

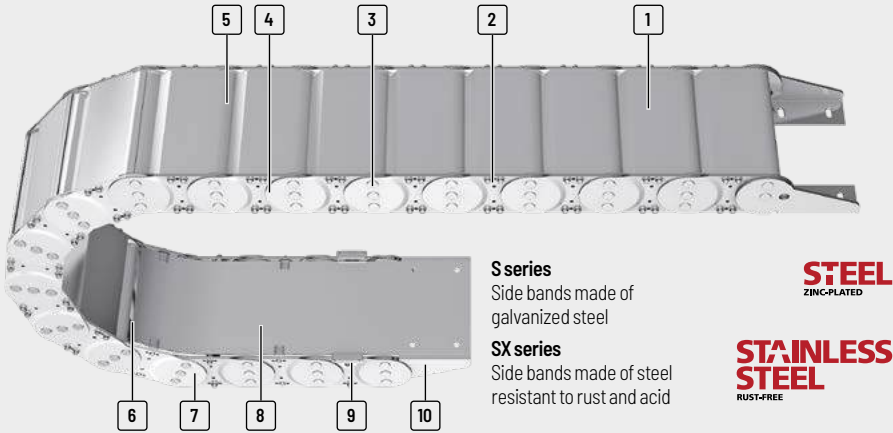
S/SX Tubes series

**Extremely robust and
sturdy covered steel cable carriers**



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STEEL
ZINC-PLATED

STAINLESS STEEL
RUST-FREE

S series

Side bands made of galvanized steel

SX series

Side bands made of steel resistant to rust and acid

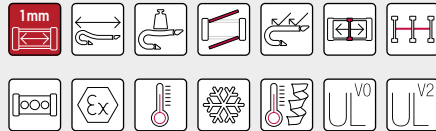
- 1 Aluminum covers available in **1 mm width sections**
- 2 4 bolted aluminum covers for extreme loads
- 3 Joint design with hardened bolts for long service life
- 4 Cranked link plate design
- 5 Can be opened on the inside and the outside for cable laying
- 6 Different separation options for the cables
- 7 Extremely robust side bands, galvanized or stainless steel
- 8 Steel band cover available in **1 mm width sections**
- 9 Replaceable glide shoes
- 10 End connectors for different connection variants

Features

- » Extremely robust, sturdy steel cable carriers for heavy mechanical loads and rough environmental conditions
- » Side bands made of galvanized steel (S series) or corrosion-resistant and acid-resistant steel (SX series) in three qualities: ER 1 / ER 1S and ER 2
- » Very sturdy link plates, each consisting of two individual plates
- » Very extensive unsupported lengths even with large additional loads
- » Joint design with multi stroke system and hardened bolt
- » Bolted stay systems, solid end connectors
- » Explosion protection with classification EX II 2 GD as per ATEX RL

The design

Proven steel cable carriers with extremely sturdy link plates and dedicated joint design with multi stroke system and hardened bolt. The extremely sturdy design allows extensive unsupported lengths and high possible additional loads.



Sandwich design:
Link plates consist of two plates



Glide shoes available for gliding applications



Stroke system with hardened bolt and circlips



Also available as open variants with different stay variants, p. 740

	MT series		Type	Opening variant	Stay variant	h_i [mm]	h_G [mm]	B_i [mm]	B_k [mm]	B_i - grid [mm]	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable- d _{max} [mm]
	XL T series		S/SX0650 Tubes											
					RMD	30	50	65 - 465	100 - 500	1	65	115 - 400	30	24
	ROBOTRAX® System		S/SX0950 Tubes											
					RMD	44	68	88 - 563	125 - 600	1	95	170 - 600	45	35
	FLATVEYOR®		S/SX1250 Tubes											
					RMD	69	94	101 - 751	150 - 800	1	125	200 - 1000	50	55
	CLEANVEYOR®		S/SX1800 Tubes											
					RMD	104	140	188 - 938	250 - 1000	1	180	320 - 1300	60	83
	LS/LSX series													
	S/SX series													
	S/SX-Tubes series													
	Accessories													
	TRAXLINE®													

* Depending on the specific application, additional gliding elements or rollers are required.

** Application-specific, values on request.

Subject to change without notice.

Unsupported arrangement			Gliding arrangement			Inner Distribution				Movement			Page
Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s ²]	Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s ²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
													
5.8	2.5	5	**	1	2	•	•	-	-	•	•	-	832
8.8	2.5	5	**	1	2	•	•	-	-	•	•	-	838
13.5	2.5	5	**	1	2	•	•	•	-	•	•	-	844
17.8	2	3	**	0.8	2	•	•	-	•	•	•	-	848

MT
series

XLT
series

ROBOTRAX®
System

FLATVEVOR®

CLEANVEVOR®

LS/SX
series

S/SX
series

S/SX-Tubes
series

Accessories

TRAXLINE®

S/SX0650



Pitch
65 mm



Inner height
30 mm



Chain widths
100 – 500 mm



Bending radii
115 – 300 mm

Stay variants



Aluminum stay RMD page 832

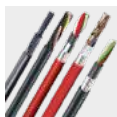
Aluminum cover system

- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » **Inside/outside:** Threaded joint easy to release.



