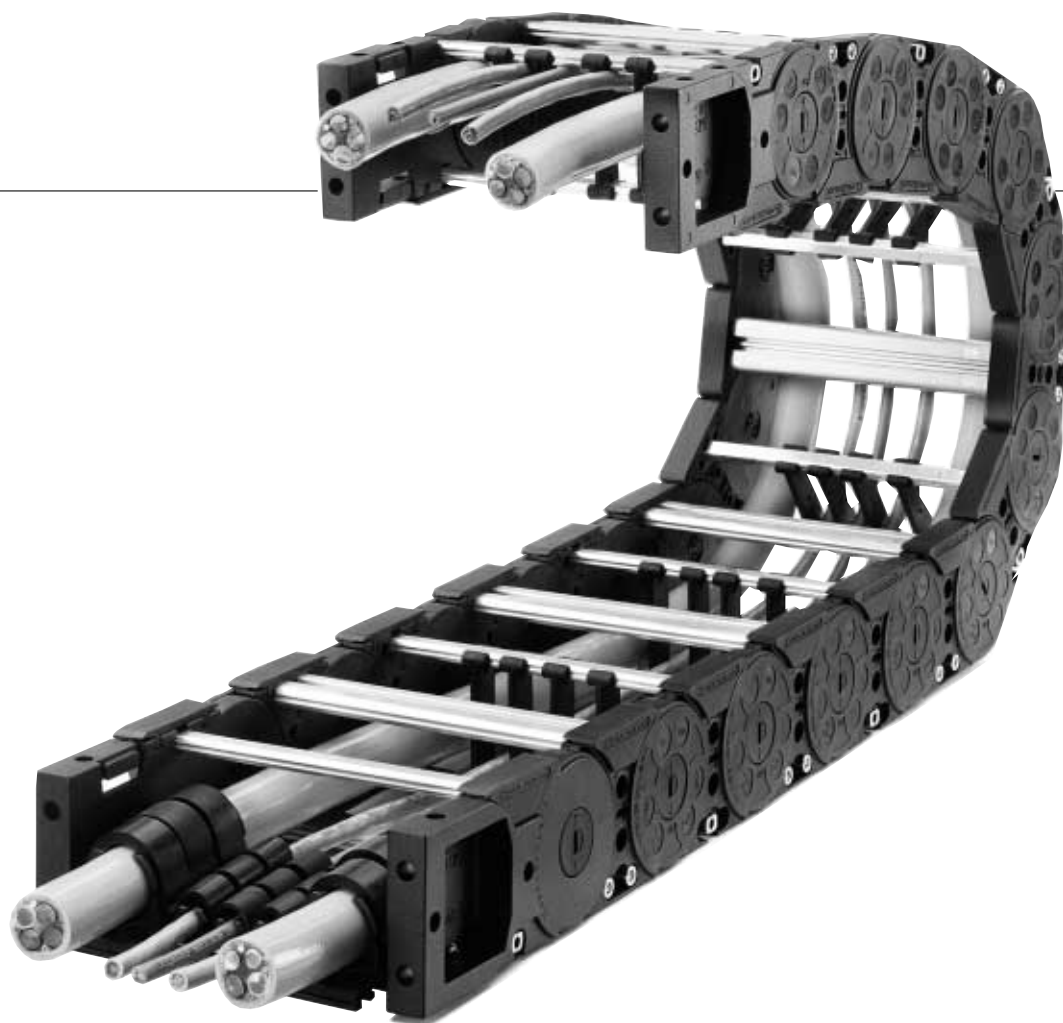


Energy Guiding Chains Series 3113/3114 Cobra

3113 Cobra 38 K
3114 Cobra 58 M
3114 Cobra 72 M



Energy Guiding Chains Series 3113/3114 Cobra

Versatile **Cobra** Energy Guiding Chains make it possible to configure the ideal solution for medium to high loads.

Main applications

- Medium-size to large bridge cranes
- Container cranes and RTGs
- Order picking systems
- Vertical people movers
- Composting plants
- Woodworking machinery
- Washing systems/car washes
- Water-treatment plants
- Transport of fluid media (molding sand, hydraulic oil, compressed air)



Series 3112
Viper



Series 3116/3117
Boa

Ordering Guide (Example)
Cobra 58 M Energy Guiding Chain system with solid RM frame stays, inside width

$B_i = 300$ mm, bending radius $K_R = 170$ mm, with desired length of 14 meters, seven vertical separators preinstalled

in every second link, abrasion-proof anti-friction skids, universal connector.

System components energy guiding chain	Quantity	Article number ⁴
Text for order		
1. Chain		
Cobra 58 M RM half frame Energy Guiding Chain with inside width $B_i = 300$ mm with bending radius $K_R = 170$ mm	14.06 m ¹	311458-300-RM-170
2. Vertical separators		
7 vertical separators TS 0 in every second link, preassembled	98.42 m ²	311458-TS0-RM-MT
3. Connectors		
Universal connector with C profile	1 set	311458-ASU-C
4. Skids		
Anti-friction skids, preassembled	14.06 m ³	311458-GLE-MT

System components for guiding elements
see technical data sheets for Series 3110

System components for cables
see technical data sheets for Series 3000



Series 3110
Guiding elements



Series 3000
Cables

¹ Rounded up to 95 mm.
² Seven separators x chain length.
³ Same as chain length.
⁴ It is not necessary to provide article numbers when ordering systems. They are, however, necessary when ordering individual or replacement parts.

Energy Guiding Chain 3113 Cobra 38 K

Chain type

Duo-link plastic chain with narrow RS aluminum frame stays, force-fit design for easy removal.

Heavy-duty energy guiding chain that features smooth operation and low weight.

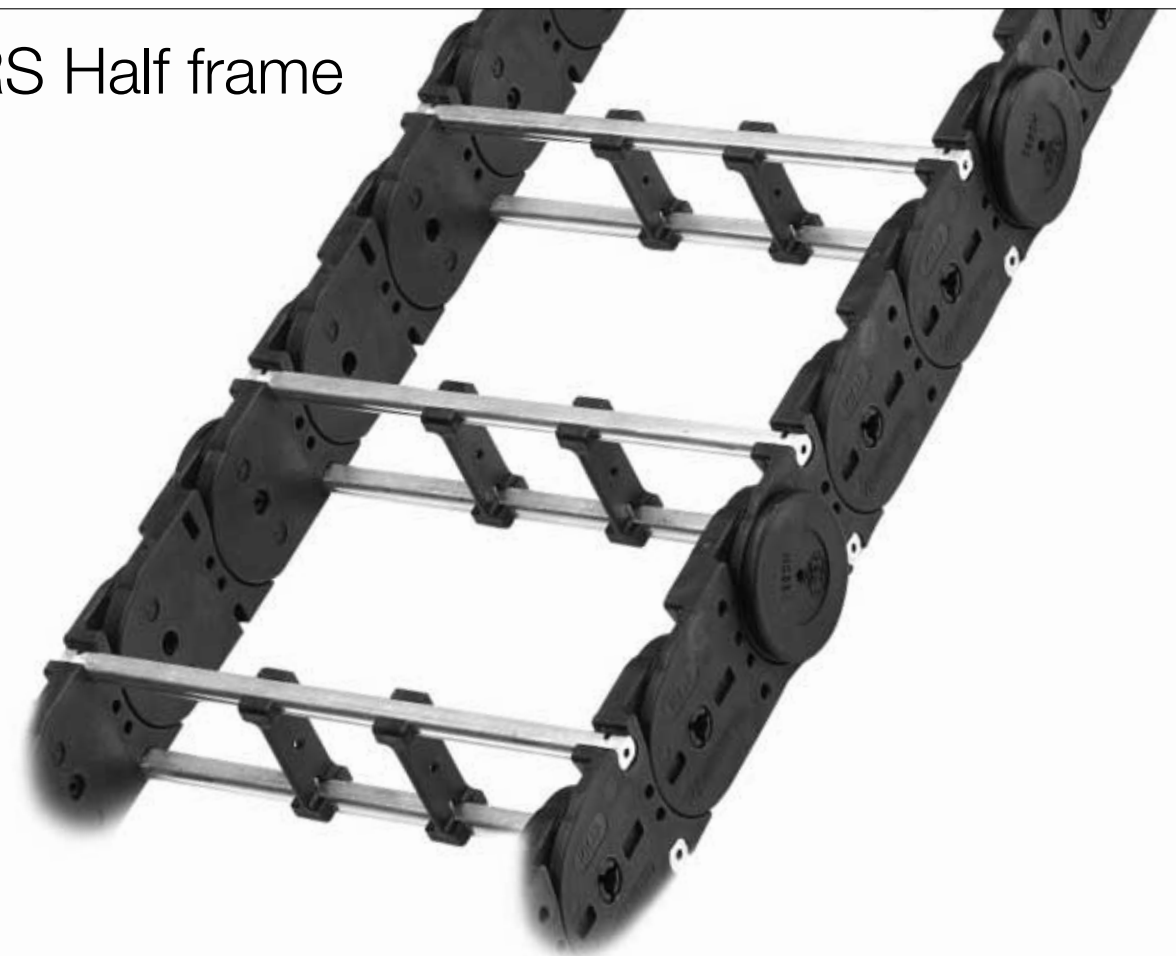
Materials

Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy. Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

38 mm

RS Half frame



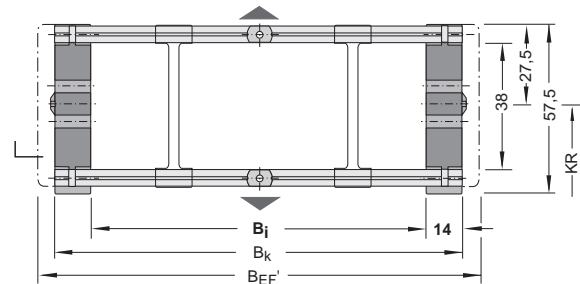
Energy Guiding Chain 3113 Cobra 38 K

RS Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _K (mm)	B _{EF} w/ glider disks	G _k (kg/m)		
150	178	186	2.1	311338-150-RS-	
200	228	236	2.3	311338-200-RS-	
250	278	286	2.6	311338-250-RS-	
300	328	336	2.9	311338-300-RS-	
350	378	386	3.2	311338-350-RS-	
400	428	436	3.5	311338-400-RS-	

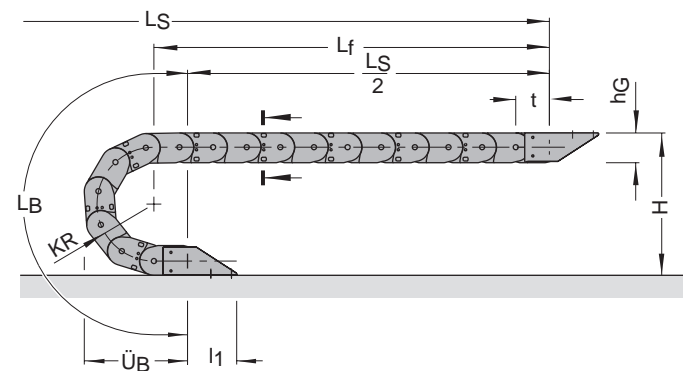
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	075	115	145	175	220
Length of bend	L _B	336	492	586	680	822
Projecting length of bend	Ü _B	168	208	238	268	313
Connecting height	H	205	285	345	405	495
Chain pitch	t	65				
Inside height	H _i	38				
Link height	h _G	57.5				
Connector length	l ₁	Standard connector 95		Universal connector 71		
Self-supporting length	L _f	L _f = 2.35 m + KR/250 - q _z /22				
Additional load	q _z	max. 20 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_S/2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

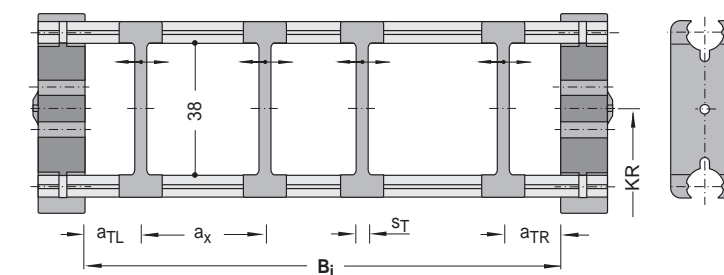
L_S = Travel distance

Energy Guiding Chain 3113 Cobra 38 K

RS Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 38 K, preassembled	311338-TS0-RS-MT
Vertical separators TS 0 for Cobra 38 K, separate	311338-TS0-RS-LS



Cobra 38 K with TS 0

Separator thickness	s _T	3 mm
Min. distance middle	a _{x min}	13 mm
Min. distance edge	a _{T min}	6.5 mm

The separators can be moved horizontally and are normally provided on every second link.

