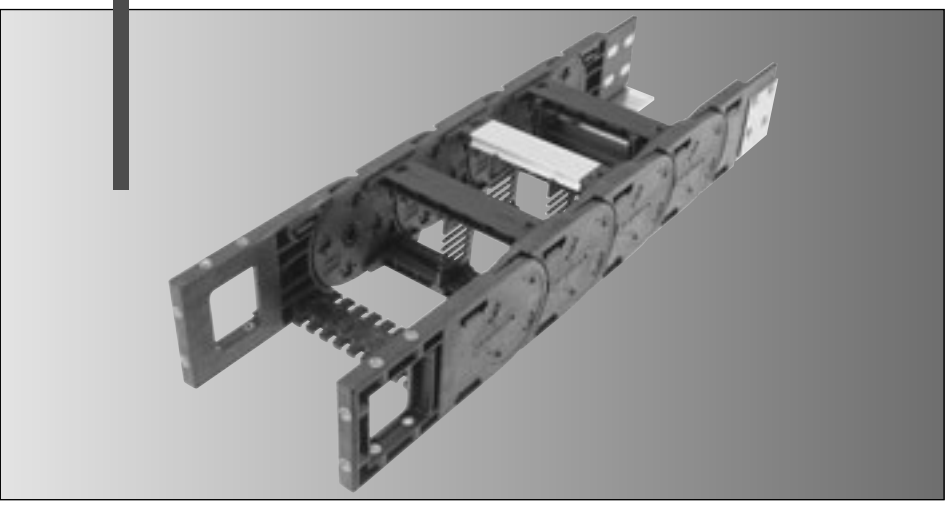
CABLE DRAG CHAIN SYSTEMS



HeavyLine

MP 62.1

MP 62.1 - 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 62.1 118
				MP 62.1 143
				MP 62.1 168
				MP 62.1 193
				MP 62.1 218
				MP 62.1 243
				MP 62.1 268
				MP 62.1 293
				MP 62.1 318
				MP 62.1 343
				MP 62.1 368
				MP 62.1 418
				MP 62.1 468
				MP 62.1 518
				MP 62.1 xxx
		150	118	118
		175	143	143
		200	168	168
		225	193	193
		250	218	218
		275	243	243
		300	268	268
		325	293	293
		350	318	318
		375	343	343
		400	368	368
		450	418	418
		500	468	468
		550	518	518
		Inside + 32	>118-600	ALU
			150	150
			200	200
			250	250
			300	300
			400	400
			500	500
	0			0
	1			1
	2*			2*
	3*			3*
	4			4
	5			5
	6			6
	7			7
	9			9
				0
				9

Order number:	0620			0			0

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)
9 Special version

Sample order

0620 118 150 0000

Inside width = 118 mm
Radius = 150 mm
Configuration = 0
Style = 0

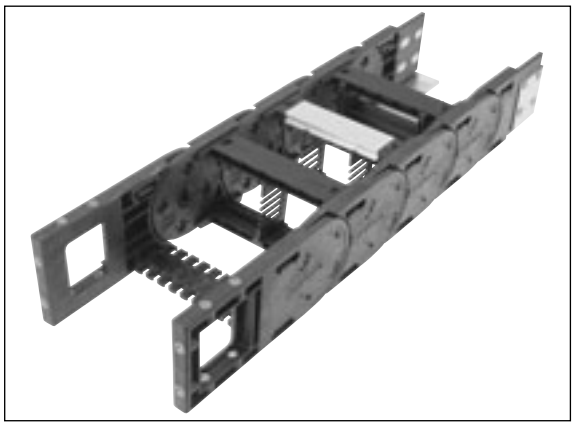
Ideal operating conditions

- Extreme accelerations
- Extreme speeds
- Extreme unsupported lengths
- Very high additional loads
- Opens on both sides
- Variable widths thanks to aluminium ridge
- Flexible internal separation
- Rotated 90°, unsupported/flat
- Variant with/without bias