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



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TRAXLINE®

Aluminum stay RMD – aluminum cover system

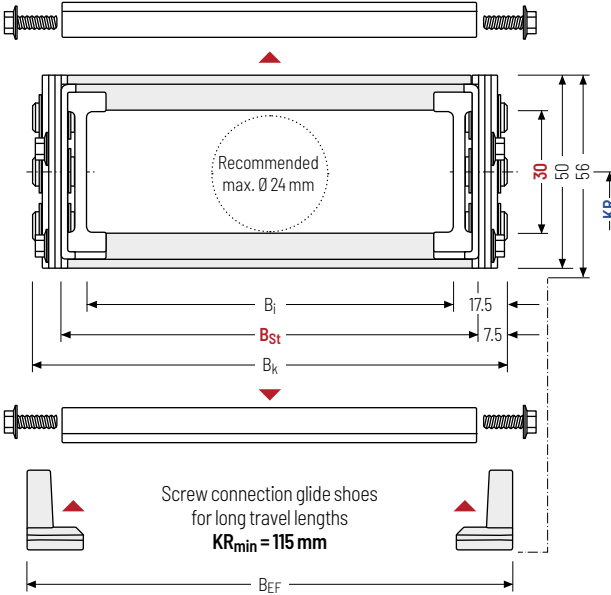
- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » Available customized in **1 mm grid**.
- » **Inside/outside:** Threaded joint easy to release.



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



1 mm B_k 100 – 500 mm in 1 mm width sections



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

Calculating the cable carrier length

Cable carrier length L_k

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

Cable carrier length L_k rounded to pitch t

h _i [mm]	h _G [mm]	h _{G'} [mm]	B _i [mm]	B _{St} [mm]*	B _k [mm]	B _{EF} [mm]	KR [mm]					q _k [kg/m]
30	50	56	65 465	85 485	B _{St} + 15	B _{St} + 20	115	125	135	145	155	4.84
							175	200	250	300	400	10.50

* in 1 mm width sections

Order example



SX0650 Type	180 B _{St} [mm]	RMD Stay variant	135 KR [mm]	St Material	1430 L _k [mm]	VS Stay arrangement
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Divider systems

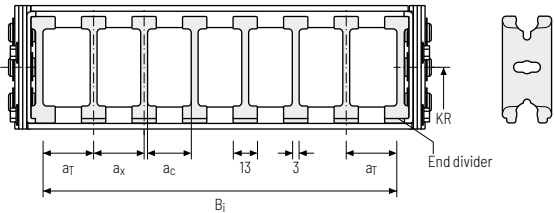
As a standard, the divider system is mounted on every 2nd cover/chain link (HS).

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

Divider system TS0 without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	11.5	13	10	-

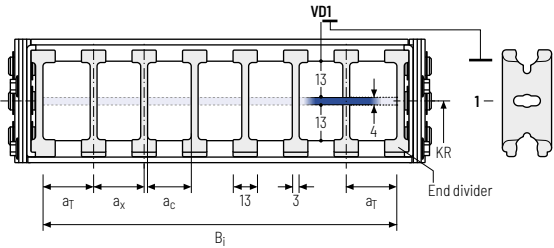
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	11.5	13	10	2

The dividers can be moved in the cross section.



Order example



TS1

A

3

VD0

⋮

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.

The end dividers are part of the divider system and don't have to be ordered separately.

MT
series

XLT
series

ROBOTRAX®
System

FLATVEVOR®

CLEANVEVOR®

LS/SX
series

S/SX
series

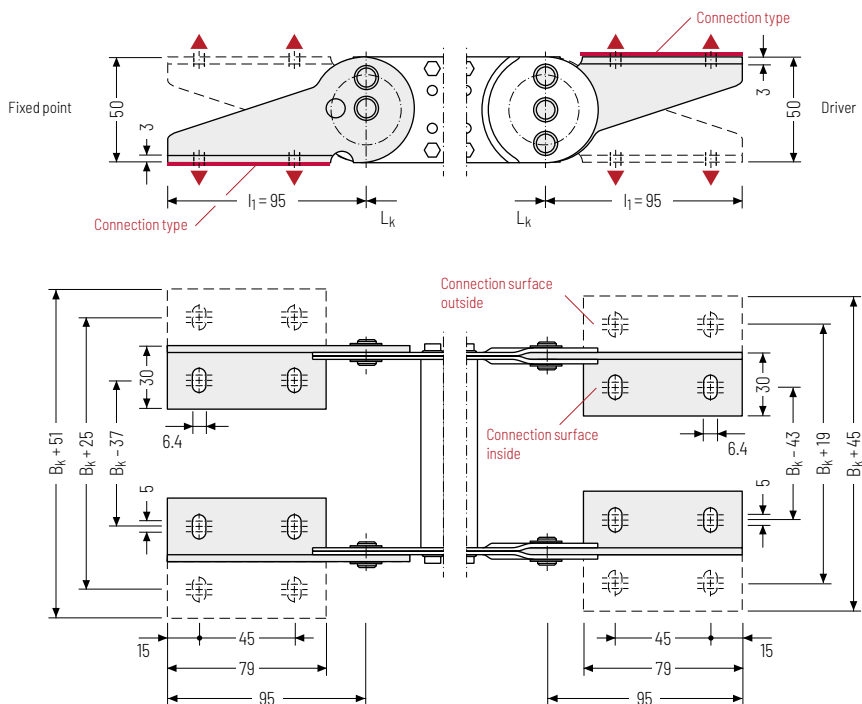
S/SX-Tubes
series

Accessories

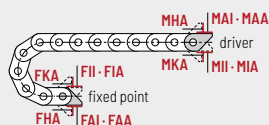
TRAXLINE®

End connectors - steel

End connectors made of steel. The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



▲ Assembly options



Caution: The standard connection variant FAI/MAI is only possible from B_k of 70 mm.

