murrplastik

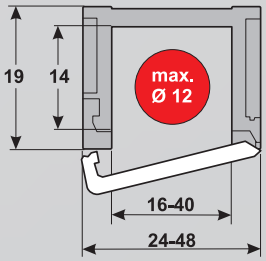
Cable drag chain systems

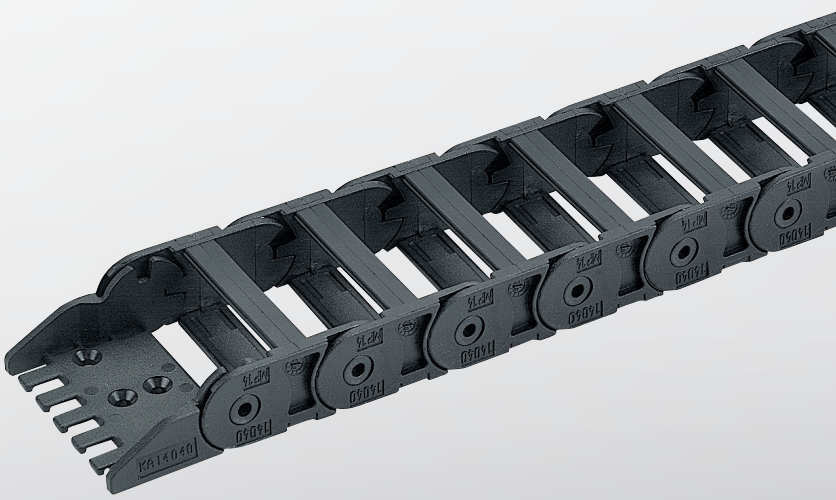
MP 14

EFK

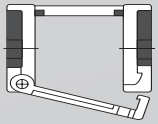
MP 14
OPEN

- LOW-COST VARIANT
- CHAIN BRACKET WITH INTEGRATED STRAIN RELIEF
- CAN BE EASILY SHORTENED AND LENGTHENED

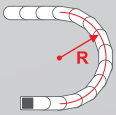




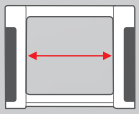
TECHNICAL DATA



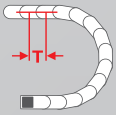
Loading side
Outside bend



Available radii
25.0 – 75.0 mm



Available interior widths
With plastic frame bridge
16.0 – 40.0 mm



Pitch
T = 26.0 mm

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TECHNICAL SPECIFICATIONS

Travel distance gliding L_g max.	12.0 m
Travel distance self-supporting L_f max.	see diagram on page 5
Travel distance vertical, hanging L_{vh} max.	3.0 m
Travel distance vertical, upright L_{vs} max.	2.0 m
Rotated 90°, unsupported L_{90f} max.	not recommended
Speed, gliding V_g max.	2.0 m/s
Speed, self-supporting V_f max.	4.0 m/s
Acceleration, gliding a_g max.	2.0 m/s²
Acceleration, self-supporting a_f max.	2.0 m/s²

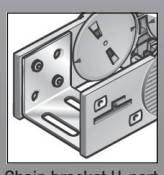
Contact our engineering department to meet any higher requirements: efk@murrplastik.de

MATERIAL PROPERTIES

Standard material	Polyamide (PA) black
Service temperature	-30.0 – 120.0 °C
Gliding friction factor	0.3
Static friction factor	0.45
Fire classification	Based on UL 94 HB

Other material properties on request.

CHAIN BRACKET

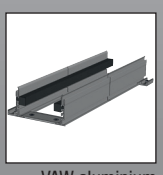


Chain bracket U-part

SHELVING SYSTEM

Separator TR

GUIDE CHANNELS



VAW aluminium

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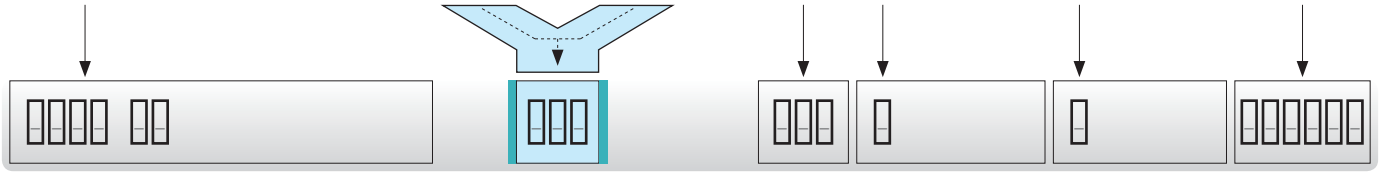
ORDERING KEY

