



Labelling systems



Cable entry and
cable holding systems



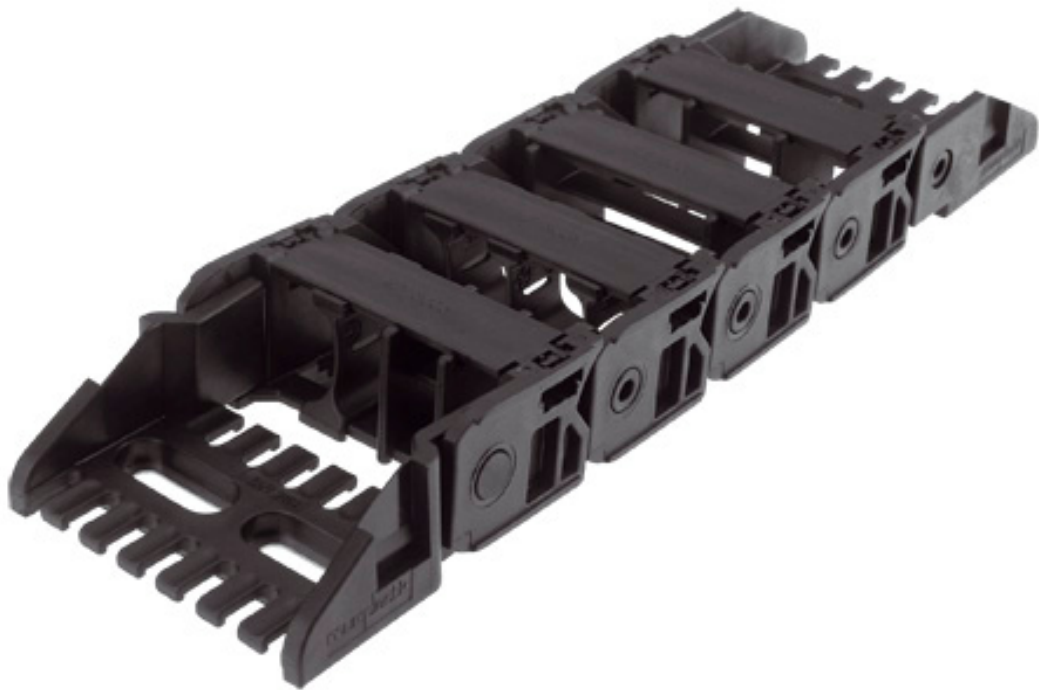
Cable drag chains and
wiring systems



Cable protection conduit
and screw fitting systems

Cable drag chain, type MP 3000

MultiLine



Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de

Responsible: PM-EFK
- Subject to alterations -

As at: 2007-02-22

8902803031
Page 1 of 10



Labelling systems



Cable entry and cable holding systems



Cable drag chains and wiring systems



Cable protection conduit and screw fitting systems

Cable drag chain, type MP 3000

Properties and application areas

- Compact dimensions with opening cover in inside bend
- Quiet operation
- High stability
- Flexible internal separation
- Self-supporting arrangement
- Gliding arrangement
- Rotated 90°, self-supporting
- Chain bracket with integrated strain relief
- Chain bracket with extrusion-coated insert panels

Application areas include handling and loading automation

Ideal operating conditions

- Fast acceleration and speeds
- High additional loads
- Long travel distances
- Great self-supporting lengths

Application parameters

- | | |
|--|------------------------------|
| • Travel distance, gliding: | max. 60 m |
| • Travel distance, vertical, hanging: | max. 40 m |
| • Travel distance, vertical, upright: | max. 3 m |
| • Travel distance, rotated 90°, self-supporting: | max. 0.7 m |
| • Travel distance, self-supporting: | See "Self-supporting length" |

Pitch/links

- Pitch: 45 mm
- 22 links = 990 mm



Labelling systems



Cable entry and cable holding systems



Cable drag chains and wiring systems



Cable protection conduit and screw fitting systems

Cable drag chain, type MP 3000

Inside and outside widths

Type	Inside width	Outside width
MP 3001	26 mm	44 mm
MP 3002	37 mm	55 mm
MP 3002.5	56 mm	74 mm
MP 3003	62 mm	80 mm
MP 3003.5	76 mm	94 mm
MP 3004	87 mm	105 mm
MP 3005	101 mm	119 mm
MP 3006	125 mm	143 mm