Alternative chain type

- MP 65 G closed series
- MP 66 easier to use
- MP 62.2 easier assembly

Features

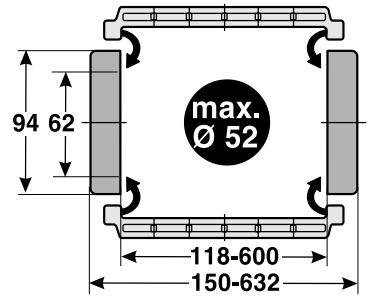


- Chain bracket with fixing means on three sides
- Chain bracket with variably positionable metal bracket
- Frame ridge strain relief can be integrated into chain bracket
- Frame ridges / covers in inside and outside bend can be removed
- Radii with or without bias (RK/RV)
- Back radius combinations
- Aluminium frame ridges with integrated lock grid in variable lengths
- Foldable shelf system for reliable cable guidance

MP 62.1 - HeavyLine

Technical data

Chain link dimensions



Loading side: Inside and outside bend

Material properties

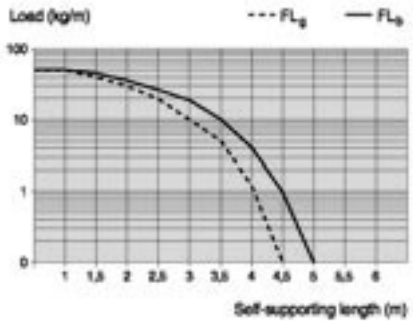
Service temperature:	-30 to +120 °C
Gliding friction factor:	0.30
Static friction factor:	0.45
Fire classification:	VDE 0304 IIC; UL94 HB

Other material properties on request

Technical specifications

Travel distance, gliding, L_g:	180 m
Travel distance, self-supporting, L_f:	see diagram
Travel distance, vertical, hanging, L_{vh}:	120 m
Travel distance, vertical, upright, L_{vs}:	6 m
Rotated 90°, self-supporting, L_{90f}:	4 m
Speed, gliding, V_g:	5 m/s
Speed, self-supporting, V_f:	20 m/s
Acceleration, gliding, a_g:	25 m/s²
Acceleration, self-supporting, a_f:	40 m/s²

Unsupported length

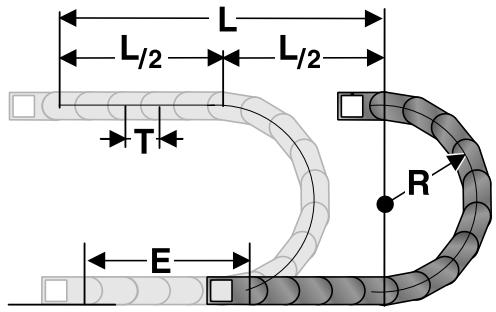


FL_g:
Ideal installation situation for high stresses at the limit of the max. travel parameters. In this range the chain upper run is still biased, straight or has a max. sag of 10 – 50 mm depending on the type of chain.

FL_b:
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_b, the arrangement is unsuitable and should be avoided. Please choose a more stable murrplastik cable drag chain.

Determining the chain length



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

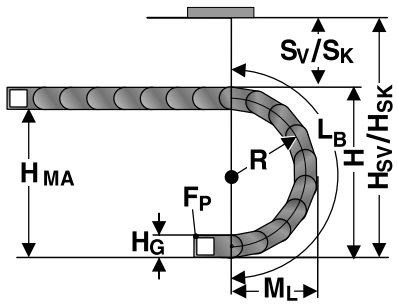
Determining the chain length

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

≈ 1 m chain = 10 x 100 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.

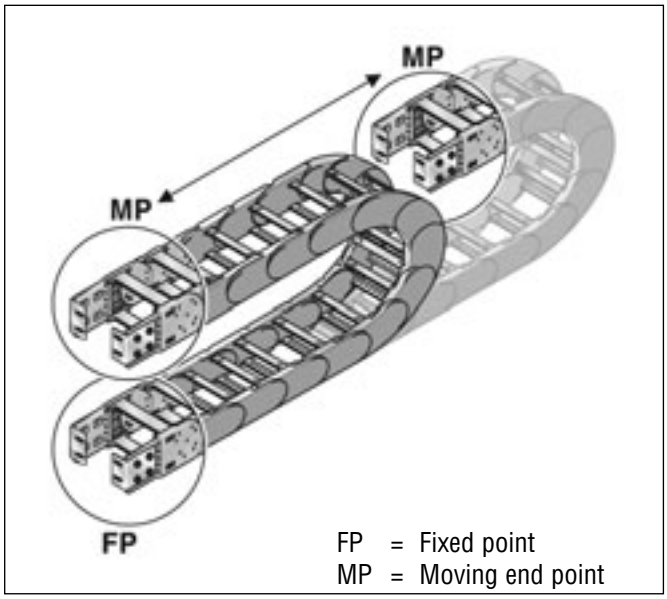
Installation dimensions (in mm)