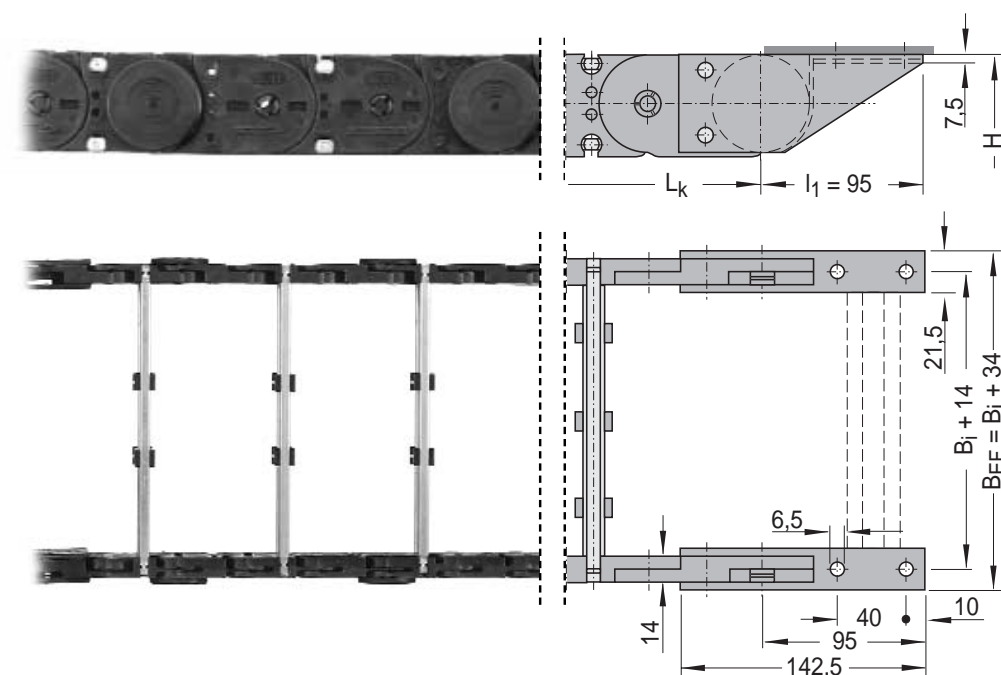
Connectors

Standard

Article	Article number
Connectors for Cobra 38 K, standard	311338-ASE
Connectors for Cobra 38 K, standard with C profile	311338-ASE-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



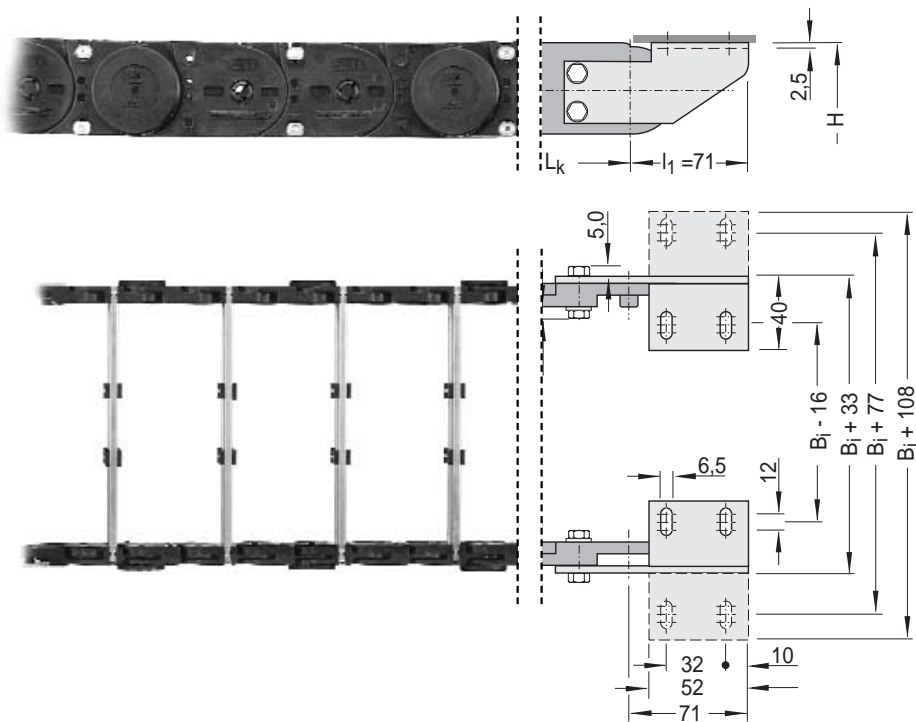
Energy Guiding Chain 3113 Cobra 38 K

RS Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 38 K, steel	311338-ASS
	Connectors for Cobra 38 K, steel with C profile	311338-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Glider disks	Article	Article number
	Glider disks Cobra 38 K, preassembled (every 4 th link)	311338-GLE-MT
	Glider disks Cobra 38 K, separate	311338-GLE-LS

The use of glider disks is recommended to achieve optimum operation of the chain in the case of long travel distances.



Energy Guiding Chain 3114 Cobra 58 M

Chain type

Duo-link plastic chain with narrow RS aluminum frame stays, force-fit design for easy removal.

Heavy-duty energy guiding chain that features smooth operation and low weight.

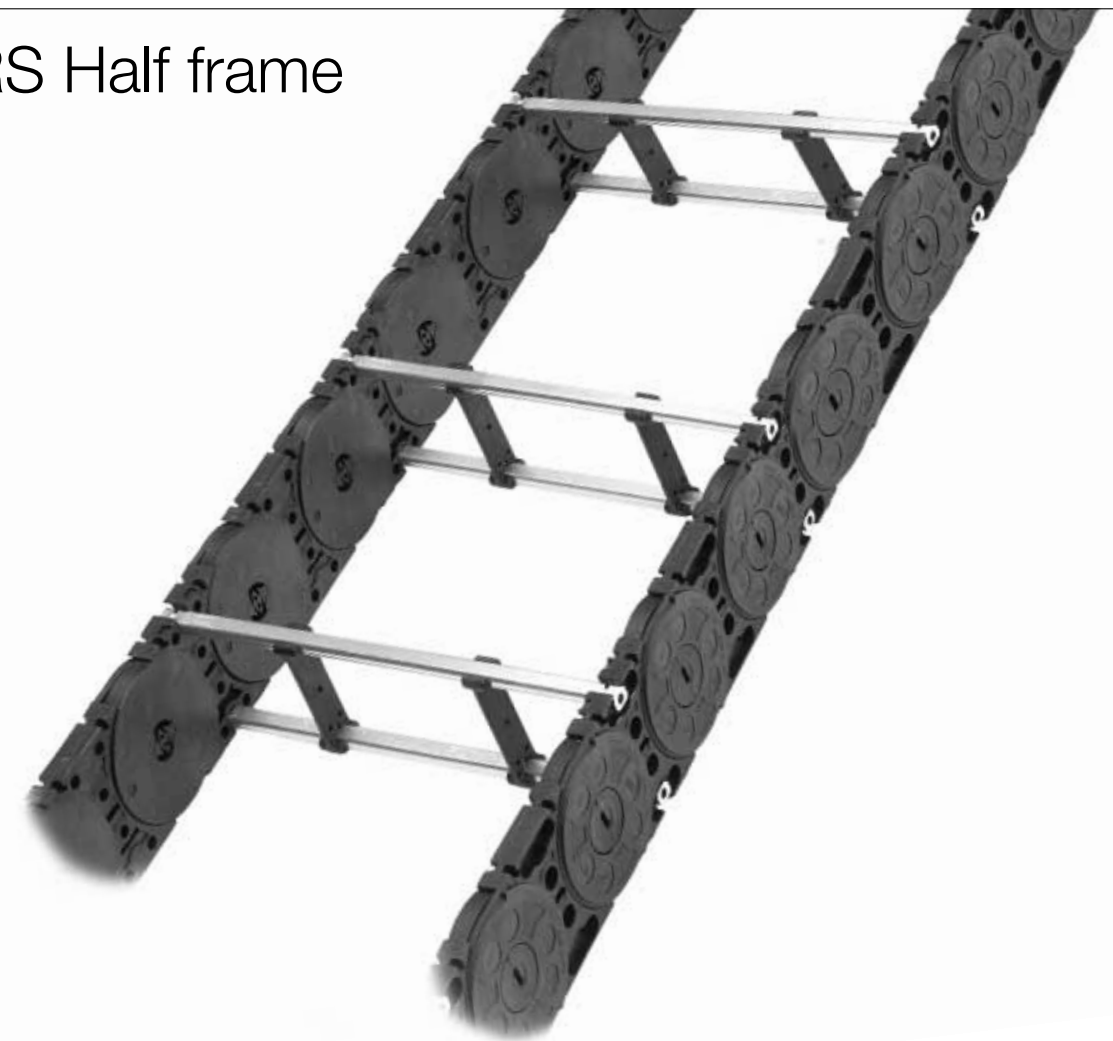
Materials

Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy. Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

58 mm

RS Half frame



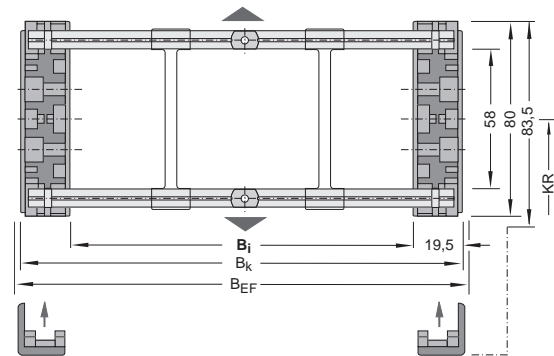
Energy Guiding Chain 3114 Cobra 58 M

RS Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	189	194	3.2	311458-150-RS-	
200	239	244	3.4	311458-200-RS-	
250	289	294	3.7	311458-250-RS-	
300	339	344	3.9	311458-300-RS-	
400	439	444	4.5	311458-400-RS-	

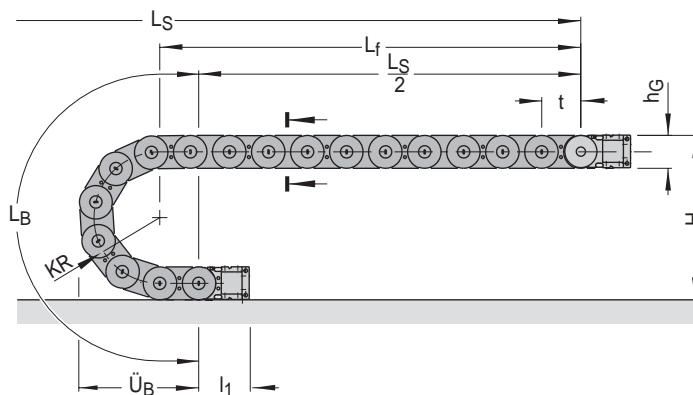
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	140	170	200	260	320
Length of bend	L _B	630	725	819	1007	1196
Projecting length of bend	Ü _B	275	305	335	395	455
Connecting height	H	360	420	480	600	720
Chain pitch	t	95				
Inside height	H _i	58				
Link height	h _G	80 / with anti-friction skids 83.5				
Connector length	l ₁	Standard connector 136 Universal connector 164.5				
Self-supporting length	L _f	L _f = 3.65 m + KR/310 - q _z /12				
Additional load	q _z	max. 30 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s/2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

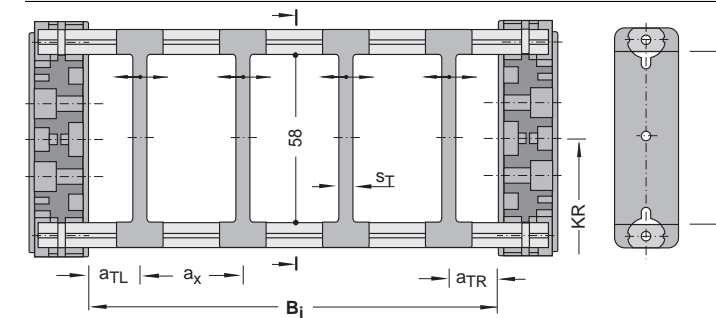
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 58 M

RS Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 58 M RS, preassembled	311458-TS0-RS-MT
Vertical separators TS 0 for Cobra 58 M RS, separate	311458-TS0-RS-LS



Cobra 58 M RS with TS 0

Separator thickness	s _T	4 mm
Min. distance middle	a _{x min}	14 mm
Min. distance edge	a _{T min}	4.5 mm

The separators can be moved horizontally and are normally provided on every second link.

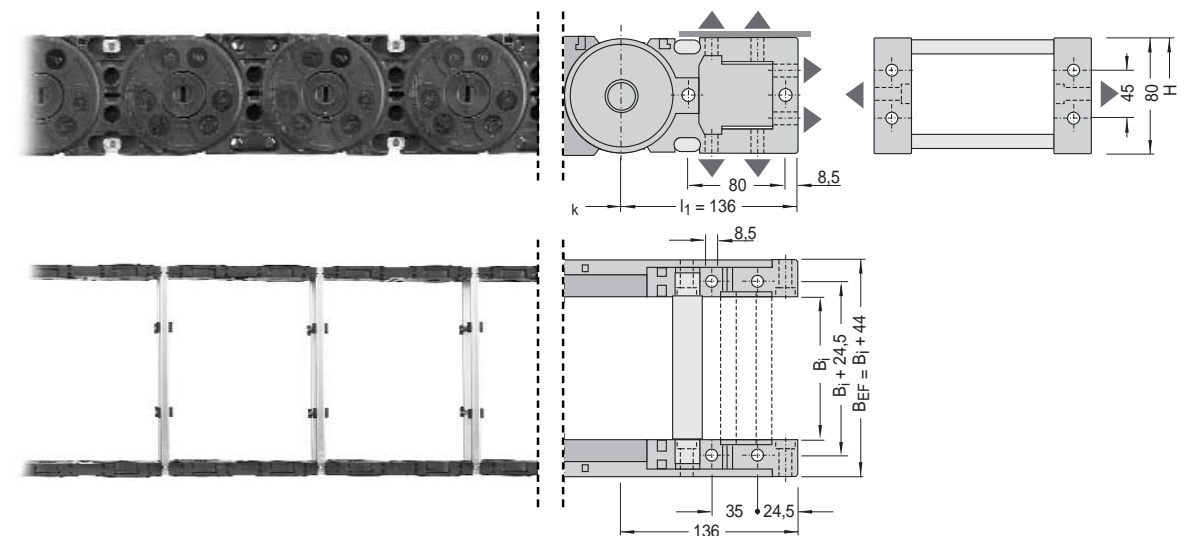
Connectors

Standard

Article	Article number
Connectors for Cobra 58 M, aluminum	311458-ASU
Connectors for Cobra 58 M, aluminum with C profile	311458-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



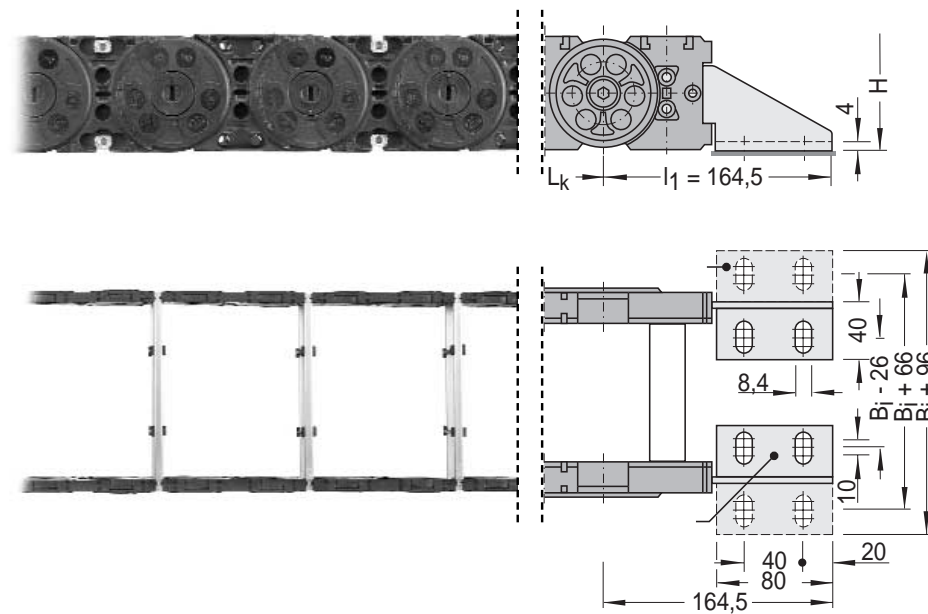
Energy Guiding Chain 3114 Cobra 58 M

RS Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 58 M, steel	311458-ASS
	Connectors for Cobra 58 M, steel with C profile	311458-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

Article	Article number
Anti-friction skids Cobra 58 M, preassembled (every link)	311458-GLE-MT
Anti-friction skids Cobra 58 M, separate	311458-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 58 M

Chain type

Duo-link plastic chain with heavy-duty RV aluminum frame stays, force-fit design for easy removal.

