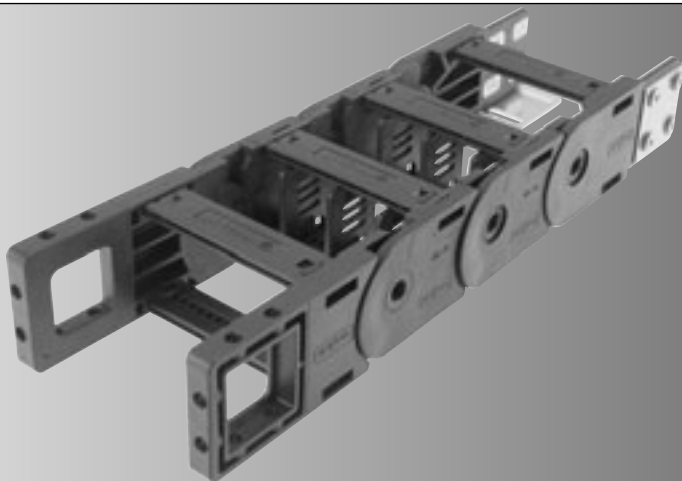


CABLE DRAG CHAIN SYSTEMS



MultiLine

MP 42



MP 42 - MultiLine

Order variants

Style (order code)							
Configuration (order code)							
Radius (order code)							
in mm							
Internal width (order code)							
in mm							
External width							
in mm							
				75	075		
MP42 070	96	70	070	90	090		
MP42 090	116	90	090	120	120		
MP42 115	141	115	115	150	150		
MP42 150	176	150	150	200	200		
MP42 190	216	190	190	250	250	0	0
MP42 225	251	225	225	300	300	9	9

Order number:	0420			0			0
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Configuration:

- 0 crossbar every link; w/bias
- 9 Customer order

Style:

- 0 Standard (PA)
- 9 Special version

Sample order

0420 070 075 0000

Inside width = 70 mm

Radius = 75 mm

Configuration = 0

Style = 0

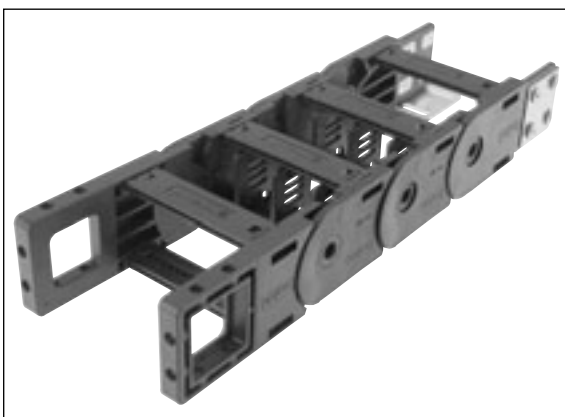
Ideal operating conditions

- Compact dimensions with opening cover in inside bend
- Flexible internal separation
- Rotated 90°, unsupported
- Gliding arrangement
- Unsupported arrangement

Alternative chain type

- MP 43 G closed series
- MP 41
opens on both sides
variable widths
greater stresses
flange connection (KA-F)
back radii