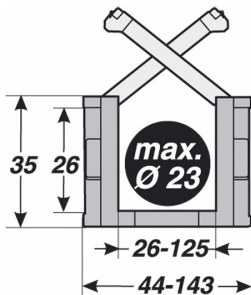
Radii

- Radii with or without bias: RV/RK 50, RV/RK 70, RV/RK 95, RV/RK 120, RV/RK 150, RV/RK 200, RV/RK 300

Versions

- Full-ridged (standard)

Internal chain compartment



Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
 Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de



Labelling systems



Cable drag chains and wiring systems



Cable entry and cable holding systems

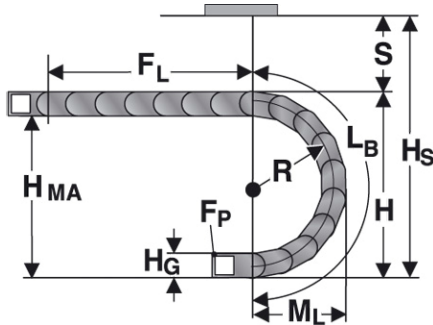


Cable protection conduit and screw fitting systems



Cable drag chain, type MP 3000

Installation dimensions



Radius	50	70	95	120	150	200	300
Height of chain link (H_G)	35,0	35,0	35,0	35,0	35,0	35,0	35,0
Height of bend (H)	135,0	175,0	225,0	275,0	335,0	435,0	635,0
Height of moving end connection (H_{MA})	100,0	140,0	190,0	240,0	300,0	400,0	600,0
Safety margin with bias (S_v)	45,0	45,0	45,0	45,0	45,0	45,0	45,0
Safety margin without bias (S_k)	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Installation height with bias (H_{Sv})	180,0	220,0	270,0	320,0	380,0	480,0	680,0
Installation height without bias (H_{Sk})	145,0	185,0	235,0	285,0	345,0	445,0	645,0
Arc projection (M_L)	113,0	133,0	158,0	183,0	213,0	263,0	363,0
Bend length (L_B)	257,0	320,0	398,0	477,0	571,0	728,0	1042,0

All dimensions in mm

Material properties

Service temperature:	-30 ° to +120 °C
Friction factor:	0.30 (gliding friction), 0.45 (static friction)
Max. speed, gliding:	3 m/s
Max. acceleration, gliding:	10 m/s ²
Max. speed, self-supporting:	6 m/s
Max. acceleration, self-supporting:	15 m/s ²
Fire classification:	Based on UL 94 HB

Material

- Link UT 3000: Fibre glass-reinforced PA, black
- Cover DE 3000: Fibre glass-reinforced PA, black
- Separator TR 3000/3001: Fibre glass-reinforced PA, black
- Shelf support carrier RBT: Fibre glass-reinforced PA, black
- H-shaped shelf unit: Fibre glass-reinforced PA, black
- Chain bracket KA/Z 3000: Fibre glass-reinforced PA, black

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de



Labelling systems



Cable drag chains and wiring systems



Cable entry and cable holding systems



Cable protection conduit and screw fitting systems



Cable drag chain, type MP 3000

- Chain bracket KA 3008: Chain bracket with angle made of sheet steel
- Chain bracket KA 3009: Chain bracket with angle made of stainless steel (1.4301)

Self-supporting length

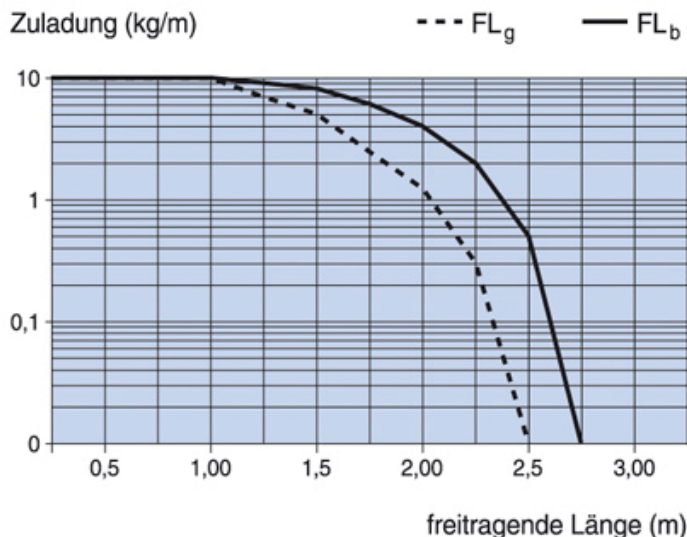
The MP 3000 is predestined for dynamic applications with very high speeds and acceleration due to its relatively low weight and extreme rigidity. A "self-supporting" chain arrangement - the most common of all setups - is used for high speeds because no additional friction is caused. Here, a distinction is made between the following installation situations which are relevant to the service life.