Dimensions in mm [US inch]

Type code	Variation	Inside width	Outside width	Inside width	Outside width	Radius	Rail variant	Material	Chain length
0140 01	Frame bridge on outside of radius Frame bridge on inside bend Opens on outside bend	016 [0.63]	024 [0.94]			025 [0.98]	0 Plastic, full-ridged with bias	0 Polyamide standard (PA/black)	
		020 [0.79]	028 [1.10]						
		030 [1.18]	038 [1.50]			038 [1.50]			
		040 [1.57]	048 [1.89]						
						048 [1.89]			
						075 [2.95]			



SAMPLE ORDER: 0140 01 020 048 0 0 988

Frame bridge in inside and outside bend; can be opened in outside bend
Inside width 20 mm; radius 48 mm
Full-ridged with bias, material black-coloured polyamide
Chain length 988 mm (38 links)

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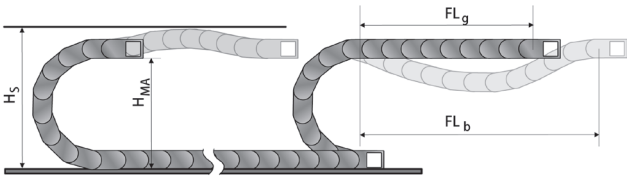
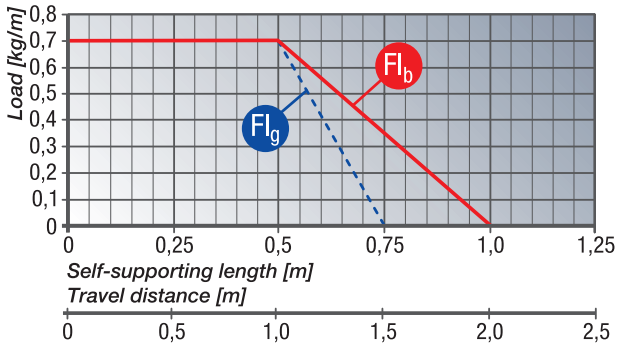
SELF-SUPPORTING LENGTH



The self-supporting length is the distance between the chain bracket on the moving end and the start of the chain arch.
The installation variant FL_g offers the lowest load and wear for the cable drag chain.
The maximum travel parameters (speed and acceleration) can be applied for this variant.

H_S = Installation height plus safety
H_{MA} = Height of moving end connection
FL_g = Self-supporting length, upper run straight
FL_b = Self-supporting length, upper run bent

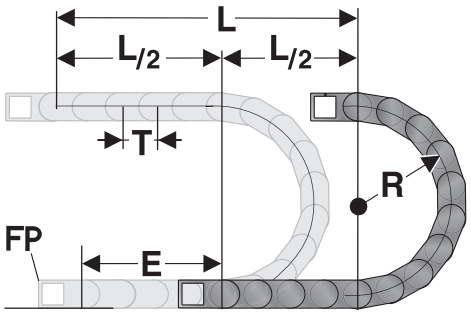
LOAD DIAGRAM FOR SELF-SUPPORTING APPLICATIONS



FL_g Self-supporting length, upper run straight
In the FL_g range, the chain upper run still has a bias, is straight or has a maximum sag of30.0 mm.

FL_b Self-supporting length, upper run bent
In the FL_b range, the chain upper run has a sag of more than30.0 mm, but this is still less than the maximum sag. Where the sag is greater than that permitted in the FL_b range, the application is critical and should be avoided. The self-supporting length can be optimized by using a support for the upper run or a more stable energy chain.