Connection point

F – fixed point
M – driver

Connection type

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

Connection surface

A – connection surface inside (standard)
I – connection surface outside

Order example



Steel	F	A	I
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. 926.



S/SX0950



Pitch
95 mm



Inner height
44 mm



Chain widths
125 – 600 mm



Bending radii
170 – 600 mm

Stay variants



Aluminum stay RMD page 838

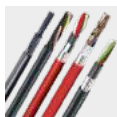
Aluminum cover system

- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » **Inside/outside:** Threaded joint easy to release.



TOTALTRAX® complete systems

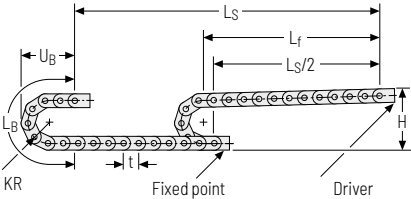
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TRAXLINE® cables for cable carriers

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Unsupported arrangement



Installation height H_z

$H_z = H + 10 \text{ mm/m}$

Load diagram for unsupported length depending on the additional load.

Intrinsic cable carrier weight $q_k = 7.6 \text{ kg/m}$. For other inner widths, the maximum additional load changes.

For cable carriers with a aluminum cover system, a higher intrinsic cable carrier weight is to note.



Speed
up to 2.5 m/s



Acceleration
up to 5 m/s²

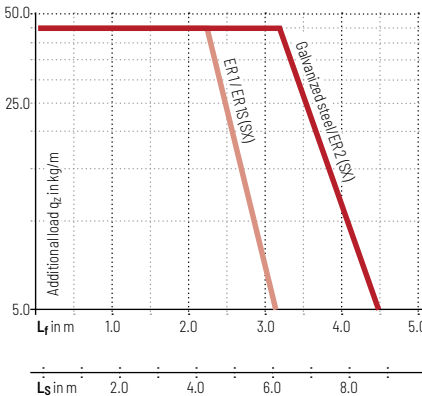


Travel length
up to 8.8 m

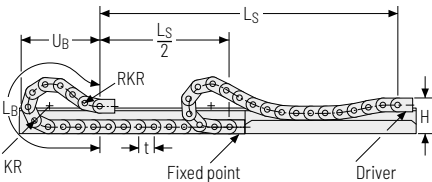


Additional load
up to 45 kg/m

KR [mm]	H [mm]	LB [mm]	UB [mm]
170	442	914	395
200	502	1008	425
260	622	1197	485
290	682	1291	515
320	742	1385	545
350	802	1480	575
410	922	1668	635
600	1302	2264	825



Gliding arrangement



Speed
up to 1 m/s



Acceleration
up to 2 m/s²



Travel length
on request



Additional load
up to 45 kg/m



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

Glide shoes have to be used for gliding applications.

Aluminum stay RMD –
aluminum cover system

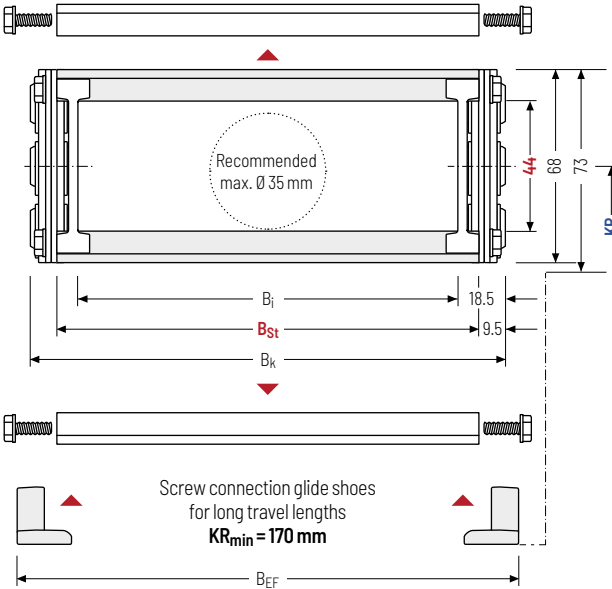
- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » Available customized in **1 mm grid**.
- » **Inside/outside:** Threaded joint easy to release.



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



1 mm B_k 125 – 600 mm
in 1 mm width sections



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

Calculating the
cable carrier length

Cable carrier length **L_k**

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

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

h_i [mm]	h_G [mm]	h_{G'} [mm]	B_i [mm]	B_{St} [mm]*	B_k [mm]	B_{EF} [mm]	KR [mm]				q_k [kg/m]
44	68	73	88 563	106 581	B _{St} + 19	B _{St} + 28	170 320	200 350	260 410	290 600	9.97 21.95

* in 1 mm width sections

Order example



SX0950	107	RMD	200	St	2375	VS
Type	B _{St} [mm]	Stay variant	KR [mm]	Material	L _k [mm]	Stay arrangement

Divider systems

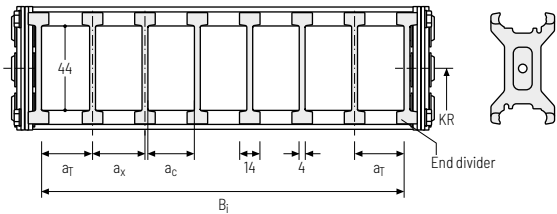
As a standard, the divider system is mounted on every 2nd cover/chain link (HS).

