

VARIO-LINE

Cable carriers with variable chain widths



K Series

MASTER H Series

MASTER L Series

M Series

XL Series

QUANTUM

Subject to change.



Cable carriers with variable chain widths

K Series

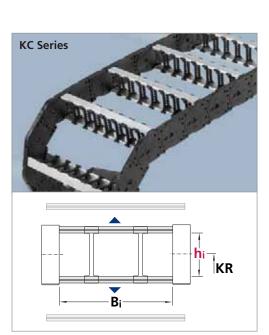




K Series – Cable carriers with variable chain widths



- Available in 1, 8 or 16 mm section widths
- Standard widths can be delivered ex-stock
- Can be opened quickly on the inside and the outside for cable laying
- Solid plastic or in combination with aluminium stays
- Extremely robust owing to strong sideband construction
- Enclosed stroke system not sensitive to dirt/contamination
- Transmission of forces (tensile and shearing forces) over a large surface area via the optimum link design according to the "life extending 2 disc principle"
- Standard universal mounting brackets (UMBs) suitable for any assembly situation
- Optionally available with different strain relief systems
- TÜV design approved in accordance with 2PfG 1036/10.97



Type KC with aluminium stays

Plastic and aluminium combination

Available in **1 mm width sections**



Туре	hį	Bi		Dynan unsupported		
			Maximum travel length in m	Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s²	Page
KC 0650	38	75-400	220	8	40	76
KC 0900	58	100-500	260	6	30	76

Type KE with plastic stays

Solid plastic

available in 8 or 16 mm width sections

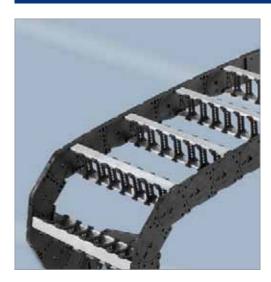
Diagon		:	
Dimer	ISIONS	III	HIII

Туре	hį	Bį		Dynamics of unsupported arrangement		
			Maximum travel length in m	Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s ²	Page
KE 0650	42	68-260	220	8	40	76
KE 0900	58	81-561	260	6	30	76

K Series - Types KC 0650/0900 and KE 0650/0900

Carrier construction

Types KC 0650/0900



Hybrid cable carriers with plastic chain bands and aluminium stays.

Available in **1 mm width sections**.

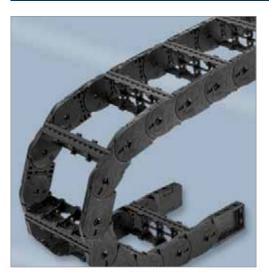


Standard stay arrangement:

on every 2nd chain link.

Stays can be fitted on every chain link, please specify when placing your order.

Types KE 0650/0900



Solid plastic cable carriers.

KE 0650: Available in 8 mm width sections.KE 0900: Available in 16 mm width sections.

Standard stay arrangement:

on every 2nd chain link.

Stays can be fitted on every chain link, please specify when placing your order



K Series - Types KC 0650/0900 and KE 0650/0900

Stay variants

Stay variants for types KC 0650 and KC 0900



Frame stay RS made of aluminium – Standard design – types KC 0650/0900

For lightweight to medium loads.

Opening options:

Outside / inside: the cable carrier can be opened quickly and easily simply by rotating the stays through 90°.





Frame stay RV made of aluminium – Reinforced design – type KC 0900

For medium to heavy loads and for large chain widths.

Opening options:

Outside / inside: the cable carrier can be opened quickly and easily simply by rotating the stays through 90°.



Hole stay LG available on request.

Stay variants for the types KE 0650 and KE 0900



Frame stay RE made of plastic

Opening options:

Outside / inside: the cable carrier can be opened quickly and easily simply by rotating the stays through 90°.



K Series - Types KC 0650/0900 and KE 0650/0900

Dimensions and intrinsic chain weight

Types KC 0650/0900

Dimensions in mm/Weights in kg/m

Туре	Stay variant	h _i	h _G	B _{i min}	q _{k min}	B _{i max}	q _{k max}	B _k
KC 0650	RS	38	57.5	75	1.87	400	3.60	B _i + 28
KC 0900	RS	58	78.5	100	2.80	400	5.80	$B_i + 31$
KC 0900	RV	58	78.5	100	3.20	500	7.00	B _i + 31



h_i h_G

B_i

B_k

Standard widths in 25 mm steps available **ex-stock**.

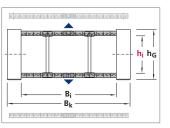
Type 0650: $B_i = 75$, 100, 125, 150 ... 400 **Type 0900:** $B_i = 100$, 125, 150, 175 ... 500

Types KE 0650/0900

Dimensions in mm/Weights in kg/m

Туре	Stay variant	hi	h _G	B _{i min}	q _{k min}	B _{i max}	q _{k max}	B _k
KE 0650	RE	42	57.5	68	1.75	260	2.71	B _i + 28
KE 0900	RE	58	78.5	81	2.95	561	5.95	B _i + 31





Bend radius and pitch

Types KC/KE 0650/0900

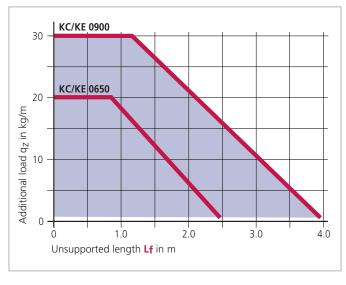
Туре		Bend radii KR									
KC/KE 0650	75	115	145	175	220	300					
KC/KE 0900	130	150	190	245	300	385					

Pitch:

KC/KE 0650: t = 65 mm KC/KE 0900: t = 90 mm

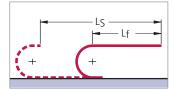
Load diagram

for unsupported length L_{f} depending on the additional load



Unsupported length Lf

Dimensions in mm



In the case of longer travel lengths, sag of the cable carriers is technically permissible depending on the application.

In a gliding arrangement, even longer travel lengths are possible (see page 219).

We are at your service to advise on these applications.

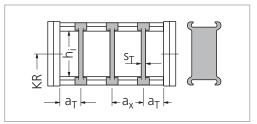


K Series – Types KC 0650/0900

Divider systems - Types KC 0650/0900

Divider system TS 0

Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm
KC 0650	RS	38	3	6.5	13
KC 0900	RS	58	4	7	14
KC 0900	RV	58	4	7	14

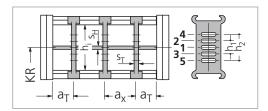


In the standard version, the divider systems are mounted on every second chain link.

Divider system TS 1

with continuous height subdivision made of aluminium

Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _H mm	h ₁ mm	h ₂ mm
KC 0650	RS	38	3	6.5	13	4	15	_
KC 0900	RS	58	4	7	14	4	30	_
KC 0900	RV	58	4	7	14	4	15	30



In the standard version, the divider systems are mounted on every second chain link.

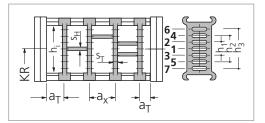
Divider system TS 3

with partitioned height subdivision made of plastic

Туре	Stay variant				a _{x min} mm		h ₁ mm	h ₂ mm	h ₃ mm
KC 0650	RS	38	8	4	16*	4	14	28	-
KC 0900	RV	58		4	16*	4	14	28	42

^{*} When using plastic partitions

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



In the standard version, the divider systems are mounted on every second chain link.

Dimensions of the plastic partitions for TS 3

Sz a x

Aluminium partitions in 1 mm width sections are also available.

S _Z	
4	1
	6
	1

	Dimensions in mm												
	a _x (center-to-center distance, dividers)												
16	18	23	28	32	33	38	43	48	58				
64	68	78	80	88	96	112	128	144	160				
176	192	208											

When using partitions with $a_X > 112$ mm, there should be an additional central support with a **twin divider**.

Thickness of the twin dividers: KC 0650 $S_T = 3$ mm, KC 0900 $S_T = 4$ mm

Twin dividers are designed for subsequent fitting in the partition system. You can find further information on this in our main catalog.

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K Series – Types KE 0650/0900

Fixing the dividers - Types KE 0650/0900

In the standard version, dividers or the complete divider system (dividers with height subdivisions) can be moved in the cross section (**Mounting version A**).

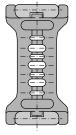
For divider systems TS 0 and TS 1 the dividers or complete divider systems (dividers with height subdivisions) can be fixed by turning the stays (**Mounting version B**).

If the fixed mounting version is desired, please state this when placing your order.

Mounting version A (standard)

Movable Divider:

The arresting cam of the divider can move in the groove of the stay.





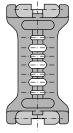


With a movable assembly of the dividers (mounting version A), the holes in the stay do not have any function and hence the dimension ax-section has is meaningless.

Mounting version B

Fixed Divider:

The arresting cam of the divider is fixed in the hole of the stay.







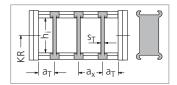
Please note that the dividers can only be fixed in positions at which there is a hole in the stay. The dimension ax-section specifies the hole intervals in the stay.

