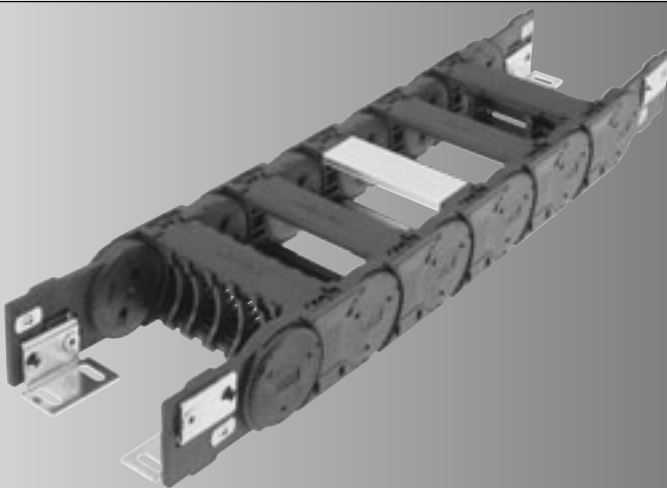


CABLE DRAG CHAIN SYSTEMS



MultiLine

MP 44



MP 44 - MultiLine

Order variants

Style (order code)									
Configuration (order code) *= standard									
Radius (order code)									
in mm									
Internal width (order code)									
in mm									
External width									
in mm									
MP44 045	78	45	045						0*
MP44 062	95	62	062						1*
MP44 084	117	84	084						2
MP44 105	138	105	105	90	090				3
MP44 144	177	144	144	125	125				4
MP44 182	215	182	182	150	150				5
MP44 xxx	Inside	>118-		200	200				6
	+ 33	600	ALU	250	250				7
									8
									9

Order number:	0440			0			0
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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

0440 045 090 00*00

Inside width = 45 mm

Radius = 90 mm

Configuration = 0*

Style = 0

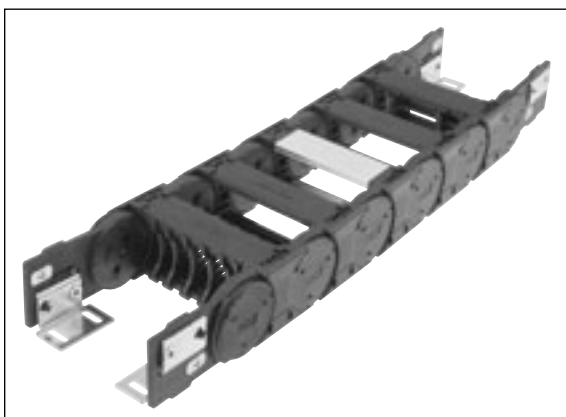
Ideal operating conditions

- Opening cover on both sides
- Flexible internal separation
- Variable widths thanks to aluminium ridge
- Gliding arrangement
- Unsupported arrangement
- Quiet operation

Alternative chain type

- MP 43 G closed series
- MP 41
Higher stresses
Flange connection (KA-F)
back radii

Features



Chain bracket with variably positionable metal bracket



ZL strain relief plate



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



Radii with or without bias (RK/RV)



Aluminium frame ridges with integrated lock grid in variable lengths

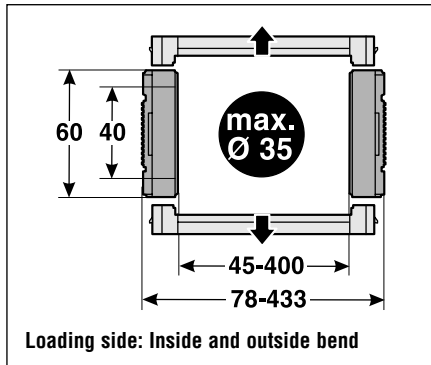


Plug-in shelf system for reliable cable guidance

MP 44 - MultiLine

Technical data

Chain link dimensions



Material properties

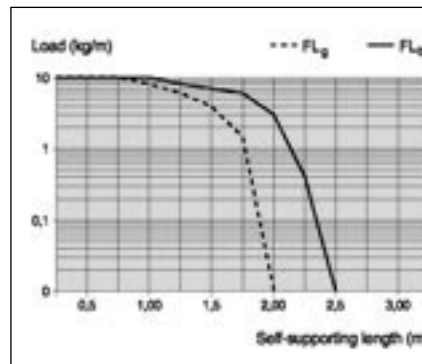
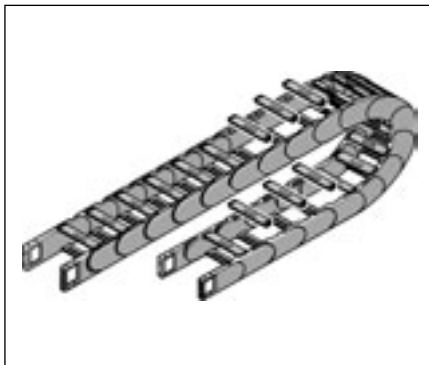
Service temperature: -30 to +120 °C
 Gliding friction factor: 0.30
 Static friction factor: 0.45
 Fire classification: in conformity with UL94 HB