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

Divider system TS0 without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	12	14	10	-

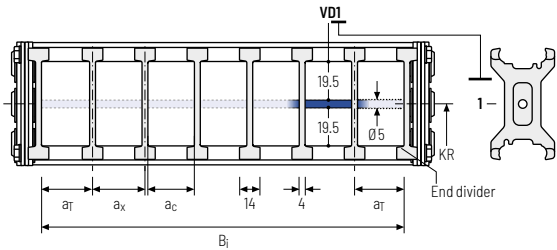
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	12	14	10	2

The dividers can be moved in the cross section.



Order example



TS1

A

3

VD0

⋮

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.

The end dividers are part of the divider system and don't have to be ordered separately.

MT
series

XLT
series

ROBOTRAX®
System

FLATVEVOR®

CLEANVEVOR®

LS/LSX
series

S/SX
series

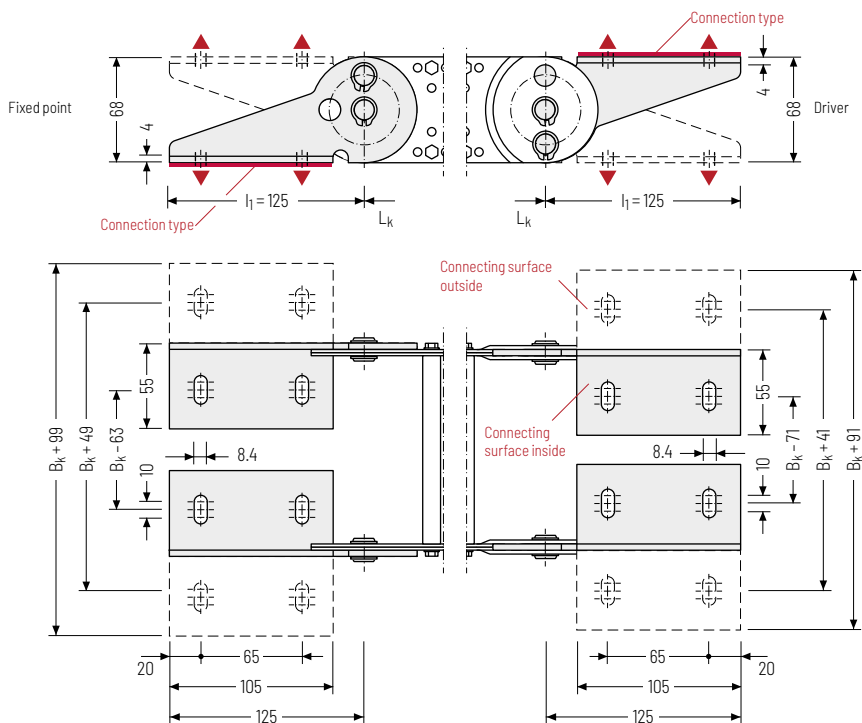
S/SX-Tubes
series

Accessories

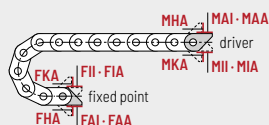
TRAXLINE®

End connectors - steel

End connectors made of steel. The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



▲ Assembly options



Connection point

F – fixed point
M – driver

Connection type

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

Connection surface

A – connection surface inside (standard)
I – connection surface outside

 **Caution:** The standard connection variant FAI/MAI is only possible from B_k of 122 mm.

Order example



Steel	F	A	I
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. 926.



841									
TRAXLINE®	Accessories	S/SX-Tubes series	S/SX series	LS/LSX series	CLEANVEYOR®	FLATVEYOR®	ROBOTRAX® System	XLT series	MT series

S/SX1250



Stay variants



Aluminum stay RMD page 844

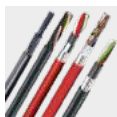
Aluminum cover system

- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » **Inside/outside:** Threaded joint easy to release.



TOTALTRAX® complete systems

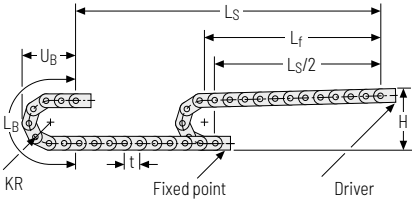
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Unsupported arrangement



Installation height H_z

$H_z = H + 10 \text{ mm/m}$

Load diagram for unsupported length depending on the additional load.

Intrinsic cable carrier weight $q_k = 13 \text{ kg/m}$. For other inner widths, the maximum additional load changes.

For cable carriers with a aluminum cover system, a higher intrinsic cable carrier weight is to note.