Heavy-duty energy guiding chain that features smooth operation and low weight.

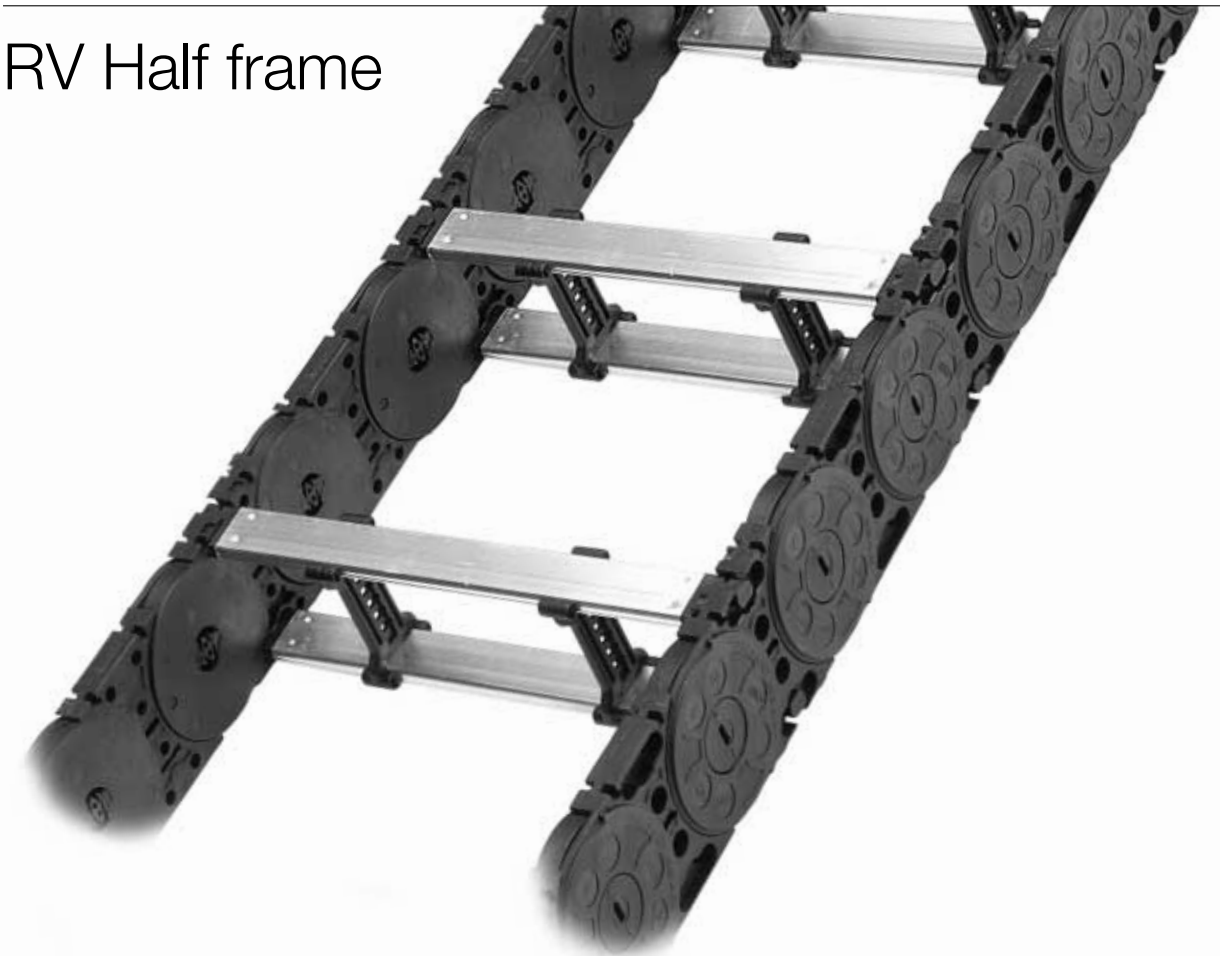
Materials

Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy. Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

58 mm

RV Half frame



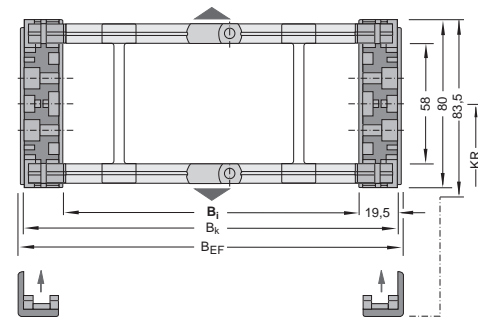
Energy Guiding Chain 3114 Cobra 58 M

RV Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	189	194	3.5	311458-150-RV-	
200	239	244	3.8	311458-200-RV-	
250	289	294	4.1	311458-250-RV-	
300	339	344	4.4	311458-300-RV-	
400	439	444	5.1	311458-400-RV-	
500	539	544	5.7	311458-500-RV-	

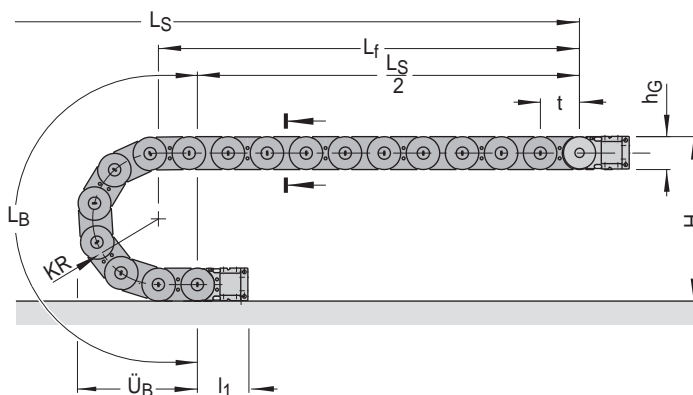
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	140	170	200	260	320
Length of bend	L _B	630	725	819	1007	1196
Projecting length of bend	Ü _B	275	305	335	395	455
Connecting height	H	360	420	480	600	720
Chain pitch	t	95				
Inside height	H _i	58				
Link height	h _G	80 / with anti-friction skids 83.5				
Connector length	l ₁	Standard connector 136 Steel connector 164.5				
Self-supporting length	L _f	L _f = 3.65 m + KR/310 - q _z /12				
Additional load	q _z	max. 30 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s / 2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

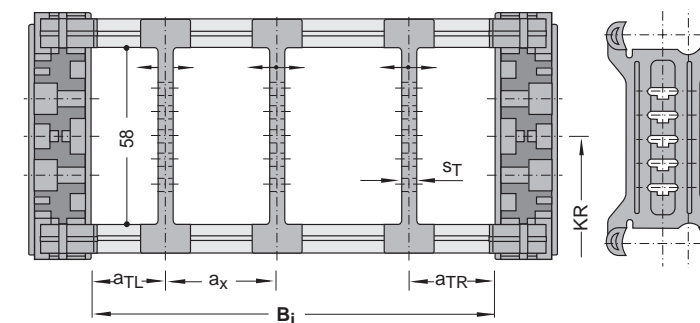
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 58 M

RV Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 58 M RV, preassembled	311458-TS0-RV-MT
Vertical separators TS 0 for Cobra 58 M RV, separate	311458-TS0-RV-LS



Cobra 58 M RV with TS 0

Separator thickness	s _T	4 mm
Min. distance middle	a _{x min}	14 mm
Min. distance edge	a _{T min}	4.5 mm

The separators can be moved horizontally and are normally provided on every second link.

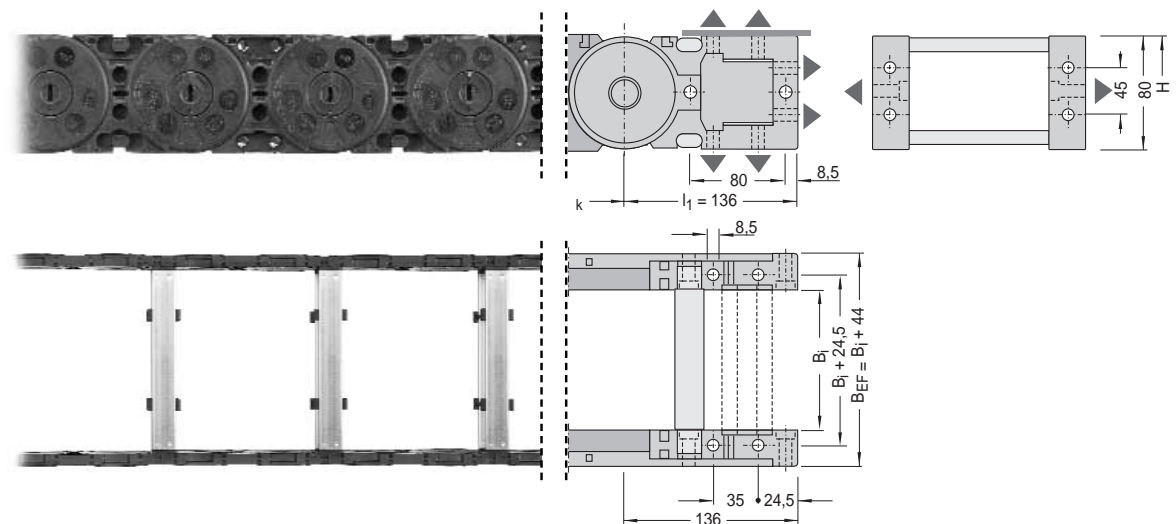
Connectors

Standard

Article	Article number
Connectors for Cobra 58 M, aluminum	311458-ASU
Connectors for Cobra 58 M, aluminum with C profile	311458-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



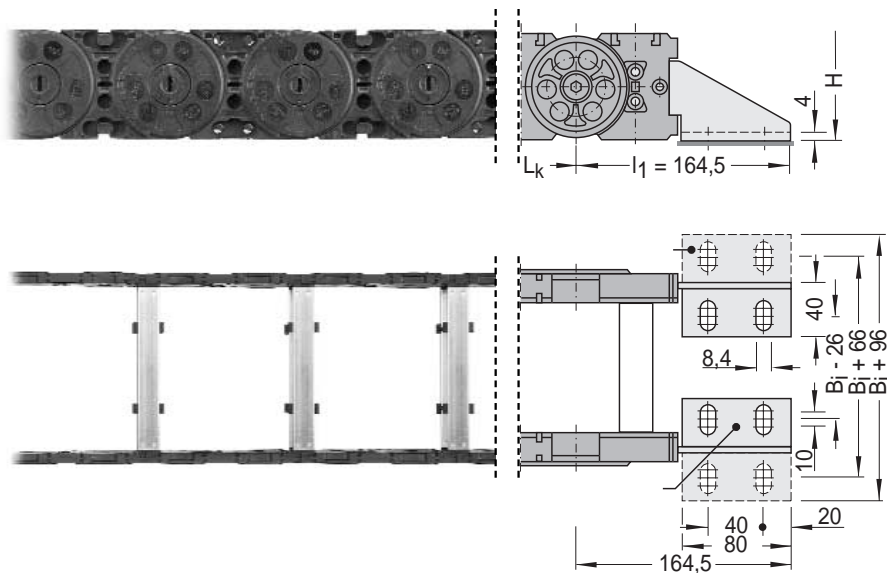
Energy Guiding Chain 3114 Cobra 58 M

RV Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 58 M, steel	311458-ASS
	Connectors for Cobra 58 M, steel with C profile	311458-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

Article	Article number
Anti-friction skids Cobra 58 M, preassembled (every link)	311458-GLE-MT
Anti-friction skids Cobra 58 M, separate	311458-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 58 M

Chain type

Duo-link plastic chain with solid RM aluminum frame stays, installed with four screws.

Heavy-duty energy guiding chain that features smooth operation and low weight.