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



Radii with medium bias (R) for all applications



Foldable shelf system for reliable cable guidance



H-shelf for easy cable separation in the chain window

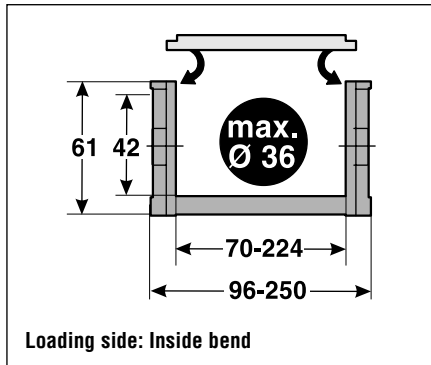


Frame ridges can be removed on one side

MP 42 - MultiLine

Technical data

Chain link dimensions



Material properties

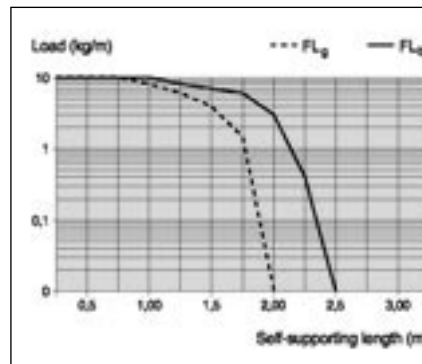
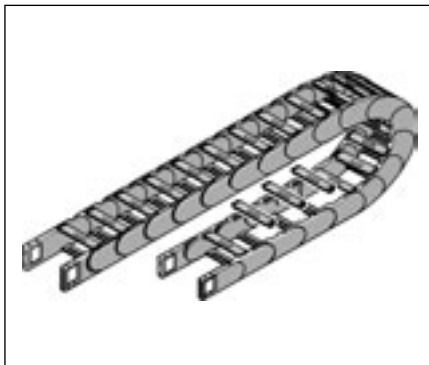
Service temperature: -30 to +120 °C
 Gliding friction factor: 0.30
 Static friction factor: 0.45
 Fire classification: in conformity with UL94 HB

Other material properties on request

Technical specifications

Travel distance, gliding, L_g : 80 m
 Travel distance, self-supporting, L_s : see diagram
 Travel distance, vertical, hanging, L_{vh} : 40 m
 Travel distance, vertical, upright, L_{vu} : 3 m
 Rotated 90°, self-supporting, L_{sg} : 1 m
 Speed, gliding, V_g : 5 m/s
 Speed, self-supporting, V_s : 10 m/s
 Acceleration, gliding, a_g : 15 m/s²
 Acceleration, self-supporting, a_s : 20 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 = 13 x 77 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

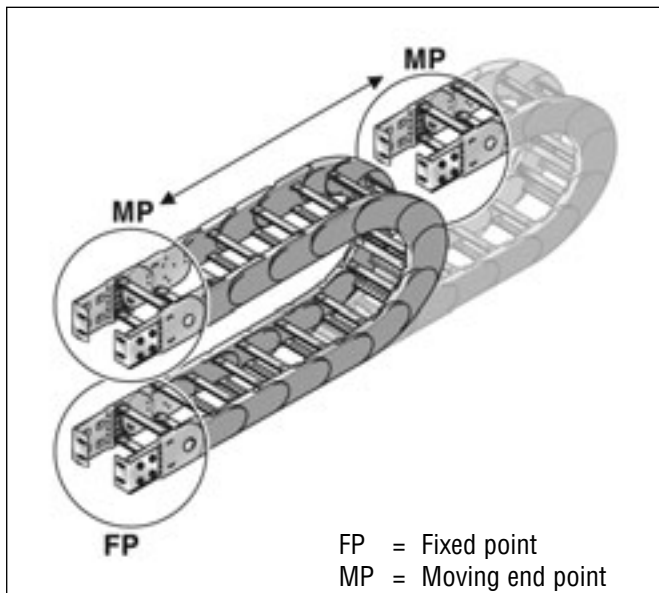
Installation dimensions (in mm)

Radius R	75	90	120	150	200	250	300
Outside height of chain link (H_c)	60	60	60	60	60	60	60
Height of bend (H)	210	240	300	360	460	560	660
Height of moving end connection (H_{MA})	150	180	240	300	400	500	600
Safety margin (S)	40	40	40	40	40	40	40
Installation height (H_s)	250	280	340	400	500	600	700
Arc projection (M_l)	182	197	227	257	307	357	407
Bend length (L_b)	407	454	548	642	799	956	1113



MP 42 - MultiLine

Chain bracket



Chain bracket flexible



Flexible

Chain bracket elbow fitting



Front / outside



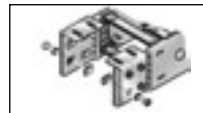
Top / outside



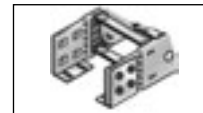
Bottom / outside



Front / inside



Top / inside



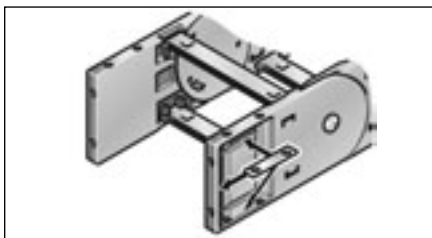
Bottom / inside

Chain bracket flexible

Type

Order no.