Hole intervals = fixing positions of the dividers (a_X -sections)

Divider system TS 0

			Mou	unting version	on A	Mounting version B			
Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _T mm	a _{T min} mm	a _{x min} mm	a _{x section} mm
KE 0650	RE	42	4.2	6.5	13.0	4.2	22.0	16	8
KE 0900	RE	58	6.0	7.5	14.5	6.0	8.5	16	16

In the standard version, the divider systems are mounted on every second chain link.

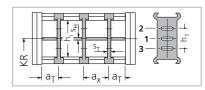


Divider system TS 1

with continuous height subdivision made of aluminium

			Mounting version A				Mounting				
Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _T mm	a _{T min} mm	a _{x min} mm	a _{x section} mm	S _H mm	h ₁ mm
KE 0650	RE	42	4.2	6.5	13.0	4.2	22.0	16	8	4	22
KE 0900	RE	58	6.0	7.5	14.5	6.0	24.5	16	16	4	22

In the standard version, the divider systems are mounted on every second chain link.





K Series – Types KE 0650/0900

Divider systems

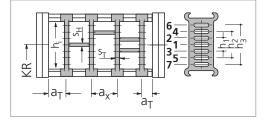
Divider system TS 3

with partitioned height subdivision made of plastic

Type		h _i mm		a _{T min} mm				h ₂ mm	h ₃ mm
KE 0650	RE	42	8	4	16*	4	14	28	-
KE 0900	RE	58	8	4	16*	4	14	28	42

^{*} When using plastic partitions

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



In the standard version, the divider systems are mounted on every second chain link.

Dimensions of the plastic partitions for TS 3

Sz

Aluminium partitions in 1 mm width sections are also available.

S _Z mm	
4	

	Dimensions in mm										
a _x mm (center-to-center distance dividers)											
16	18	23	28	32	33	38	43	48	58		
64	68	78	80	88	96	112	128	144	160		
176	192	208									

When using partitions with $a_X > 112$ mm, there should be an additional central support with a **twin divider**.

Thickness of the twin dividers: KE 0650 $S_T = 3$ mm, KE 0900 $S_T = 4$ mm

Twin dividers are suitable for retrospective assembly in the partitionsection system. Please see our main catalogue for more information on this.

K Series – Types KC/KE 0650/0900

Gliding elements KC/KE

Glide discs and injection molded glide runners



Glide discs

If the cable carrier is arranged rotated "through 90" (gliding on the outer side of the chain band), the glide discs attached to the side optimize the friction and wear conditions.

Determining the chain width with glide discs on both chain bands:

KC / KE 0650: $B_{EF}' = B_i + 36 \text{ mm}$ **KC / KE 0900:** $B_{EF}' = B_i + 45 \text{ mm}$



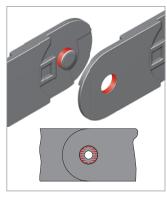
Injection molded glide runners

guarantee the long service life of the cable carrier in the case of long travel lengths and large additional loads.

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

In the K Series, the push and pull forces are transmitted via the optimum link design for this purpose.

As a result link wear is reduced to a minimum and the life of the cable carrier is considerably lengthened.



■ Force transmission with a pin-hole joint



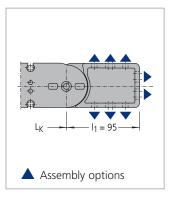
■ Force transmission with the "life extending 2 disc principle"

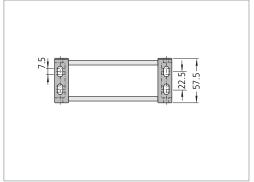


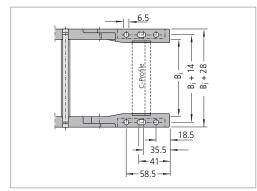
K Series – Types KC/KE 0650/0900

Connection dimensions for types KC/KE 0650

UMB (Universal Mounting Brackets) made of plastic







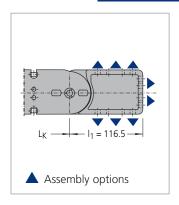
The dimensions of the fixed point and driver connections are identical.

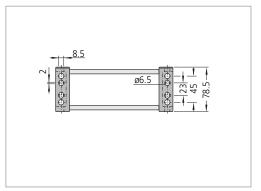
Optionally with C-Profile, slot width 11 – 12 mm, suitable for KABELSCHLEPP SZL-strain relief devices and all common commercial bracket clamps with a small base (see chapter on guide channels and other accessories, from page 218 onwards).

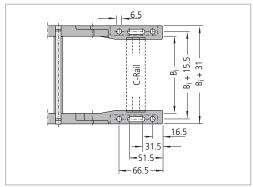
End connectors made of steel plate available on request.

Connection dimensions for types KC/KE 0900

UMB (Universal Mounting Brackets) made of plastic







The dimensions of the fixed point and driver connections are identical.

Optionally with C-Rail, slot width 16 – 17 mm, suitable for KABELSCHLEPP SZL-strain reliefs devices and all common commercial bracket clamps with a large base (see chapter on guide channels and other accessories, from page 218 onwards).

End connectors made of steel plate available on request.

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Cable carriers with variable chain widths

MASTER H Series



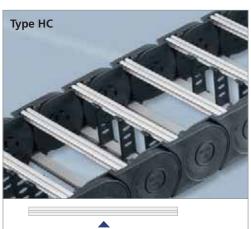


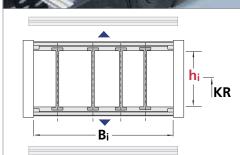


MASTER H Series - Cable carriers with variable chain widths



- Optimized stability for large additional loads
- Standard widths available ex-stock; individual widths in 1 mm sections on request
- Extremely quiet owing to
 - internal damping system for pre-tension and radius strokes
 - optional damping elements which can be attached to the outer radius
- Low intrinsic weight
- Favorable ratio of inner to outer height
- Standard bend radii, application-specific intermediate radii upon request
- Damper system integrated in the chain links to reduce noise emissions
- Variable pre-tensioning for the most varied applications is possible
- Can be opened quickly on the inside and the outside for cable laying
- Transmission of forces (tensile and shearing forces) over a large surface area via the optimum link design according to the "life extending 2 disc principle"
- Many possibilities for internal subdivision
- A choice of closed and open universal mounting brackets (UMBs)
- Optionally available with different strain relief systems





Types HC 33 and HC 46 with aluminium stays

Plastic and aluminium combination
Available in 1 mm width sections



Dimensions in mm

Туре	hį	Bį	Dynam unsupported		
			Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s ²	Page
HC 33	33	50 – 400	10	50	86
HC 46	46	50 – 400	8	40	86

MASTER H Series - Types HC 33 and HC 46

Carrier construction and stay variants

Types HC 33 and HC 46



Hybrid cable carriers with plastic chain bands and aluminium stays.

Available in **1 mm width sections**.

Standard widths in 25 mm steps.



Standard stay arrangement: on every chain link.

Frame stay RSH for types HC 33 and HC 46



Aluminium frame stay

Opening options:

Outside / Inside: the cable carrier can be opened quickly and easily simply by rotating the stays.









■ Apply the tool, turn it through **15°** and the carrier is open.





 \blacksquare It is up to you which tool you use to rotate the stay.



MASTER H Series – Types HC 33 and HC 46

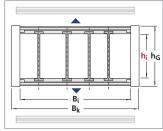
Dimensions and intrinsic chain weight

Dimensions in mm/Weights in kg/m

Туре	h _i	h _G	B _{i min} *	q k min	B _{i max} *	q _{k max}	B _k
HC 33	33	51	50	1,37	400	3,99	B _i + 22
HC 46	46	64	50	1,83	400	4,01	B _i + 26

Standard widths in 25 mm steps.





Bend radius and pitch

									Dime	nsions	in mm
Туре		Bend radii KR									
HC 33	60	75	100	125	150	175	200	220	250	300	-
HC 46	75	100	115	125	150	170	200	215	250	300	350

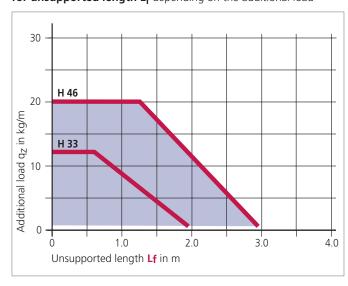
The listed values are standard bend radii.

Pitch:

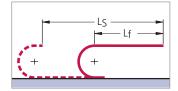
HC 33: t = 56 mm HC 46: t = 67 mm

Load diagram

for unsupported length L_f depending on the additional load



Unsupported length Lf



In the case of longer travel lengths, sag of the cable carriers is technically permissible depending on the application.

In a gliding arrangement, even longer travel lengths are possible (see page 219).

We are at your service to advise on these applications.

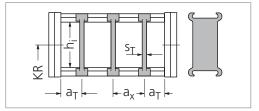
MASTER H Series – Types HC 33 and HC 46

Divider systems

Divider system TS 0

Туре	h _i	S _T	a _{T min}	a _{x min}
	mm	mm	mm	mm
HC 33	33	3	7	13
HC 46	46		7	13

The dividers can be moved in the cross section.



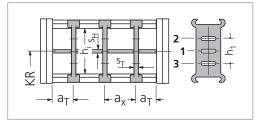
In the standard version, the divider systems are mounted on every second chain link.