Materials

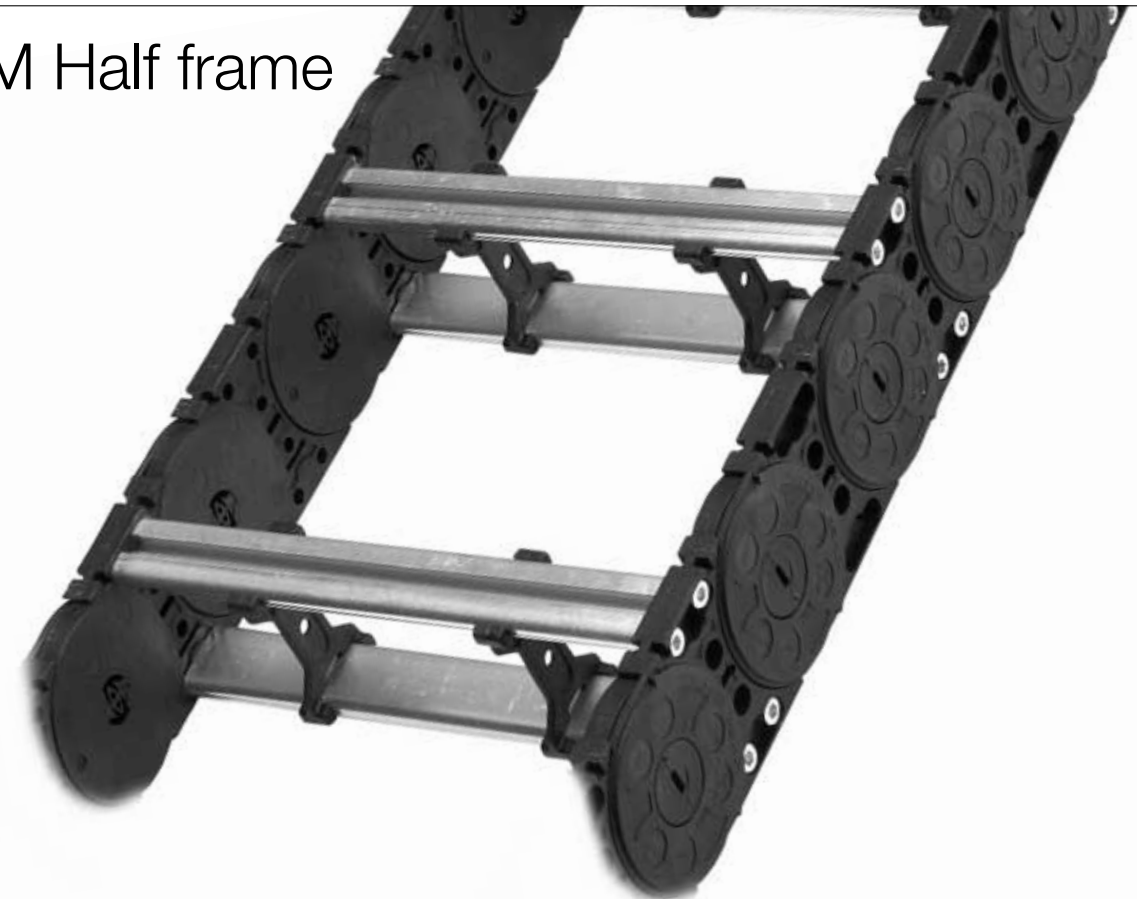
Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy.

Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inner height

54 mm

RM Half frame



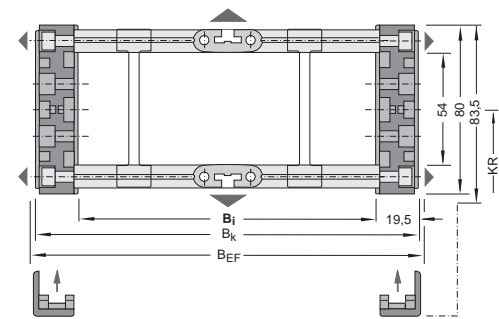
Energy Guiding Chain 3114 Cobra 58 M

RM Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _K (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	189	194	3.7	311458-150-RM-	
200	239	244	4.1	311458-200-RM-	
250	289	294	4.4	311458-250-RM-	
300	339	344	4.6	311458-300-RM-	
400	439	444	5.2	311458-400-RM-	
500	539	544	5.7	311458-500-RM-	

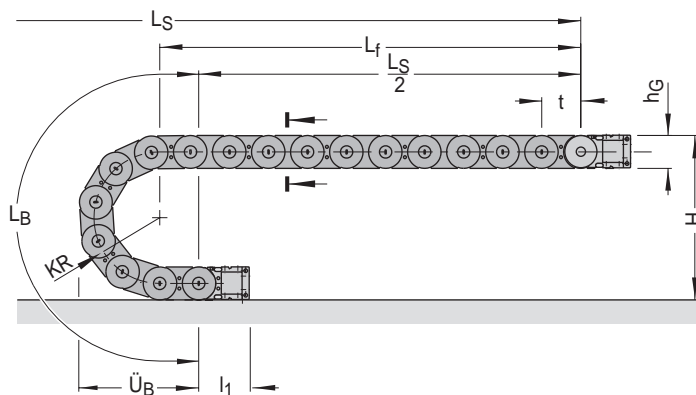
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	140	170	200	260	320
Length of bend	L _B	630	725	819	1007	1196
Projecting length of bend	Ü _B	275	305	335	395	455
Connecting height	H	360	420	480	600	720
Chain pitch	t	95				
Inside height	H _i	54				
Link height	h _G	80 / with anti-friction skids 83.5				
Connector length	l ₁	Standard connector 136 Steel connector 164.5				
Self-supporting length	L _f	L _f = 3.65 m + KR/310 - q _z /12				
Additional load	q _z	max. 30 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_S / 2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

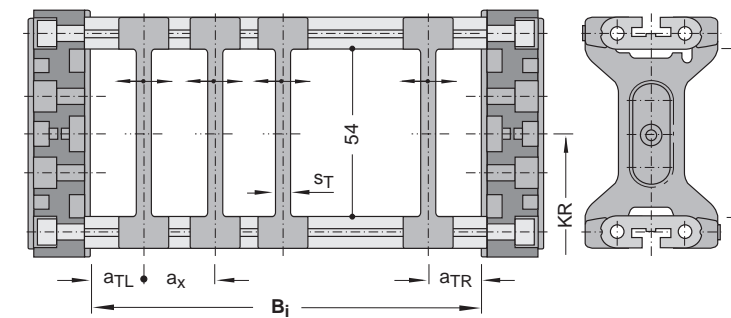
L_S = Travel distance

Energy Guiding Chain 3114 Cobra 58 M

RM Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 58 M RM, preassembled	311458-TS0-RM-MT
Vertical separators TS 0 for Cobra 58 M RM, separated	311458-TS0-RM-LS



Cobra 58 M RM with TS 0

Separator thickness	s _T	4 mm
Min. distance middle	a _{x min}	14 mm
Min. distance edge	a _{T min}	7 mm

The separators can be moved horizontally and are normally provided on every second link.

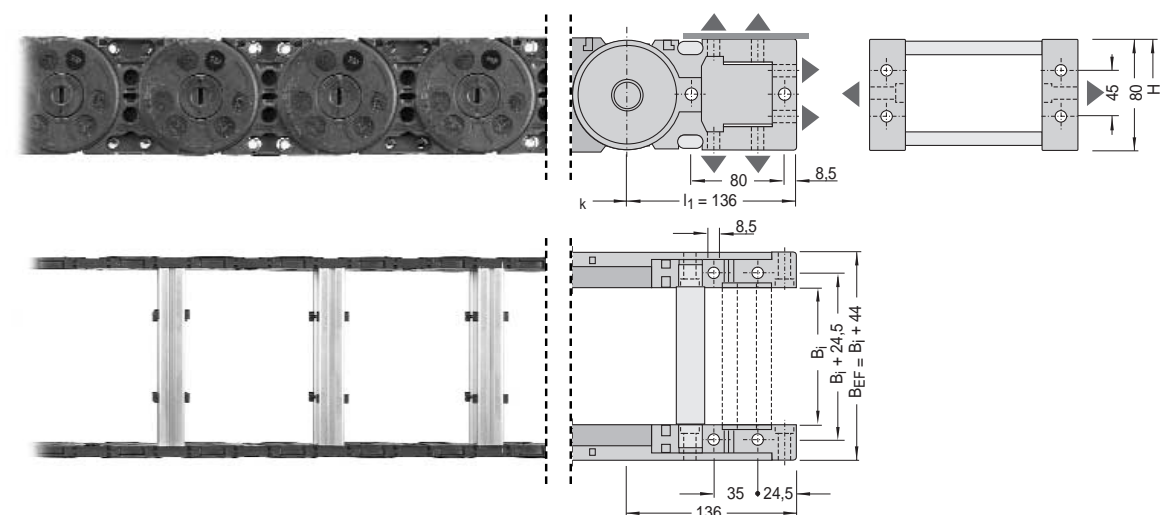
Connectors

Standard

Article	Article number
Connectors for Cobra 58 M, aluminum	311458-ASU
Connectors for Cobra 58 M, aluminum with C profile	311458-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



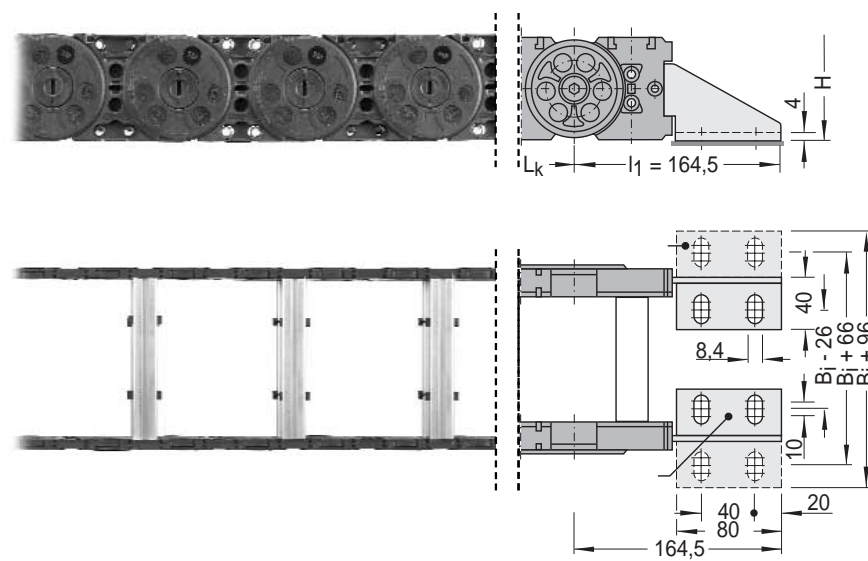
Energy Guiding Chain 3114 Cobra 58 M

RM Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 58 M, steel	311458-ASS
	Connectors for Cobra 58 M, steel with C profile	311458-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.

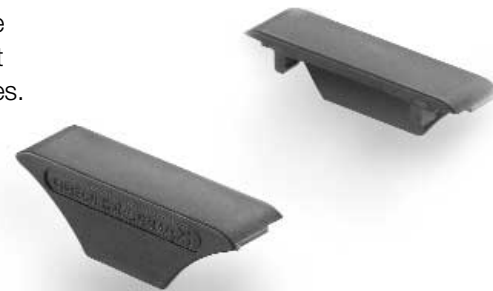


Anti-friction skids

	Article	Article number
	Anti-friction skids Cobra 58 M, preassembled (every link)	311458-GLE-MT
	Anti-friction skids Cobra 58 M, separate	311458-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 58 M

Chain type

Duo-link plastic chain with narrow RS aluminum frame stays, force-fit design for easy removal.

Heavy-duty energy guiding chain that features smooth operation and low weight.

Materials

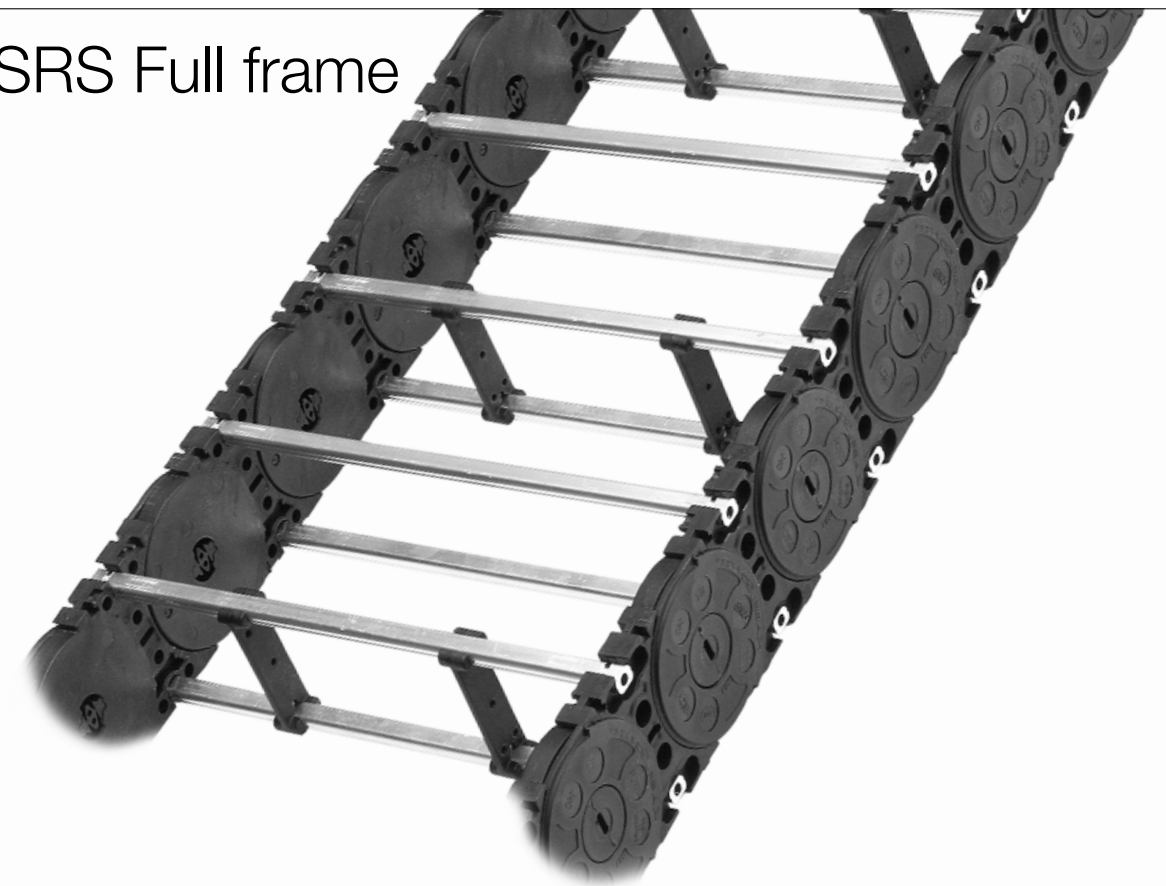
Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy.

Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

58 mm

RSRS Full frame



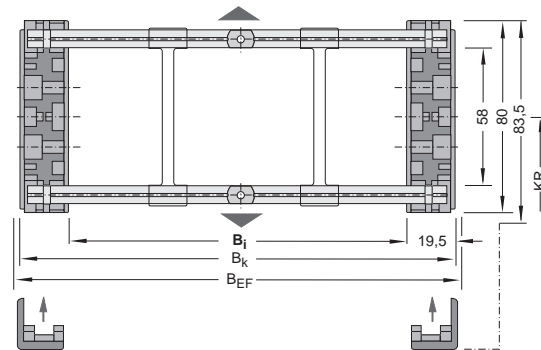
Energy Guiding Chain 3114 Cobra 58 M

RSRS Full Frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	189	194	3.3	311458-150-RSRS-	
200	239	244	3.6	311458-200-RSRS-	
250	289	294	3.9	311458-250-RSRS-	
300	339	344	4.2	311458-300-RSRS-	
400	439	444	4.9	311458-400-RSRS-	

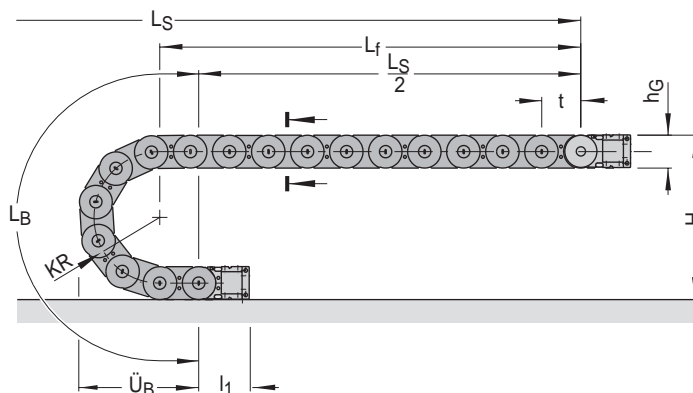
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	140	170	200	260	320
Length of bend	L _B	630	725	819	1007	1196
Projecting length of bend	Ü _B	275	305	335	395	455
Connecting height	H	360	420	480	600	720
Chain pitch	t	95				
Inside height	H _i	58				
Link height	h _G	80 / with anti-friction skids 83.5				
Connector length	l ₁	Standard connector 136 Steel connector 164.5				
Self-supporting length	L _f	L _f = 3.65 m + KR/310 - q _z /12				
Additional load	q _z	max.30 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s / 2 + L_B + 2t$$

Important:

If the length L_s is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

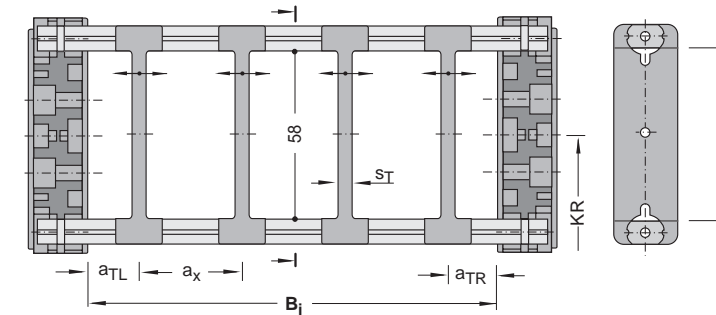
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 58 M

RSRS Full frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 58 M RS, preassembled	311458-TS0-RS-MT
Vertical separators TS 0 for Cobra 58 M RS, separate	311458-TS0-RS-LS



Cobra 58 M RS with TS 0

Separator thickness	s _T	4 mm
Min. distance middle	a _{x min}	14 mm
Min. distance edge	a _{T min}	4.5 mm

The separators can be moved horizontally and are normally provided on every second link.

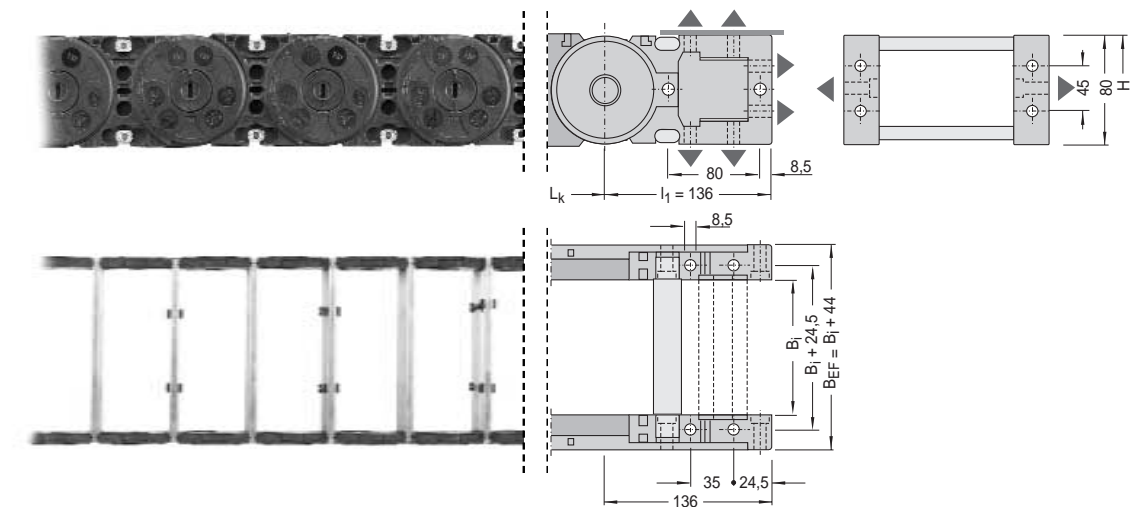
Connectors

Standard

Article	Article number
Connectors for Cobra 58 M, aluminum	311458-ASU
Connectors for Cobra 58 M, aluminum with C profile	311458-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



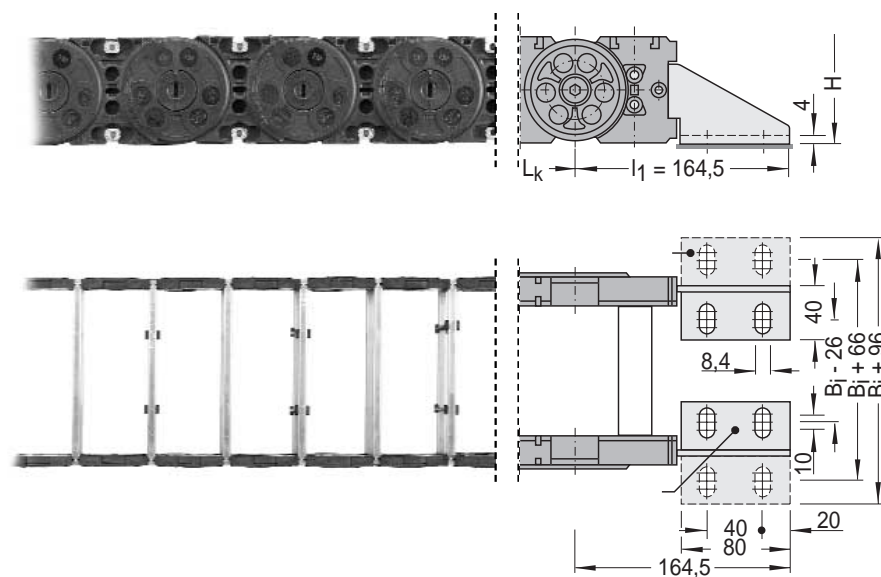
Energy Guiding Chain 3114 Cobra 58 M

RSRS Full frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 58 M, steel	311458-ASS
	Connectors for Cobra 58 M, steel with C profile	311458-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

	Article	Article number
	Anti-friction skids Cobra 58 M, preassembled (every link)	311458-GLE-MT
	Anti-friction skids Cobra 58 M, separate	311458-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 58 M

Chain type

Duo-link plastic chain with narrow RS aluminum frame stays with force-fit for easy removal alternating with solid RM aluminum frame stays installed with four screws.

Heavy-duty energy guiding chain that features smooth operation and low weight.

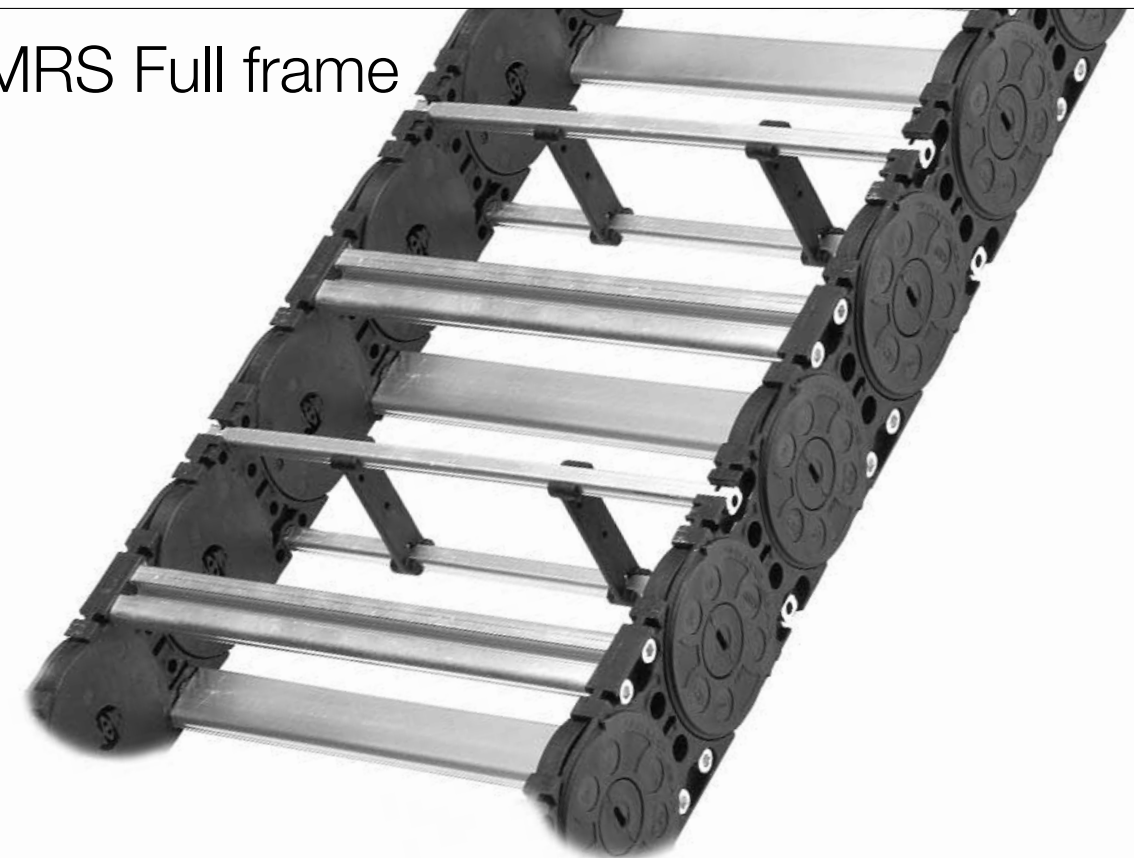
Materials

Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy. Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

54 mm

RMRS Full frame

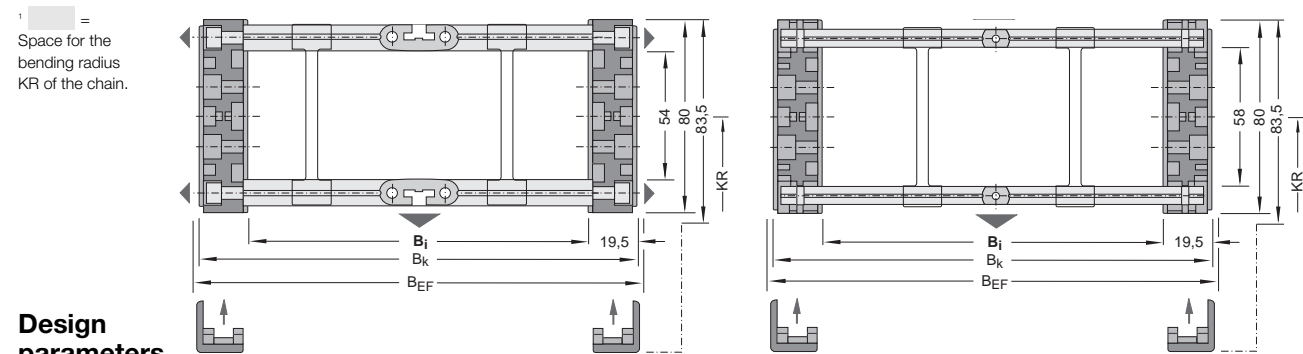


Energy Guiding Chain 3114 Cobra 58 M

RMRS Full frame

Chain types

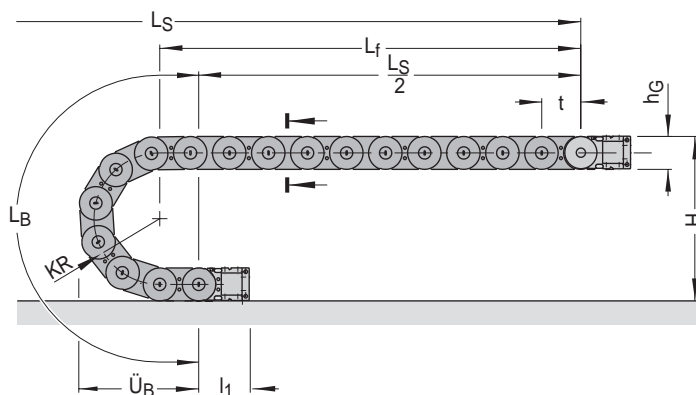
Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	189	194	3.8	311458-150-RMRS-	
200	239	244	4.3	311458-200-RMRS-	
250	289	294	4.6	311458-250-RMRS-	
300	339	344	4.9	311458-300-RMRS-	
400	439	444	5.6	311458-400-RMRS-	
500	539	544	6.2	311458-500-RMRS-	