Speed
up to 2.5 m/s



Acceleration
up to 5 m/s²

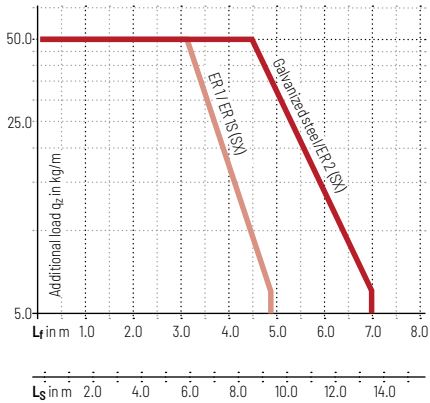


Travel length
up to 13.5 m

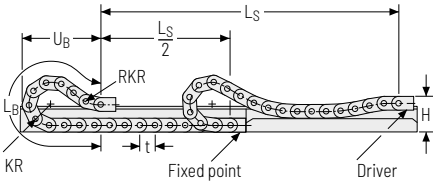


Additional load
up to 50 kg/m

KR [mm]	H [mm]	LB [mm]	UB [mm]
200	541	1128	497
220	581	1191	517
260	661	1317	557
300	741	1442	597
340	821	1568	637
380	901	1694	677
420	981	1820	717
460	1061	1945	757
500	1141	2071	797
540	1221	2196	837
600	1341	2385	897
1000	2141	3640	1297



Gliding arrangement



Speed
up to 1 m/s



Acceleration
up to 2 m/s²



Travel length
on request



Additional load
up to 50 kg/m



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

Glide shoes have to be used for gliding applications.

Aluminum stay RMD –
aluminum cover system

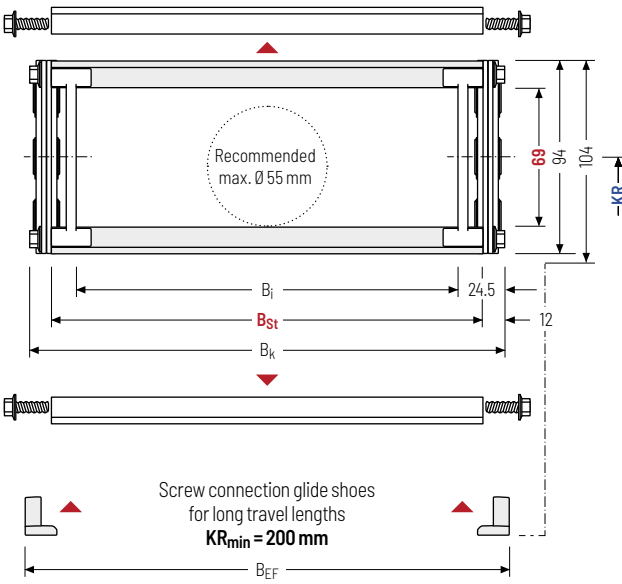
- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » Available customized in **1 mm grid**.
- » **Inside/outside:** Threaded joint easy to release.



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



1 mm B_k 150 – 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 _{St} [mm]*	B _k [mm]	B _{EF} [mm]	KR [mm]						q _k [kg/m]
69	94	104	101 751	126 776	B _{St} + 24	B _{St} + 30	200**	220**	260	300	340	380	15.48
							420	460	500	540	600	1000	32.38

* in 1 mm width sections ** geometrically reduced inner height

Order example

S1250
Type

352
B_{St} [mm]

RMD
Stay variant

260
KR [mm]

St
Material

4750
L_k [mm]

VS
Stay arrangement

Divider systems

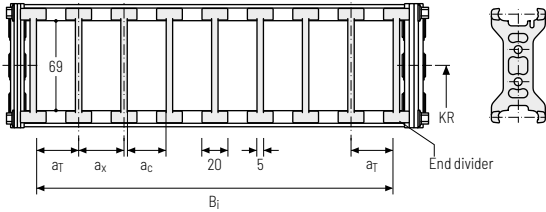
As a standard, the divider system is mounted on every 2nd cover/chain link (HS).

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

Divider system TS0 without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	η _T min
A	17.5	20	15	-

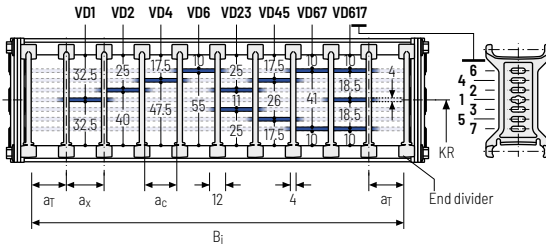
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	η _T min
A	10	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]	η _T min
A	11*/17**	14*/21	8*/15	2

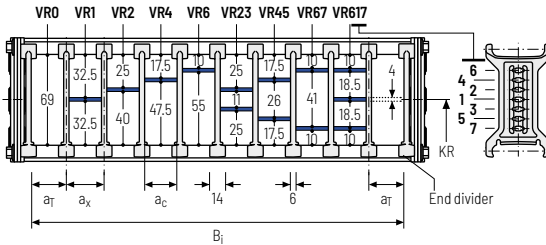
* For VR0

** For version with height separation to the end divider

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	η _T	Chamber	a _x	Height separation