Divider system TS 1

with continuous height subdivision made of aluminium

Туре	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _H mm	h ₁ mm
HC 33	33	3	7	13	4	18
HC 46	46	3	7	13	4	20

The dividers can be moved in the cross section.



In the standard version, the divider systems are mounted on every second chain link.

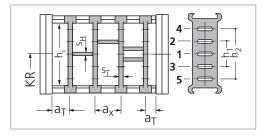
Divider system TS 3

with partitioned height subdivisions made of plastic

Туре	h _i	S _T	a _{T min}	a _{x min}	S _H	h ₁	h ₂
	mm	mm	mm	mm	mm	mm	mm
HC 33	33	8	6	16*	4	14	-
HC 46	46		6	16*	4	14	28

* When using plastic partitions

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

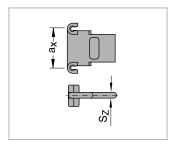


In the standard version, the divider systems are mounted on every second chain link.

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Dimensions of the plastic partitions for TS 3



Aluminium partitions in 1 mm width sections are also available.

S _Z		a _x (center-to-center dividers)										
4	,	16	18	23	28	32	33	38	2			
	6	54	68	78	80	88	96	112	1			
	1	76	192	208								

When using **partitions with a_x > 112** mm, there should be an additional central support with a **twin divider** ($S_T = 3 \text{ mm}$).

Twin dividers are designed for subsequent fitting in the partition system. You can find further information on this in our main catalog.

Dimensions in mm

58

160

48

144



MASTER H Series – Types HC 33 and HC 46

Fixing the dividers in 2 mm steps

In the standard version, dividers or the complete divider system (dividers with height subdivisions) can be moved in the cross section.

Fixing profiles can be used to fix the dividers or complete divider systems.



Fixing on both sides ensures that the dividers have a secure hold.



Fixing in 2 mm steps.



The fixing profiles are simply pushed into the stays.

If the fixed mounting version is desired, please state this when placing your order.

Gliding elements – the economical solution for gliding applications

Replaceable glide shoes



By means of a positive snap connection, the glide shoes sit firmly on the chain link.

Replaceable glide shoes made of plastic

To extend the life of cable carriers in gliding operations KABELSCHLEPP supplies detachable, exchangeable glide shoes.

Replaceable glide shoes are a very economical solution. When wear occurs only the glide shoes are replaced, and not the complete cable carrier.

Glide shoes for the H Series are made of a highly wear-resistant special material.

Chain height with glide shoes: (Dimensions in mm)

HC 33:	hg′	=	hG	+	3.2	=	54.2	
HC 46:	hg′	=	hG	+	3.2	=	67.2	

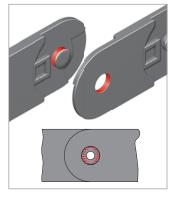
Minimum bend radii when using glide shoes:

HC 33: $KR_{min} = 100 \text{ mm}$ HC 46: $KR_{min} = 100 \text{ mm}$

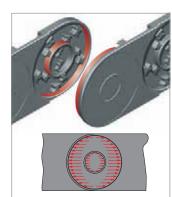
Minimized hinge wear owing to the "life extending 2 disc principle"

In the MASTER Series, the push and pull forces are transmitted via the optimum link design for this purpose.

As a result link wear is reduced to a minimum and the life of the cable carrier is considerably lengthened.



■ Force transmission with a pin-hole joint



■ Force transmission with the "life extending 2 disc principle"

The internal stopper and pre-tensioning dampers have a noise-muffling effect. This makes the chain particularly quiet.

Should your application require it, the pre-tensioning (in deviation from the standard pre-tensioning) can be adjusted at the time of production. We can produce a cable carrier with a pre-tension which is exactly suited to the load values of your application.

MASTER H Series - Types HC 33 and HC 46

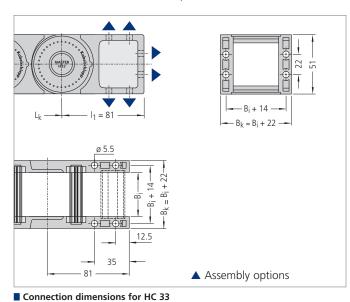
Connection dimensions

UMB (Universal Mounting Brackets) made of plastic

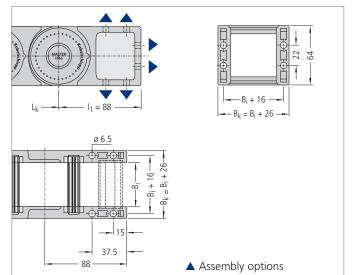


Standard connector for many of the hole patterns commercially available (also available in an open design).

Connection dimensions (The connection dimensions for fixed-point and driver are identical)



■ Connection dimensions for HC 46





MASTER H Series - Types HC 33 and HC 46

Strain Relief Devices



■ Strain relief

For both types (HC 33 and HC 46) strain relief of the cables can be effected by a **strain relief comb** or with strain relief elements which are fixed to a **C-profile**.

Both the strain relief comb and the C-profile are secured by the universal mounting brackets and so do not need to be screwed on separately.

Our SZL-strain relief devices are best suited for the C-Profile. They guarantee a large surface area for enclosing the cables, and a defined pressure.

(see chapter on guide channels and other accessories from page 218 onwards.)



Cable carriers with variable chain widths

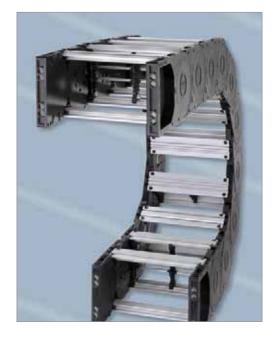
MASTER L Series



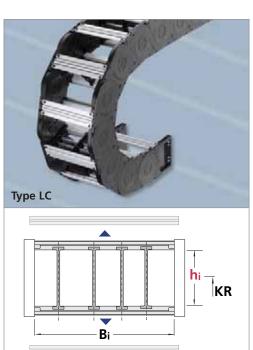




MASTER L Series - Cable carriers with variable chain widths



- Lightweight design with low intrinsic weight
- Standard widths available ex-stock; individual widths in 1 mm sections on request
- Very quiet owing to internal damping system for pre-tension and radius strokes
- Favorable ratio of inner to outer width
- Standard bend radii, application-specific intermediate radii upon request
- Damper system integrated in the chain links to reduce noise emissions
- Variable pre-tensioning for the most varied applications is possible
- Can be opened quickly on the inside and the outside for cable laying
- Transmission of forces (tensile and shearing forces) over a large surface area via the optimum link design according to the "life extending 2 disc principle"
- Many possibilities for internal subdivision
- A choice of up to 3 universal mounting brackets (UMBs) all three types can be screwed on both from above, below or also as a flange
- Optionally available with different strain relief systems
- Completely enclosed types, see LT-series



Types LC 60 and LC 80 with aluminium stays

Plastic and aluminium combination available in 1 mm width sections



Dimensions in mm

Туре	hį	Bį	Dynan unsupported		
			Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s ²	Page
LC 60	60	75 – 600	6	30	94
LC 80	80	100 – 800	5	25	94



Tubes – covered cable carriers Types LT 60 and LT 80 with aluminium cover system

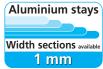
Detailed information can be found in the chapter MASTER LT Series from page 144 onwards.

Carrier construction and stay variants

Types LC 60 and LC 80



Hybrid cable carriers with plastic chain bands and aluminium stays. Available in **1 mm width sections**. **Standard widths** in 25 mm steps.



Standard stay arrangement: on every chain link.

Frame stay RSL for types LC 60 and LC 80



Frame stay made of aluminium

Opening options:

Outside / Inside: the cable carrier can be opened quickly and easily simply by rotating the stays

The standard stay system is the basis for all cover variants. All cover variants are fixed to the stays.





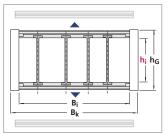
Dimensions and intrinsic chain weight

Dimensions in mm/Weights in kg/m

Туре	h _i	h _G	B _{i min} *	q _{k min}	B _{i max} *	q _{k max}	B _k
LC 60	60	88	75	2,78	600	7.10	B _i + 28
LC 80	80	110	100	3,89	800	10.01	B _i + 32

Standard widths in 25 mm steps.





Bend radius and pitch

							Diffielisi	OHS III IIIIII			
Туре		Bend radii KR									
LC 60 LC 80	135 –	150 150	200 200	250 250	300 300	350 350	400 400	500 500			

Pitch: LC 60: t = 91 mm LC 80: t = 111 mm

The listed values are standard bend radii.

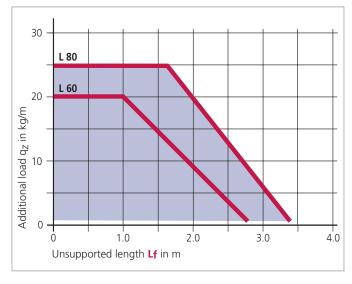
For special applications it is also possible,

to set any desired intermediate radii at the production stage.

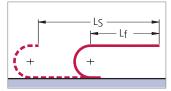
Please do get in touch with us, we would be happy to advise you.

