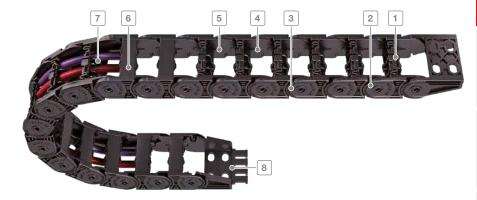


### EasyTrax® series | Overview



- Inner heights
- 4<u>.</u>6 25
- Inner widths
- 7 78 **→**

tsubaki-kabelschlepp.com/

- 1 Sturdy 2-component design: solid chain body, flexible film hinge
- 2 Plastic chain links
- 3 Extensive unsupported length
- Inside space is gentle on the cables – no interfering edges
- 5 Very quiet through integrated noise damping
- 6 Inside or outside openable
- 7 Dividers for cable separation
- 8 Single-part end connectors with integratable strain relief

### **Features**

- Very fast cable laying by simply pressing in the cables
- Very high fill level through lateral swivelling of the lamella – lamellae do not swivel into the cable space
- Each chain link consists of two different materials:
  - Hard chain body made of glass-fibre reinforced material
  - Lamellae with flexible film hinge made of special elastic plastic

- High torsional rigidity
- Extensive unsupported length
- Very quiet through integrated noise damping



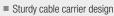














Fast and easy installation of cables



Very high fill level



High side stability



Divider systems for reliable cable separation

Key for abbreviations

on page 16

### EasyTrax® series | Overview

### Cable carrier design

Solid plastic cable carriers: chain links and end connectors made of plastic

Each chain link consists of two different materials:

- Hard cable carrier body made of glass fiber-reinforced material
- Flexible lamellae made of elastic plastic



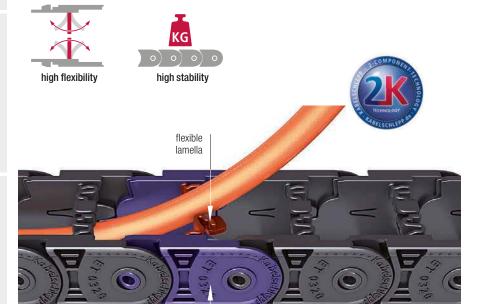
### Design guidelines from page 64

### The two-component technology

The two-component technology of the EasyTrax® combines two seemingly incompatible features: stability and flexibility.

Cable carriers need to be extremely sturdy, with extensive unsupported length. At the same time, cables need to be inserted easily for fast cable laying. The EasyTrax® meets these requirements thanks to its innovative design and material combination of a hard cable carrier body made from fiber glass reinforced material and lamellae made of elastic plastic.







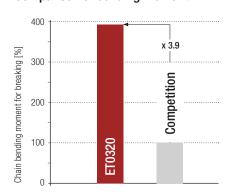
hard chain link of fiber glass reinforced material

### EasyTrax® series | Comparison Test

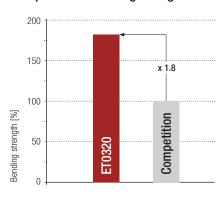
### Comparison of dimensions

Manufacturer	<b>h</b> i [mm]	<b>h</b> <sub>G</sub> [mm]	t [mm]	Identical connec- tion hole pattern
ET0320	18	25.5	32	yes
Competitive product	19	25	30.5	yes

### Comparison of bending moment



### Comparison of bending strength



#### Inner heights



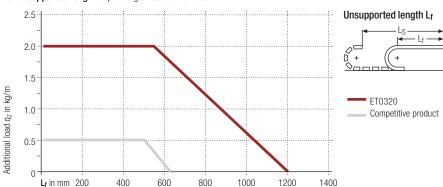
#### Inner widths



tsubaki-kabelschlepp.com/ easvtrax

### Load diagram

for unsupported length depending on additional load



### Advantages over competitive product

- 4 times bigger additional load compared to competitive product
- Double unsupported length compared to competitive product
- Faster cable laying at a higher utilization faktor
- Low noise operation due to internal damping system
- High side stability through locking in the stroke system
- Dividers can be used for cable separation

### EasyTrax® series | Overview

Key for abbreviations on page 16

Design guidelines from page 64

technik@kabelschlepp.de Technical support:

Online-engineer Cable Carrier Configurator
8

90

Туре	Opening variant	Stay variant	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	B <sub>i</sub> [mm]	B <sub>k</sub> [mm]	B <sub>i</sub> - grid [mm]	$\begin{matrix} t \\ [mm] \end{matrix}$	KR [mm]	Additional load ≤ [kg/m]	Cable- d <sub>max</sub> [mm]	
ET0115						رسی	رنسي			SA		
7 7		040	4.6	8	7	11	-	11,5	10	0.4	3.5	
الم الم												
ET0320												
F. F. F		030	18	25.5	15 – 65	27 – 77	-	32	28 – 125	1.2	14	
		040	18	25.5	15 – 65	27 – 77	-	32	28 – 125	1.2	14	
ET1455												
		030	25	36	25 – 78	94	-	45.5	52 – 200	6	20	
		040	25	36	25-78	94	-	45.5	52-200	6	20	



### Technical manual

Do you need more information on the EasyTrax® series? Our technical manual with all information on configuring your cable carrier can be found at **tsubaki-kabelschlepp.com/download**.