Pack

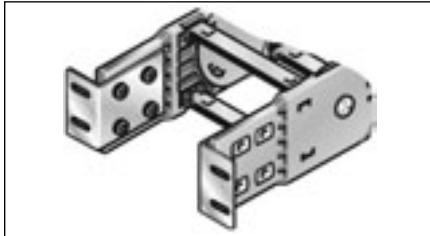


KA 42070-F Female end	0420070054	1
KA 42070-F Male end	0420070055	1
KA 42090-F Female end	0420090054	1
KA 42090-F Male end	0420090055	1
KA 42115-F Female end	0420115054	1
KA 42115-F Male end	0420115055	1
KA 42150-F Female end	0420150054	1
KA 42150-F Male end	0420150055	1
KA 42190-F Female end	0420190054	1
KA 42190-F Male end	0420190055	1
KA 42225-F Female end	0420225054	1
KA 42225-F Male end	0420225055	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. M6 screws are used to secure the brackets in place. Metal inserts (supplied) help to minimise the cold flow properties. This is an enormous advantage, guaranteeing the smooth transfer of high loads to the chain.

MP 42 - MultiLine

Chain bracket elbow fitting

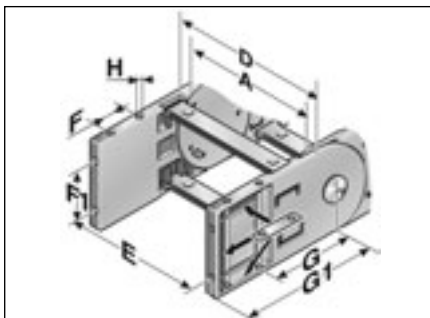


Type	Order no.	Pack
KA 42070 Female end	0420070050	1
KA 42070 Male end	0420070051	1
KA 42090 Female end	0420090050	1
KA 42090 Male end	0420090051	1
KA 42115 Female end	0420115050	1
KA 42115 Male end	0420115051	1
KA 42150 Female end	0420150050	1
KA 42150 Male end	0420150051	1
KA 42190 Female end	0420190050	1
KA 42190 Male end	0420190051	1
KA 42225 Female end	0420225050	1
KA 42225 Male end	0420225051	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 M6 screws.

Chain bracket flexible

Dimensions in mm



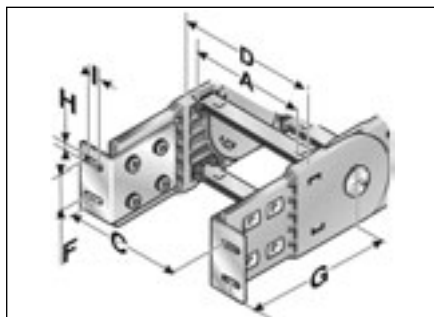
Type	A	D	E	F	F1	G	G1	H Ø
KA 42070-F	70.00	96.00	84.00	22.50	22.00	79.00	120.00	6.50
KA 42090-F	90.00	116.00	104.00	22.50	22.00	79.00	120.00	6.50
KA 42115-F	115.00	141.00	129.00	22.50	22.00	79.00	120.00	6.50
KA 42150-F	150.00	176.00	164.00	22.50	22.00	79.00	120.00	6.50
KA 42190-F	190.00	216.00	204.00	22.50	22.00	79.00	120.00	6.50
KA 42225-F	225.00	251.00	239.00	22.50	22.00	79.00	120.00	6.50



MP 42 - MultiLine

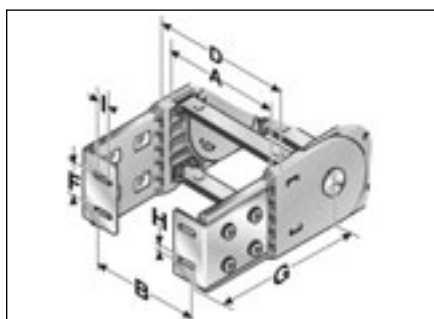
Chain bracket elbow fitting

Dimensions in mm



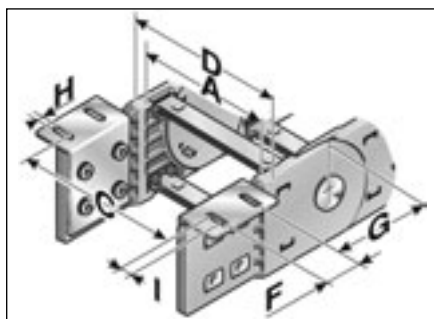
Front / outside

Type	A	C	D	F	G	H Ø	I
KA 42070	70.00	97.50	96.00	35.00	125.00	6.50	17.00
KA 42090	90.00	117.50	116.00	35.00	125.00	6.50	17.00
KA 42115	115.00	142.50	141.00	35.00	125.00	6.50	17.00
KA 42150	150.00	177.50	176.00	35.00	125.00	6.50	17.00
KA 42190	190.00	217.50	216.00	35.00	125.00	6.50	17.00
KA 42225	225.00	252.50	251.00	35.00	125.00	6.50	17.00