Load diagram

for unsupported length L_f depending on the additional load



Unsupported length Lf



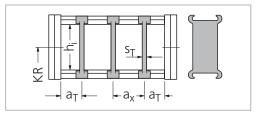
Determining the length of the cable carrier see page 18.

Divider systems

Divider system TS 0

Туре	h _i	S _T	a _{T min}	a _{x min}
	mm	mm	mm	mm
LC 60	60	4	9	16
LC 80	80	4	9	16

The dividers can be moved in the cross section.



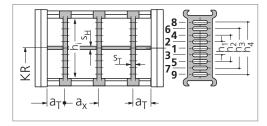
In the standard version, the divider systems are mounted on every second chain link.

Divider system TS 1

with continuous height subdivision made of aluminium

Туре	h _i mm		a _{T min} mm		h ₁ mm		
LC 60 LC 80		4		16 16			- 60

The dividers can be moved in the cross section.



In the standard version, the divider systems are mounted on every second chain link.

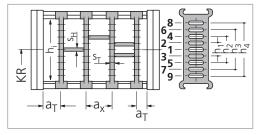
Divider system TS 3

with partitioned height subdivision made of plastic

Туре	h _i mm			a _{x min} mm		h ₁ mm			h ₄ mm
LC 60 LC 80		_	_	16* 16*				- 42	- 56
LC 80	80	0	0	10	4	14	20	42	50

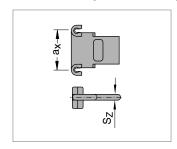
* When using plastic partitions

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



In the standard version, the divider systems are mounted on every second chain link.

Dimensions, partitions of plastic for TS 3



Aluminium partitions in 1 mm width sections are also available.

S _Z	
4	

	Dimensions in mm										
a _x (center-to-center dividers)											
16	18	23	28	32	33	38	43	48	58		
64	68	78	80	88	96	112	128	144	160		
176	192	208									

When using **partitions with a_x > 112** mm, there should be an additional central support with a **twin divider** ($S_T = 4$ mm).

Twin dividers are designed for subsequent fitting in the partition system. You can find further information on this in our main catalog.

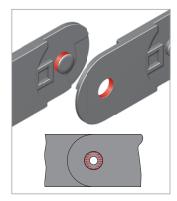


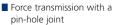
MASTER L Series – Types LC 60 and LC 80

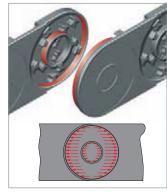
Minimized hinge wear owing to the "life extending 2 disc principle"

In the MASTER Series, the push and pull forces are transmitted via the optimum link design for this purpose.

As a result link wear is reduced to a minimum and the life of the cable carrier is considerably lengthened.







■ Force transmission with the "life extending 2 disc principle"

The internal stopper and pre-tensioning dampers have a noise-muffling effect. This makes the chain particularly quiet.

Should your application require it, the pre-tensioning (in deviation from the standard pre-tensioning) can be adjusted at the time of production. We can produce a cable carrier with a pre-tension which is exactly suited to the load values of your application.

Connection dimensions

UMB (Universal Mounting Brackets) made of plastic

For the MASTER L Series, there are 3 different universal mounting brackets made of plastic i. e. for every assembly situation, there is a suitable

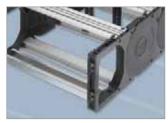
connector. Each of the 3 types can, of course, be screwed on from the top, the bottom or as a flange.



Standard connector for many of the hole patterns commercially available with short hole intervals

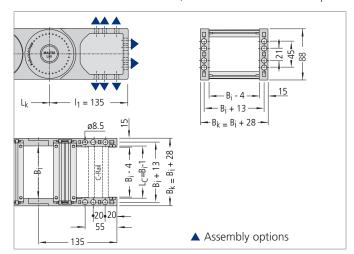


■ Long, closed connector for many of the hole patterns commercially available with large hole intervals

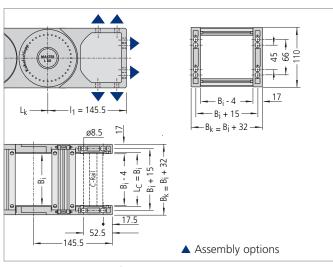


Short, open connector, easy assembly owing to optimal accessibility of the holes in restricted installation conditions

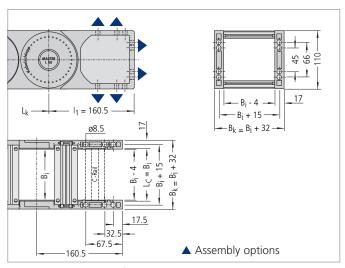
Connection dimensions (The dimensions of the fixed point and driver connections are identical)



■ Connection dimensions for LC 60 standard connector and short, open connector



■ Connection dimensions for LC 80 standard connector and short, open connector



■ Connection dimensions for LC 80 long, closed connector

All connectors optionally with C-rail for KABELSCHLEPP SZL-strain relief devices as well as brackets and clamps with a small or large base (see the chapter on guide channels and other accessories, from page 218 onwards).



Cable carriers with variable chain widths

M Series

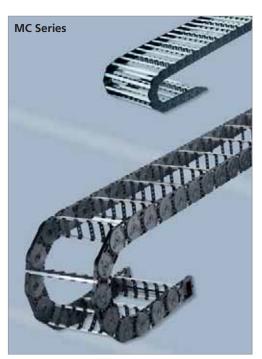


Subject to change.

M Series – Cable carriers with variable chain widths



- Available in 1, 4, 8 or 16 mm width sections
- Can be opened quickly on the inside and the outside for cable laying
- Solid plastic or in combination with aluminium stays
- Enclosed stroke system not sensitive to dirt/contamination
- Transmission of forces (tensile and shearing forces) over a large surface area via the optimum link design – according to the "life extending 2 disc principle" (Not for type 0320)
- Standard universal mounting brackets (UMBs), suitable for any assembly situation
- Maximum choice of stay systems and ways of separating the cables
- Highly wear-resistant, replaceable glide shoes available resulting in minimal wear at high speeds, sliding in the guide channel
- Optionally available with different strain relief systems
- Minimal noise emissions with types MCL 0650 and MCL 0950
- Completely enclosed types with aluminium or plastic cover systems (See MT series)
- TÜV design approved in accordance with 2PfG 1036/10.97



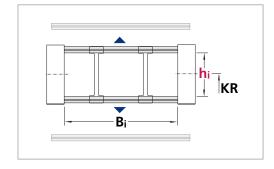
Types MC 0320, 0650, 0950 and 1250 with aluminium stays

Plastic and aluminium combination available in 1 mm width sections



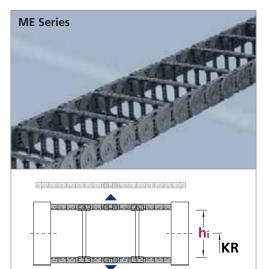
Dimensions in mm

Туре	hį	Bį		Dynan unsupported		
			Maximum travel length in m	Travel- speed v _{max} in m/s	Travel- acceleration a _{max} in m/s ²	Page
MC 0320	19	25-280	80	10	50	102
MC 0650	38	75-500	220	8	40	102
MC 0950	58	100-600	260	6	30	102
MC 1250	72	100-800	320	5	25	102





M Series – Cable carriers with variable chain widths



Bi

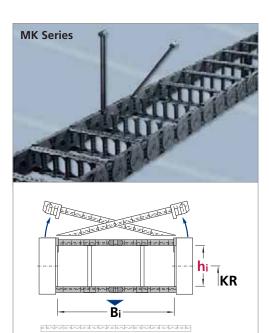
Types ME 0320, 0650, 0950 and 1250 with plastic stays

Solid plastic

available in 4, 8 or 16 mm width sections

- ·			
l)ıma	ensions	ın	mm

Туре	hį	Bi		Dynan unsupported		
			Maximum travel length in m	Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s²	Page
ME 0320	19	25-149	80	10	50	110
ME 0650	42	50-266	220	8	40	111
ME 0950	58	45-557	260	6	30	111
ME 1250	72	71-551	320	5	25	111



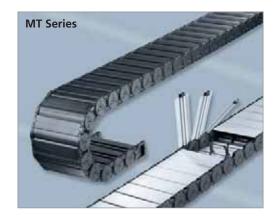
Types MK 0475, 0650, 0950 and 1250 with plastic stays

Solid plastic

available in 8 or 16 mm width sections

Dimensions in mm

Dimensions in min											
hį	Bį		_								
		Maximum travel length in m	Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s²	Page						
20	24 280	120	10	50	110						
20	24-200	120	10	30	110						
42	50-258	220	8	40	111						
58	45-557	260	6	30	111						
72	71-551	320	5	25	111						
	28 42 58	28 24-280 42 50-258 58 45-557	28 24-280 120 42 50-258 220 58 45-557 260	Maximum travel length in m Travel speed vmax in m/s 28 24-280 120 10 42 50-258 220 8 58 45-557 260 6	Maximum travel length in m Travel speed v _{max} in m/s Travel acceleration a _{max} in m/s² 28 24-280 120 10 50 42 50-258 220 8 40 58 45-557 260 6 30						



Tubes – covered cable carriers
Types MT 0475, 0650, 0950 and 1250
with plastic or aluminium cover system

Detailed information can be found in the chapter MT Series from page 150 onwards.

