aluminum partitions in 1 mm increments with $a_x > 42 \text{ mm}$ are also available.

	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



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

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

More product information online



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



Configure your custom cable carrier here: onlineengineer.de



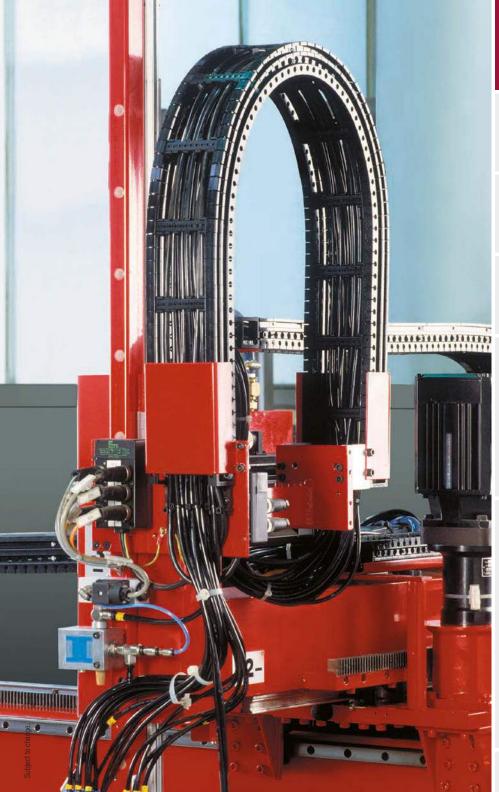
Inner widths



Incre-ments



tsubaki-kabelschlepp.com/ quantum



Key for abbreviations

on page 12

Q060 RE | Dimensions · Technical data

Plastic stay RE -

frame screw-in stay

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





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



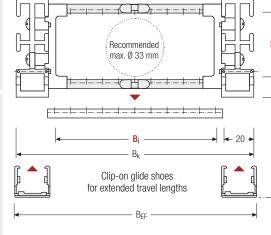
Stays on every 3rd section (VS: fully-stayed)



9 99 $B_i 68 - 276 \text{ mm in}$ 8 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk rounded to pitch t

h _i [mm]	h _G [mm]	h _{Gʻ} [mm]	B _i [mm]*	B _k [mm]	B _{EF} [mm]	KR [mm]							q _k [kg/n	n]			
42	60	66	68 – 276	B _i + 52	B _i + 56	100	120		150		190	1	250	 300	1.	16 –	1.5
* in 8 mn	n width se	ections															

Order example					
Q060 Type	. 196 B _i [mm]	RE Stay variant	150 - KR [mm]	1540 L _k [mm]	HS Stay arrangement

online-engineer.de

Divider systems

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

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

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

Inner heights



Inner widths



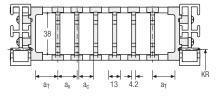
Increments



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
Α	14	13	8.8	-	-
В	14	16	11.8	8	_

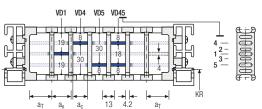
The dividers are movable within the cross section (version A) or fixed (version B).



Divider system TS1 with continuous height separation

Vers.					a _{x Raster} [mm]	
Α	14	25	13	8.8	_	2
В	14	29	16	11.8	8	2

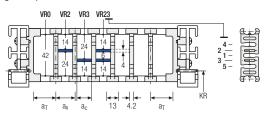
The dividers can be moved in the cross section.



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}	
Α	14	13	8.8	2	
В	14	16	11.8	2	

With grid distribution (8 mm grid). The dividers are attached by the height separation; the grid can be moved in the cross section.



TOTALTRAX® complete systems

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

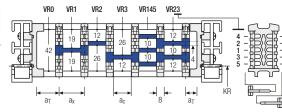
Q060 RE | Inner distribution | TS3

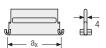
Divider system TS3 with height separation consisting of plastic partitions



^{*} For aluminum partitions

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



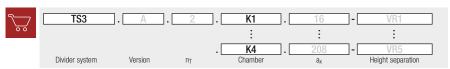


Aluminum partitions in 1 mm increments with $a_x > 42$ mm are also available.