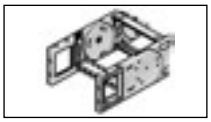
Radius R	150	200	250	300	400	500
Outside height of chain link (H_G)	94	94	94	94	94	94
Height of bend (H)	394	494	594	694	894	1094
Height of moving end connection (H_{MA})	300	400	500	600	800	1000
Safety margin with bias (S_v)	50	50	50	50	50	50
Installation height with bias (H_{SV})	444	544	644	744	944	1144
Safety margin without bias (S_K)	20	20	20	20	20	20
Installation height without bias (H_{SK})	414	514	614	714	914	1114
Arc projection (M_L)	297	347	397	447	547	647
Bend length (L_B)	719	876	1033	1190	1504	1818

MP 62.1 - HeavyLine

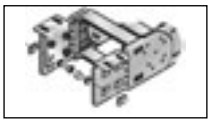
Chain bracket

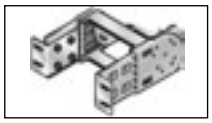


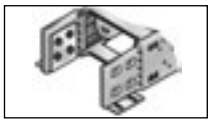
Chain bracket flexible

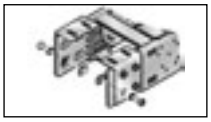

Flexible

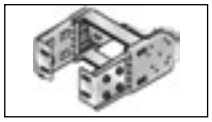
Chain bracket elbow fitting

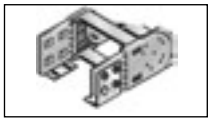

Top / outside


Front / outside

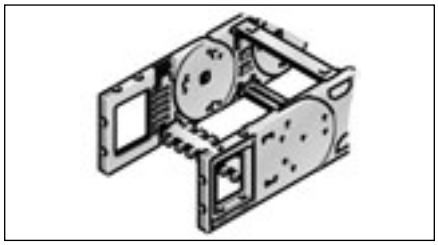

Bottom / outside


Top / inside


Front / inside


Bottom / inside

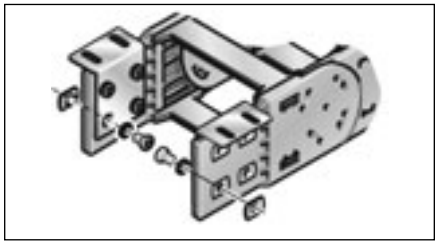
Chain bracket flexible



Type	Order no.		Pack
KA 62-FB Female end	0620000056	with bush	1
KA 62-FB Male end	0620000057	with bush	1
KA 62-FG Female end	0620000058	with thread	1
KA 62-FG Male end	0620000059	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. M8 screws are used to secure 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.

Chain bracket elbow fitting



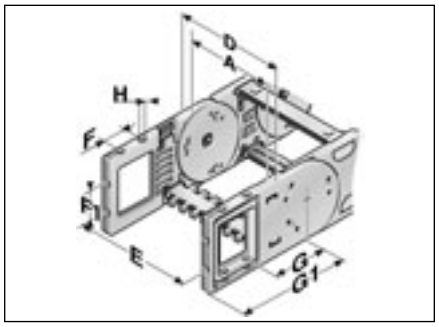
Type	Order no.	Pack
KA 62 Female end	0620000050	1
KA 62 Male end	0620000051	1

There are several options as regarding the chain bracket. The fixed-point bracket (inside/bottom) and the moving end bracket (inside/top) are supplied as standard. However, any other combination can be supplied upon request. The chain bracket is fastened at the end like a side link. This enables the chain to move right up to the bracket. Each chain requires one male and one female bracket. The brackets should be fastened with M8 screws.