M Series – Types MC 0320, 0650, 0950 and 1250

Carrier construction

Type MC 0320



Hybrid cable carriers with plastic chain bands and aluminium stays.

Available in 1 mm width sections.



Stay arrangement:

Stays mounted on every chain link.

Opening variant 02 (Standard):

Frame stays can be detached on the outside

Opening variant 01:

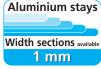
Frame stays can be detached on the inside If you require opening variant 01 please state when placing your order.

Types MC 0650, 0950 and 1250



Hybrid cable carriers with chain bands of plastic and stays of aluminium.

Available in 1 mm width sections.



Standard stay arrangement:

on every 2nd chain link.

Stays can be fitted on every chain link, please specify when placing your order.



M Series - Types MC 0320, 0650, 0950 and 1250

Stay variants

Stay variants for types MC 0650, 0950 and 1250



Frame stay RS made of aluminium – Standard design – types 0650 and 0950

For lightweight to medium loads.

Opening options:

Outside / Inside: the cable carrier can be opened quickly and easily simply by rotating the stays through 90°.





Frame stay RV made of aluminium – Reinforced design – types 0950 and 1250

For medium to heavy loads and for large chain widths.

Opening options:

Outside / Inside: the cable carrier can be opened quickly and easily simply by rotating the stays through 90°.





Frame stay RM made of aluminium – Solid design – types 0950 and 1250

Bolted, maximum stability, maximum chain widths possible.



Additional stay variants for types MC 0650, 0950 and 1250



Stay variant LG made of aluminium: Optimum cable guidance in the neutral bending line



Stay variant RMR:Gentle cable laying by means of rollers. Ideal when using hydraulic hoses with "soft" sheaths



Stay variant RMA:For very large cable diameters, such as e.g. with air hoses

For M Series solid plastic cable carriers see page 110. For M Series covered types see page 150.

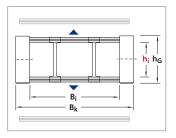
M Series - Types MC 0320, 0650, 0950 and 1250

Dimensions and intrinsic chain weight

Dimensions in mm/Weights in kg/m

Туре	Stay variant	h _i	h _G	B _{i min}	q _{k min}	B _{i max}	q _{k max}	B _k
MC 0320	RS	19	27.5	25	0.42	280	1.65	B _i + 11
MC 0650	RS	38	57	75	2.00	400	3.80	$B_i + 34$
MC 0950	RS	58	80	100	3.20	400	4.70	$B_i + 39$
MC 0950	RV	58	80	100	3.50	500	5.90	$B_i + 39$
MC 0950	RM	54	80	100	3.40	600	6.60	$B_i + 39$
MC 1250	RV	72	96	100	4.40	600	6.30	$B_i + 45$
MC 1250	RM	69	96	100	4.50	800	8.40	B _i + 45





Bend radius and pitch

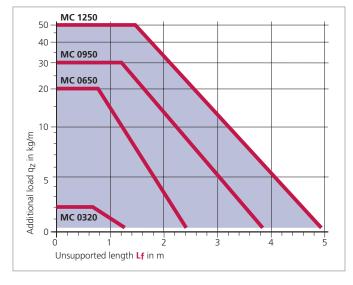
Dimensions in mn											
Bend radii KR											
37	47	77	100	200	_	_	_	_			
75	95	115	145	175	220	275	300	350			
140	170	200	260	290	320	380	_	_			
180	220	260	300	340	380	500	-	-			
	75 140	75 95 140 170	75 95 115 140 170 200	37 47 77 100 75 95 115 145 140 170 200 260	37 47 77 100 200 75 95 115 145 175 140 170 200 260 290	37 47 77 100 200 – 75 95 115 145 175 220 140 170 200 260 290 320	Bend radii KR 37 47 77 100 200 - - 75 95 115 145 175 220 275 140 170 200 260 290 320 380	Bend radii KR 37 47 77 100 200 - - - 75 95 115 145 175 220 275 300 140 170 200 260 290 320 380 -			

Pitch

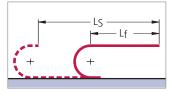
MC 0320: t = 32 mm MC 0650: t = 65 mm MC 0900: t = 95 mm MC 1250: t = 125 mm

Load diagram

for unsupported length $\boldsymbol{L}_{\!f}$ depending on the additional load



Unsupported length Lf



In the case of longer travel lengths, sag of the cable carriers is technically permissible depending on the application.

In a gliding arrangement, even longer travel lengths are possible (see page 219).

We are at your service to advise on these applications.

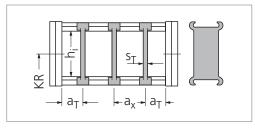


M series - Types MC 0320, 0650, 0950 and 1250

Divider systems

Divider system TS 0

Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm
MC 0320	RS	19	2	3	6
MC 0650	RS	38	3	4.5	13
MC 0950	RS	58	4	4.5	14
MC 0950	RV	58	4	4.5	14
MC 0950	RM	54	4	7	14
MC 1250	RV	72	6	8	16
MC 1250	RM	69	5	10	20



In the standard version, the divider systems are mounted on every second chain link.

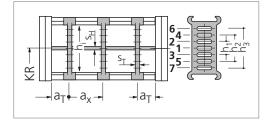
The dividers can be moved in the cross section.

Divider system TS 1

with continuous height subdivision made of aluminium

Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _H mm	h ₁ mm	h ₂ mm	h ₃ mm
MC 0320	RS	19	2	3	6	2	10	_	_
MC 0650	RS	38	3	4.5	13	4	15	-	_
MC 0950	RS	58	4	4.5	14	4	30	_	_
MC 0950	RV	58	4	4.5	14	4	15	30	_
MC 1250	RV	72	6	8	16	4	15	30	45

The dividers can be moved in the cross section.



In the standard version, the divider systems are mounted on every second chain link.

Divider system TS 3

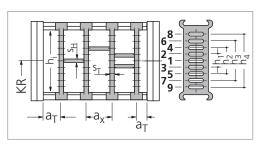
MC 0650, 0950 and 1250 with plastic partition divider system TS 3

For these types, divider system TS 2 with aluminium height subdivisions (in 1 mm width sections) is also available.

Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _H mm	h ₁ mm	h ₂ mm	h ₃ mm	h ₄ mm
MC 0650	RS	38	8	4	16*	4	14	28	_	_
MC 0950	RV	58	8	4	16*	4	14	28	42	-
MC 1250	RV	72	8	4	16*	4	14	28	42	56

* When using plastic partitions

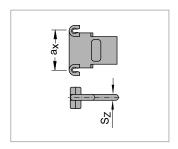
The dividers are fixed by the partitions, the complete divider system is movable.



In the standard version, the divider systems are mounted on every second chain link.

M Series – Types MC 0320, 0650, 0950 and 1250

Dimensions of the plastic partitions for TS 3



There are also aluminium partitions in 1 mm width sections available.

								ווע	nension:	s in mm		
SZ		a _x (center-to-center distance, dividers)										
4	16	18	23	28	32	33	38	43	48	58		
	64	68	78	80	88	96	112	128	144	160		
	176	192	208									

When using partitions with $a_X > 112$ mm, there should be an additional central support with a **twin divider**.

Thickness of the twin dividers: MC 0650 $S_T = 3$ mm, MC 0950, 1250 $S_T = 4$ mm

Twin dividers are designed for subsequent fitting in the partition system.

You can find further information on this in our main catalog.

Gliding elements – the economical solution for gliding applications

Replaceable glide shoes



By means of a positive snap connection, the glide shoes sit firmly on the chain link.

Replaceable glide shoes made of plastic*

To extend the life of cable carriers in gliding operations KABELSCHLEPP supplies detachable, exchangeable glide shoes.

Replaceable glide shoes are a very economical solution. When wear occurs only the glide shoes are replaced, and not the complete cable carrier.

For travel speeds > 2.5 m/s and large additional loads, a highly wear-resistant special material is used.

For type MC 0950 **OFFROAD glide shoes** with 70 % greater wear volumes are also available. We recommend their use in extreme environmental conditions (with particularly abrasive materials such as e. g. sand, dust, corundum).

* not for MC 0320

Chain height with glide shoes: (Dimensions in mm)

MC 0650:	hg′	=	hG	+	3,2	=	60.2
MC 0950:	hg′	=	hG	+	3,5	=	83.5
MC 1250:	hg′	=	hg	+	3,5	=	99.5

Minimum bend radii when using glide shoes:

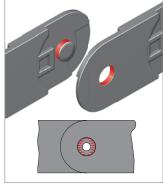
MC 0650: KR_{min} = 95 mm MC 0950: KR_{min} = 140 mm MC 1250: KR_{min} = 180 mm

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

In the M Series*, the push and pull forces are transmitted via the optimum link design for this purpose.

As a result link wear is reduced to a minimum and the life of the cable carrier is considerably lengthened.

