murrplastik

Cable drag chain systems

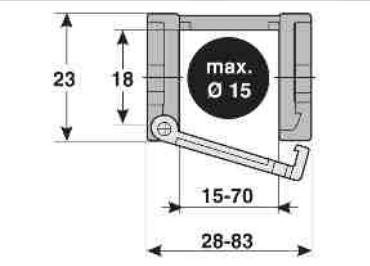
MP 18.1, MP 18.2

EFK

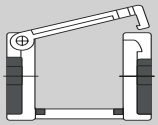
MP 18.1
OPEN

MP 18.2
OPEN

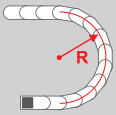
- CHAIN BRACKET WITH INTEGRATED STRAIN RELIEF
- CAN BE EASILY SHORTENED AND LENGTHENED



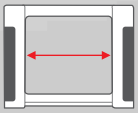
TECHNICAL DATA



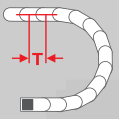
Loading side
Inside or outside bend



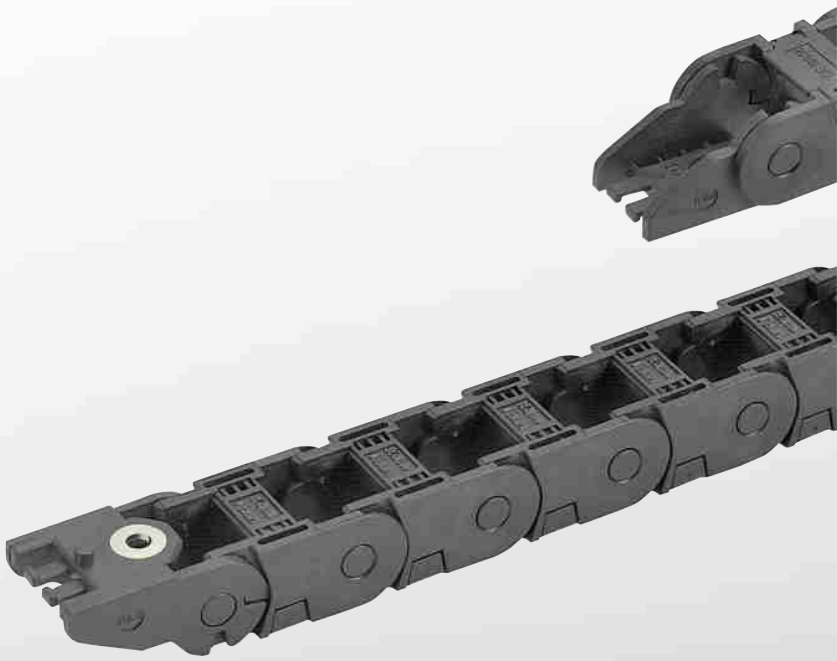
Available radii
28.0 – 78.0 mm



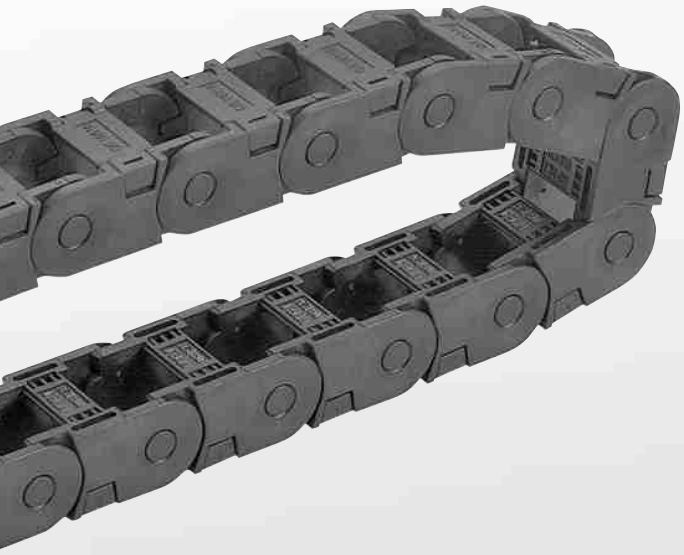
Available interior widths
With plastic frame bridge
15.0 – 70.0 mm



Pitch
T = 33.0 mm



© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18



TECHNICAL SPECIFICATIONS

Travel distance gliding L_g max.	20.0 m
Travel distance self-supporting L_f max.	see diagram on page 5
Travel distance vertical, hanging L_{vh} max.	8.0 m
Travel distance vertical, upright L_{vs} max.	3.0 m
Rotated 90°, unsupported L_{gof} max.	0.5 m
Speed, gliding V_g max.	2.0 m/s
Speed, self-supporting V_f max.	5.0 m/s
Acceleration, gliding a_g max.	5.0 m/s²
Acceleration, self-supporting a_f max.	5.0 m/s²

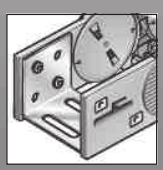
Contact our engineering department to meet any higher requirements: efk@murrplastik.de

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	UL 94 HB

Other material properties on request.