### EasyTrax® series | Overview

Unsuppo	rted arraı	ngement	Gliding	g arrange	ment		Inner dis	tribution		Installa	ation va	ariants	Page
$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v <sub>max</sub> ≤ [m/s]	<b>a</b> max ≤ [m/s²]	$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v <sub>max</sub> ≤ [m/s]	<b>a</b> max ≤ [m/s²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	Pa
								H		vertica or	ΞŃ	arra	
0.68	3	10	-	-	-	-	-	-	-	•	-	-	202
2.90	10	50	80	2.5	25	•	-	-	-	•	-	•	206
2.90	10	50	-	-	-	•	-	-	-	•	-	•	207
4.80	10	50	120	2.5	20	•	-	-	-	•	-	•	212
4.80	10	50	-	-	-	•	-	-	-	•	-	•	213

Key for abbreviations on page 16

## ET0115



Pitch 11.5 mm



Inner height 4.6 mm



Inner width 7 mm



Bending radius 10 mm

### Stay variants



### Design 040 page 202

Frame with lamellae in the inner radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Swivelling at any position on one side.
- Inside: swivelling.



### 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

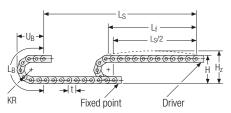


#### TRAXLINE® cables for cable carriers

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

### ET0115 | Installation dim. | Unsupported

### **Unsupported arrangement**



KR	Н	$H_z$	$L_B$	$U_{B}$
[mm]	[mm]	[mm]	[mm]	[mm]
10	28	38	54.5	25.5

Inner heights



Inner widths



**↓** 

tsubaki-kabelschlepp.com/ easvtrax

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

Intrinsic cable carrier weight  $q_k=0.044\ kg/m$  with  $B_i$  7 mm. For other inner widths, the maximum additional load changes.



Speed up to 3 m/s

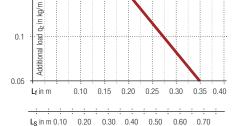
Travel length up to 0.68 m



Acceleration up to 10 m/s<sup>2</sup>



Additional load up to 0.4 kg/m



### Additional product information online



Installation instructions, etc.:
Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ support



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

# eviations

## Key for abbreviations on page 16

### ET0115.040 | Dimensions · Technical data

### Stay variant 040 – with lamella in the inner radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Can be swivelled at any position on one side.
- Inside: swivelling.



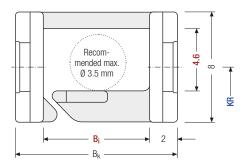


Stay arrangement on each chain link (VS: fully-stayed)



B<sub>i</sub> 7 mm

Design guidelines from page 64





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>	h <sub>G</sub>	<b>B</b> i	B <sub>k</sub>	KR	<b>q<sub>k</sub></b>
[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
4.6	8	7	B <sub>i</sub> + 4	10	0.044

# technik@kabelschlepp.de

# online-engineer.de

Technical support:



Inner heights

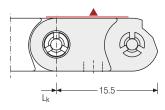
Inner

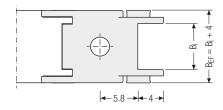
widths

tsubaki-kabelschlepp.com/

### End connector - plastic

The plastic end connectors can be connected from above or below.





▲ Assembly options

The end connectors can be swivelled in the KR direction.



**Connection point** 

F - fixed point

M - driver

Connection type

A - threaded joint outside



# ET032



Pitch 32 mm



Inner height 18 mm



Inner widths 15 – 65 mm



Bending radii 28 - 125 mm

### Stay variants



### **Design 030** page **206**

Frame with lamellae in the outer radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side.
- Outside: swivelling.



**Design 040** page **207** 

#### Frame with lamellae in the inner radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side.
- Inside: swivelling.