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

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

Order example



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

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



TOTALTRAX® complete systems

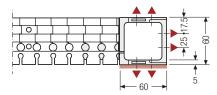
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source — with a warranty certificate on request! Learn more at **tsubaki-kabelschlepp.com/totaltrax**



TRAXLINE® cables for cable carriers

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

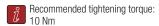
The universal end connectors (UMB) are made from plastic and can be mounted from the top, from the bottom or face on.



C-rail ____. .. no. 3931 --- 60

6.6 →

▲ Assembly options





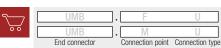
Connection point

F - fixed point M - driver

Connection type

U – universal end connector

Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 756.

More product information online



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



Configure your custom cable carrier here: onlineengineer.de



tsubaki-kabelschlepp.com/

Q080



Pitch 20 mm



Inner height 58 mm



Inner widths 50 - 600 mm



Bending radii 170 - 500 mm

Stay variants



Aluminum stay RSpage 414

Frame stay, narrow "The standard"

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



Aluminum stay RV page 416

Frame stay, reinforced

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



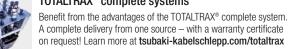
Plastic stay RE page 420

Frame screw-in stay

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



TOTALTRAX® complete systems





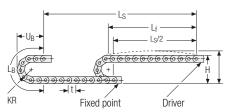
TRAXLINE® cables for cable carriers

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

I Installation dim. I Unsupported · Gliding Q080

10.0

Unsupported arrangement



KR [mm]	H [mm]	L _B [mm]	U B [mm]
170	457	834	379
200	517	928	409
250	617	1085	459
320	757	1305	529
420	957	1619	629
500	1117	1870	709

Inner heights



Inner widths



tsubaki-kabelschlepp.com/

Load diagram for unsupported length depending on the additional load.

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

Intrinsic cable carrier weight $q_k = 2.5$ kg/m. For other inner widths, the maximum additional load changes.



Speed up to 25 m/s

Travel length

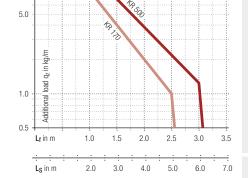
up to 6.4 m



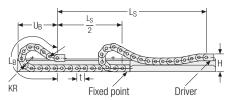
Acceleration up to 100 m/s²



Additional load up to 8 ka/m



Gliding arrangement

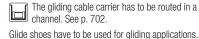




Speed up to 3 m/s



Acceleration up to $2 - 3 \text{ m/s}^2$





Travel length up to 80 m



Additional load up to 8 ka/m



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

Key for abbreviations

on page 12

Q080 RS | Dimensions · Technical data

Aluminum stay RS -

frame stay narrow

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





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



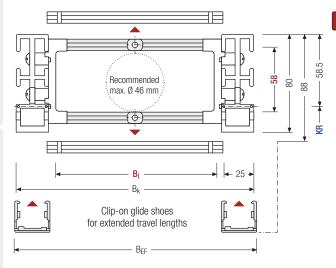
Stays on every 4th section (VS: fully-stayed)



 $B_i 50 - 600 \text{ mm in}$ 1 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk rounded to pitch t

2		
ದ		
>		
3)		
2		
_		
=		
-		
=		
2		
Б		
5		

h _i	h _G	h _{Gʻ}	B _i	B _k	B _{EF}	KR	q_k
[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]	[mm]	[kg/m]
58	80	88	50 – 600	B _i + 72	B _i + 79.5	170 200 250 320 420 500	

* in 1 mm width sections

Order example

Q080].	400
Туре		B _i [mm]

RS].	
Stay variant		



HS	
Stay arrangement	

Subject to change.

online-engineer.de

Divider systems

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

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

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

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

Inner heights



Inner widths



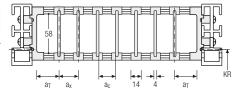
Increments



Divider system TS0 without height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}		
Α	11	14	10	_		

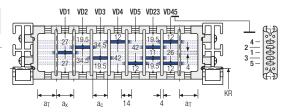
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.	[mm]	a _{T max} [mm]	[mm]	[mm]	min
Α	11	25	14	10	2

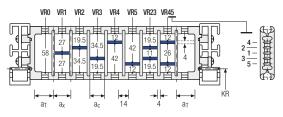
The dividers can be moved in the cross section.