DETERMINING THE CHAIN LENGTH



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.

Chain length calculation = L/2 + π * R + 2 * T + E
≈ 1 m chain = 39 qty. x 26.0 mm links.

E = distance between entry point and middle of travel distance
L = travel distance
R = radius
T = Pitch 26.0 mm

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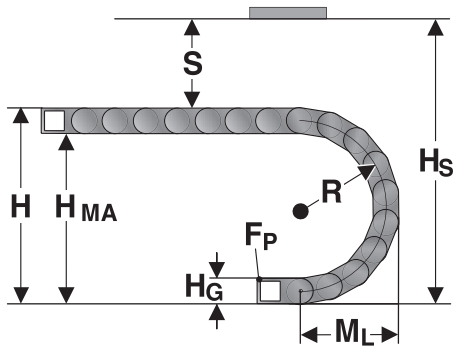
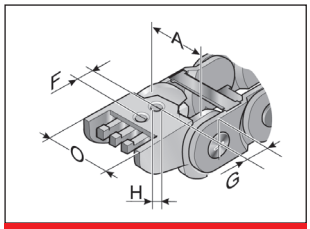
EINBAUMASSE



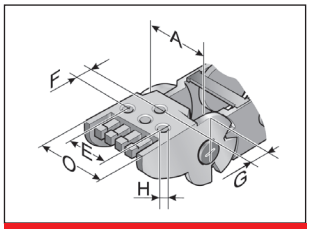
The moving end chain connection is to be screw fixed at height H_{MA} for the respective radius.
For the installed dimension the „Installed height H_S“ value has to be taken into account.

Radius R	25	38	48	75
Outside height of chain link (H_G)	19	19	19	19
Height of bend (H)	69	95	115	169
Height of moving end bracket (H_{MA})	50	76	96	150
Safety margin (S)	20	20	20	20
Installation height (H_S)	89	115	135	189
Arc projection (M_L)	61	74	84	111

CHAIN BRACKET U-PART KA 14 / 15



KA 14...



KA 14...

The chain bracket is a fully plastic part. The bracket is precisely adjusted to the respective chain width and only needs to be snapped in at the chain link. Please order one male and one female end bracket for each chain. The brackets should be fastened with M3 screws. The cables or conduits may be fastened with cable ties on the integrated strain relief of the chain bracket.

Type	Order No.	Material	Inside width A mm	E mm	F mm	G mm	HØ mm	Outside width KA O mm
KA 14016 Female end	014000005000	Plastic	16.0		8.0	11.0	3.2	A+8.0
KA 14016 Male end	014000005100	Plastic	16.0		8.0	7.5	3.2	A+8.0
KA 14020 Female end	014000005200	Plastic	20.0		8.0	11.0	3.2	A+8.0
KA 14020 Male end	014000005300	Plastic	20.0		8.0	7.5	3.2	A+8.0
KA 14030 Female end	014000005400	Plastic	30.0	A-8.0	8.0	11.0	3.2	A+8.0
KA 14030 Male end	014000005500	Plastic	30.0	A-8.0	8.0	7.5	3.2	A+8.0
KA 14040 Female end	014000005600	Plastic	40.0	A-8.0	8.0	11.0	3.2	A+8.0
KA 14040 Male end	014000005700	Plastic	40.0	A-8.0	8.0	7.5	3.2	A+8.0

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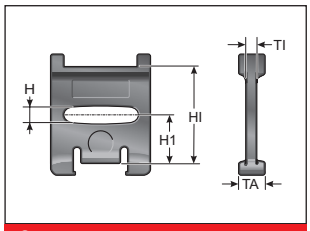
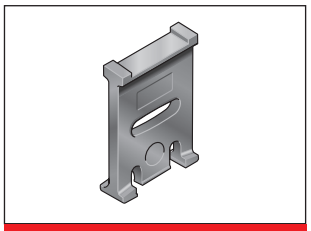
SEPARATOR TR 14



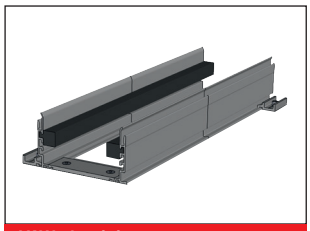
Separator



We recommend that separators be used if multiple round cables or conduits with differing diameters are to be installed.