### 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

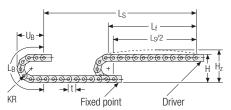


#### TRAXLINE® cables for cable carriers

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

### ET0320 | Installation dim. | Unsupported · Gliding

### **Unsupported arrangement**



KR [mm]	H [mm]	H <sub>z</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
28	81.5	101.5	152	73
38	101.5	121.5	184	83
48	121.5	141.5	215	93
75	175.5	195.5	300	120
100	225.5	245.5	379	145
125	275.5	295.5	457	170

Inner heights



Inner widths



tsubaki-kabelschlepp.com/

Load diagram for unsupported length depending on the additional load.

Intrinsic cable carrier weight  $q_{k}=0.40\ \text{kg/m}$  with B<sub>i</sub> 38 mm. For other inner widths, the maximum additional load changes.



Speed up to 10 m/s

Travel length up to 2.9 m

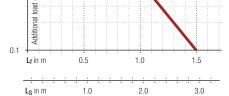


Acceleration up to 50 m/s<sup>2</sup> 1.0

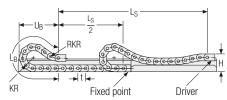
q<sub>z</sub> in kg/m



Additional load up to 1.2 kg/m



### Gliding arrangement





Speed up to 2.5 m/s

Travel length

up to 80 m



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



Additional load up to 1.2 kg/m

The gliding cable carrier must be guided in a channel. See p. 706.

Only design 030 can be used for a gliding arrangement.

# Key for abbreviations on page 16

### ET0320.030 | Dimensions · Technical data

### **Stay variant 030** – with lamellae in the outer radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side
- Outside: swivelling.



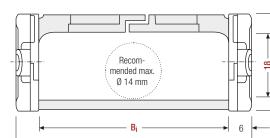


Stay arrangement on each chain link (VS: fully-stayed)



 $B_i$  15 - 65 mm

Design guidelines from page 64



i

25.5

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

Technical support: technik@kabelschlepp.de

online-engineer.de

<b>h</b> i [mm]	h <sub>G</sub> [mm]			B <sub>i</sub> [mn	າ]			B <sub>k</sub> [mm]		<b>K</b> [m	<b>R</b> m]		<b>q</b> k [kg/m]
 18	25.5	15	25	38		50	65						0.35 – 0.45



### ET0320.040 | Dimensions · Technical data

### Stay variant 040 - with lamellae in the inner radius

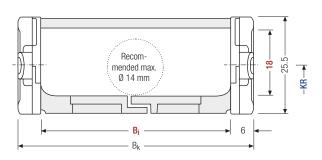
- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side
- Inside: swivelling.





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





- The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.
- Design 040 is not suitable for gliding arrangements.

### 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	hG	B <sub>i</sub>			$B_k$	KR						$q_k$	
[mm]	[mm]			[mm]		[mm]			[m	m]			[kg/m]
													0.35 - 0.45

### Order example



**6**5

Inner heights Key for abbreviations on page 16

### ET0320 | Inner distribution |

### **Divider systems**

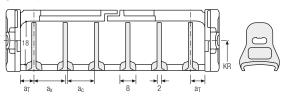
The divider system is mounted on every 2<sup>nd</sup> chain link as a standard.

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

### Divider system TS0 without height separation

Vers.	a <sub>T min</sub> [mm]	a <sub>x min</sub> [mm]	a <sub>c min</sub> [mm]	n <sub>T min</sub>
Α	4	8	6	_

The dividers can be moved in the cross section.



### Order example



Please state the designation of the divider system (TS0), the version, and the number of dividers per cross section [n<sub>T</sub>]. You are welcome to add a sketch to your order.

Design guidelines technik@kabelschlepp.de Technical support:

from page 64

online-engineer.de

### Additional product information online



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

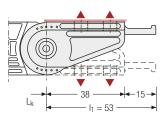
support

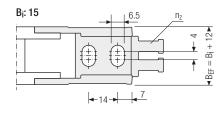


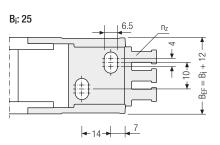
Configure your cable carrier here: online-engineer.de

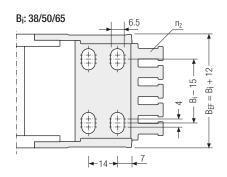
### Single-part end connectors – plastic (with integrated strain relief)

The plastic end connectors can be connected from above or below. The connection type can be changed by altering the position of the end connector.







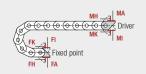


### ▲ Assembly options

<b>B</b> i [mm]	B <sub>EF</sub> [mm]	n <sub>z</sub>
15	27	2
25	37	3
38	50	4
50	62	5
65	77	6



The end connectors are also available as an option without integrated strain relief. Please state when orderina.