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	11	14	10	2

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



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 traxline.de

Key for abbreviations

on page 12

Q080 RV | Dimensions · Technical data

Aluminum stay RV -

Frame stay reinforced

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





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



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



 $B_i 50 - 600 \text{ mm in}$ 1 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:

58.5 Recommended 8 88 max. Ø 46 mm Clip-on glide shoes for extended travel lengths B_{EF}

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 Lk rounded to pitch t

h _i	h _G	h _{Gʻ}	B _i	B _k	B _{EF}	
[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]	
58	80	88	50 – 600	B _i + 72	B _i + 79.5	170

h _i	h _G	h _{Gʻ}	B _i	B _k	B _{EF}	KR	q_k
[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]	[mm]	[kg/m]
58	80	88	50 – 600	B _i + 72	B _i + 79.5	170 200 250 320 420 500	

* in 1 mm width sections

Order example



Q080	
Туре	E









Stay arrangement

online-engineer.de

Divider systems

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

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

Inner heights



Inner widths



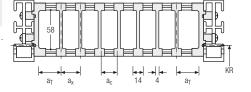
Increments



Divider system TS0 without height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	11	14	10	2

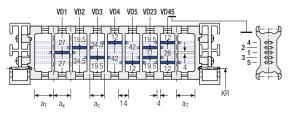
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.		a _{T max} [mm]			
Α	11	25	14	10	2

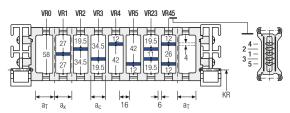
The dividers can be moved in the cross section.



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	12	20	14	2

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



TRAXLINE® cables for cable carriers

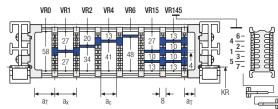
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **traxline.de**

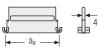
Q080 RV | Inner distribution | TS3

Divider system TS3 with height separation consisting of plastic partitions



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



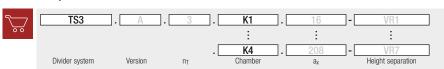


Aluminum partitions in 1 mm increments with $a_x > 42$ mm are also available.

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

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

Order example



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

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

More product information online



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



Configure your custom cable carrier here: onlineengineer.de



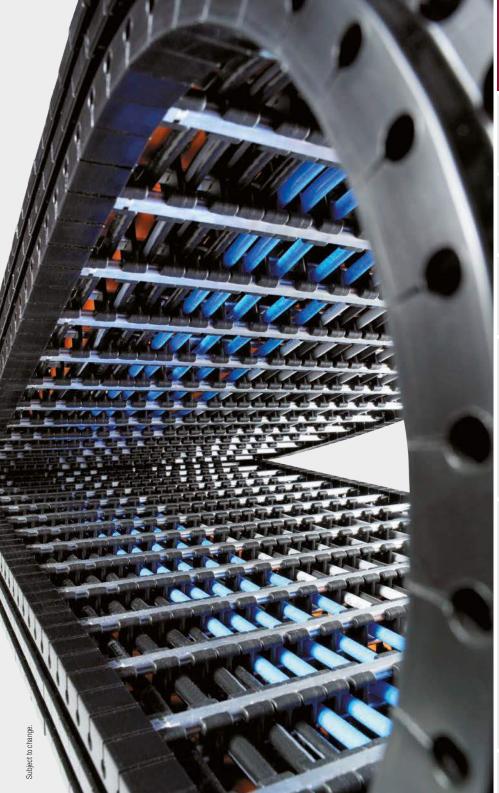
Inner widths



Incre-ments



tsubaki-kabelschlepp.com/ quantum



Key for abbreviations

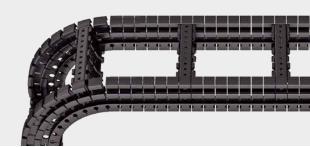
on page 12

Q080 RE | Dimensions · Technical data

Plastic stay RE -

frame screw-in stay

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





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



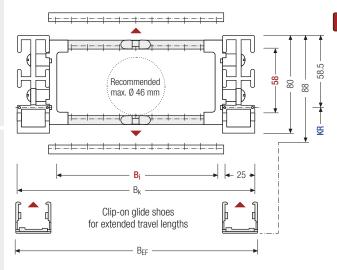
Stays on every 4th section (VS: fully-stayed)



