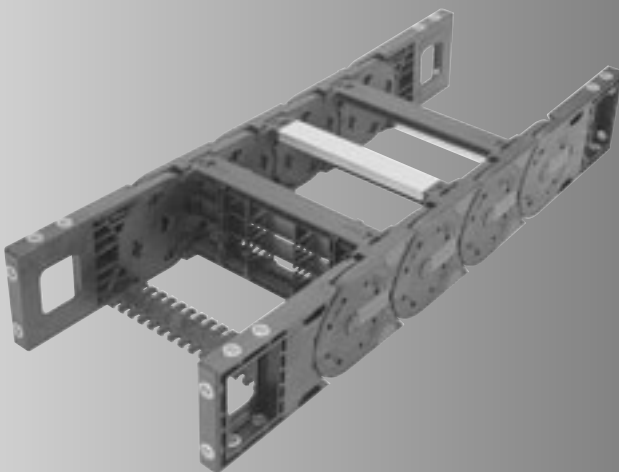


CABLE DRAG CHAIN SYSTEMS



HeavyLine

MP 82.2



MP 82.2 - HeavyLine

Order variants

Style (order code)									
Configuration (order code) * = standard									
Radius (order code)									
in mm									
Internal width (order code)									
in mm									
External width									
in mm									
MP 82.2 118	163	118	118						
MP 82.2 143	188	143	143						
MP 82.2 168	213	168	168						
MP 82.2 193	238	193	193						
MP 82.2 218	263	218	218						
MP 82.2 243	288	243	243						
MP 82.2 268	313	268	268						
MP 82.2 293	338	293	293						0
MP 82.2 318	363	318	318						1
MP 82.2 343	388	343	343						2*
MP 82.2 368	413	368	368	150	150				3*
MP 82.2 418	463	418	418	200	200				4
MP 82.2 468	513	468	468	250	250				5
MP 82.2 518	563	518	518	300	300				6
MP 82.2 xxx	Inside	>118-		400	400				7
	+ 32	600	ALU	500	500				9

Order number:

Configuration:

- 0 crossbar every link; w/bias
- 1 crossbar every link; w/o bias
- 2* crossbar EOL; w/bias
- 3* crossbar EOL; w/o bias
- 4 AL crossbar every link; w/bias
- 5 AL crossbar every link; w/o bias
- 6 AL crossbar EOL; w/bias
- 7 AL crossbar EOL; w/o bias
- 9 Customer order

Style:

- 0 Standard (PA)
- 7 ESD (PA)
- 9 Special version

Sample order

0822 118 150 0000

Inside width = 118 mm

Radius = 150 mm

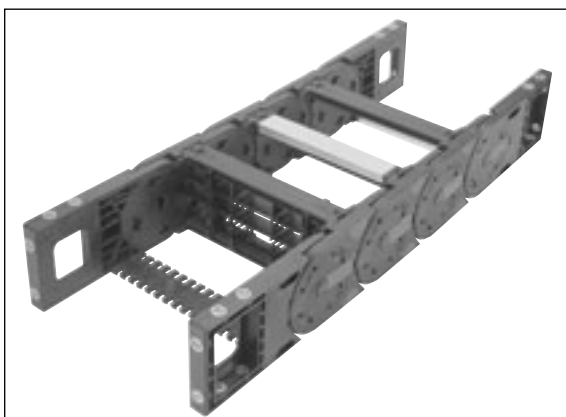
Configuration = 0

Style = 0

Ideal operating conditions

- Extreme accelerations
- Extreme speeds
- Very high additional loads
- Opens on both sides
- Variable widths thanks to aluminium ridge
- Flexible internal separation
- Variant with/without bias

Features



Chain bracket with fixing means on three sides



Frame ridge strain relief can be integrated into chain bracket



Frame ridges / covers in inside and outside bend can be removed



Side links with CLICK lock for easy opening



Radii with or without bias (RK/RV)