#### 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







Inner widths



tsubaki-kabelschlepp.com/



Pitch 45.5 mm



Inner height 25 mm



Inner width 78 mm



Bending radii 52 - 200 mm

### Stay variants



### **Design 030** page 212

Frame with lamellae in the outer radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side.
- Outside: swivelling.



Design 040 page 213

Frame with lamellae in the inner radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side.
- Inside: swivelling.



### TOTALTRAX® complete systems

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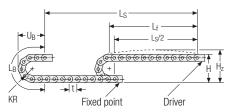


#### TRAXLINE® cables for cable carriers

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

### ET1455 | Installation dim. | Unsupported · Gliding

### **Unsupported arrangement**



KR [mm]	H [mm]	H <sub>z</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
52	140	165	255	116
65	166	191	296	129
95	226	251	390	159
125	286	211	484	189
150	336	361	563	214
180	396	421	657	244
200	436	461	720	264

Inner heights

25

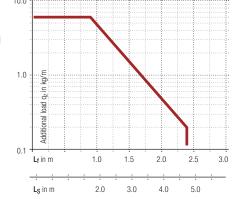
Inner widths

25 78

tsubaki-kabelschlepp.com/

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

Intrinsic cable carrier weight  $q_k=0.75\ \text{kg/m}$  with  $B_i$  38 mm. For other inner widths, the maximum additional load changes.



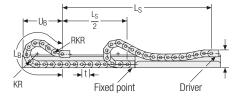
Speed up to 10 m/s







### Gliding arrangement





Speed up to 2.5 m/s

Travel length

up to 120 m



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



Additional load up to 6.0 kg/m The gliding cable carrier must be guided in a channel. See p. 706.

Only design and 030 can be used for a gliding arrangement.

### Stay variant 030 - with lamellae in the outer radius

- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side
- Outside: swivelling.





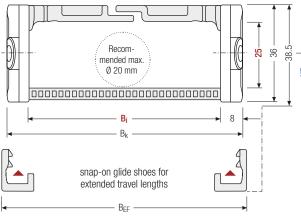
Stay arrangement on each chain link (VS: fully-stayed)



 $B_i 25 - 78 \text{ mm}$ 

Design guidelines from page 64

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 <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]		<b>KR</b> [mm]			<b>q<sub>k</sub></b> [kg/m]	
25	36	38.5	25	30	58	78	R . 16	R- ⊢ 10	52	65	95	125	0.65 – 0.80
20	30	30.3	23	30	50	70	D <sub>1</sub> + 10	שו + וט	150	180	200		0.03 – 0.00

### Order example

5	FT1455	. 030 .	78	150 -	1 456	VS
	Туре	Stay variant	B <sub>i</sub> [mm]	KR [mm]	L <sub>k</sub> [mm]	Stay arrangement

online-engineer.de

### ET1455.040 | Dimensions · Technical data

### Stay variant 040 - with lamellae in the inner radius

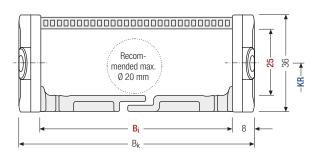
- Weight-optimised plastic frame with particularly high torsional rigidity.
- Lamellae can be swivelled at any position on one side
- Inside: swivelling.





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





- The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.
- Design 040 is not suitable for gliding arrangements.

### 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

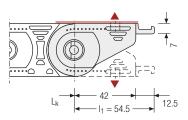
h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	h <sub>G'</sub> [mm]	B <sub>i</sub> [mm]				B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]			<b>q<sub>k</sub></b> [kg/m]	
25	26	20 5	25	20	E0	70	D. 16	D. 10	52	65	95	125	0.65 - 0.80
20	30	30.3	20	30	50	10	Dj + 10	Di + 19	150	180	200		0.00 – 0.00



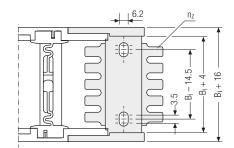
### ET1455 | End connectors

### Single-part end connectors - plastic

The plastic end connectors can be **connected from above or below**. The connection type can be changed by altering the position of the end connector.



▲ Assembly options



Recommended tightening torque: 6 Nm for screws M6 - 8.8

<b>B<sub>i</sub></b> [mm]	$n_z$
25	2 x 2
38	2 x 3
58	2 x 4
78	2 x 6



The end connectors are optionally also available without strain relief comb.
Please state when ordering.

# 

#### Connection point

F - fixed point

M – driver

#### Connection type

A - threaded joint outside (standard)

I – threaded joint inside

 $\mathbf{H}$  – threaded joint, rotated 90° to the outside

**K** – threaded joint, rotated 90° to the inside





Inner heights



Inner widths

25 78

tsubaki-kabelschlepp.com/ easytrax