MP 62.1 - HeavyLine

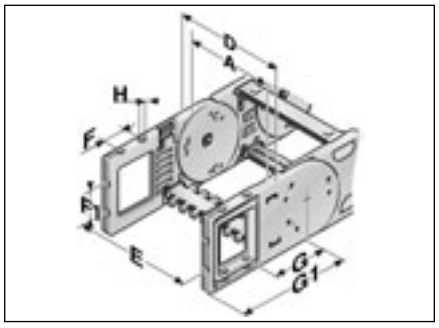
Chain bracket flexible

Dimensions in mm



Flexible with through-hole

Type	A	D	E	F	F1	G	G1	H Ø
KA 62-FB	118.00	150.00	135.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	143.00	175.00	160.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	168.00	200.00	185.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	193.00	225.00	210.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	218.00	250.00	235.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	243.00	275.00	260.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	268.00	300.00	285.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	293.00	235.00	310.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	318.00	350.00	335.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	343.00	375.00	360.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	368.00	336.00	385.00	35.00	45.00	107.00	171.50	8.50
KA 62-FB	418.00	450.00	435.00	35.00	45.00	107.00	171.40	8.50
KA 62-FB	468.00	500.00	485.00	35.00	45.00	107.00	171.40	8.50
KA 62-FB	518.00	550.00	535.00	35.00	45.00	107.00	171.40	8.50
KA 62-FB	Variable	A+32.00	A+17.00	35.00	45.00	107.00	171.50	8.50



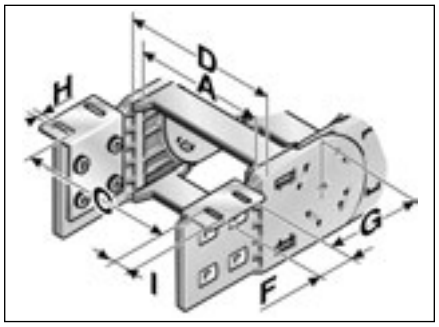
Flexible with threaded bush

Type	A	D	E	F	F1	G	G1	H
KA 62-FG	118.00	150.00	135.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	143.00	175.00	160.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	168.00	200.00	185.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	193.00	225.00	210.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	218.00	250.00	235.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	243.00	275.00	260.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	268.00	300.00	285.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	293.00	235.00	310.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	318.00	350.00	335.00	35.00	45.00	107.00	171.50	M8
KA 62-FG	343.00	375.00	360.00	35.00	45.00	107.00	171.40	M8
KA 62-FG	368.00	336.00	385.00	35.00	45.00	107.00	171.40	M8
KA 62-FG	418.00	450.00	435.00	35.00	45.00	107.00	171.40	M8
KA 62-FG	468.00	500.00	485.00	35.00	45.00	107.00	171.40	M8
KA 62-FG	518.00	550.00	535.00	35.00	45.00	107.00	171.40	M8
KA 62-FG	Variable	A+32.00	A+17.00	35.00	45.00	107.00	171.50	M8

MP 62.1 - HeavyLine

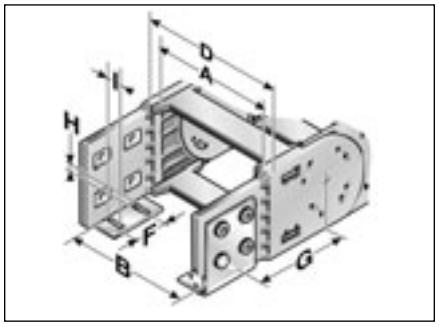
Chain bracket elbow fitting

Dimensions in mm



Bottom and top / outside

Type	A	C	D	F	G	H Ø	I
KA 62	118.00	162.00	150.00	45.00	102.00	9.00	15.00
KA 62	143.00	187.00	175.00	45.00	102.00	9.00	15.00
KA 62	168.00	212.00	200.00	45.00	102.00	9.00	15.00
KA 62	193.00	237.00	225.00	45.00	102.00	9.00	15.00
KA 62	218.00	262.00	250.00	45.00	102.00	9.00	15.00
KA 62	243.00	287.00	275.00	45.00	102.00	9.00	15.00
KA 62	268.00	312.00	300.00	45.00	102.00	9.00	15.00
KA 62	293.00	337.00	325.00	45.00	102.00	9.00	15.00
KA 62	318.00	362.00	350.00	45.00	102.00	9.00	15.00
KA 62	343.00	387.00	375.00	45.00	102.00	9.00	15.00
KA 62	368.00	412.00	400.00	45.00	102.00	9.00	15.00
KA 62	418.00	462.00	450.00	45.00	102.00	9.00	15.00
KA 62	468.00	512.00	500.00	45.00	102.00	9.00	15.00
KA 62	518.00	562.00	550.00	45.00	102.00	9.00	15.00
KA 62	Variable	A+44.00	A+32.00	45.00	102.00	9.00	15.00