CHAIN BRACKET



Chain bracket U-part

SHELVING SYSTEM

Separator TR

GUIDE CHANNELS

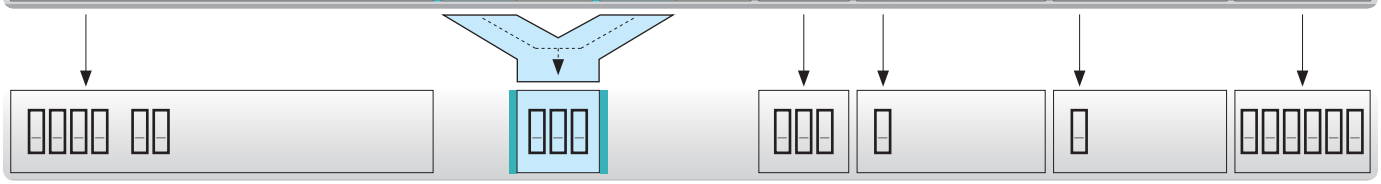
VAW aluminium

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18

ORDERING KEY

Dimensions in mm [US inch]

Type code	Variation	Inside width	Outside width	Inside width	Outside width	Radius	Rail variant	Material	Chain length
0181 01[1]	**MP 18.1 open** Frame bridge on outside of radius Frame bridge on inside bend Opens on outside bend	**015**[3] [0.59]	**028** [1.10]			**028** [1.10]	**0** Plastic, full-ridged with bias	**0** Polyamide standard (PA/black)	
		018 [0.71]	**031** [1.22]						
0182 02[2]	**MP 18.2 open** Frame bridge on outside of radius Frame bridge on inside bend Opens on inside of radius	**025** [0.98]	**038** [1.50]			**038** [1.50]		**1** UL94 / V0 (PA/oxide red)	
		037 [1.46]	**050** [1.97]						
		050 [1.97]	**063** [2.48]			**048** [1.89]		**5** Polypropylene (PP/blue)	
		070 [2.76]	**083** [3.27]						
						078 [3.07]		**7** EMC (PA/light grey)	
								9 Special version (on request)	



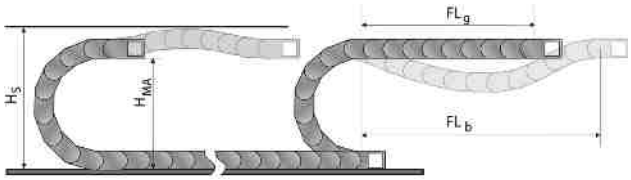
ORDER SAMPLE: 0181 01 015 028 0 0 1122

Frame bridge in outside bend, frame bridge in inside bend, can be opened from outside bend
Inside width 15 mm; radius 28 mm
Plastic bridge, full-ridged with bias, material black-coloured polyamide
Chain length 1122 mm (34 links)

[1] for Type 0181 only
[2] for Type 0182 only
[3] max. line diameter 13 mm

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18

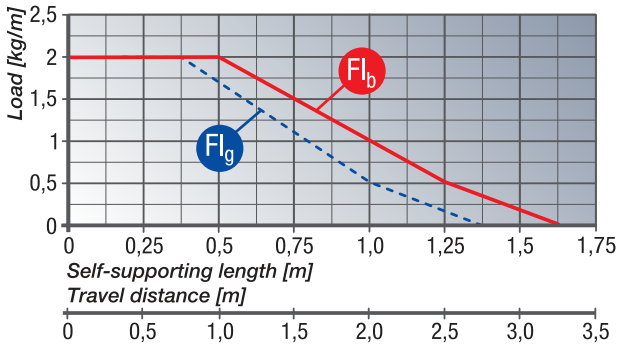
SELF-SUPPORTING LENGTH



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

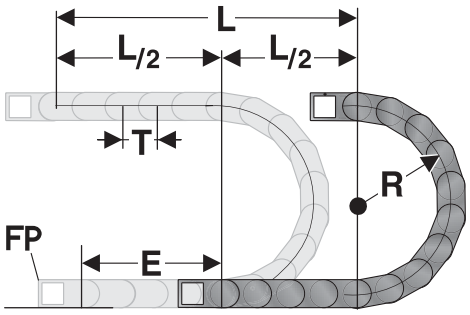
LOAD DIAGRAM FOR SELF-SUPPORTING APPLICATIONS



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 of40.0 mm.