Other material properties on request

Technical specifications

Travel distance, gliding, L_g : 50 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 : 15 m/s
 Acceleration, gliding, a_g : 15 m/s²
 Acceleration, self-supporting, a_s : 20 m/s²

Unsupported length

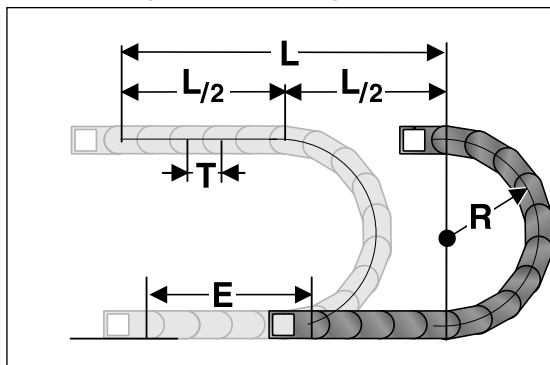


FL_g:
 Ideal installation situation for high stresses at the limit of the max. travel parameters. In this range the chain upper run is still biased, straight or has a max. sag of 10 – 50 mm depending on the type of chain.

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



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

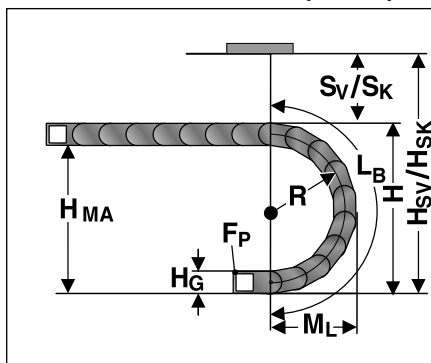
Determining the chain length

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

≈ 1 m chain = 13 x 75.5 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)

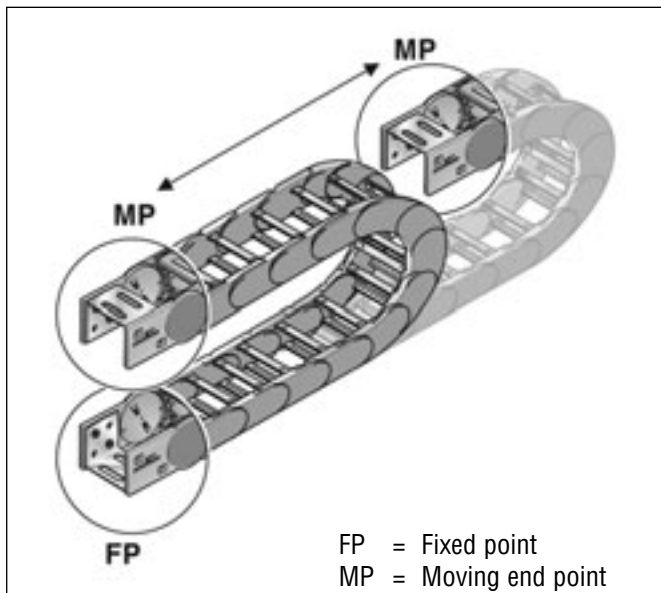


Radius R	90	125	150	200	250
Outside height of chain link (H_e)	60	60	60	60	60
Height of bend (H)	240	310	360	460	560
Height of moving end connection (H_{MA})	180	250	300	400	500
Safety margin with bias (S_v)	38	38	38	38	38
Installation height with bias (H_{sv})	278	348	398	498	598
Safety margin without bias (S_s)	13	13	13	13	13
Installation height without bias (H_{sk})	253	323	373	473	573
Arc projection (M_l)	196	231	256	306	356
Bend length (L_b)	452	562	641	798	955



MP 44 - MultiLine

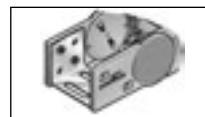
Chain bracket



Chain bracket U-part



Top



Bottom

Chain bracket elbow fitting



Bottom / outside



Top / inside



Top / outside



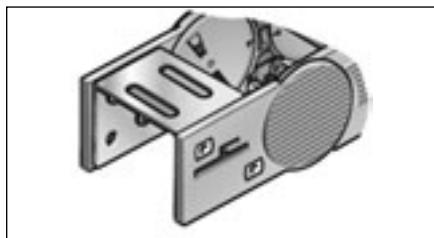
Top / inside

Chain bracket U-part

Type

Order no.