FL_g: This range is optimal in terms of service life and unrolling.

FL_b: This application presents no problems in the majority of situations.

Only with very great accelerations and high travel frequency can problems arise.

If the sag is greater than FL_b, the arrangement is critical and should be avoided. The flow of forces in the side links is not optimal and failure cannot be ruled out. Should a chain exceed the maximum permitted sag after a very long period of use, replacement is strongly advised.





Labelling systems



Cable entry and cable holding systems



Cable drag chains and wiring systems



Cable protection conduit and screw fitting systems

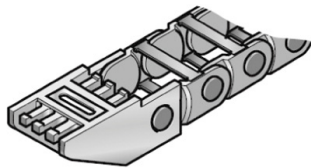
Cable drag chain, type MP 3000

Technical data: chain link

Type	Article number	Internal width mm	Outside width mm	Radius mm
MP 3001	0300026 xxx	26,0	44,0	*
MP 3002	0300037 xxx	37,0	55,0	*
MP 3002.5	0300056 xxx	56,0	74,0	*
MP 3003	0300062 xxx	62,0	80,0	*
MP 3003.5	0300076 xxx	76,0	94,0	*
MP 3004	0300087 xxx	87,0	105,0	*
MP 3005	0300101 xxx	101,0	119,0	*
MP 3006	0300125 xxx	125,0	143,0	*

* for radii RV/RK 50, RV/RK 70, RV/RK 95, RV/RK 120, RV/RK 150, RV/RK 200, RV/RK 300

Chain bracket U-part



Type	Order number		Pack
KA/Z 3001 female end	030000008000	for inside width 26 mm	1
KA/Z 3001 male end	030000008100	for inside width 26 mm	1
KA/Z 3002 female end	030000008200	for inside width 37 mm	1
KA/Z 3002 male end	030000008300	for inside width 37 mm	1
KA/Z 3002.5 female end	030000007600	for inside width 56 mm	1
KA/Z 3002.5 male end	030000007700	for inside width 56 mm	1
KA/Z 3003 female end	030000008400	for inside width 62 mm	1
KA/Z 3003 male end	030000008500	for inside width 62 mm	1
KA/Z 3003.5 female end	030000007800	for inside width 76 mm	1
KA/Z 3003.5 male end	030000007900	for inside width 76 mm	1
KA/Z 3004 female end	030000008600	for inside width 87 mm	1
KA/Z 3004 male end	030000008700	for inside width 87 mm	1
KA/Z 3005 female end	030000008800	for inside width 101 mm	1
KA/Z 3005 male end	030000008900	for inside width 101 mm	1
KA/Z 3006 female end	030000009300	for inside width 125 mm	1
KA/Z 3006 male end	030000009400	for inside width 125 mm	1

- The chain bracket, type KA/Z 3001-3006, is an all-plastic part with extrusion-coated metal insert
- The brackets are to be fastened with M6 screws
- Integrated strain reliefs at the chain bracket allow lines and conduits to be fastened with cable ties

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de



Labelling systems



Cable entry and cable holding systems



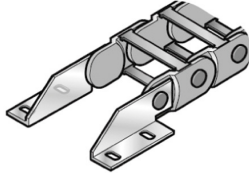
Cable drag chains and wiring systems



Cable protection conduit and screw fitting systems

Cable drag chain, type MP 3000

Chain bracket angle

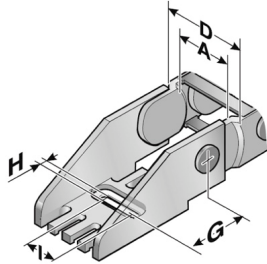


Type	Order number	Material	Pack
KA/Z 3008 female end	0300000052	Sheet steel	1
KA/Z 3008 male end	0300000053	Sheet steel	1
KA/Z 3009 female end	0300000054	Stainless steel 1.4301	1
KA/Z 3009 male end	0300000055	Stainless steel 1.4301	1