ESD cable drag chains for use in areas at risk of explosion



Back radius combinations



Aluminium frame ridges with integrated lock grid in variable lengths

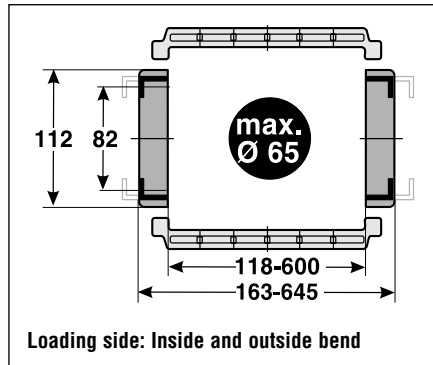


Foldable shelf system for reliable cable guidance

MP 82.2 - HeavyLine

Technical data

Chain link dimensions



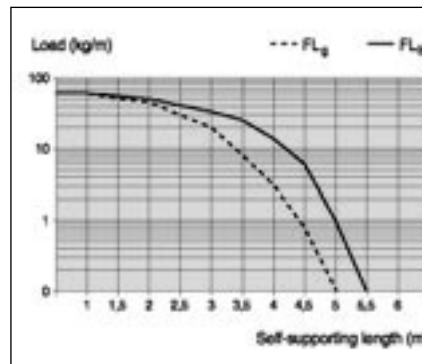
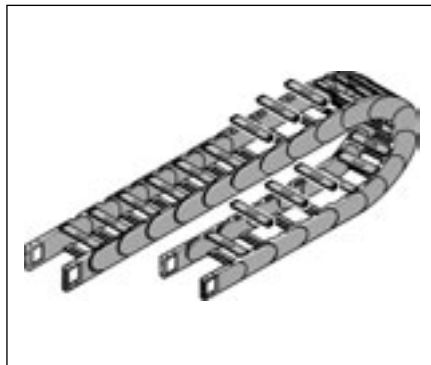
Material properties

Service temperature: -30 to +120 °C
 Gliding friction factor: 0.30
 Static friction factor: 0.45
 Fire classification: in conformity with UL94 HB
 ESD material: CE Ex II 2 GD
 Other material properties on request

Technical specifications

Travel distance, gliding, L_g : 250 m
 Travel distance, self-supporting, L_s : see diagram
 Travel distance, vertical, hanging, L_{vh} : 120 m
 Travel distance, vertical, upright, L_{vu} : 6 m
 Rotated 90°, self-supporting, L_{sg} : 3 m
 Speed, gliding, V_g : 5 m/s
 Speed, self-supporting, V_s : 20 m/s
 Acceleration, gliding, a_g : 25 m/s²
 Acceleration, self-supporting, a_s : 40 m/s²

Unsupported length



FL_g:
 Ideal installation situation for high stresses at the limit of the max. travel parameters. In this range the chain upper run is still biased, straight or has a max. sag of 10 – 50 mm depending on the type of chain.

FL_s:
 Satisfactory installation position for many applications working in the lower to middle range of the max. travel parameters. Depending on the chain type, the sag of the chain upper run is > 10 – 50 mm but less than the max. sag.

If the sag is greater than FL_s , the arrangement is unsuitable and should be avoided. Please choose a more stable murrplastik cable drag chain.

Determining the chain length

Determining the chain length

$$\text{Length} = \frac{L}{2} + \pi \times R + E$$

≈ 1 m chain = 9 x 118 mm links

The fixed point of the cable drag chain should be connected in the middle of the travel distance. This arrangement gives the shortest connection between the fixed point and the moving consumer and thus the most efficient chain length.

L = Travel distance
 R = Radius
 T = Pitch
 E = Distance between entry point and middle of travel distance