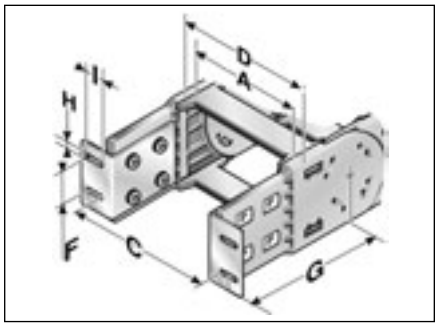
Bottom and top / inside

Type	A	B	D	F	G	H Ø	I
KA 62	118.00	106.00	150.00	45.00	102.00	9.00	15.00
KA 62	143.00	131.00	175.00	45.00	102.00	9.00	15.00
KA 62	168.00	156.00	200.00	45.00	102.00	9.00	15.00
KA 62	193.00	181.00	225.00	45.00	102.00	9.00	15.00
KA 62	218.00	206.00	250.00	45.00	102.00	9.00	15.00
KA 62	243.00	231.00	275.00	45.00	102.00	9.00	15.00
KA 62	268.00	256.00	300.00	45.00	102.00	9.00	15.00
KA 62	293.00	281.00	325.00	45.00	102.00	9.00	15.00
KA 62	318.00	308.00	350.00	45.00	102.00	9.00	15.00
KA 62	343.00	331.00	375.00	45.00	102.00	9.00	15.00
KA 62	368.00	356.00	400.00	45.00	102.00	9.00	15.00
KA 62	418.00	406.00	450.00	45.00	102.00	9.00	15.00
KA 62	468.00	456.00	500.00	45.00	102.00	9.00	15.00
KA 62	518.00	506.00	550.00	45.00	102.00	9.00	15.00
KA 62	Variable	A-12.00	A+32.00	45.00	102.00	9.00	15.00

MP 62.1 - HeavyLine

Chain bracket elbow fitting

Dimensions in mm



Front / outside

Type	A	C	D	F	G	H Ø	I
KA 62	118.00	162.00	150.00	45.00	171.50	9.00	15.00
KA 62	143.00	187.00	175.00	45.00	171.50	9.00	15.00
KA 62	168.00	212.00	200.00	45.00	171.50	9.00	15.00
KA 62	193.00	237.00	225.00	45.00	171.50	9.00	15.00
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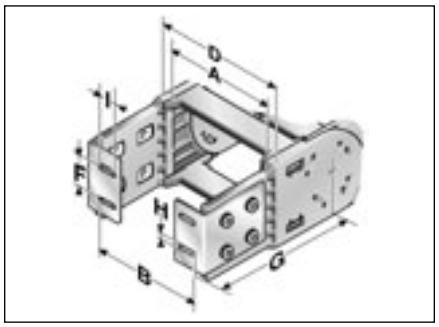
KA 62	318.00	362.00	350.00	45.00	171.50	9.00	15.00
KA 62	343.00	387.00	375.00	45.00	171.50	9.00	15.00
KA 62	368.00	412.00	400.00	45.00	171.50	9.00	15.00
KA 62	418.00	462.00	450.00	45.00	171.50	9.00	15.00
KA 62	468.00	512.00	500.00	45.00	171.50	9.00	15.00
KA 62	518.00	562.00	550.00	45.00	171.50	9.00	15.00
KA 62	Variable	A+44.00	A+32.00	45.00	171.50	9.00	15.00



Front / inside

Type	A	B	D	F	G	H Ø	I
KA 62	118.00	106.00	150.00	45.00	171.50	9.00	15.00
KA 62	143.00	131.00	175.00	45.00	171.50	9.00	15.00
KA 62	168.00	156.00	200.00	45.00	171.50	9.00	15.00
KA 62	193.00	181.00	225.00	45.00	171.50	9.00	15.00
KA 62	218.00	206.00	250.00	45.00	171.50	9.00	15.00
KA 62	243.00	231.00	275.00	45.00	171.50	9.00	15.00
KA 62	268.00	256.00	300.00	45.00	171.50	9.00	15.00
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KA 62	318.00	308.00	350.00	45.00	171.50	9.00	15.00
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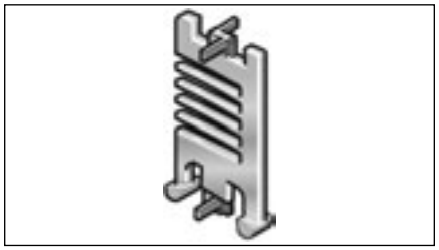
KA 62	368.00	356.00	400.00	45.00	171.50	9.00	15.00
KA 62	418.00	406.00	450.00	45.00	171.50	9.00	15.00
KA 62	468.00	456.00	500.00	45.00	171.50	9.00	15.00
KA 62	518.00	506.00	550.00	45.00	171.50	9.00	15.00
KA 62	Variable	A-12.00	A+32.00	45.00	171.50	9.00	15.00