Design parameters

Bending radius	KR	140	170	200	260	320
Length of bend	L _B	630	725	819	1007	1196
Projecting length of bend	Ü _B	275	305	335	395	455
Connecting height	H	360	420	480	600	720
Chain pitch	t	95				
Inside height	H _i	54				
Link height	h _G	80/ with anti-friction skids 83.5				
Connector length	l ₁	Standard connector 136		Steel connector 164.5		
Self-supporting length	L _f	L _f = 3.65 m + KR/310 - q _z /12				
Additional load	q _z	max. 30 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s / 2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

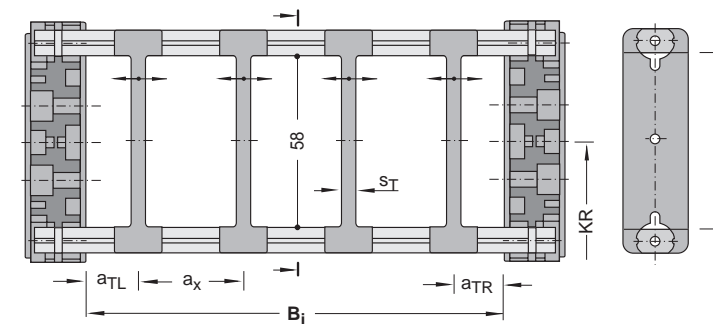
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 58 M

RMRS Full Frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 58 M RS, preassembled	311458-TS0-RS-MT
Vertical separators TS 0 for Cobra 58 M RS, separate	311458-TS0-RS-LS



Cobra 58 M RS with TS 0

Separator thickness s _T	4 mm
Min. distance middle a _{x min}	14 mm
Min. distance edge a _{T min}	4.5 mm

The separators can be moved horizontally and are normally provided on every second link.

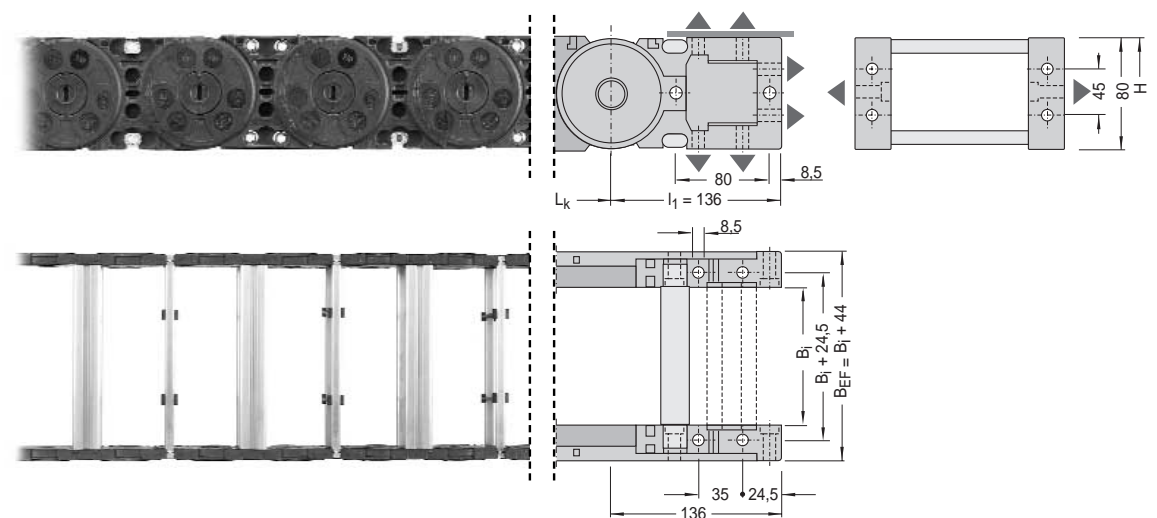
Connectors

Standard

Article	Article number
Connectors for Cobra 58 M, aluminum	311458-ASU
Connectors for Cobra 58 M, aluminum with C profile	311458-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



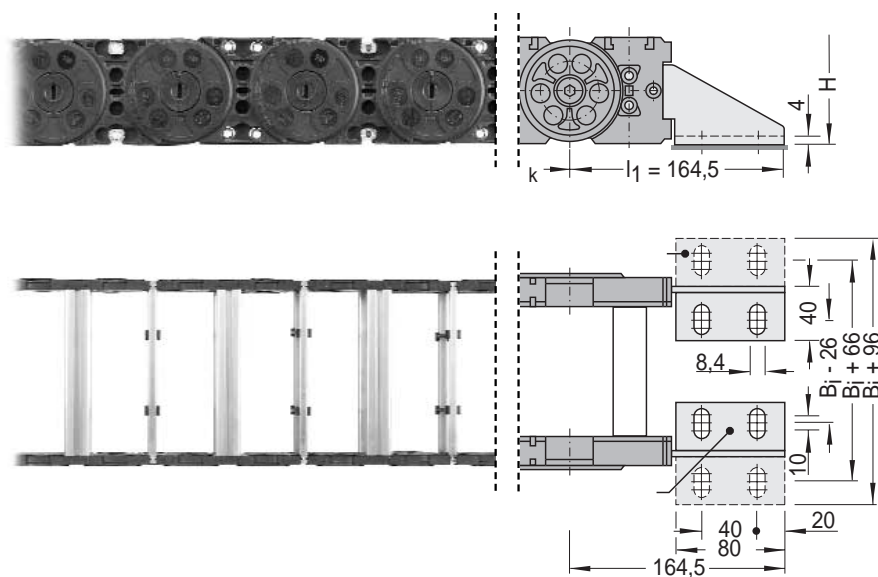
Energy Guiding Chain 3114 Cobra 58 M

RMRS Full frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 58 M, steel	311458-ASS
	Connectors for Cobra 58 M, steel with C profile	311458-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

	Article	Article number
	Anti-friction skids Cobra 58 M, preassembled (every link)	311458-GLE-MT
	Anti-friction skids Cobra 58 M, separate	311458-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 72 M

Chain type

Duo-link plastic chain with heavy-duty RV aluminum frame stays, force-fit design for easy removal.

Heavy-duty energy guiding chain that features smooth operation and low weight.

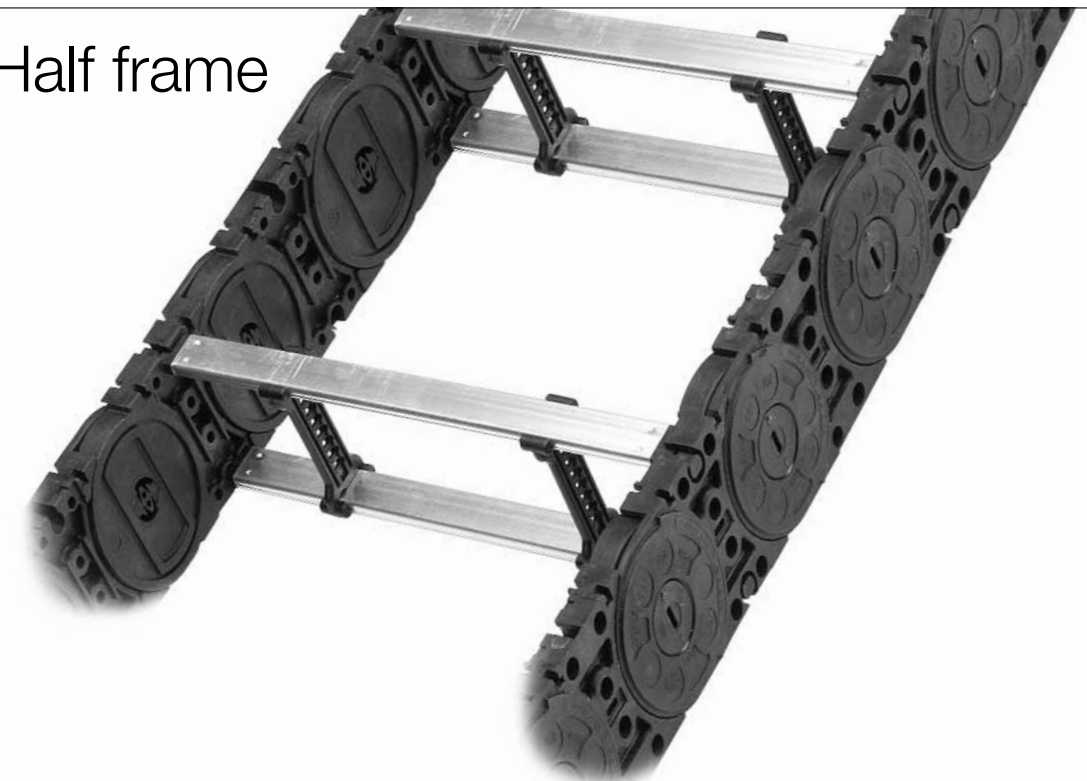
Materials

Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy. Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

72 mm

RV Half frame



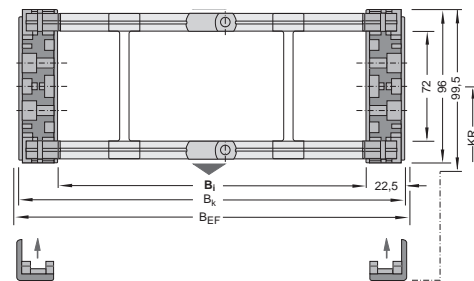
Energy Guiding Chain 3114 Cobra 72 M

RV Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	195	201	4.3	311472-150-RV-	
200	245	251	4.6	311472-200-RV-	
250	295	301	4.8	311472-250-RV-	
300	345	351	5.0	311472-300-RV-	
350	395	401	5.2	311472-350-RV-	
400	445	451	5.3	311472-400-RV-	
500	545	551	5.6	311472-500-RV-	
600	645	651	6.0	311472-600-RV-	

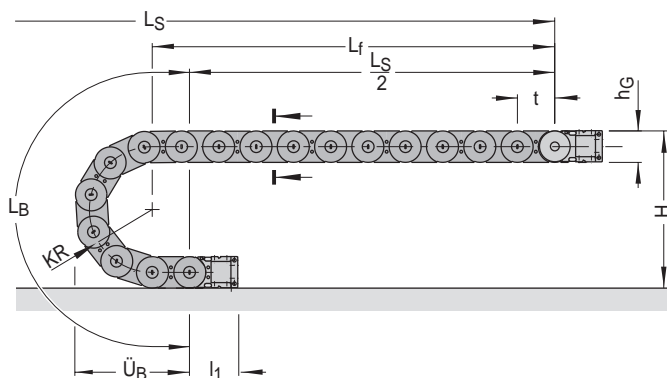
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	180	220	260	300	340
Length of bend	L _B	816	942	1067	1193	1319
Projecting length of bend	Ü _B	353	393	433	473	513
Connecting height	H	456	536	616	696	776
Chain pitch	t	125				
Inside height	H _i	72				
Link height	h _G	96 / with anti-friction skids 99.5				
Connector length	l ₁	Standard connector 168		Steel connector 212		
Self-supporting length	L _f	L _f = 4.5 m + KR/250 - q _z /14				
Additional load	q _z	max. 50 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s / 2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

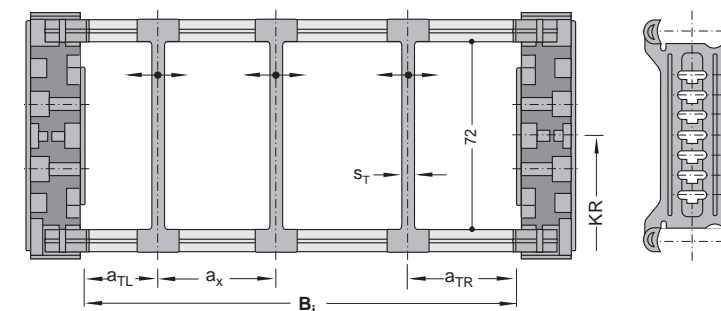
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 72 M

RV Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 72 M RV, preassembled	311472-TS0-RV-MT
Vertical separators TS 0 for Cobra 72 M RV, separate	311472-TS0-RV-LS



Cobra 72 M RV with TS 0

Separator thickness	s _T	6 mm
Min. distance middle	a _{x min}	16 mm
Min. distance edge	a _{T min}	5.5 mm

The separators can be moved horizontally and are normally provided on every second link.