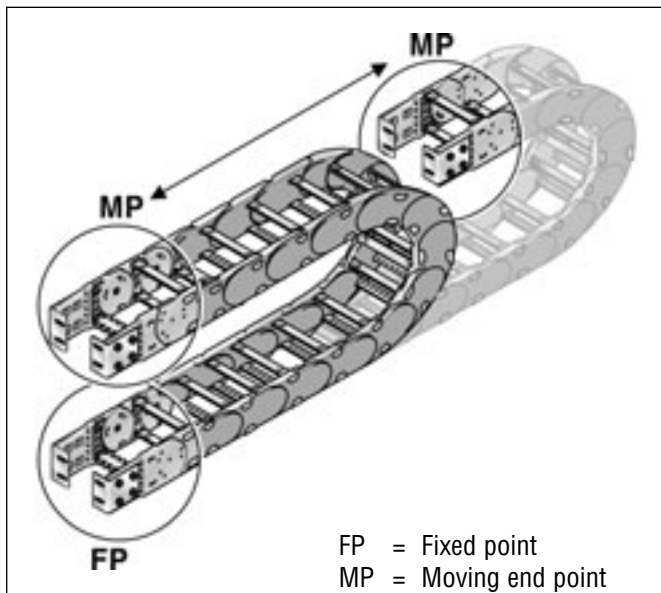
Installation dimensions (in mm)

Radius R	150	200	250	300	400	500
Outside height of chain link (H_e)	112	112	112	112	112	112
Height of bend (H)	412	512	612	712	912	1112
Height of moving end connection (H_{MA})	300	400	500	600	800	1000
Safety margin with bias (S_v)	50	50	50	50	50	50
Installation height with bias (H_{sv})	462	562	662	762	962	1162
Safety margin without bias (S_k)	30	30	30	30	30	30
Installation height without bias (H_{sk})	442	542	642	742	942	1142
Arc projection (M_l)	324	374	424	474	574	674
Bend length (L_b)	765	922	1079	1236	1550	1864

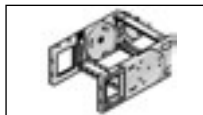


MP 82.2 - HeavyLine

Chain bracket



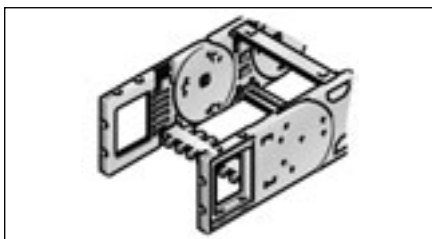
Chain bracket flexible



Flexible

Chain bracket flexible

Type	Order no.	Version	Pack
KA 82-FB Female end	0820000056	with bush	1
KA 82-FB Male end	0820000057	with bush	1
KA 82-FG Female end	0820000058	with thread	1
KA 82-FG Male end	0820000059	with thread	1

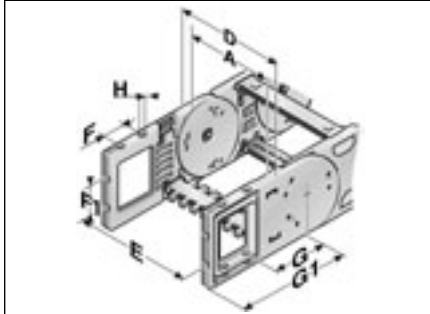


This chain bracket offers universal connection options (top, bottom and front) and is attached to the ends of the chain like a side link. This allows the chain to move right up to the bracket. Each chain requires one male and one female bracket. M10 screws should be used for securing the brackets in place. Extrusion coated metal bushes with either a through-hole (-FB) or a threaded hole (-FG) ensure the permanent, high-strength transmission of even extreme forces onto the cable drag chain.

MP 82.2 - HeavyLine

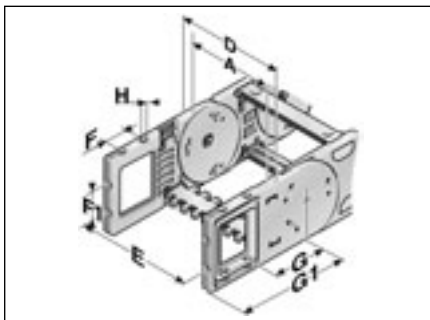
Chain bracket flexible

Dimensions in mm



Flexible with through-hole

Type	A	D	E	F	F1	G	G1	H Ø
KA 82-FB	118.00	163.00	141.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	143.00	188.00	166.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	168.00	213.00	191.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	193.00	238.00	216.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	218.00	263.00	241.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	243.00	288.00	266.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	268.00	313.00	291.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	293.00	338.00	316.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	318.00	363.00	341.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	343.00	388.00	366.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	368.00	413.00	391.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	418.00	463.00	441.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	468.00	513.00	491.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	518.00	563.00	541.00	35.00	66.00	117.00	182.00	11.00
KA 82-FB	Variable	A+45.00	A+23.00	35.00	66.00	117.00	182.00	11.00