FL_b Self-supporting length, upper run bent
In the FL_b range, the chain upper run has a sag of more than40.0 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



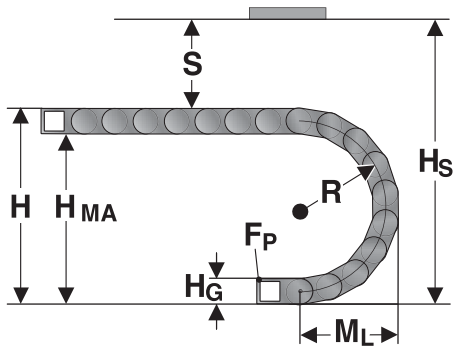
The fixed point of the cable drag chain should be connected in the middle of the travel distance.
This arrangement gives the shortest connection between the fixed point and the moving consumer and thus the most efficient chain length.

Chain length calculation = $L/2 + \pi * R + 2 * T + E$
≈ 1 m chain = 30 qty. x 33.0 mm links.

E = distance between entry point and middle of travel distance
L = travel distance
R = radius
T = Pitch 33.0 mm

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18

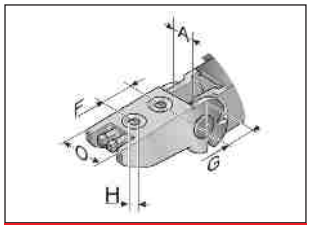
EINBAUMASSE

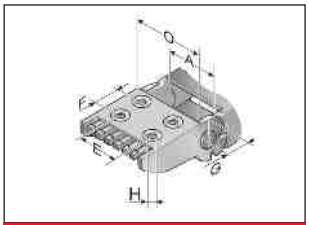


The moving end chain connection is to be screw fixed at height H_{MA} for the respective radius.
For the installed dimension the „Installed height H_S“ value has to be taken into account.

Radius R	28	38	48	78
Outside height of chain link (H_G)	23	23	23	23
Height of bend (H)	79	99	119	179
Height of moving end bracket (H_{MA})	56	76	96	156
Safety margin (S)	30	30	30	30
Installation height (H_S)	109	129	149	209
Arc projection (M_L)	73	83	93	123

CHAIN BRACKET U-PART KA 18.1 / 18.2


KA/Z 18015 – 025

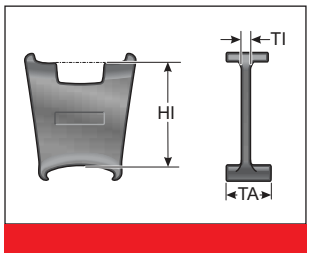

KA/Z 18037 – 070

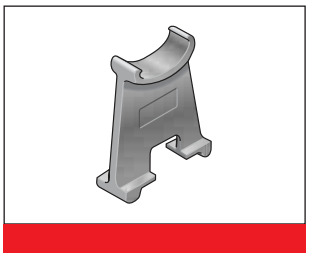
The chain bracket is a fully plastic part. The bracket is precisely adjusted to the respective chain width and only needs to be snapped in at the chain link. Please order one male and one female end bracket for each chain. The brackets should be fastened with M5 screws. The cables or conduits may be 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/Z 18015 female end	018100004800	Plastic	15.4		19.0	10.5	5.5	A+13.0
KA/Z 18015 male end	018100004900	Plastic	15.4		19.0	8.5	5.5	A+13.0
KA/Z 18018 female end	018100005000	Plastic	18.4		19.0	10.5	5.5	A+13.0
KA/Z 18018 male end	018100005100	Plastic	18.4		19.0	8.5	5.5	A+13.0
KA/Z 18025 female end	018100005200	Plastic	25.4		19.0	10.5	5.5	A+13.0
KA/Z 18025 male end	018100005300	Plastic	25.4		19.0	8.5	5.5	A+13.0
KA/Z 18037 female end	018100005400	Plastic	37.4	A-17.4	19.0	10.5	5.5	A+13.0
KA/Z 18037 male end	018100005500	Plastic	37.4	A-17.4	19.0	8.5	5.5	A+13.0
KA/Z 18050 female end	018100005600	Plastic	50.4	A-16.4	19.0	10.5	5.5	A+13.0
KA/Z 18050 male end	018100005700	Plastic	50.4	A-16.4	19.0	8.5	5.5	A+13.0
KA/Z 18070 female end	018100005800	Plastic	70.4	A-22.4	19.0	10.5	5.5	A+13.0
KA/Z 18070 male end	018100005900	Plastic	70.4	A-22.4	19.0	8.5	5.5	A+13.0

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18

SEPARATOR TR 18.1/2:

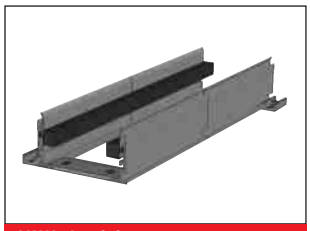




We recommend that separators be used if multiple round cables or conduits with differing diameters are to be installed.

