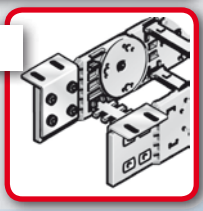
System overview

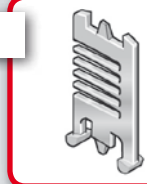
1 Chain bracket

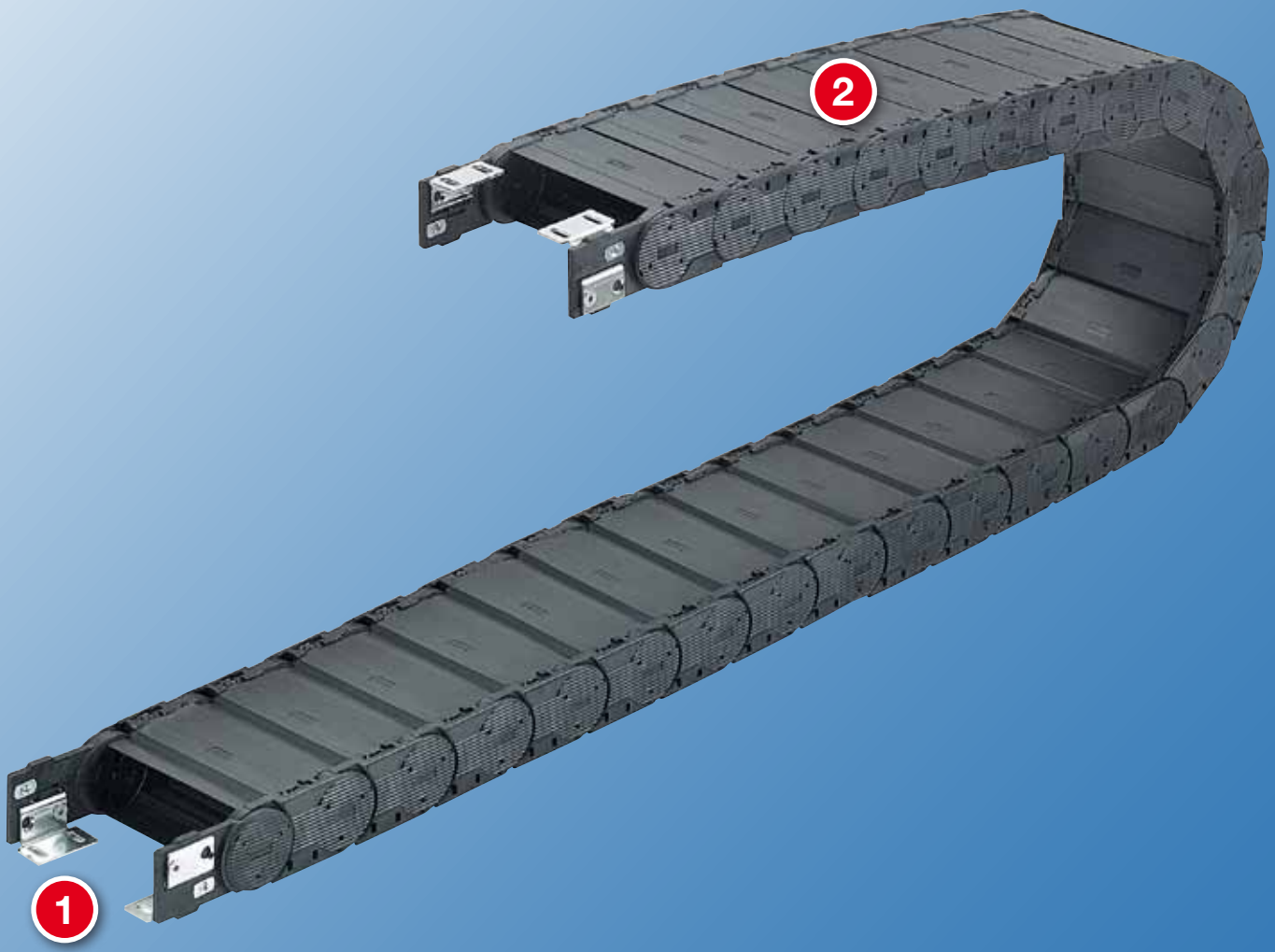
Chain bracket angle



2 Shelving system

Separator TR

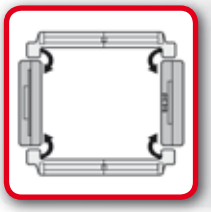




Guide channels

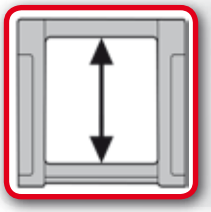
Aluminium VAW

Technical data



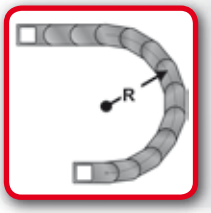
Loading side

inside and outside flexure curve



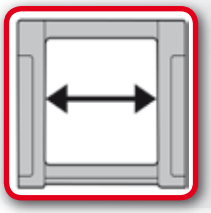
Available interior heights

38.0 mm



Available radii

125.0 – 250.0 mm



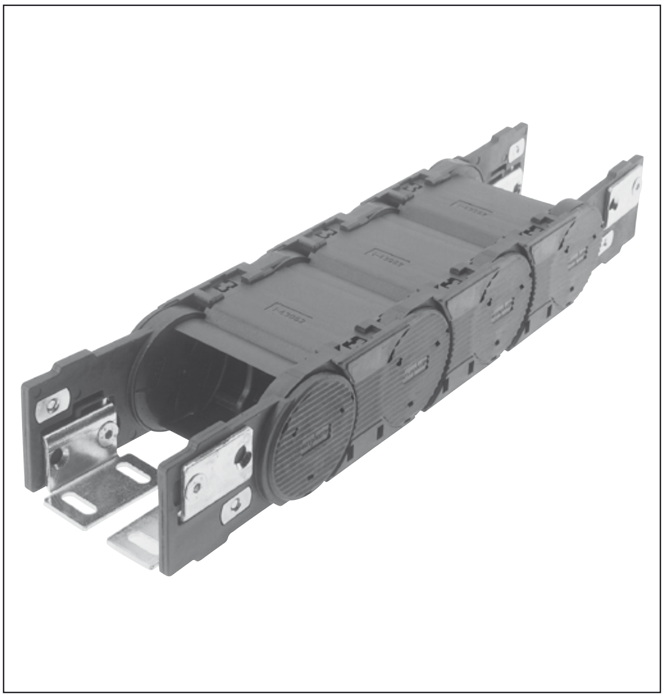
Available interior widths

62.0 – 182.0 mm

Ordering key

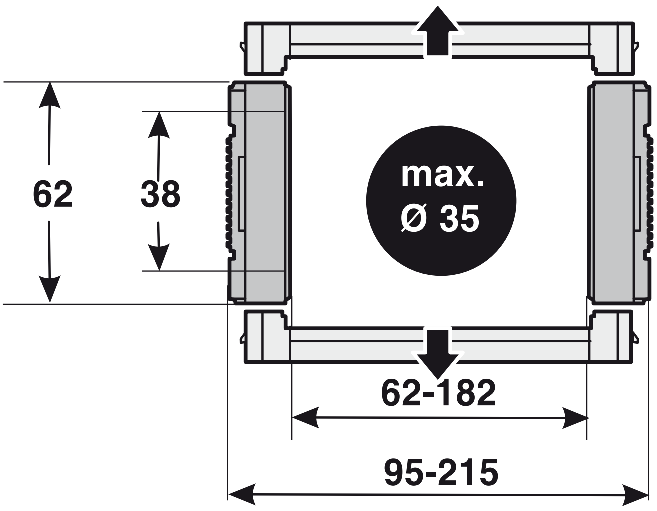
Type	Variation	Inside width mm	Outside width mm	Radius mm	Ridge version	Material	Chain length mm
0430	44	62 84 105 144 182	95 117 138 177 215	125 150 200 250	0 1 9	0 9	

Ordering key _ _ _ _ | _ _ | _ _ _ | _ _ _ | _ | _ | _ _ _ _ _ _



Chain link

Loading side: inside and outside flexure curve



Dimensions in mm

0	Standard (PA/black)
9	Special version

0	PA full-ridged with bias
1	PA full-ridged without bias
9	Special version

44	Cover on outside of radius Cover on inside of radius Opens on inside and outside of radius

Order sample: 0430 44 062 125 0 0 1435
Cover in outside bend, cover in inside bend, openable from inside and outside bend
Inside width 62 mm; radius 125 mm
Plastic bridge, full-ridged with bias, material black-coloured polyamide
Chain length 1435 mm (19 links)