MP 62.1 - Accessories

Separator

Type	Order no.	Description	Pack
TR 62	062000009200	Separator	1

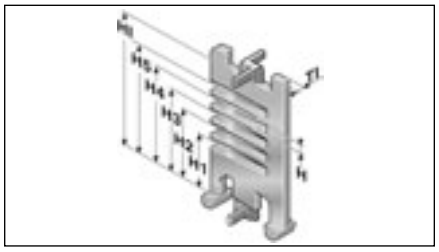


Separator

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.

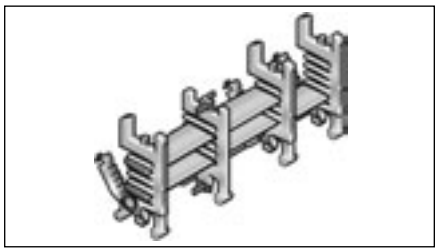
	Dimensions in mm							
Type	TI	H	H1	H2	H3	H4	H5	HI
TR 62	3.50	5.50	14.80	23.10	31.40	39.70	48.00	62.00



Separator

Shelving system

Type	Order no.	Description	Width in mm	Pack
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 216-7	100002001600	RB 216-7 Shelf	216	1
RB 166-7	100001006600	RB 166-7 Shelf	166	1
RTT 62	100090622000	RTT 62 Shelf support, divisible		1

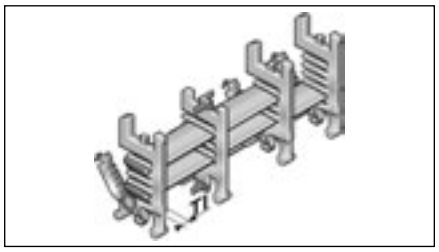


Shelving system

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 extensive friction. The shelving system may be pre-assembled on request.

	Dimensions in mm
Type	TI
RTT 62	8.00

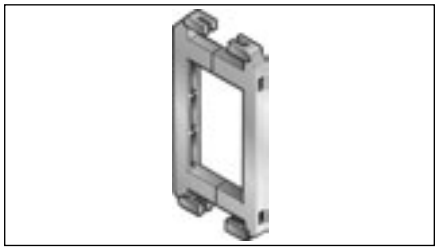


Shelving system

MP 62.1 - Accessories

Frame ridge connector

Type	Order no.	Description	Pack
RSV 62	062000009600	RSV 62 Frame ridge connector	1
RSV 62 A	062000009800	RSV 62 Aluminium frame ridge connector	1