Flexible with threaded bush

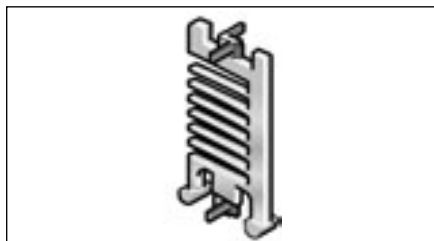
Type	A	D	E	F	F1	G	G1	H
KA 82-FG	118.00	163.00	141.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	143.00	188.00	166.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	168.00	213.00	191.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	193.00	238.00	216.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	218.00	263.00	241.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	243.00	288.00	266.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	268.00	313.00	291.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	293.00	338.00	316.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	318.00	363.00	341.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	343.00	388.00	366.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	368.00	413.00	391.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	418.00	463.00	441.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	468.00	513.00	491.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	518.00	563.00	541.00	35.00	66.00	117.00	182.00	M 10
KA 82-FG	Variable	A+45.00	A+23.00	35.00	66.00	117.00	182.00	M 10



MP 82.2 - Accessories

Separator

Type	Order no.	Description	Pack
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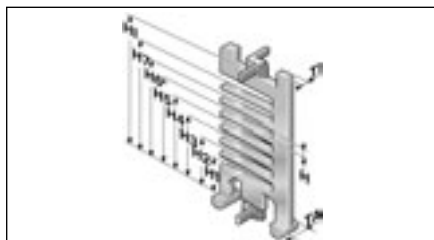
Separator

TR 82	082000009200	Separator	1
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Lock grid spacing 5.00 mm

We recommend that separators are used if multiple round cables or conduits with differing diameters are to be installed. An offset configuration of the separators is advisable.

Type	Dimensions in mm									
	TI	H	H1	H2	H3	H4	H5	H6	H7	HI

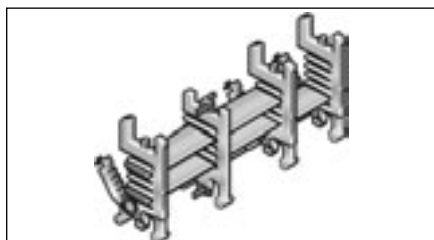


Separator

TR 82	3.50	5.40	12.20	20.50	28.80	37.00	45.40	53.70	62.00	79.50
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Shelving system

Type	Order no.	Description	Width in mm	Pack
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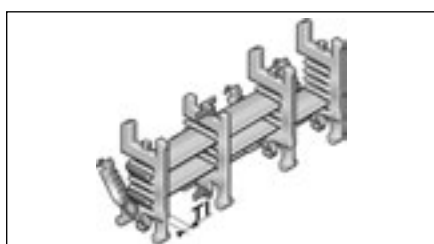
Shelving system

RB 056-7	100000005600	RB 056-7 Shelf	56	1
RB 066-7	100000006600	RB 066-7 Shelf	66	1
RB 081-7	100000008100	RB 081-7 Shelf	81	1
RB 106-7	100001000600	RB 106-7 Shelf	106	1
RB 116-7	100001001600	RB 116-7 Shelf	116	1
RB 166-7	100001006600	RB 166-7 Shelf	166	1
RB 216-7	100002001600	RB 216-7 Shelf	216	1
RTT 82	100090822000	RTT 82 Shelf support, divisible		1

Lock grid spacing 5.00 mm

In connection with at least two shelf supports (RTT) the shelf becomes a shelving system. The additional levels prevent cables from criss-crossing and therefore destroying each other, whilst also avoiding excessive friction. The shelving system may be pre-assembled on request.