Technical specifications

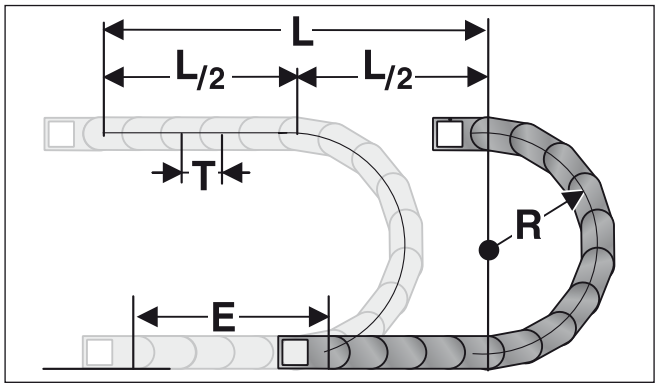
Travel distance gliding L_g max.:	50.0 m
Travel distance self-supporting L_f max.:	see diagram
Travel distance vertical, hanging L_{vh} max.:	40.0 m
Travel distance vertical, upright L_{vs} max.:	3.0 m
Rotated 90°, unsupported L_{90f} max.:	1.0 m
Speed, gliding V_g max.:	5.0 m/s
Speed, self-supporting V_f max.:	15.0 m/s
Acceleration, gliding a_g max.:	15.0 m/s²
Acceleration, self-supporting a_f max.:	20.0 m/s²

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.

Determining the chain length

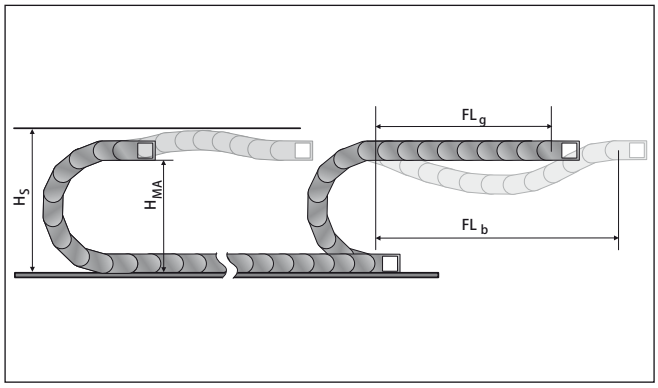


The fixed point of the cable drag chain should be connected in the middle of the travel distance.
This arrangement gives the shortest connection between the fixed point and the moving consumer and thus the most efficient chain length.

Chain length calculation = L/2 + π * R + E
≈ 1 m chain = 13 qty. x 75.5 mm links.

E = distance between entry point and middle of travel distance
L = travel distance
R = radius
P = Pitch

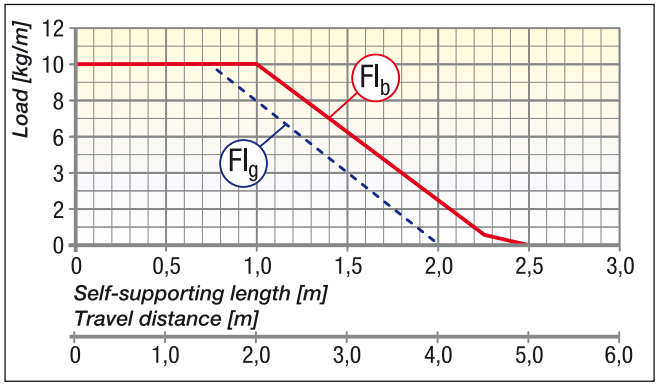
Self-supporting length



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

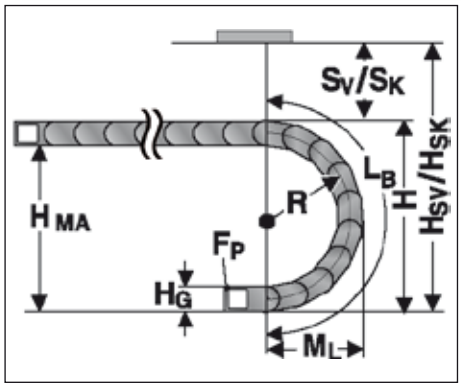
Load diagram for self-supporting applications



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 of

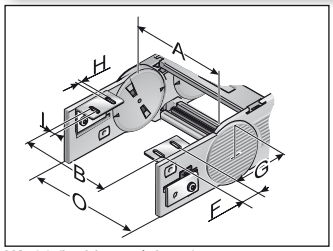
FL_b Self-supporting Length, upper run bent
In the FL_b range, the chain upper run has a sag of more than , but this is still less than the maximum sag.
Where the sag is greater than that permitted in the FL_b range, the application is critical and should be avoided. The self-supporting length can be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