Type	Order No.	Designation	TI mm
TR 14/18	018200009000	Separator	1.5

GUIDE CHANNEL VAW (ALUMINIUM)

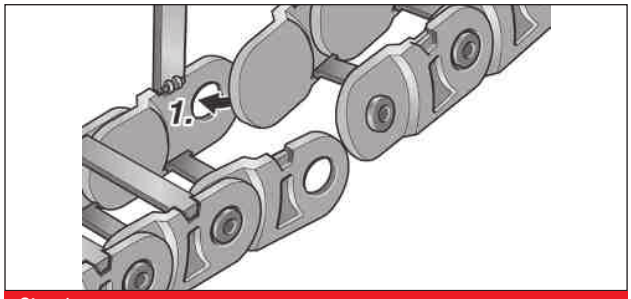


VAW aluminium

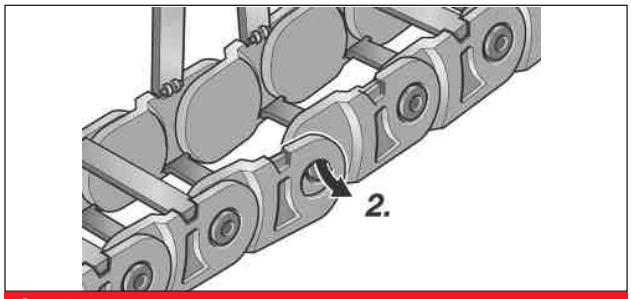
For this cable drag chain, a variable guide channel system is available, constructed from aluminium sections.
The variable guide channel ensures that the cable drag chain is supported and guided securely.
For help on choosing, please consult the chapter „Variable Guide Channel System“.

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18

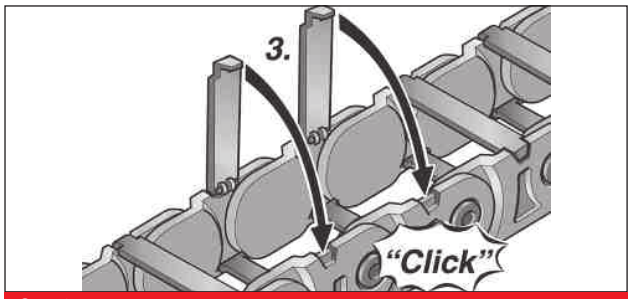
ASSEMBLY



Step 1

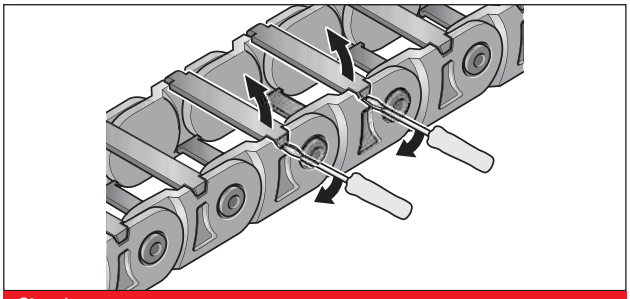


Step 2

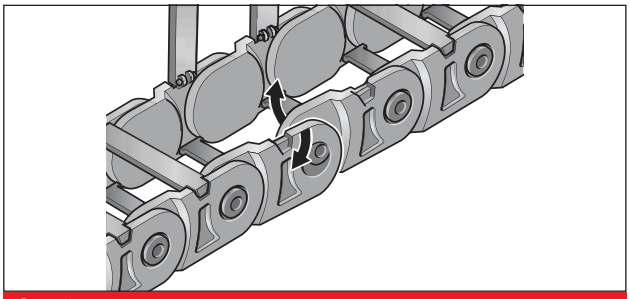


Step 3

DISASSEMBLY



Step 1



Step 2

All details given in our sales material prospectuses and catalogues as well as the information available online are based on our current knowledge of the products described.
The electronic data and files made available by Murrplastik, particularly CAD files are based on our current knowledge of the product described.
A legally binding assurance of certain properties or the suitability for a certain purpose can not be determined from this information.
All information with respect to the chemical and physical properties of Murrplastik products as well as application advice given verbally, in writing or by tests, is given to the best of our knowledge.
This does not free the purchaser of carrying out their own inspections and tests in order to determine the suitability of a product for a specific purpose.
Murrplastik accepts no responsibility for the available information being up-to-date, correct or complete. Neither do we accept responsibility for the quality of this information.
Murrplastik accepts no liability for damage caused as a result of using our products.
Murrplastik reserves the right to make technical changes and improvements through constant further development of products and services.
Our General Terms and Conditions apply.

© Murrplastik Systemtechnik GmbH • MP_18_1_MP_18_2_~20170411~890280~efk_typ_18