 $B_i 58 - 570 \text{ mm in}$ 16 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk rounded to pitch t

online-engineer.de

hi	h_G	hgʻ	Bi	B_k	BFF			K	R			q_k	
[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]			[m	m]			[kg/m]	
58	80	88	58 – 570	B _i + 72	B _i + 79.5	170	200	250	320	420	500	1.93 – 2.7	'0
* in 16 m	m width s	sections	***************************************	***************************************	***************************************	•••••••••••				•	••••••	***************************************	

Order example



Q080	
Туре	В









Stay arrangement

Q080 RE | Inner distribution | TS0 · TS1 · TS2

Divider systems

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

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

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

Inner heights



Inner widths



ments



Incre-



Divider system TS0 without height separation

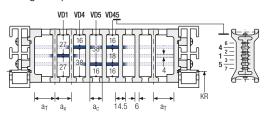
Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	a _{x grid} [mm]	n _T min
Α	12	14.5	8.5	-	-
В	13	16	10	16	_

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

Divider system TS1 with continuous height separation

Vers.					a _{x Raster} [grid]	n _T min
Α	12	22.5	14.5	8.5	-	2
В	13	22.5	16	10	16	2

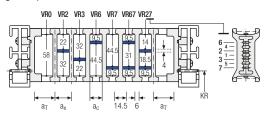
The dividers are movable within the cross section (version A) or fixed (version B).



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	12	16	10	2
В	13	16	10	2

With grid distribution (8 mm grid). The dividers are attached by the height separation: the grid can be moved in the cross section.



TOTALTRAX® complete systems

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

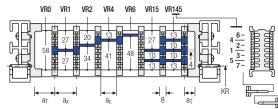
Q080 RE | Inner distribution

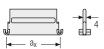
Divider system TS3 with height separation consisting of plastic partitions



* For aluminum partitions

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



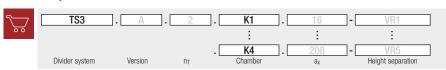


Aluminum partitions in 1 mm increments with $a_x > 42 \text{ mm}$ are also available.

	a _x (center distance of dividers) [mm]											
	a _c (nominal width of inner chamber) [mm]											
10	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	8	80	88	96	112	128	144	160	176	192	208	
7(0	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



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

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



TOTALTRAX® complete systems

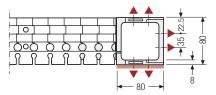
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source - with a warranty certificate on request! Learn more at tsubaki-kabelschlepp.com/totaltrax



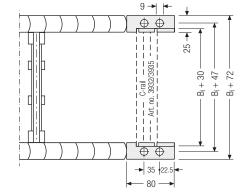
TRAXLINE® cables for cable carriers

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

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



▲ Assembly options





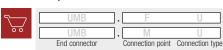
Connection point

F - fixed point M - driver

Connection type

U – universal end connector

Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 756.

More product information online



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



Configure your custom cable carrier here: onlineengineer.de



Inner widths



tsubaki-kabelschlepp.com/

Key for abbreviations on page 12

Design guidelines

from page 60

Pitch 30 mm







Stay variants



Aluminum stay RSpage 426

Frame stay narrow "The standard"

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



Aluminum stay RV page 428

Frame stay, reinforced

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



Plastic stay RE page 432

. .

Frame screw-in stay

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

Technical support: technik@kabelschlepp.de

TOTALTRAX® complete systems

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



TRAXLINE® cables for cable carriers

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

I Installation dim. I Unsupported · Gliding

12.0 10.0

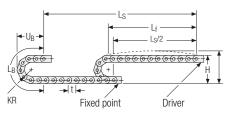
5.0

q_z in kg/m

oad 1.0

Unsupported arrangement

Q100



KR [mm]	H [mm]	L _B [mm]	U B [mm]
180	503	926	432
250	643	1145	502
300	743	1302	552
370	883	1522	622
460	1063	1805	712
600	1343	2244	852

Inner heights



Inner widths



tsubaki-kabelschlepp.com/

Load diagram for unsupported length depending on the additional load.