Installation dimensions

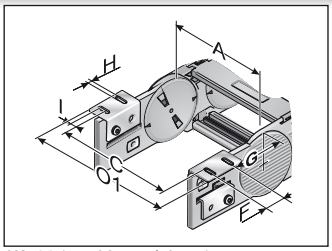


Radius R	125	150	200	250
Outside height of chain link (H_G)	62	62	62	62
Height of bend (H)	312	362	462	562
Height of moving end connection (H_{MA})	250	300	400	500
Safety margin with bias (S_V)	38	38	38	38
Installation height with bias (H_{SV})	350	400	500	600
Safety margin without bias (S_K)	13	13	13	13
Installation height without bias (H_{SK})	325	375	475	575
Arc projection (M_L)	232	257	307	357
Bend length (L_B)	565	644	801	958

Chain bracket angle



KA 44 (inside up / down)

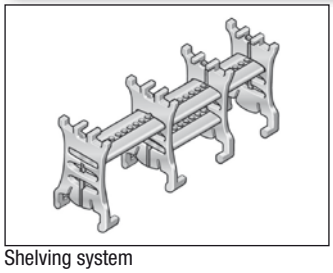


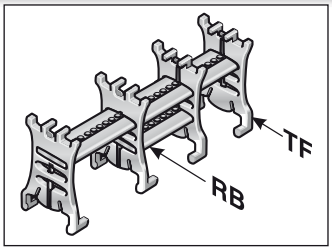
KA 44 (outside up / down)

There are several options 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.

Type	Order no.	Material	Inside width A mm	B mm	C mm	E mm	F mm	G mm	HØ mm	I mm	Outside width KA O mm	Outside width KA O1 mm
KA 44	0440000050	Sheet steel	62.0 – 182.0	A-14.5	A+38.5	A+32.0	32.0	43.2	6.5	12.5	A+33.0	A+64.0
KA 44	0440000052	Stainless steel 1.4301	62.0 – 182.0	A-14.5	A+38.5	A+32.0	32.0	43.2	6.5	12.5	A+33.0	A+64.0

Shelving system



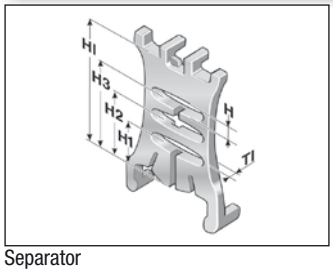


Shelving system

The shelf must be used with a minimum of two separators to create a shelving system. The additional levels prevent cables from criss-crossing and therefore destroying each other, while also avoiding excessive friction. The shelves are matched to the available chain widths.

Type	Order no.	Designation	Width mm	Pitch mm
RB 031	100000003100	Shelf	31.0	1.6
RB 048	100000004800	Shelf	48.0	1.6
RB 070	100000007000	Shelf	70.0	1.6
RB 092	100000009200	Shelf	92.0	1.6
RB 128	100000012800	Shelf	128.0	1.6
RB 167	100000016700	Shelf	167.0	1.6

Separator

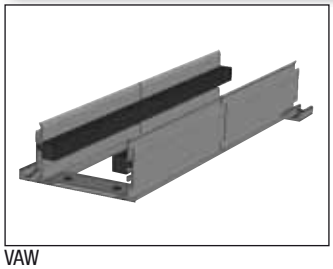


Separator

We recommend that moveable 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 separator will stay solidly assembled at one side when the frame bridge is opened.

Type	Order no.	Designation	Pitch mm	Tl mm	H mm	H1 mm	H2 mm	H3 mm	Hl mm
TF 43	0430000090	Separator	1.6	4.0	4.3	12.3	19.5	26.5	38.0

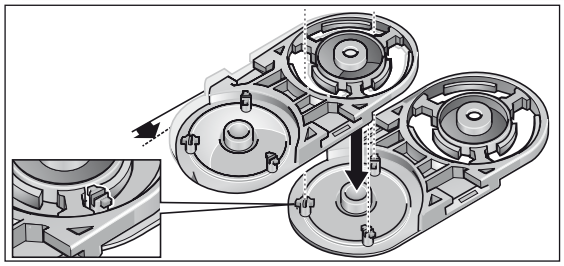
Guide channels (VAW)



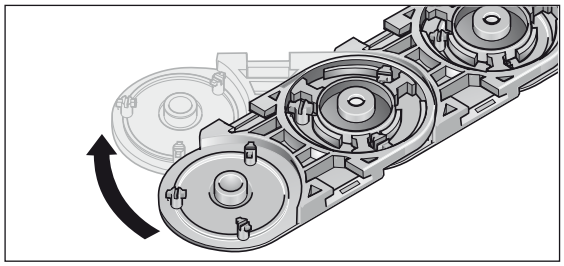
VAW

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“.