Type	Dimensions in mm	
	TI	



Shelving system

RTT 82	8.00	
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MP 82.2 - Accessories

Frame ridge connector



Frame ridge connector

Type	Order no.	Description	Pack
RSV 82	082000009600	RSV 82 Frame ridge connector	1
RSV 82 A	082000009800	RSV 82 Aluminium frame ridge connector	1

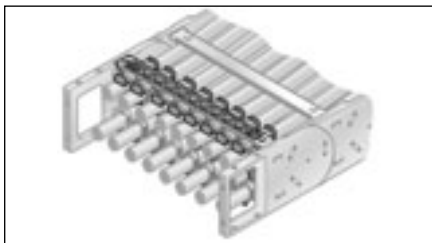
For frame ridges wider than 246 mm, we recommend the use of frame ridge connectors. These prevent deformation to the frame ridge under large amounts of additional weight of the chain assembly.



Dimensions in mm

Type	TI
RSV 82	8.00

Strain relief RS-ZL



Strain relief RS-ZL

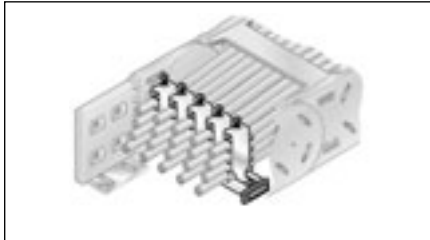
Type	Order no.	for inside width	Pack
RS-ZL 118-7	072011800010	118 mm	1
RS-ZL 143-7	072014300010	143 mm	1
RS-ZL 168-7	072016800010	168 mm	1
RS-ZL 193-7	072019300010	193 mm	1
RS-ZL 218-7	072021800010	218 mm	1
RS-ZL 243-7	072024300010	243 mm	1

Frame ridge strain relief that can be permanently integrated in the chain brackets. Tailored to all frame ridge widths up to 243 mm. May be mounted on the inside and outside bend at both ends of the chain.



MP 82.2 - Accessories

Strain relief with BAK

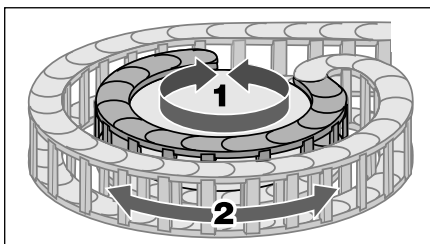


Strain relief with hooped clamps

Type	Order no.	Description	Ø in mm	Pack
C-rail	81661610	C-profile rail		1
BAK 14	81661002	BAK 14 Hooped clamp	6-14	1
BAK 18	81661004	BAK 18 Hooped clamp	14-18	1
BAK 22	81661006	BAK 22 Hooped clamp	18-22	1
BAK 26	81661008	BAK 26 Hooped clamp	22-26	1
BAK 30	81661010	BAK 30 Hooped clamp	26-30	1
BAK 14/2	81661012	BAK 14/2 Hooped clamp	10-14	1
BAK 18/2	81661014	BAK 18/2 Hooped clamp	14-18	1
BAK 22/2	81661016	BAK 22/2 Hooped clamp	18-22	1
BAK 26/2	81661018	BAK 26/2 Hooped clamp	22-26	1
BAK 12/3	81661020	BAK 12/3 Hooped clamp	9-12	1
BAK 14/3	81661022	BAK 14/3 Hooped clamp	12-14	1
BAK 16/3	81661024	BAK 16/3 Hooped clamp	14-16	1
BAK 18/3	81661026	BAK 18/3 Hooped clamp	16-18	1
BAK 20/3	81661028	BAK 20/3 Hooped clamp	18-20	1
BAK 22/3	81661030	BAK 22/3 Hooped clamp	20-22	1

Strain relief plates that can be permanently integrated in the chain brackets. Available in all widths (including individual widths in aluminium frame ridges). May be mounted on the inside and outside bend at both ends of the chain. The chain configuration can be fixed using hooped clamps that are available in different sizes. Material: Galvanised steel
Please indicate chain type and inside width when ordering.