Pack



KA 44 U

0440000054

1

This chain bracket is supplied as standard for 45 mm width. The bracket can be mounted at the top or bottom.

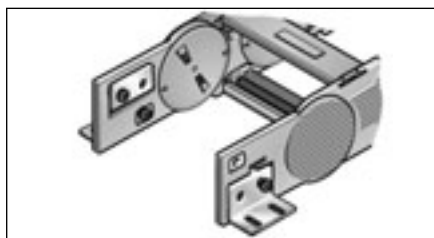
Chain bracket elbow fitting

Type

Order no.

Material

Pack



KA 44

0440000050

Steel plate

1

KA 44

0440000052

Stainless steel 1.4301

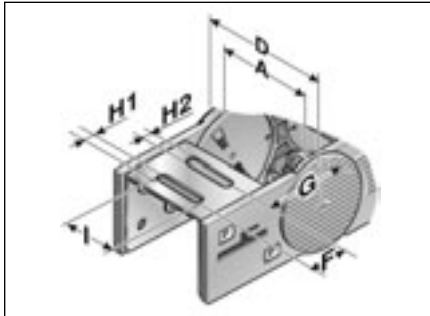
1

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 two chain brackets. The brackets should be fastened with M6 screws.

MP 44 - MultiLine

Chain bracket U-part

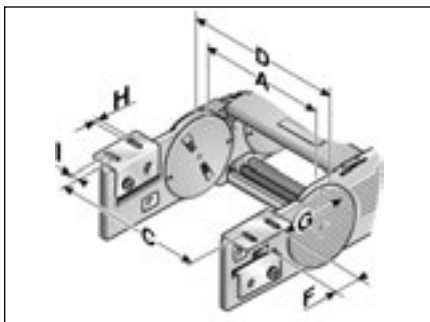
Dimensions in mm



Type	A	D	F	G	H1	H2	I
KA 44 U	45.00	78.00	28.00	45.00	6.50	8.50	33.00

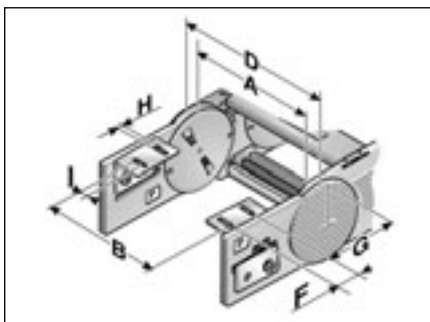
Chain bracket elbow fitting

Dimensions in mm



Bottom and top / outside

Type	A	C	D	F	G	H Ø	I
KA 44	62.00	100.50	95.00	32.00	43.20	6.50	12.50
KA 44	84.00	122.50	117.00	32.00	43.20	6.50	12.50
KA 44	105.00	143.50	138.00	32.00	43.20	6.50	12.50
KA 44	144.00	182.50	177.00	32.00	43.20	6.50	12.50
KA 44	182.00	220.50	215.00	32.00	43.20	6.50	12.50
KA 44	Variable	A+38.50	A+33.00	32.00	43.20	6.50	12.50



Bottom and top / inside

Type	A	B	D	F	G	H Ø	I
KA 44	62.00	47.50	95.00	32.00	43.20	6.50	12.50
KA 44	84.00	69.50	117.00	32.00	43.20	6.50	12.50
KA 44	105.00	90.50	138.00	32.00	43.20	6.50	12.50
KA 44	144.00	129.50	177.00	32.00	43.20	6.50	12.50
KA 44	182.00	167.50	215.00	32.00	43.20	6.50	12.50
KA 44	Variable	A-14.50	A+33.00	32.00	43.20	6.50	12.50



MP 44 - Accessories

Separator



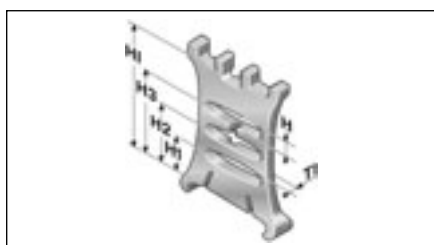
Separator

Type	Order no.	Description	Pack
TF 44	044000009400	Separator	1
TL 44	044000009200	Separator for aluminium frame ridges	1

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. The TL 44 should be used for applications with aluminium frame ridges or movable separators.