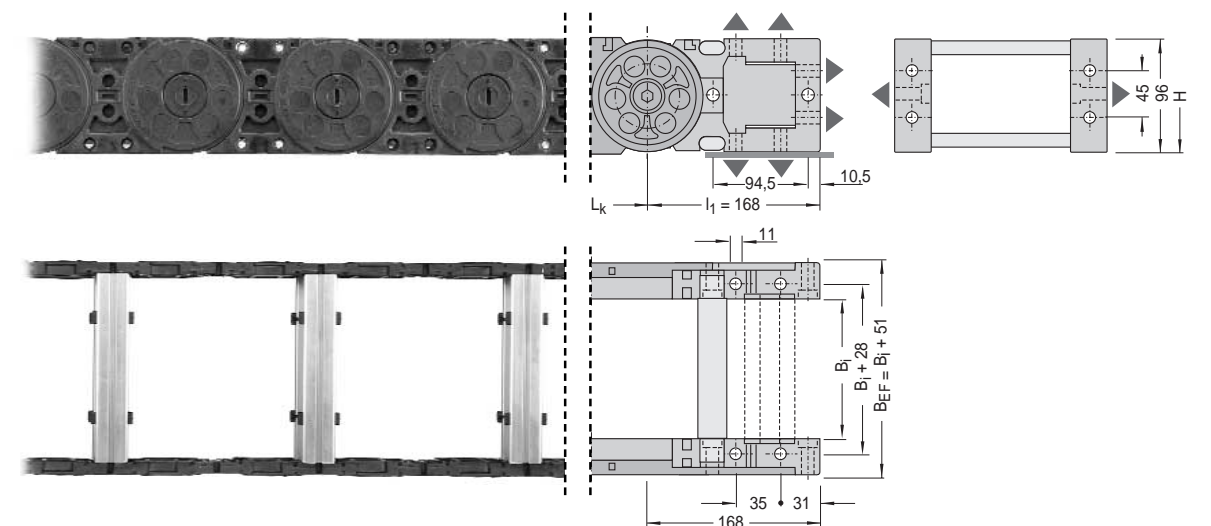
Connectors

Standard

Article	Article number
Connectors for Cobra 72 M, aluminum	311472-ASU
Connectors for Cobra 72 M, aluminum with C profile	311472-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



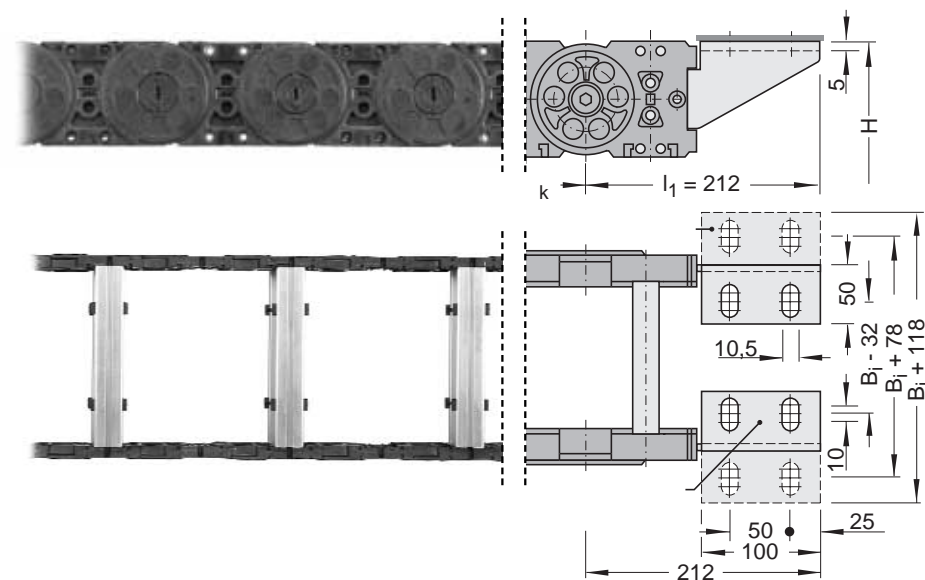
Energy Guiding Chain 3114 Cobra 72 M

RV Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 72 M, steel	311472-ASS
	Connectors for Cobra 72 M, steel with C profile	311472-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

Article	Article number
Anti-friction skids Cobra 72 M, preassembled (every link)	311472-GLE-MT
Anti-friction skids Cobra 72 M, separate	311472-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 72 M

Chain type

Duo-link plastic chain with solid RM aluminum frame stays, installed with four screws.

Heavy-duty energy guiding chain that features smooth operation and low weight.

Materials

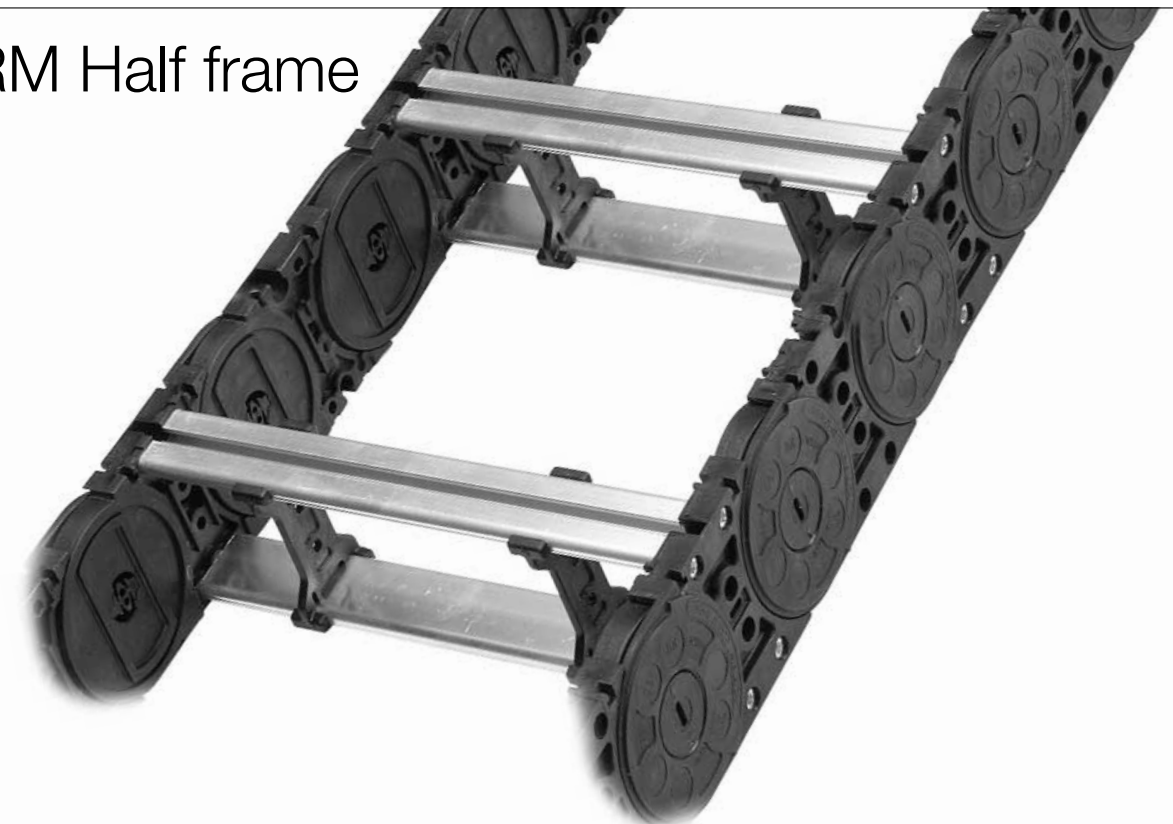
Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy.

Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

69 mm

RM Half frame



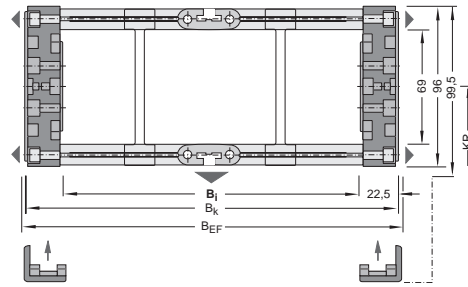
Energy Guiding Chain 3114 Cobra 72 M

RM Half frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	195	201	4.3	311472-150-RM-	
200	245	251	4.6	311472-200-RM-	
250	295	301	4.8	311472-250-RM-	
300	345	351	5.1	311472-300-RM-	
350	395	401	5.4	311472-350-RM-	
400	445	451	5.7	311472-400-RM-	
500	545	551	6.2	311472-500-RM-	
600	645	651	6.8	311472-600-RM-	

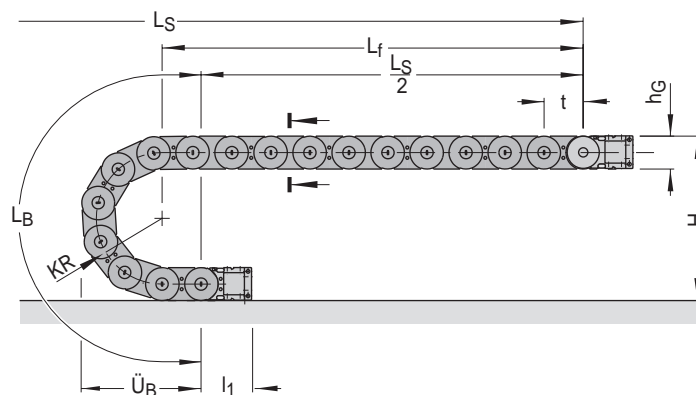
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	180	220	260	300	340
Length of bend	L _B	816	942	1067	1193	1319
Projecting length of bend	Ü _B	353	393	433	473	513
Connecting height	H	456	536	616	696	776
Chain pitch	t	125				
Inside height	H _i	69				
Link height	h _G	96 / with anti-friction skids	99.5			
Connector length	l ₁	Standard connector	168	Steel connector	212	
Self-supporting length	L _f	L _f = 4.5 m + KR/250 - q _z /14				
Additional load	q _z	max. 50 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_S/2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

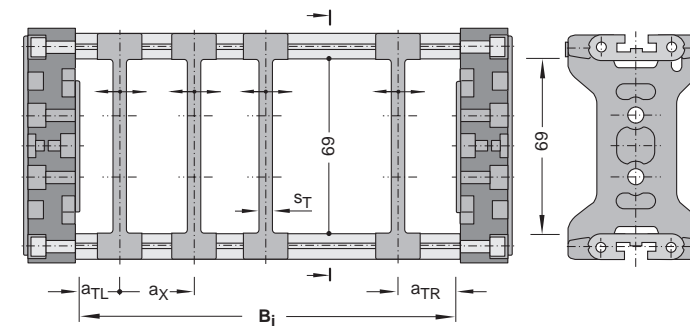
L_S = Travel distance

Energy Guiding Chain 3114 Cobra 72 M

RM Half frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 72 M RM, preassembled	311472-TS0-RM-MT
Vertical separators TS 0 for Cobra 72 M RM, separate	311472-TS0-RM-LS



Cobra 72 M RM with TS 0

Separator thickness	s _T	5 mm
Min. distance middle	a _{x min}	20 mm
Min. distance edge	a _{T min}	10 mm

The separators can be moved horizontally and are normally provided on every second link.

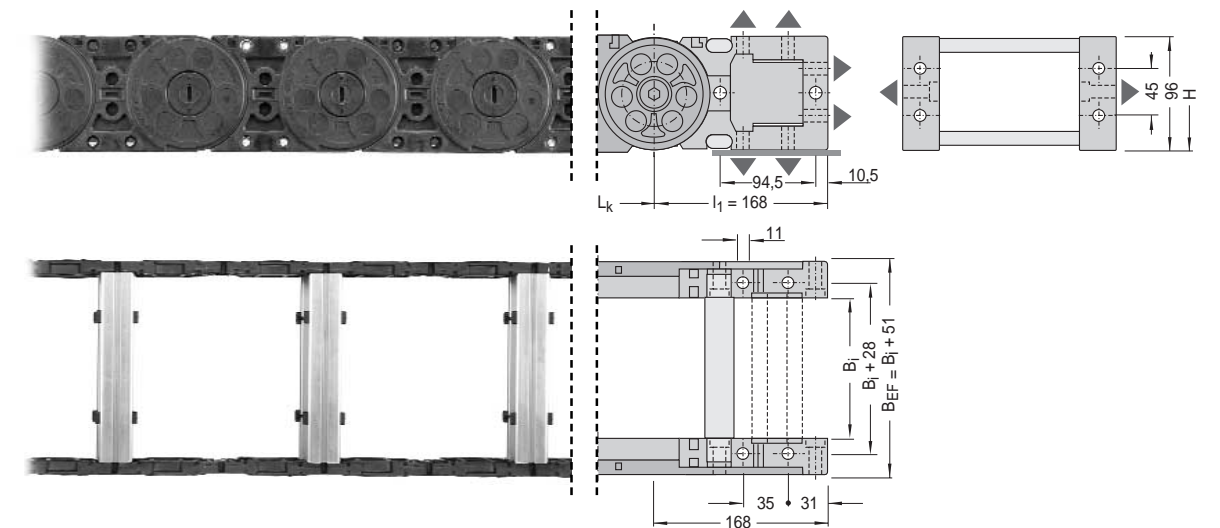
Connectors

Standard

Article	Article number
Connectors for Cobra 72 M, aluminum	311472-ASU
Connectors for Cobra 72 M, aluminum with C profile	311472-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



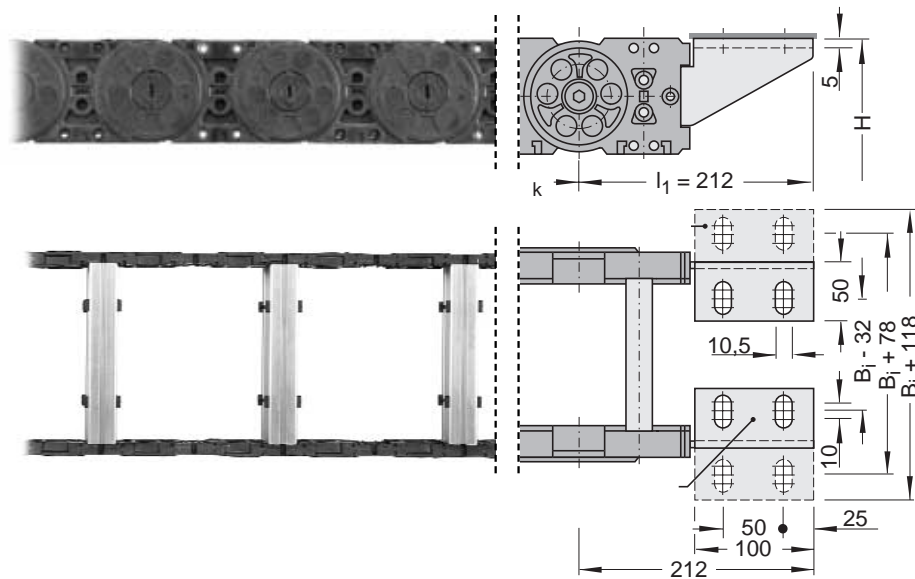
Energy Guiding Chain 3114 Cobra 72 M

RM Half frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 72 M, steel	311472-ASS
	Connectors for Cobra 72 M, steel with C profile	311472-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads.