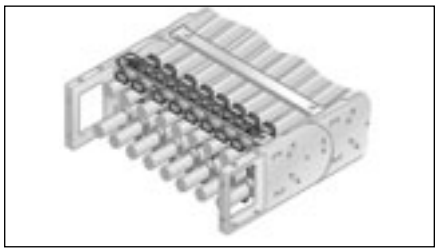
Frame ridge connector

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 62	8.00

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

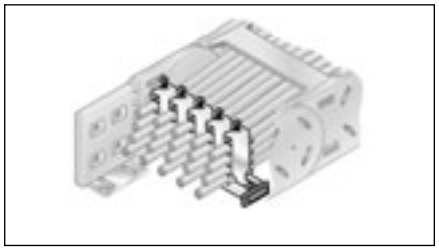


Strain relief RS-ZL

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 62.1 - Accessories

Strain relief with BAK

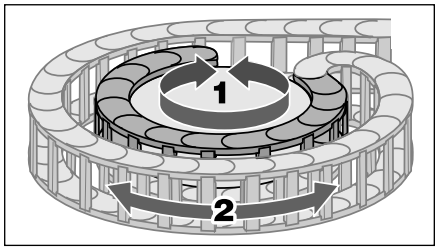


Strain relief with hooped clamps

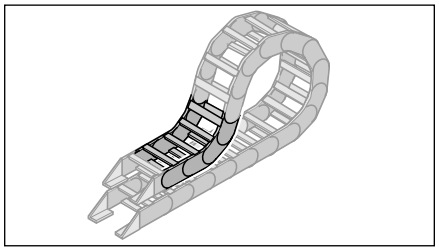
Type	Order no.	Description	Ø in mm	Pack
C-rail	81661610	C-profile rail		1
BAK 14	81661002	BAK 14 Hooped clamp	6-14	1
BAK 18	81661004	BAK 18 Hooped clamp	14-18	1
BAK 22	81661006	BAK 22 Hooped clamp	18-22	1
BAK 26	81661008	BAK 26 Hooped clamp	22-26	1
BAK 30	81661010	BAK 30 Hooped clamp	26-30	1
BAK 14/2	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



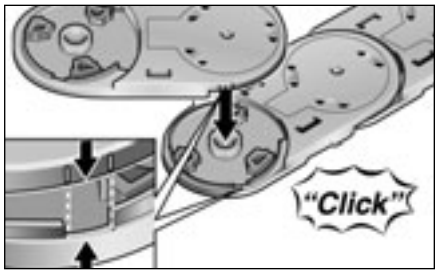
Low-lying chain bracket

Type	Order no.	Radius	Back Radius	Pack
SR 62.1 (RÜ300/R300) left	62100030060	300 mm	300 mm	1
SR 62.1 (RÜ300/R300) right	62100030062	300 mm	300 mm	1

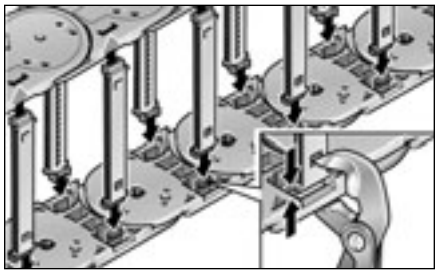
Side links with forward radius (R) and back radius (Rü) permit movement in two directions. Areas of application include rotary movements and low-lying chain brackets. Please note the different side links for the left and right side run!

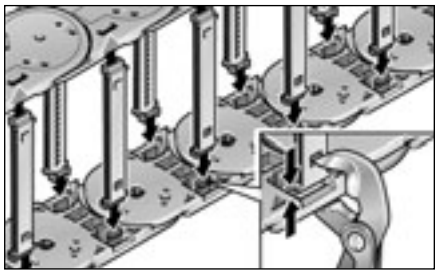
MP 62.1 - Accessories

Assembly



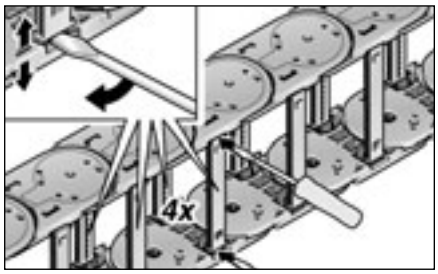
Step 1


Step 2

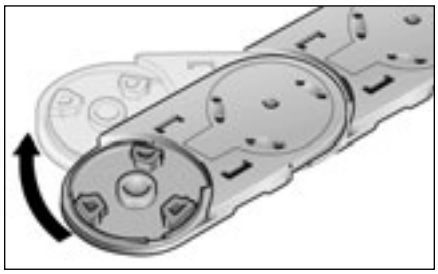

Step 3

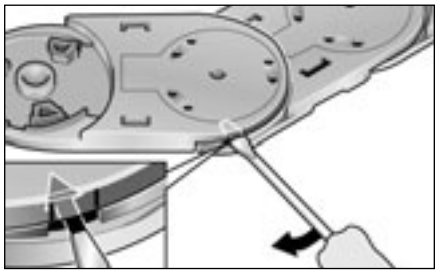
This type of chain has different chain links for the left or right side run. The marking must be observed when assembling, e.g. R150.1 for one side and R150.2 for the opposite side. Only those side links with the same marking will fit together. This is also the case for the chain brackets. The heavy-duty connection between the frame ridge and side wall has a positive fit. For this reason the frame ridges are fixed on one side over the entire chain length on one side panel first and then inserted into the opposite side panel.

Disassembly



Step 1


Step 2


Step 3

Disassembly is effected in the reverse sequence to assembly. First lever the frame ridges out of the side panel on one side, then on the other side.