MT series

XLT series

ROBOTRAX® System

FLATVEOR®

CLEANVEOR®

LS/LSX series

S/SX series

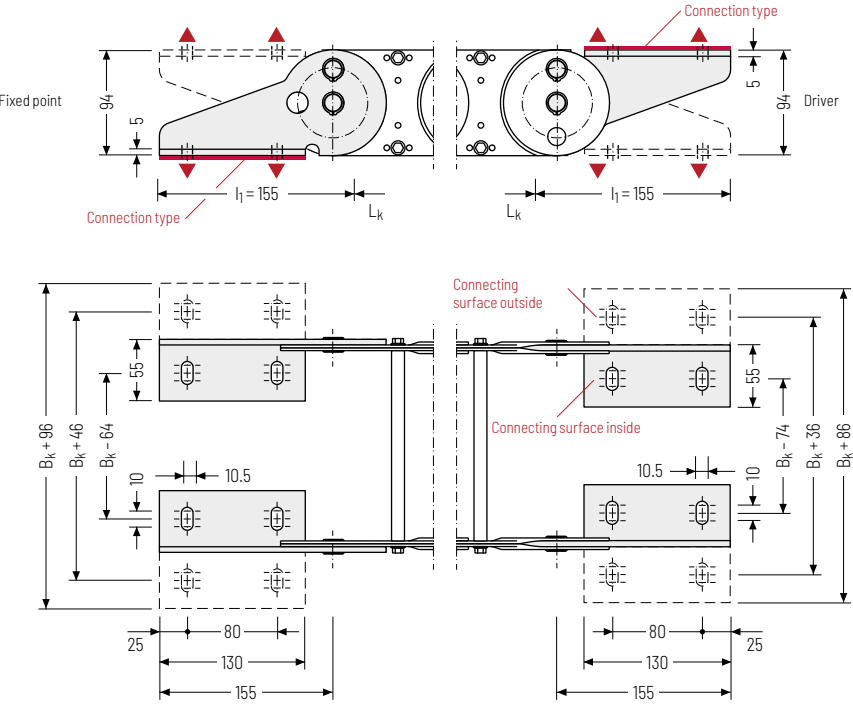
S/SX-Tubes series

Accessories

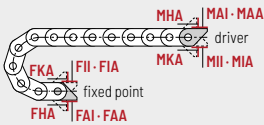
TRAXLINE®

End connectors – steel

End connectors made of steel. The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



▲ Assembly options



Connection point

- F – fixed point
- M – driver

Connection type

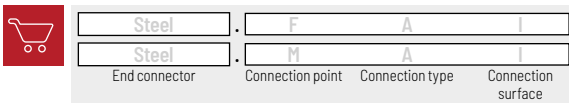
- A – threaded joint to outside (standard)
- I – threaded joint to inside
- H – threaded joint, rotated 90° to the outside
- K – threaded joint, rotated 90° to the inside

Connection surface

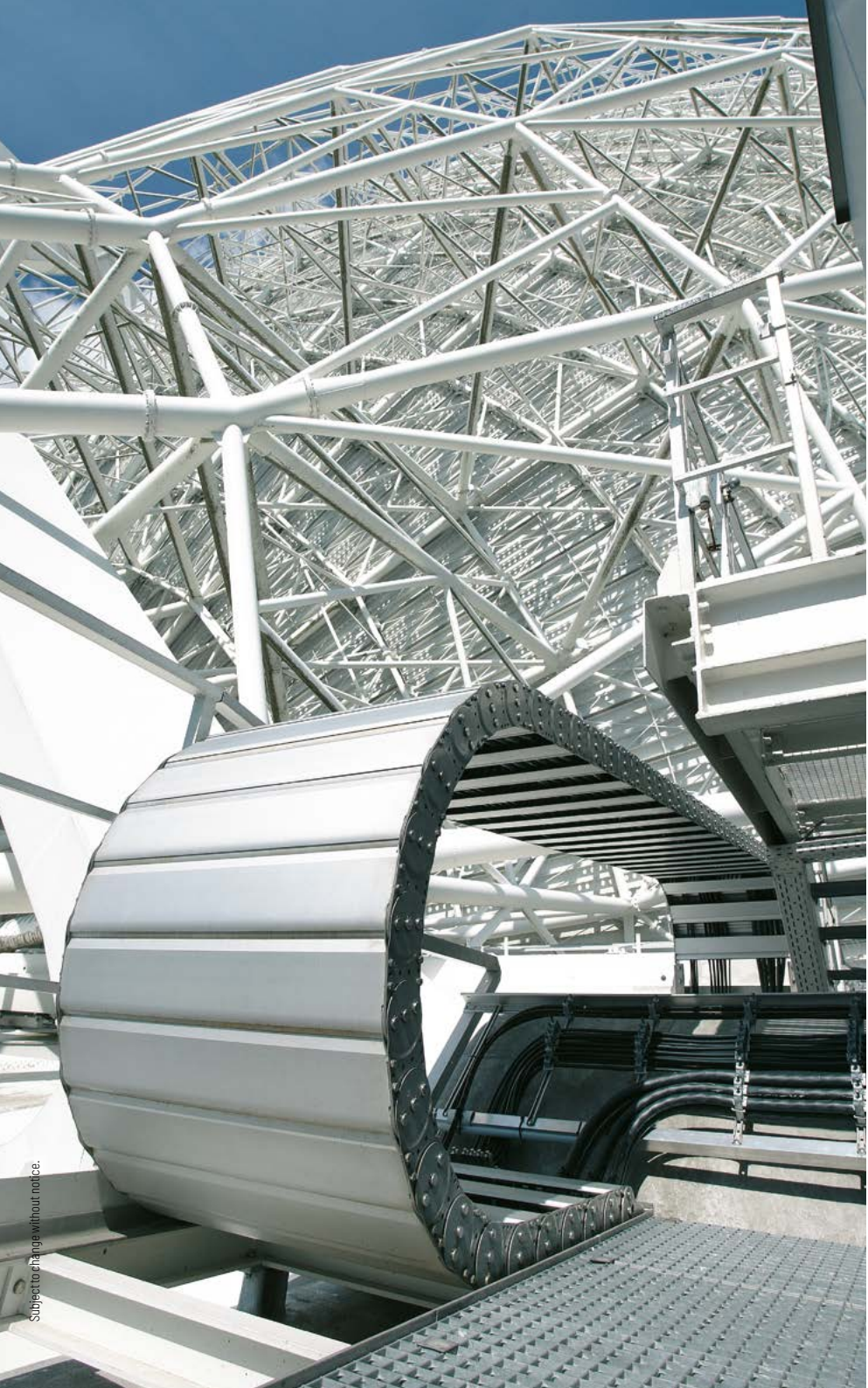
- A – connection surface inside (standard)
- I – connection surface outside

Caution: The standard connection variant FAI/MAI is only possible from B_k of 125 mm.