The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids

Article	Article number
Anti-friction skids Cobra 72 M, preassembled (every link)	311472-GLE-MT
Anti-friction skids Cobra 72 M, separate	311472-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



Energy Guiding Chain 3114 Cobra 72 M

Chain type

Duo-link plastic chain with solid RM aluminum frame stays installed with four screws.

Heavy-duty energy guiding chain that features smooth operation and low weight.

Materials

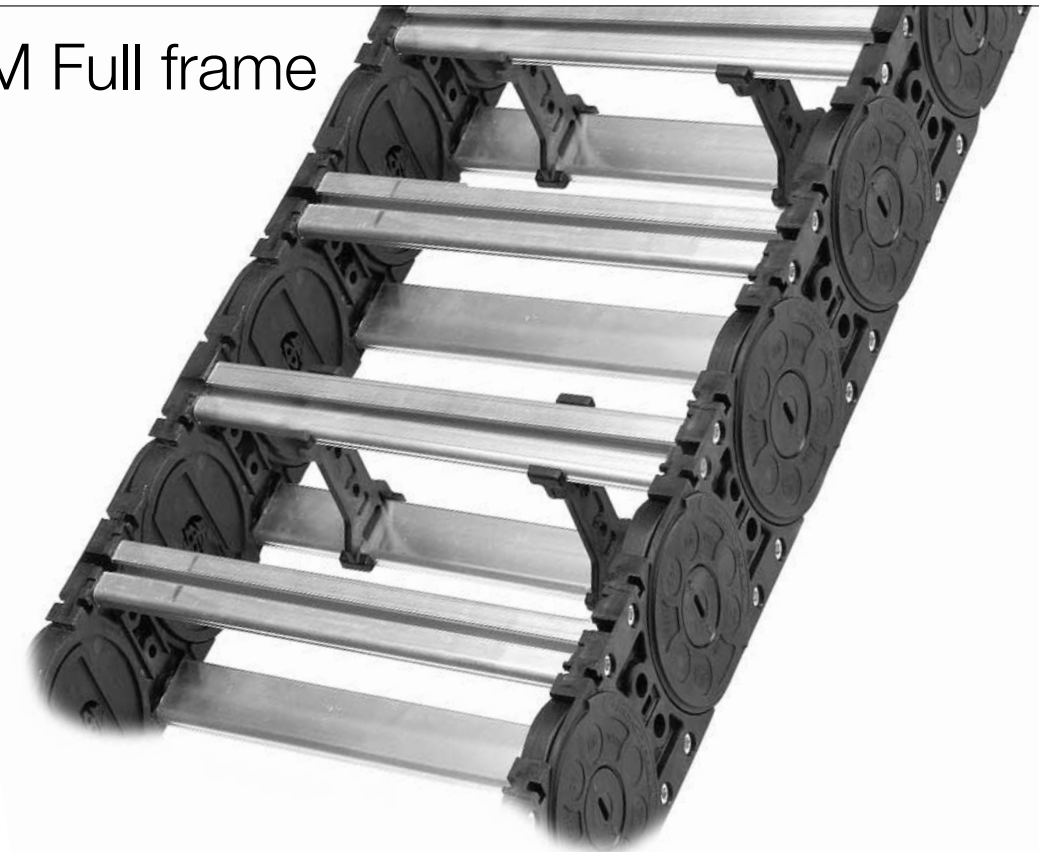
Glass-fiber reinforced PA (halogen-free, silicone-free). Aluminum alloy.

Special materials are available for applications involving low or high temperatures or use in explosion-protected areas.

Inside height

69 mm

RMRM Full frame



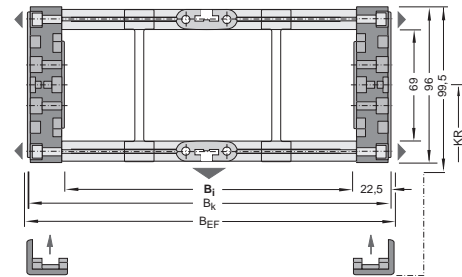
Energy Guiding Chain 3114 Cobra 72 M

RMRM Full frame

Chain types

Inside width	Outside width		Weight	Article number	KR ¹
B _i (mm)	B _k (mm)	B _{EF} w/ anti-friction skids	G _k (kg/m)		
150	195	201	4.6	311472-150-RM-	
200	245	251	5.0	311472-200-RM-	
250	295	301	5.3	311472-250-RM-	
300	345	351	5.6	311472-300-RM-	
350	395	401	5.9	311472-350-RM-	
400	445	451	6.1	311472-400-RM-	
500	545	551	6.6	311472-500-RM-	
600	645	651	7.2	311472-600-RM-	

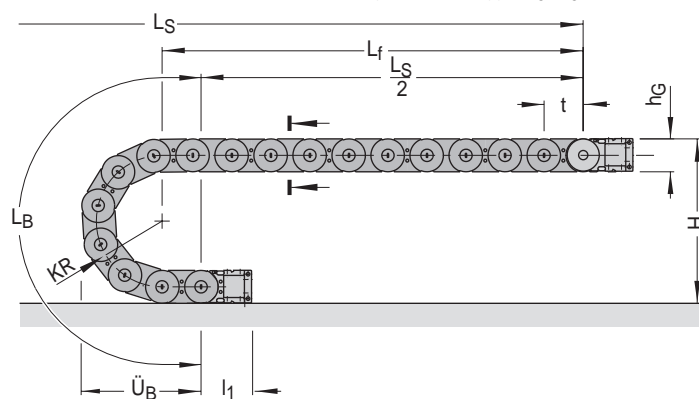
¹ = Space for the bending radius KR of the chain.



Design parameters

Bending radius	KR	180	220	260	300	340
Length of bend	L _B	816	942	1067	1193	1319
Projecting length of bend	Ü _B	353	393	433	473	513
Connecting height	H	456	536	616	696	776
Chain pitch	t	125				
Inside height	H _i	69				
Link height	h _G	96 / with anti-friction skids	99.5			
Connector length	l ₁	Standard connector	168			
		Steel connector	212			
Self-supporting length	L _f	L _f = 4.5 m + KR/250 - q _z /14				
Additional load	q _z	max. 50 kg/m				

All dimensions in mm except for the self-supporting length.



To determine the length L_k for a self-supporting chain:

$$L_k = L_s / 2 + L_B + 2t$$

Important:

If the length L_f is exceeded, the upper run will start to sag and slide on top of the lower run. The factors that determine the length of the chain vary as a function of actual operating parameters. We recommend consulting our design engineers.

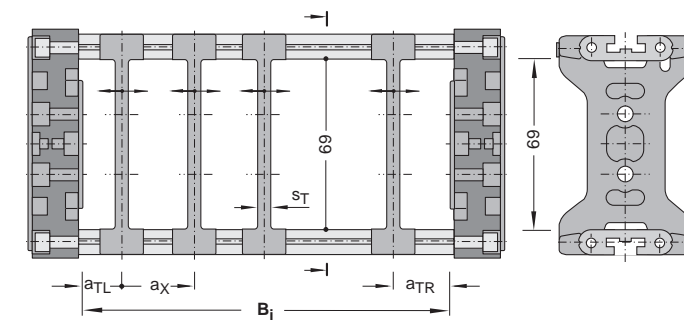
L_s = Travel distance

Energy Guiding Chain 3114 Cobra 72 M

RMRM Full frame

Vertical separators TS 0

Article	Article number
Vertical separators TS 0 for Cobra 72 M RM, preassembled	311472-TS0-RM-MT
Vertical separators TS 0 for Cobra 72 M RM, separate	311472-TS0-RM-LS



Cobra 72 M RM with TS 0

Separator thickness	s _T	5 mm
Min. distance middle	a _{x min}	20 mm
Min. distance edge	a _{T min}	10 mm

The separators can be moved horizontally and are normally provided on every second link.

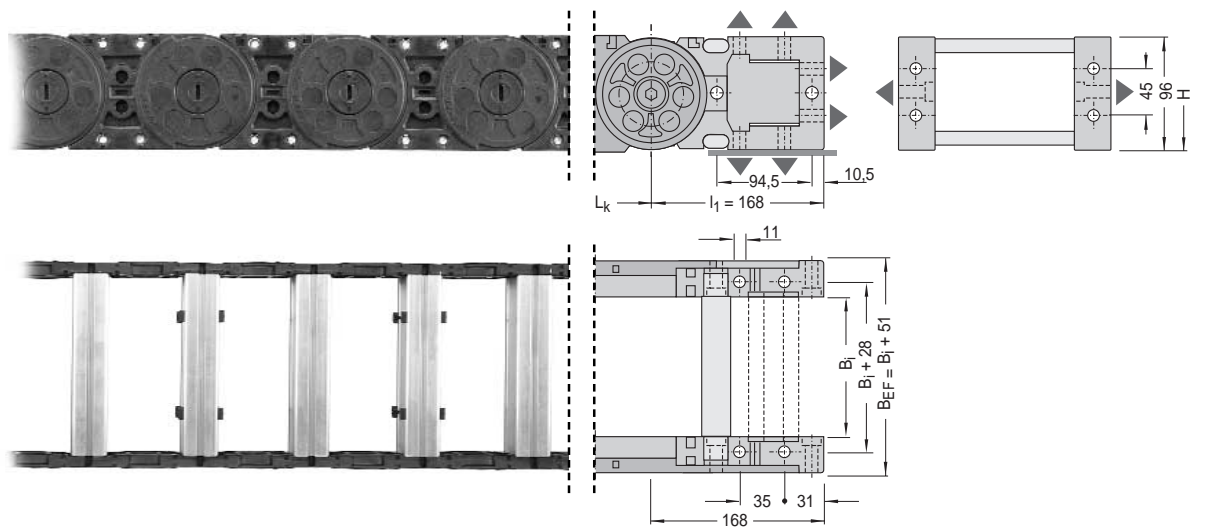
Connectors

Standard

Article	Article number
Connectors for Cobra 72 M, aluminum	311472-ASU
Connectors for Cobra 72 M, aluminum with C profile	311472-ASU-C

The standard connector is optionally available with a C profile that is used to hold the strain-relief elements. Please remember to mention this article in orders.

The connector elements can be modified at any time. A complete set is supplied that contains both the fixed point and driver element connectors.



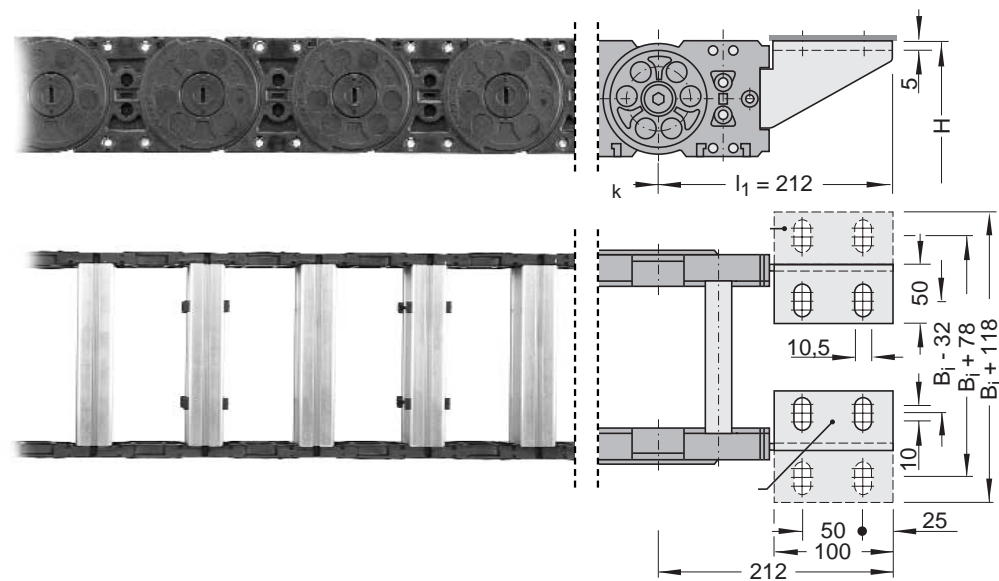
Energy Guiding Chain

3114 Cobra 72 M

RMRM Full frame

Connectors	Steel	
	Article	Article number
	Connectors for Cobra 72 M, steel	311472-ASS
	Connectors for Cobra 72 M, steel with C profile	311472-ASS-C

ASS connectors are made of galvanized steel and are primarily for vertical configurations and heavier loads. The dimensions of the elements for the fixed point and driver element are identical.



Anti-friction skids	Article	Article number
	Anti-friction skids Cobra 72 M, preassembled (every link)	311472-GLE-MT
	Anti-friction skids Cobra 72 M, separate	311472-GLE-LS



The use of anti-friction skids is recommended to achieve optimum operation of the chain in the case of long travel distances and short intervals between operating cycles.



3113 Cobra 38 K
3114 Cobra 58 M
3114 Cobra 72 M

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