Type	Order No.	Designation	Version	TI mm	TA mm	HI mm
TR 14	014000009200	Separator	moveable	1.5	6.0	14.0

GUIDE CHANNEL VAW (ALUMINIUM)


VAW aluminium

For this cable drag chain, a variable guide channel system is available, constructed from aluminium sections.
The variable guide channel ensures that the cable drag chain is supported and guided securely.
For help on choosing, please consult the chapter „Variable Guide Channel System“.

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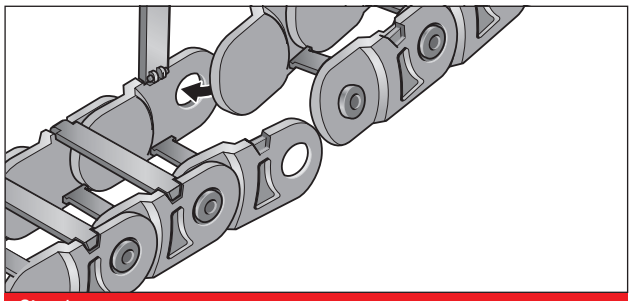
ASSEMBLY



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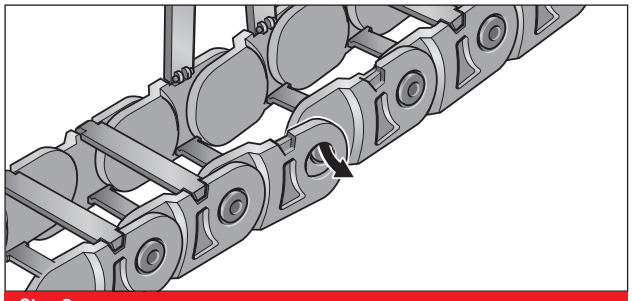
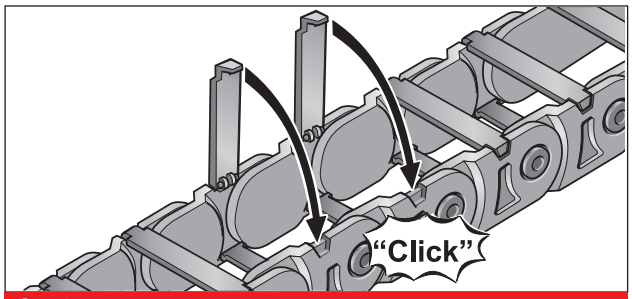
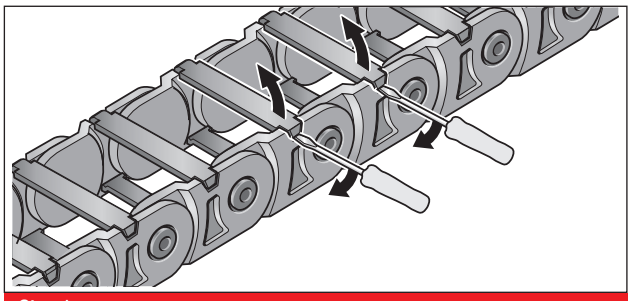


Step 2

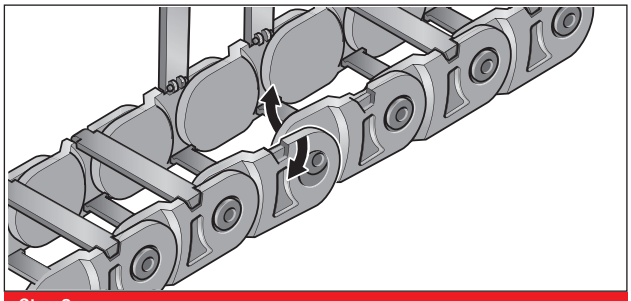


Step 3

DISASSEMBLY



Step 1



Step 2

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The electronic data and files made available by Murrplastik, particularly CAD files are based on our current knowledge of the product described.
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