* not for type 0320



Force transmission with a pin-hole joint



■ Force transmission with the "life extending 2 disc principle"



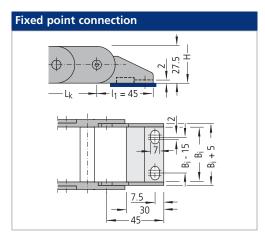
M Series – Types MC 0320, 0650, 0950 and 1250

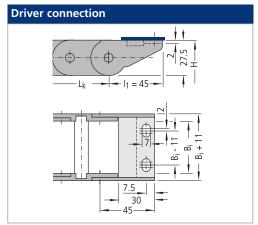
Connection dimensions for type MC 0320

Connectors made of plastic/aluminium

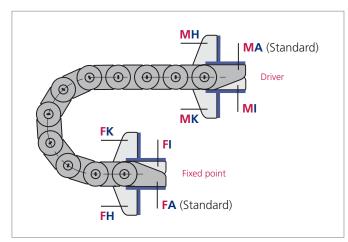
Standard connectors without strain relief.

Connectors with strain relief available on request.





Connection variants for type MC 0320



In the standard version, the connectors are mounted with the threaded joint outwards (**FA/MA**).

When ordering please specify the desired connection type (see ordering key on page 245).

The connection type can subsequently be altered simply by changing the connectors.

Connection point

M – Driver

F - Fixed point

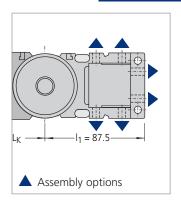
Connection type

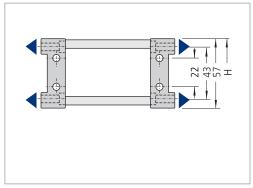
- A Threaded joint outside (standard)
- Threaded joint, inside
- H Threaded joint, rotated through 90° to the outside
- K Threaded joint, rotated through 90° to the inside

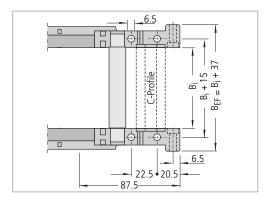
M Series - Types MC 0320, 0650, 0950 and 1250

Connection dimensions for type MC 0650

UMB (Universal Mounting Brackets) made of aluminium







The dimensions of the fixed point and drive connections are identical.

Optionally with C-Profile, slot width 11 – 12 mm, suitable for KABELSCHLEPP SZL-strain relief devices and all common commercial bracket clamps with a small base (see chapter on guide channels and other accessories, from page 218 onwards).

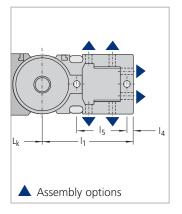
End connectors made of steel plate available on request.

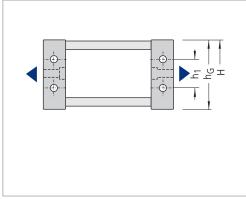


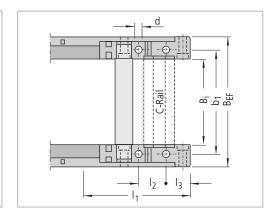
M Series - Types MC 0320, 0650, 0950 and 1250

Connection dimensions for types MC 0950 and 1250

UMB (Universal Mounting Brackets) made of aluminium







The dimensions of the fixed point and driver connections are identical.

Optionally with C-Rail, slot width 16 – 17 mm, suitable for KABELSCHLEPP SZL-strain relief devices and all common commercial bracket clamps with a large base (see chapter on guide channels and other accessories, from page 218 onwards).

End connectors made of steel plate available on request.

Dimensions in mm

Туре	B _{EF}	b ₁	d	l ₁	l ₂	l ₃	l ₄	l ₅	h ₁	h _G
MC 0950	-	-								
MC 1250	B _i + 51	B _i + 28	11	168	35	31	10.5	94.5	45	96

 B_{EF} = Width of the cable carrier over connector

M Series – Types ME and MK

Carrier construction and stay variants

Type ME 0320



Plate design and plastic stay variant RE

Opening options:

Outside / Inside: simply by turning

Available in 4 mm width sections.

Stay arrangement: Stays mounted on every chain link.



Type MK 0475

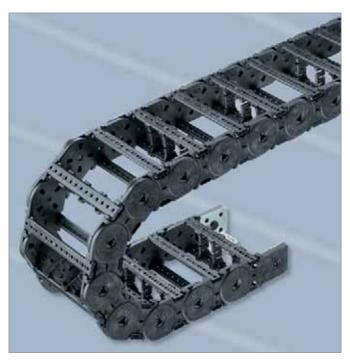


Plate design and plastic stay variant RD

Opening options for opening variant 02 (Standard) Outside: simply by levering open (on the right or left)

Inside: simply by turning

Opening possibilities in case of opening variant 01

Outside: simply by turning

Inside: simply by levering open (on the right or left)

If you require opening variant 01, please state when placing your order.

Available in 8 mm width sections.

Stay arrangement: Stays mounted on every chain link.





M Series – Types ME and MK

Carrier construction and stay variants

Types ME 0650, 0950 and 1250



Plate design and plastic stay variant RE

Opening options:

Outside / Inside: simply by turning

ME 0650: Available in 8 mm width sections.

ME 0950, 1250: Available in 16 mm width sections.

Standard stay arrangement: on every 2nd chain link.

Stays can be fitted on every chain link, please specify when placing your order.



Types MK 0650, 0950 and 1250

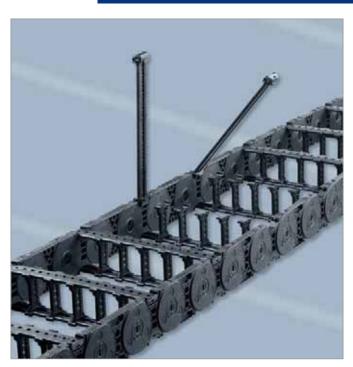


Plate design and plastic stay variant RD

Opening options:

Outside: simply by levering open (on the right or left)

Inside: simply by turning

MK 0650: Available in 8 mm width sections.

MK 0950, 1250: Available in 16 mm width sections.

Standard stay arrangement: on every 2nd chain link.

Stays can be fitted on every chain link, please specify when placing your order.



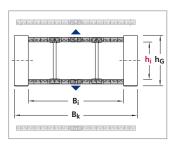
For M Series hybrid cable carriers see page 102. For M Series covered types see page 150.

Dimensions and intrinsic chain weight

Dimensions in mm/Weights in kg/m

Туре	Stay variant	h _i	h _G	B _{i min}	q _{k min}	B _{i max}	q _{k max}	B _k
ME 0320	RE	19	27.5	25	0.46	149	0.85	B _i + 11
MK 0475	RD	28	39	24	0.79	280	3.03	$B_i + 17$
ME 0650	RE	42	57	50	2.00	266	2.84	$B_i + 34$
MK 0650	RD	42	57	50	2.00	258	2.81	$B_{i} + 34$
ME/MK 0950	RE/RD	58	80	45	3.00	557	6.20	$B_i + 39$
ME/MK 1250	RE/RD	72	96	71	4.30	551	5.80	$B_{i} + 45$





Bend radius and pitch

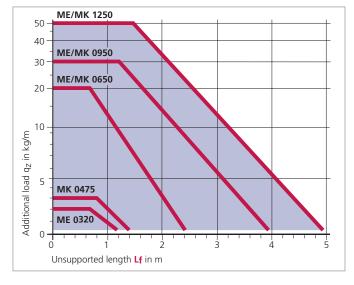
							D	imensior	ıs in mm					
Туре		Bend radii KR												
ME 0320	37	47	77	100	200	_	_	_	_					
MK 0475	55	75	100	130	160	200	250	300	_					
ME/MK 0650	75	95	115	145	175	220	275	300	350					
ME/MK 0950	140	170	200	260	290	320	380	-	-					
ME/MK 1250	180	220	260	300	340	380	500	-	-					

Pitch:

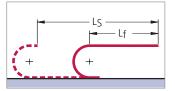
ME 0320: t = 32 mm
MK 0475: t = 47.5 mm
ME/MK 0650: t = 65 mm
ME/MK 0950: t = 95 mm
ME/MK 1250: t = 125 mm

Load diagram

for unsupported length L_{f} depending on the additional load



Unsupported length Lf



In the case of longer travel lengths, sag of the cable carriers is technically permissible depending on the application.

In a gliding arrangement, even longer travel lengths are possible (see page 219).

We are at your service to advise on these applications.



Types ME 0320, MK 0475, ME/MK 0650, 0950 and 1250

Fixing the dividers

In the standard version, dividers or the complete divider system (dividers with heightseparation) can be moved in the cross section.

(Mounting version A)

However, it is often also possible to fix dividers or complete divider systems (dividers with height separation) by turning the stays.

(Mounting version B)

If the fixed mounting version is desired, please state this when placing your order

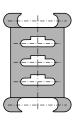
Type ME 0320

Mounting versions A and B for divider systems

Mounting version A (standard)

Movable divider:

Divider without arresting cams







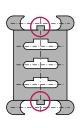
Caution: With type ME 0320, the stay does not have a groove. Different dividers are required for mounting versions A and B:

Version A: Dividers **without** arresting cams Version B: Dividers **with** arresting cams

Mounting version B

Fixed divider:

Divider with arresting cams







Thus, with type ME 0320, the mounting version A **cannot** be changed into mounting version B simply by turning the stay.