Separator

Type	Dimensions in mm					
	TI	H	H1	H2	H3	HI
TF 44	4.00	4.40	15.00	22.40	29.40	40.00
TL 44	4.00	4.40	15.20	22.30	29.40	40.00

Shelving system

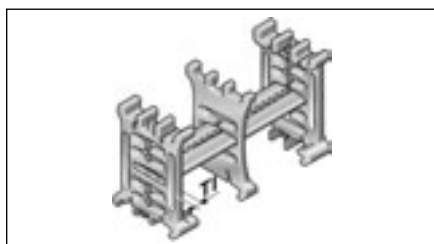


Shelving system

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
RT 44	1000902100	RT 44 Shelf support		1

Lock grid spacing 5.60 mm

In connection with at least two shelf supports (RT) 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.

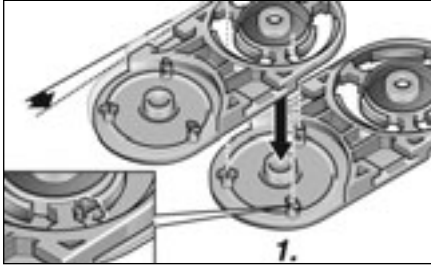


Shelving system

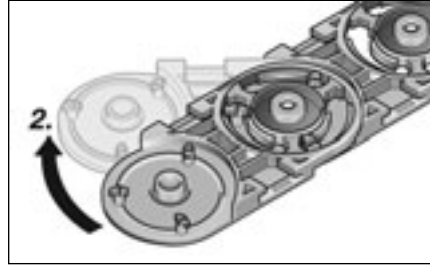
Type	Dimensions in mm	
	TI	
RT 44	6.50	

MP 44 - Accessories

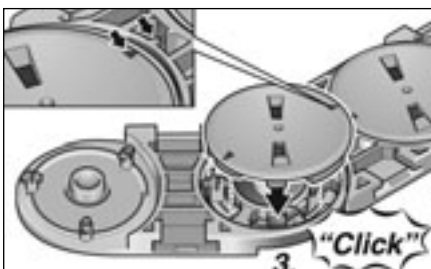
Assembly



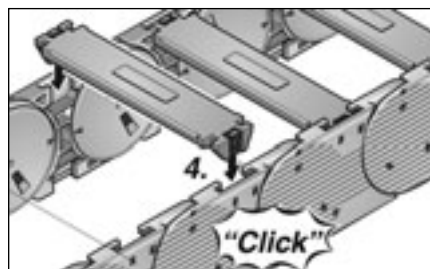
Step 1



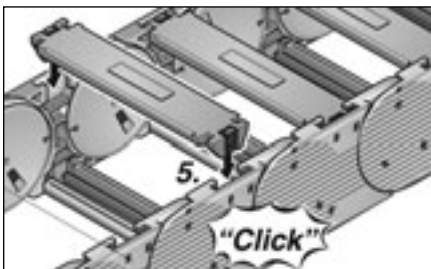
Step 2



Step 3

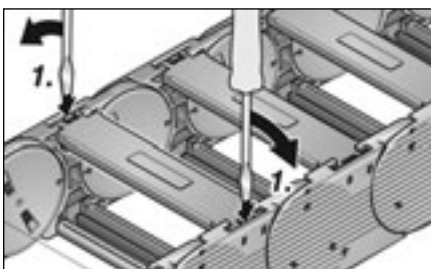


Step 4

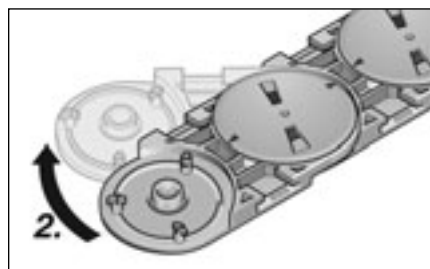


Step 5

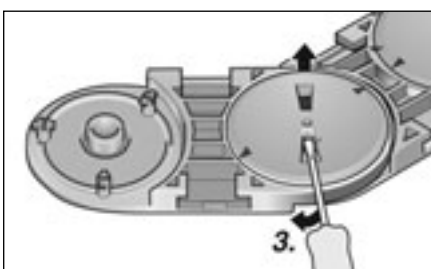
Disassembly



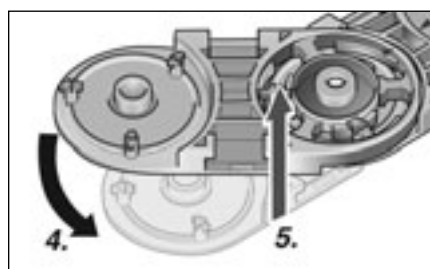
Step 1



Step 2



Step 3



Step 4