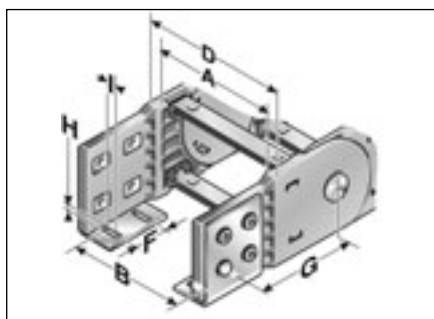
Front / inside

Type	A	B	D	F	G	H Ø	I
KA 42070	70.00	68.50	96.00	35.00	125.00	6.50	17.00
KA 42090	90.00	88.50	116.00	35.00	125.00	6.50	17.00
KA 42115	115.00	113.50	141.00	35.00	125.00	6.50	17.00
KA 42150	150.00	148.50	176.00	35.00	125.00	6.50	17.00
KA 42190	190.00	188.50	216.00	35.00	125.00	6.50	17.00
KA 42225	225.00	223.50	251.00	35.00	125.00	6.50	17.00



Bottom and top / outside

Type	A	C	D	F	G	H Ø	I
KA 42070	70.00	97.50	96.00	35.00	77.60	6.50	17.00
KA 42090	90.00	117.50	116.00	35.00	77.60	6.50	17.00
KA 42115	115.00	142.50	141.00	35.00	77.60	6.50	17.00
KA 42150	150.00	177.50	176.00	35.00	77.60	6.50	17.00
KA 42190	190.00	217.50	216.00	35.00	77.60	6.50	17.00
KA 42225	225.00	252.50	251.00	35.00	77.60	6.50	17.00



Bottom and top / inside

Type	A	B	D	F	G	H Ø	I
KA 42070	70.00	68.50	96.00	35.00	77.60	6.50	17.00
KA 42090	90.00	88.50	116.00	35.00	77.60	6.50	17.00
KA 42115	115.00	113.50	141.00	35.00	77.60	6.50	17.00
KA 42150	150.00	148.50	176.00	35.00	77.60	6.50	17.00
KA 42190	190.00	188.50	216.00	35.00	77.60	6.50	17.00
KA 42225	225.00	223.50	251.00	35.00	77.60	6.50	17.00

MP 42 - Accessories

Separator	Type	Order no.	Description	Pack
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Separator

TR 41	041000009200	Separator	1
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Lock grid spacing 5.60 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				
	Tl	H1	H2	H3	Hl

TR 41	3.00	16.10	22.90	28.90	41.50
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Separator

H-shaped shelf unit	Type	Order no.	Description	Pack
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H-shaped shelf unit

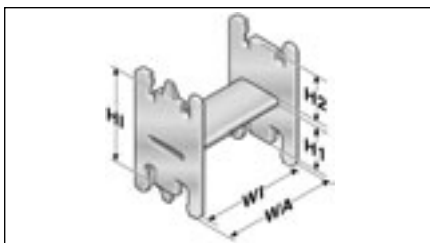
RE 36/11	100000361112	RE 36/11 Shelf unit, H-shaped	1
RE 59/18	100000591812	RE 59/18 Shelf unit, H-shaped	1
RE 81/11	100000811112	RE 81/11 Shelf unit, H-shaped	1

Lock grid spacing 5.60 mm

Insert to obtain additional levels in pre-defined distances.