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

Intrinsic cable carrier weight $q_k = 3.25$ kg/m. For other inner widths, the maximum additional load changes.



Speed up to 20 m/s

Travel length

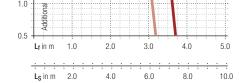
up to 7.8 m



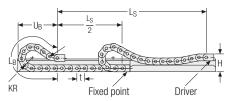
Acceleration up to 70 m/s²



Additional load up to 12 kg/m



Gliding arrangement





Speed up to 3 m/s



Acceleration up to $2 - 3 \text{ m/s}^2$



The gliding cable carrier has to be routed in a channel. See p. 702.



Travel length up to 95 m



Additional load up to 12 kg/m

Glide shoes have to be used for gliding applications.



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

Key for abbreviations

on page 12

Q100 RS | Dimensions · Technical data

Aluminum stay RS -

frame stay narrow

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





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



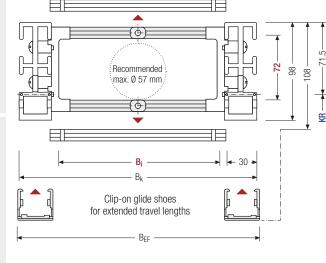
Stays on every 4th section (VS: fully-stayed)



 $B_i 70 - 600 \text{ mm in}$ 1 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk rounded to pitch t

h _i	h _G	h _{Gʻ} [mm]	B _i [mm]*	B _k [mm]	B _{EF}	KR [mm]
				[]	B _i + 89.5	180 250 300 370 460 600

* in 1 mm width sections

Order example



	400	١.
	B _i [mm]	•





HS	
Stay arrangement	

 q_k [kg/m]

2.6 - 3.4

online-engineer.de

Q100 RS | Inner distribution | TS0 · TS1

Divider systems

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

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

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

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

Inner heights



Inner widths



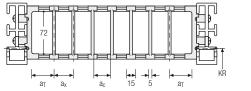
Increments



Divider system TS0 without height separation



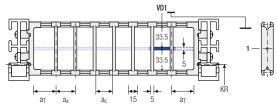
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation



The dividers can be moved in the cross section.



Order example



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

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

Key for abbreviations on page 12

Q100 RV | Dimensions · Technical data

Aluminum stay RV -

Frame stay reinforced

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





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



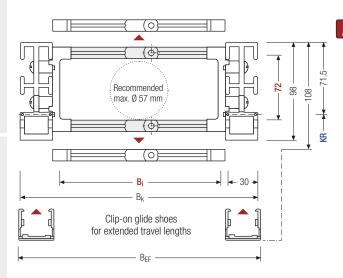
Stays on every 4th section (VS: fully-stayed)



 $B_i 70 - 600 \text{ mm in}$ 1 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk

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

Cable carrier length Lk rounded to pitch t

hi	
[mm]	[1
72	

h _i	h _G	h _{Gʻ}	B _i	B _k	B _{EF}	KR	q_k
[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]	[mm]	[kg/m]
72	98	108	70 – 600	B _i + 82	$B_i + 89.5$	180 250 300 370 460 600	2.8 - 4.6

* in 1 mm width sections

Order example



Q100	400
Type	B _i [mm]



370]-[1860
KR [mm]		L _k [mm]

HS	
Stay arrangement	

online-engineer.de

Divider systems

The divider system is mounted on each crossbar as a standard – on every 8th section for stay mounting (HS). As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

Inner



Inner widths



Increments



heights

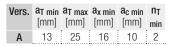
Divider system TS0 without height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	13	16	10	2

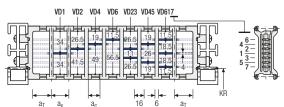
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation



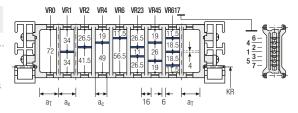
The dividers can be moved in the cross section.