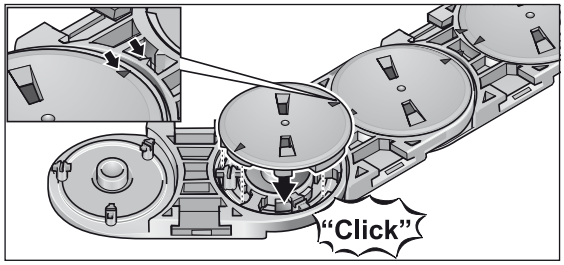
Assembly



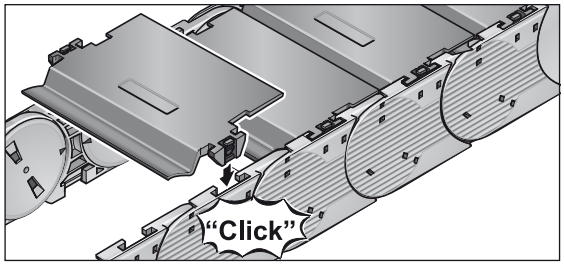
Step 1



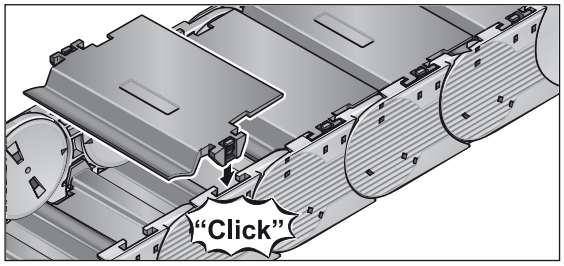
Step 2



Step 3

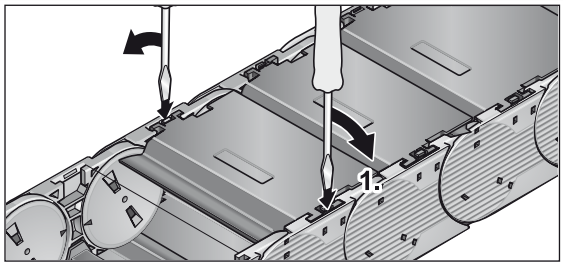


Step 4

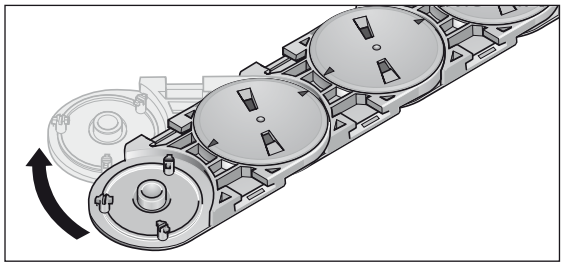


Step 5

Disassembly



Step 1



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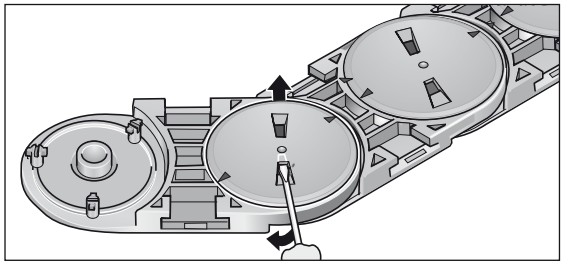

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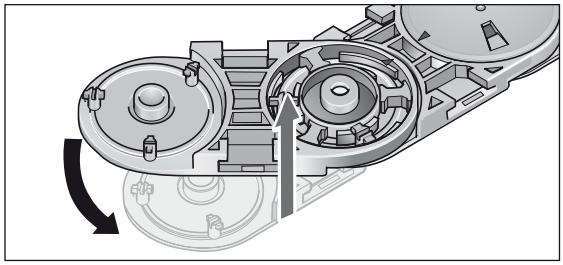

Step 4