Order example



Caution: We recommend the use of strain reliefs at the driver and fixed point. See from p. 926.



Subject to change without notice.

847

MT
series

XLT
series

ROBOTRAX®
System

FLATVEYOR®

CLEANVEYOR®

LS/LSX
series

S/SX
series

S/SX-Tubes
series

Accessories

TRAXLINE®

S/SX1800



Pitch
180 mm



Inner height
104 mm



Chain widths
250 – 1000 mm



Bending radii
320 – 1300 mm

Stay variants



Aluminum stay RMD page 850

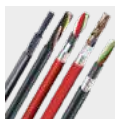
Aluminum cover system

- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » **Inside/outside:** Threaded joint easy to release.



TOTALTRAX® complete systems

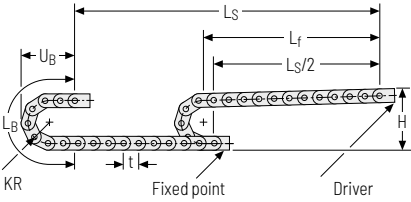
Benefit from the advantages of the TOTALTRAX® complete system.
A complete delivery from one source – with a warranty certificate on request!
Learn more at tsubaki-kabelschlepp.com/totaltrax



TRAXLINE® cables for cable carriers

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

Unsupported arrangement



Installation height H_z

$H_z = H + 10 \text{ mm/m}$

Load diagram for unsupported length depending on the additional load.

Intrinsic cable carrier weight $q_k = 26 \text{ kg/m}$. For other inner widths, the maximum additional load changes.

For cable carriers with a aluminum cover system, a higher intrinsic cable carrier weight is to note.



Speed
up to 2 m/s



Acceleration
up to 3 m/s²

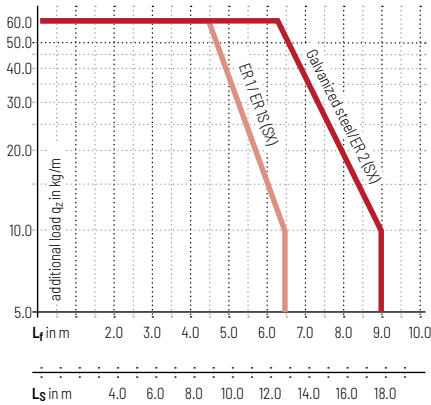


Travel length
up to 17.8 m

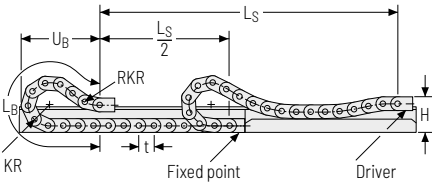


Additional load
up to 60 kg/m

KR [mm]	H [mm]	L _B [mm]	U _B [mm]
320	850	1725	750
375	960	1898	805
435	1080	2087	865
490	1190	2259	920
605	1420	2620	1035
720	1650	2982	1150
890	1990	3516	1320
1175	2560	4411	1605
1300	2810	4804	1730



Gliding arrangement



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

Glide shoes have to be used for gliding applications.



Speed
up to 0.8 m/s



Acceleration
up to 2 m/s²



Travel length
on request



Additional load
up to 60 kg/m

Aluminum stay RMD –
aluminum cover system

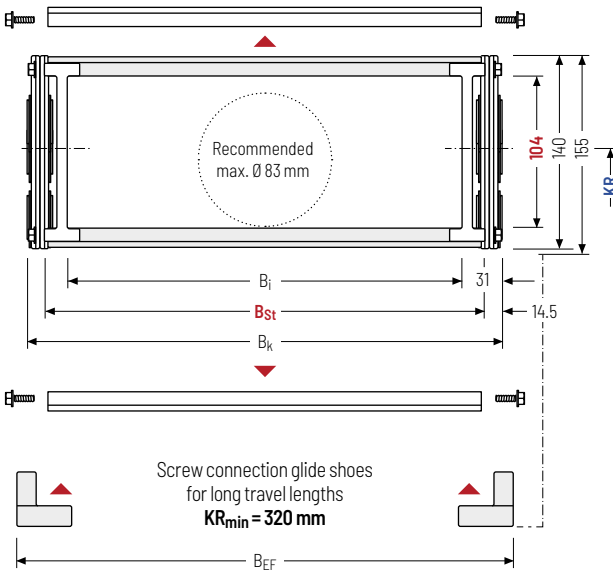
- » Bolted aluminum covers for maximum stability.
- » For applications generating chips or coarse contamination.
- » Available customized in **1 mm grid**.
- » **Inside/outside:** Threaded joint easy to release.