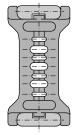
Types MK 0475, ME/MK 0650, 0950 and 1250

Mounting versions A and B for divider systems

Mounting version A (standard)

Movable divider:

The arresting cam of the divider can move in the groove of the stay.





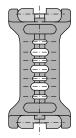


With a movable assembly of the dividers (mounting version A), the holes in the stay do not have any function and hence the dimension a_X -section is meaningless.

Mounting version B

Fixed divider:

The arresting cam of the divider is fixed in the borehole of the stay.







Please note that the dividers can only be fixed in positions at which there is a hole in the stay. The dimension a_X-section specifies the hole intervals in the stay.

Hole intervals = fixing positions of the dividers (a_X-sections)

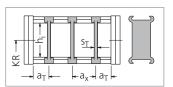
By simply turning the stays, it is also possible at any subsequent time to switch between movable and fixed assembly of the dividers (not in case of ME 0320).

Divider systems

Divider system TS 0

			Моι	unting version	on A	Mounting version B			
Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _T mm	a _{T min} mm	a _{x min} mm	a _{x section} mm
ME 0320	RE	19	2	3	6	2	4.5	8	4
MK 0475	RD	28	2.8	6	7.8	2.8	12	8	8
ME/MK 0650	RE/RD	42	4.2	6.5	13	4.2	13	16	8
ME/MK 0950	RE/RD	58	6	7.5	14.5	6	22.5	16	16
ME/MK 1250	RE/RD	72	8	5	14.5	8	19.5	16	16

In the standard version, the divider systems are mounted on every second chain link.

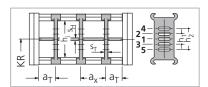


Divider system TS 1

with continuous height separation made of aluminium

			Mour	nting ver	sion A	Mounting version B						
Туре	Stay variant	h _i mm	S _T mm	a _{T min} mm	a _{x min} mm	S _T mm	a _{T min} mm	a _{x min} mm	a _{x section} mm	S _H mm	h ₁ mm	h ₂ mm
ME 0320	RE	19	2	3	6	2	4.5	8	4	2	10	-
MK 0475	RD	28	2.8	6	7.8	2.8	12	8	8	2.4	15	-
ME/MK 0650	RE/RD	42	4.2	6.5	13	_	_	_	-	4	10	22
ME/MK 0950	RE/RD	58	6	7.25	14.5	6	22.5	16	16	4	22	-
ME/MK 1250	RE/RD	72	8	5	14.5	8	19.5	16	16	4	32	-

In the standard version, the divider systems are mounted on every second chain link.



Divider system TS 3

ME/MK 0650, 0950 and 1250 with plastic partition divider system TS 3

The dividers for divider system **TS 3** do not have any arresting cams. Thus, no mounting version B (fixed mounting) is possible.

Туре	Stay variant	h _i mm			a _{x min} mm			h ₂ mm	h ₃ mm	h ₄ mm
MC 0650	RE/RD	42	8	4	16*	4	14	28	_	_
MC 0950	RE/RD	58	8	4	16*	4	14	28	42	_
MC 1250	RE/RD	72	8	4	16*	4	14	28	42	56

⁸⁻64-31-79-31-79-

In the standard version, the divider systems are mounted on every second chain link.

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

Divider system **TS 2** with fixable dividers (mounting version B) and aluminium height subdivisions in 1 mm width sections is available. Please do get in touch with us.

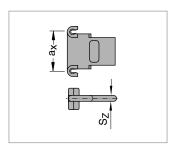
^{*} When using plastic partitions



Types ME 0320, MK 0475, ME/MK 0650, 0950 and 1250

Partitions

Dimensions of the plastic partitions for TS 3



There are also aluminium partitions in 1 mm width sections available.

								Dir	nension	s in mm				
S _Z		a _x (center-to-center distance, dividers)												
4	16	18	23	28	32	33	38	43	48	58				
	64	68	78	80	88	96	112	128	144	160				
	176	192	208											

When using **partitions with a_X > 112** mm, there should be an additional central support with a **twin divider**.

Thickness of the twin dividers: ME/MK 0650 $S_T = 3$ mm, ME/MK 0950, 1250 $S_T = 4$ mm

Twin dividers are designed for subsequent fitting in the partition system.

You can find further information on this in our main catalog.

Gliding elements – the economical solution for gliding applications

Replaceable glide shoes



By means of a positive snap connection, the glide shoes sit firmly on the chain link.

Replaceable glide shoes made of plastic*

To extend the life of cable carriers in gliding operations KABELSCHLEPP supplies detachable, exchangeable glide shoes.

Replaceable glide shoes are a very economical solution. When wear occurs only the glide shoes are replaced, and not the complete cable carrier.

For travel speeds > 2.5 m/s and large additional loads, a highly wear-resistant special material is used.

For type ME/MK 0950 **OFFROAD glide shoes** with 70 % greater wear volumes are also available. We recommend their use in extreme environmental conditions (with particularly abrasive materials such as e. g. sand, dust, corundum).

* not for ME 0320

Chain height with glide shoes: (Dimensions in mm)

MK 0475:	$h_{G}' = h_{G} + 2.5 = 41.5$	5
ME/MK 0650:	$h_{G}' = h_{G} + 3.2 = 60.3$	2
ME/MK 0950:	$h_{G}' = h_{G} + 3.5 = 83.5$	5
ME/MK 1250:	$h_{G}' = h_{G} + 3.5 = 99.5$	5

Minimum bend radii when using glide shoes:

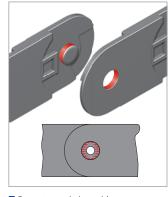
MK 0475: KR_{min} = 100 mm ME/MK 0650: KR_{min} = 95 mm ME/MK 0950: KR_{min} = 140 mm ME/MK 1250: KR_{min} = 180 mm

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

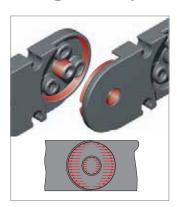
In the M Series*, the push and pull forces are transmitted via the optimum link design for this purpose.

As a result link wear is reduced to a minimum and the life of the cable carrier is considerably lengthened.

* not for type 0320



■ Force transmission with a pin-hole joint



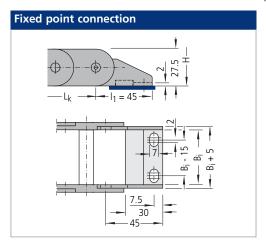
■ Force transmission with the "life extending 2 disc principle"

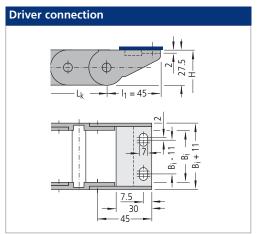
Connection dimensions for type ME 0320

Connectors made of plastic/aluminium

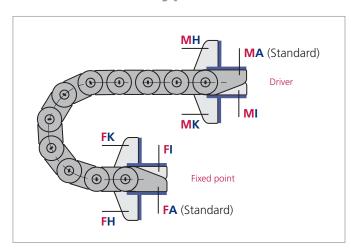
Standard connectors without strain relief.

Connectors with strain relief available on request.





Connection variants for type ME 0320



In the standard version, the connectors are mounted with the threaded joint outwards (**FA/MA**).

When ordering please specify the desired connection type (see ordering key on page 246).

The connection type can subsequently be altered simply by changing the connectors.

Connection point

M - Driver

F – Fixed point

Connection type

A – Threaded joint (standard)

Threaded joint, inside

 H – Threaded joint, rotated through 90° to the outside

K – Threaded joint, rotated through 90° to the inside

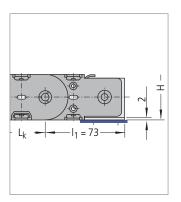


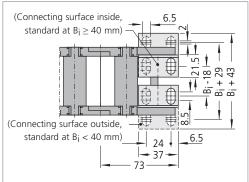
Connection dimensions for type MK 0475

Connectors made of plastic/steel

End connector made of steel plate.

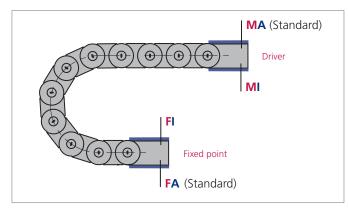
Screwable strain relief made of aluminium on request.





The dimensions of the fixed point and driver connections are identical.

Connection variants for type MK 0475



In the standard version, the end connectors are mounted with the threaded joint outwards (**FA/MA**).

When ordering please specify the desired connection type (see ordering key on page 246).

The connection type can subsequently be altered simply by changing the connectors.

Connection point

M - Driver

F - Fixed point

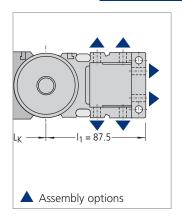
Connection type

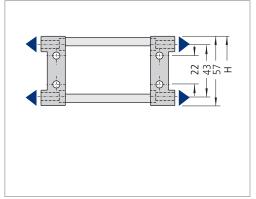
A – Threaded joint (standard)

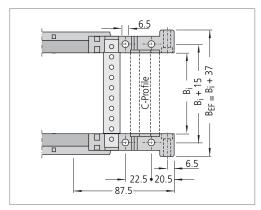
Threaded joint, inside

Connection dimensions for types ME/MK 0650

UMB (Universal Mounting Brackets) made of aluminium







The dimensions of the fixed point and driver connections are identical.