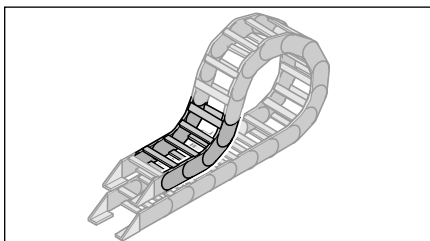
Back radius



Rotary movement

Type	Order no.	Radius	Back Radius	Pack
SR 82.2 (RÜ300/R300) left	82200030060	300 mm	300 mm	1
SR 82.2 (RÜ300/R300) right	82200030062	300 mm	300 mm	1

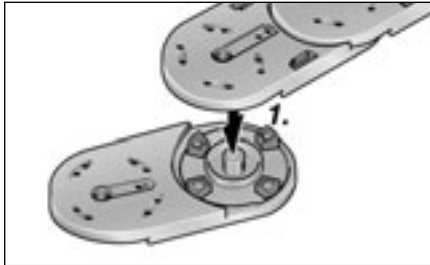
Side links with forward radius (R) and back radius (Rü) permit movement in two directions. Areas of application include rotary movements and low-lying chain brackets. Please note the different side links for the left and right side run!



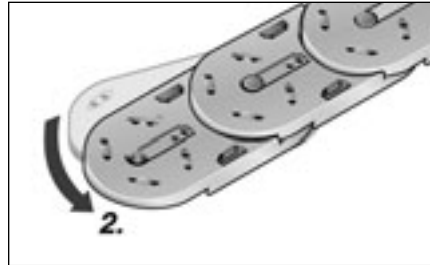
Low-lying chain bracket

MP 82.2 - HeavyLine

Assembly



Step 1

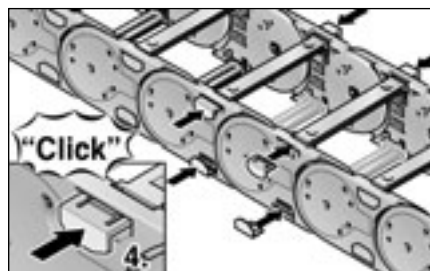


Step 2

The heavy-duty connection between the frame ridge and side wall has a positive fit. Both ends of the frame ridges are introduced evenly into the slots in the side links. The ridges are held secure by pressing in the frame ridge locks. Forces are transmitted solely through the slots on the ridge end or side link.

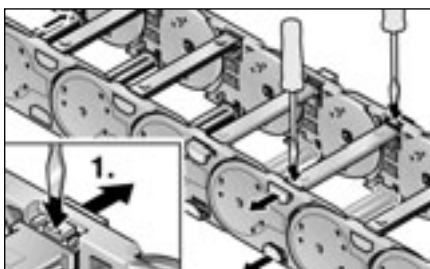


Step 3

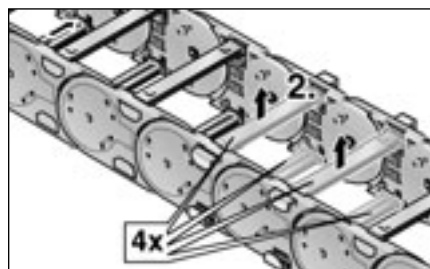


Step 4

Disassembly



Step 1

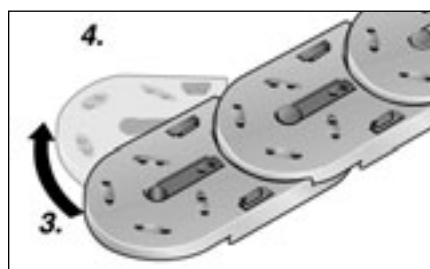


Step 2

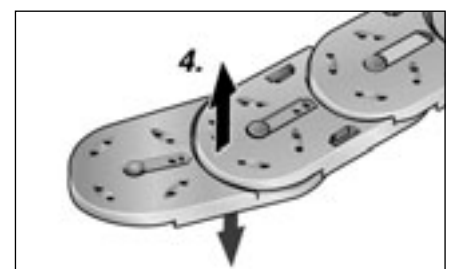
Disassembly is effected in the reverse sequence to assembly. Loosen the locks until the frame ridges are released.



Step 3



Step 4



Step 5