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



1 mm B_k 250 – 1000 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 _{St} [mm]*	B _k [mm]	B _{EF} [mm]	KR [mm]					q _k [kg/m]
104	140	155	188	221	B _{St} + 29	B _{St} + 40	320	375	435	490	605	28.46
			938	971			720	890	1175	1300		47.67

* in 1 mm width sections

Order example



S1800

Type

417

B_{St} [mm]

RMD

Stay variant

375

KR [mm]

St

Material

5940

L_k [mm]

VS

Stay arrangement

Divider systems

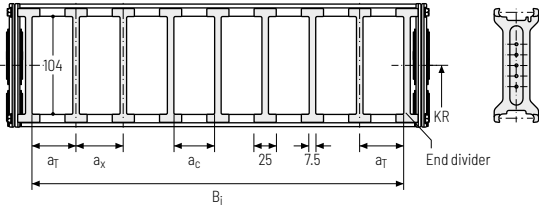
As a standard, the divider system is mounted on every 2nd cover/chain link (HS).

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

Divider system TS0 without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	21.5	25	17.5	–

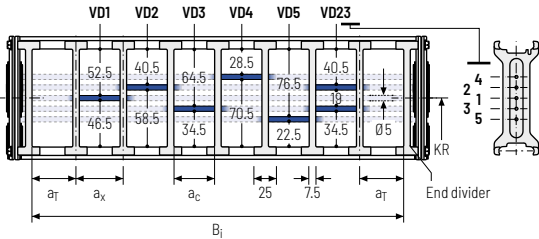
The dividers can be moved in the cross section.



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	21.5	25	17.5	2

The dividers can be moved in the cross section.



Divider system TS3 with height separation consisting of plastic partitions

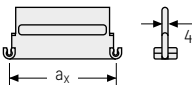
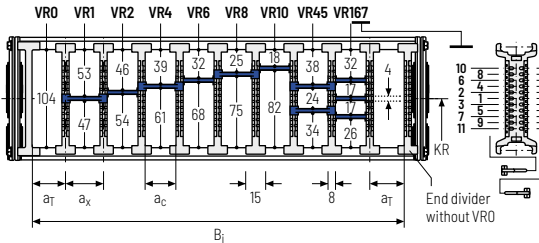
Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	n _T min
A	38*/16.5**/12***	16/42*	8	2

* For aluminum partitions

** For VRO

*** For version with height separation to the end divider

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 = 5 mm). Twin dividers are also suitable for retrofitting in the partition system.

MT series

XLT series

ROBOTRAX® System

FLATVOR®

CLEANVOR®

LS/LSX series

S/SX series

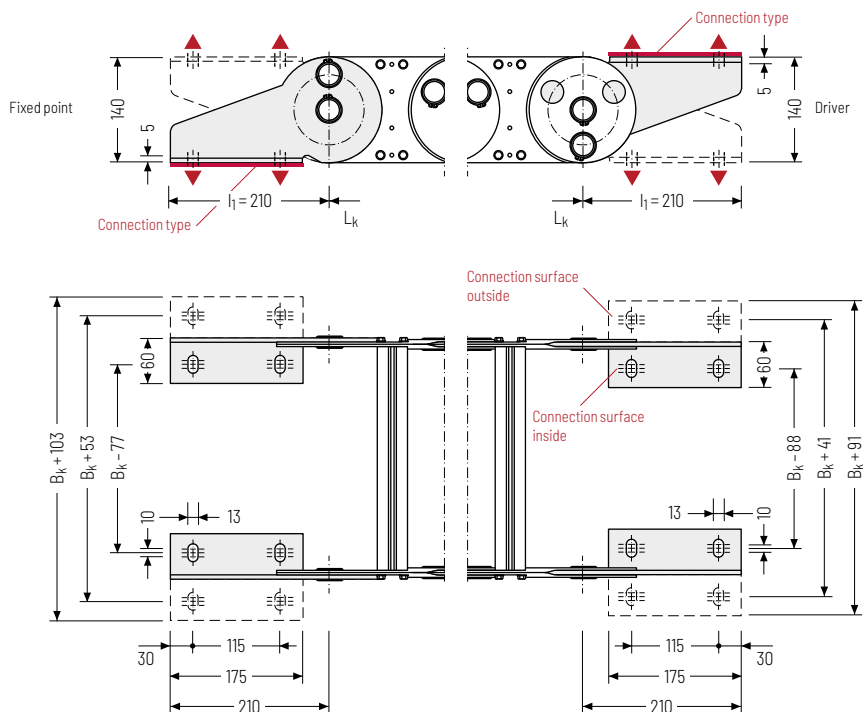
S/SX-Tubes series

Accessories

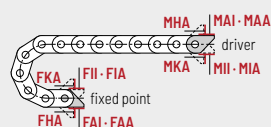
TRAXLINE®

End connectors – steel

End connectors made of steel. The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



▲ Assembly options



Connection point

F – fixed point
M – driver

Connection type

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

Connection surface

A – connection surface inside (standard)
I – connection surface outside

Caution: The standard connection variant FAI/MAI is only possible from B_k of 139 mm.

Order example



Steel	F	A	I
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. 926.



Subject to change without notice.

TRAXLINE®

Accessories

S/SX-Tubes
series

S/SX
series

LS/LSX
series

CLEANVEOR®

FLATVEOR®

ROBOTRAX®
System

XLT
series

MT
series

853