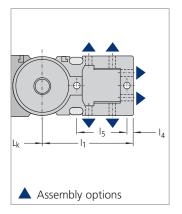
Optionally with C-Profile, slot width 11 – 12 mm, suitable for KABELSCHLEPP SZL-strain relief devices and all common commercial bracket clamps with a small base (see chapter guide channels and other accessories, from page 218 onwards).

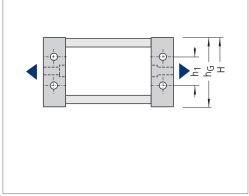
End connectors made of steel plate available on request.

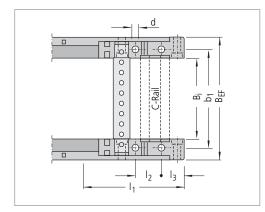


Connection dimensions for types ME/MK 950 and 1250

UMB (Universal Mounting Brackets) made of aluminium







The dimensions of the fixed point and driver connections are identical.

Optionally with C-Rail, slot width 16 – 17 mm, suitable for KABELSCHLEPP SZL-strain relief devices and all common commercial bracket clamps with a large base (see chapter on guide channels and other accessories, from page 218 onwards).

End connectors made of steel plate available on request.

Dimensions in mm

Туре	B _{EF}	b ₁	d	l ₁	l ₂	l ₃	l ₄	l ₅	h ₁	h _G
MC 0950	B _i + 44	B _i + 24.5	8.5	136	35	24.5	8.5	80	45	80
MC 1250	B _i + 51	B _i + 28	11	168	35	31	10.5	94.5	45	96

 $B_{EF} = Chain width over connector$



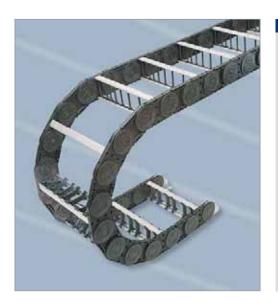
Cable carriers with variable chain widths

XL Series

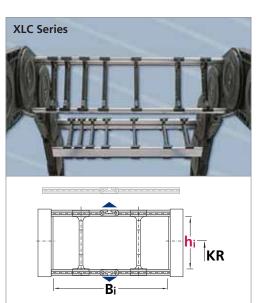




XL Series – Cable carriers with variable chain widths

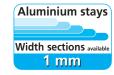


- Available in 1 mm width sections
- Large dimensions
- Low intrinsic weight
- Can be quickly opened on the inside and outside for cable laying
- Highly wear-resistant, replaceable glide shoes available resulting in minimal wear at high speeds, sliding in the guide channel
- Chain bands with plastic links in combination with aluminilum stays
- Different connection variants
- Large choice of stay systems and ways of separating the cables
- Optionally with strain relief
- Completely enclosed types with aluminium covering system, see Chapter XLT
- TÜV design approved in accordance with 2PfG 1036/10.97



Type XLC 1650 with aluminium stays

Plastic and aluminium combination
Available in 1 mm width sections



Dimensions in mm

Туре	hį	Bį		Dynamics of unsupported arrangement		
			Maximum travel length in m	Travel speed v _{max} in m/s	Travel acceleration a _{max} in m/s ²	Page
XLC 1650	108	200-1000	350	4	25	122



Tubes – covered cable carriers

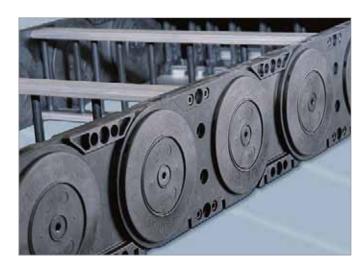
Type XLT 1650 with aluminium cover system

Detailed information can be found in the chapter XLT Series from page 157 onwards.

XL Series - Type XLC 1650

Carrier construction and stay variants

Hybrid cable carriers with plastic chain bands and aluminium stays. Available in **1 mm width sections**.





Standard stay arrangement:

on every 2nd chain link.

The stays can be mounted on every chain link, please specify when placing your order.

Stay variant RM



Frame stay RM made of aluminium – Solid design

Bolted, high stability even with large carrier widths



Additional stay variants



Stay variant LG made of aluminium: Optimum cable guidance in the neutral bending line



Stay variant RMR:Gentle cable laying by means of rollers. Ideal when using hydraulic hoses with "soft" sheaths



XL Series - Type XLC 1650

XLC 1650

Dimensions and intrinsic chain weight

RM

108

140

Type Stay variant h_i h_G B_{i min} q_{k min} B_{i max} q_{k max} B_k

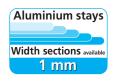
200

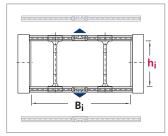
10.5

1000

15.3

 $B_{i} + 68$





Bend radius and pitch

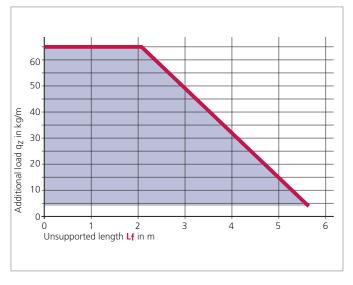
 Type
 Bend radii KR

 XLC 1650
 250
 300
 350
 400
 450
 500
 550

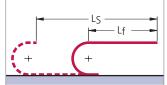
Pitch t = 165 mm

Load diagram

for unsupported length L_{f} depending on the additional load



Unsupported length L_f



In the case of longer travel lengths, sag of the cable carriers is technically permissible depending on the application.

In a gliding arrangement, even longer travel lengths are possible (see page 219).

We are at your service to advise on these applications.

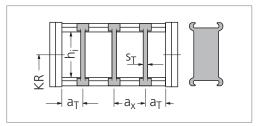
XL Series – Type XLC 1650

Divider systems

Divider system TS 0

Туре	Stay	h _i	S _T	a _{T min}	a _{x min}
	variant	mm	mm	mm	mm
XLC 1650	RM	108	8	6	25

The dividers can be moved in the cross section.



In the standard version, the divider systems are mounted on every second chain link.

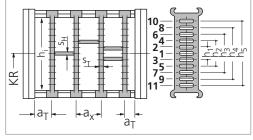
Divider system TS 3

with partitioned height subdivision made of plastic

Туре	Stay variant										
XLC 1650	RM	108	8	1	16*	4	14	28	42	56	70

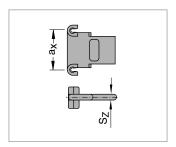
* When using plastic partitions

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



In the standard version, the divider systems are mounted on every second chain link.

Dimensions of the plastic partitions for TS 3



There are also aluminium partitions in 1 mm width sections available.

		Dimensions in mm									
S _Z		a _x (center-to-center distance, dividers)									
4	16	18	23	28	32	33	38	43	48	58	
	64	68	78	80	88	96	112	128	144	160	
	176	192	208								

When using **partitions with a_X > 112** mm there should be an additional central support with a **twin divider** $(S_T = 5 \text{ mm})$.

Twin dividers are designed for subsequent fitting in the partition system. You can find further information on this in our main catalog.



XL Series – Type XLC 1650

Gliding elements - the economical solution for gliding applications

Replaceable glide shoes



Replaceable glide shoes made of plastic

To extend the life of cable carriers in gliding operations KABELSCHLEPP supplies detachable, exchangeable glide shoes.

Replaceable glide shoes are a very economical solution. When wear occurs only the glide shoes are replaced, and not the complete cable carrier.

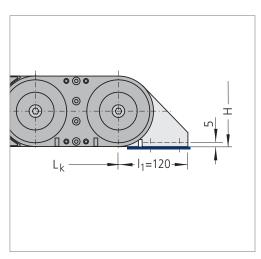
Chain height with glide shoes:

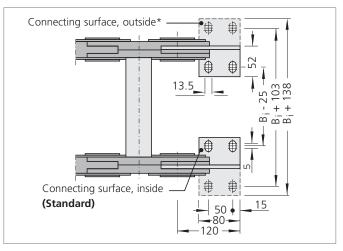
 $h_{G'} = 147 \text{ mm}$

By means of a positive snap connection, the glide shoes sit firmly on the chain link.

Connection dimensions

End connector made of steel plate

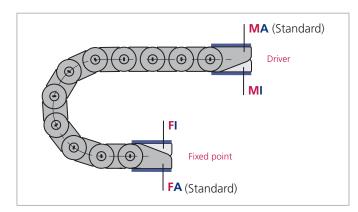




The dimensions of the fixed point and driver connections are identical.

* Please specify when ordering.

Connection variants



Connection point

M – Driver

F - Fixed point

Connection type

A - Threaded joint (standard)

Threaded joint, inside

In the standard version, the end connectors are mounted with the threaded joint outwards (FA/MA).

When ordering please specify the desired connection type (see ordering key on page 246).

The connection type can subsequently be altered simply by changing the connectors.