Type	Dimensions in mm				
	WA	WI	H1	H2	Hl

RE 36/11	42.50	36.50	26.20	11.50	42.00
RE 59/18	65.00	59.00	18.80	18.80	42.00
RE 81/11	87.50	81.50	26.20	11.50	42.00

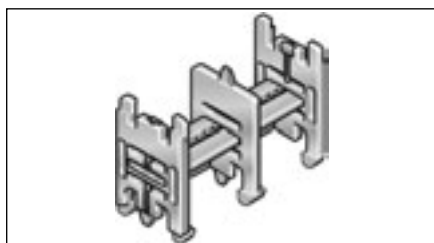


H-shaped shelf unit



MP 42 - Accessories

Shelving system



Shelving system

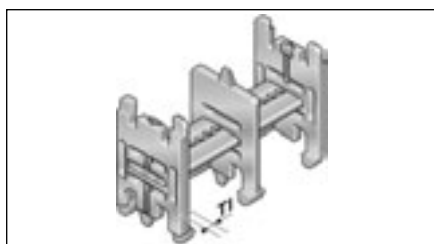
Type	Order no.	Description	Width in mm	Pack
RB 031	100000003100	RB 031 Shelf	31	1
RB 048	100000004800	RB 048 Shelf	48	1
RB 070	100000007000	RB 070 Shelf	70	1
RB 092	100000009200	RB 092 Shelf	92	1
RB 128	100000012800	RB 128 Shelf	128	1
RB 167	100000016700	RB 167 Shelf	167	1
RB 218	100000021800	RB 218 Shelf	218	1
RTA 41	1000810100	RTA 41 Shelf support, external, incl. pin		1
RTI 41	1000909100	RTI 41 Shelf support, internal, inc. pin		1

Lock grid spacing 5.60 mm

When used with at least two shelf supports (RTI/RTA) 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 shelf system can be pre-assembled on request.

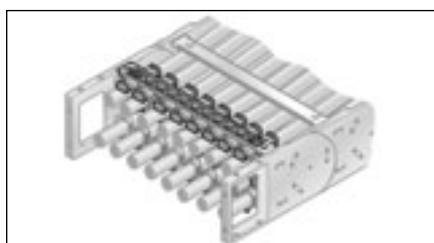
RTA shelf supports are positioned on the outer edge of the internal chain compartment. RTI shelf supports are positioned in the centre of the internal chain compartment in case the shelf system does not span the entire width.

Type	TI	Dimensions in mm
RTA/RTI	6.00	



Shelving system

Strain relief RS-ZL



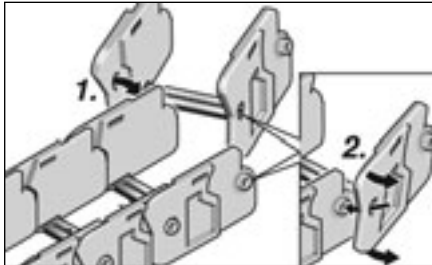
Strain relief RS-ZL

Type	Order no.	for inside width	Pack
RS-ZL 070-42	042000907010	70 mm	1
RS-ZL 090-42	042000909010	90 mm	1
RS-ZL 115-42	042000911510	115 mm	1
RS-ZL 150-42	042000915010	150 mm	1
RS-ZL 190-42	042000919010	190 mm	1
RS-ZL 225-42	042000922510	225 mm	1

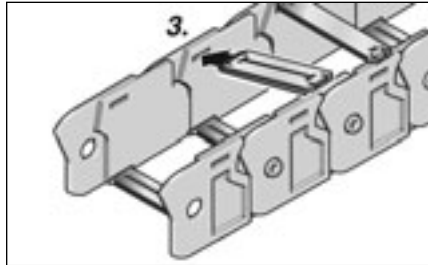
Frame ridge strain relief that can be permanently integrated in the chain brackets. Tailored to all frame ridge widths up to 225 mm. May be mounted on the inside and outside bend at both ends of the chain.

MP 42 - Accessories

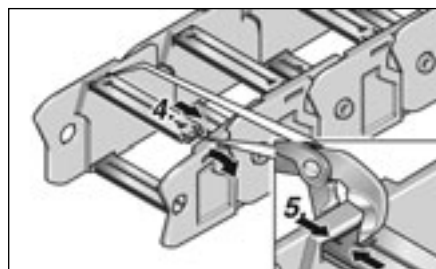
Assembly



Step 1



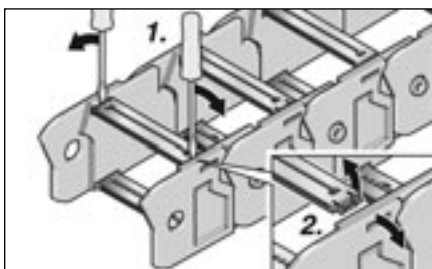
Step 2



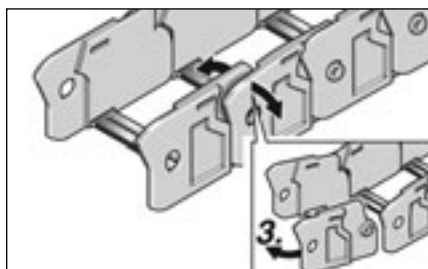
Step 3

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 before being inserted into the opposite side panel.

Disassembly



Step 1



Step 2

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