Divider system TS2 with partial height separation

Vers.	a _{T min} [mm]	a _{x min} [mm]	a _{c min} [mm]	n _{T min}
Α	13	20	14	2

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



TRAXLINE® cables for cable carriers

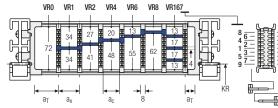
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at traxline.de

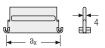
Q100 RV | Inner distribution | TS3

Divider system TS3 with height separation consisting of plastic partitions



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



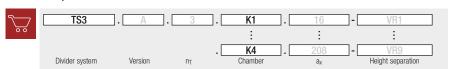


Aluminum partitions in 1 mm increments with $a_x > 42$ mm are also available.

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

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

Order example



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

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

More product information online



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



Configure your custom cable carrier here: onlineengineer.de

Inner heights



Inner widths



Incre-ments



tsubaki-kabelschlepp.com/ quantum



Key for abbreviations on page 12

Plastic stay RE - frame

screw-in stay

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





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



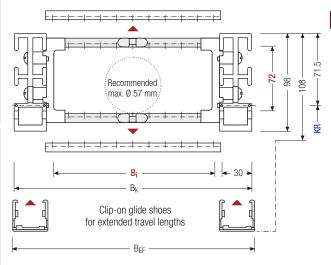
Stays on every 4th section (VS: fully-stayed)



 $B_i 74 - 570 \text{ mm in}$ 16 mm width sections

Design guidelines from page 60

technik@kabelschlepp.de Technical support:



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 Lk

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

Cable carrier length Lk rounded to pitch t

h _i h _G	h _G '	Bi	B _k	BEF	KR	q_k				
[mm] [mm]	[mm]	[mm]*	[mm]	[mm]	[mm]	[kg/m]				
72 98	108	74 – 570	B _i + 82	B _i + 89.5	180 250 300 370 460 600	2.74 - 3.67				
* in 16 mm width	* in 16 mm width sections									

Order example



Q100	. 346
Type	B _i [mm]









Stay arrangement

Q100 RE | Inner distribution | TS0 · TS1 · TS2

Divider systems

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

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

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

The groove in the frame stay faces outwards.

Inner heights



Inner widths

570

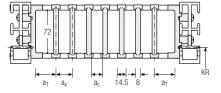
Increments



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
Α	12	14.5	6.5	-	-
В	13	16	8	16	-

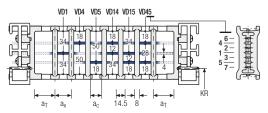
The dividers are movable within the cross section (version A) or fixed (version B).



Divider system TS1 with continuous height separation

Vers.					a _{x grid} [mm]	
Α	12	25	14.5	6.5	-	2
В	13	29	16	8	16	2

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

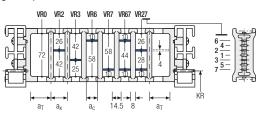


Divider system TS2 with partial height separation

Vers.	[mm]	a _{x min} [mm]	a _{c min} [mm]	a _{x grid} [mm]	n _T min
Α	12	14.5*/20	6.5*/12	_	2
В	13	16*/32	8*/24	16	2

* for VRO

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



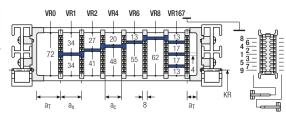
Q100 RE | Inner distribution | TS3

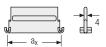
Divider system TS3 with height separation consisting of plastic partitions



* For aluminum partitions

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



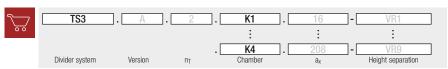


Aluminum partitions in 1 mm increments with $a_x > 42$ mm are also available.

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

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

Order example



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

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



TOTALTRAX® complete systems

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

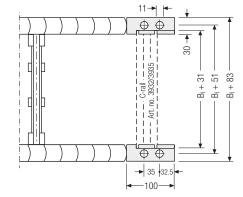


TRAXLINE® cables for cable carriers

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

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

▲ Assembly options





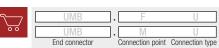
Connection point

F - fixed point M - driver

Connection type

U – universal end connector

Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 756.

More product information online



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



Configure your custom cable carrier

onlineengineer.de

tsubaki-kabelschlepp.com/