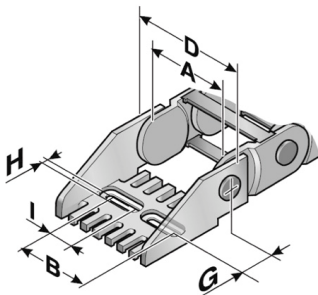
Please order one male and one female end bracket for each chain.

Chain bracket U-part

Dimensions in mm



Type	A	D	G	H Ø	I
KA/Z 3001	26,00	44,00	31,50	6,50	18,50



Type	A	B	D	G	H Ø	I
KA/Z 3002	37,00	30,00	55,00	31,50	6,50	7,50
KA/Z 3002.5	56,00	48,00	74,00	31,50	6,50	7,50
KA/Z 3003	62,00	55,00	80,00	31,50	6,50	18,50
KA/Z 3003.5	76,00	68,00	94,00	31,50	6,50	18,50
KA/Z 3004	87,00	80,00	105,00	31,50	6,50	18,50
KA/Z 3005	101,00	94,00	119,00	31,50	6,50	18,50
KA/Z 3006	125,00	118,00	143,00	31,50	6,50	18,50

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de

Responsible: PM-EFK
- Subject to alterations -

As at: 2007-02-22

8902803031
Page 7 of 10



Labelling systems



Cable drag chains and wiring systems



Cable entry and cable holding systems



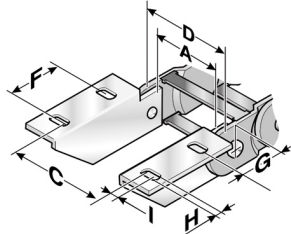
Cable protection conduit and screw fitting systems



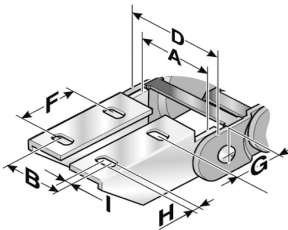
Cable drag chain, type MP 3000

Chain bracket angle

Dimensions in mm



Type	A	C	D	F	G	H Ø	I
KA 3008 female end	26,00	48,50	44,00	31,50	6,50	7,50	4,50
KA 3008 male end	26,00	57,00	44,00	31,50	6,50	7,50	4,50
KA 3008 female end	37,00	59,50	55,00	31,50	6,50	18,50	4,50
KA 3008 male end	37,00	68,00	55,00	31,50	6,50	18,50	4,50
KA 3008 female end	56,00	78,50	74,00	31,50	6,50	18,50	4,50
KA 3008 male end	56,00	87,00	74,00	31,50	6,50	18,50	4,50
KA 3008 female end	62,00	84,50	80,00	31,50	6,50	18,50	4,50
KA 3008 male end	62,00	93,00	80,00	31,50	6,50	18,50	4,50
KA 3008 female end	76,00	98,50	94,00	31,50	6,50	18,50	4,50
KA 3008 male end	76,00	107,00	94,00	31,50	6,50	18,50	4,50
KA 3008 female end	87,00	109,50	105,00	31,50	6,50	18,50	4,50
KA 3008 male end	87,00	118,00	105,00	31,50	6,50	18,50	4,50
KA 3008 female end	101,00	123,50	119,00	31,50	6,50	18,50	4,50
KA 3008 male end	101,00	132,00	119,00	31,50	6,50	18,50	4,50
KA 3008 female end	125,00	147,50	143,00	31,50	6,50	18,50	4,50
KA 3008 male end	125,00	156,00	143,00	31,50	6,50	18,50	4,50



Type	A	B	D	F	G	H Ø	I
KA 3008 female end	37,00	28,50	44,00	31,50	6,50	7,50	4,50
KA 3008 male end	37,00	33,50	44,00	31,50	6,50	7,50	4,50
KA 3008 female end	56,00	47,50	55,00	31,50	6,50	18,50	4,50
KA 3008 male end	56,00	52,50	55,00	31,50	6,50	18,50	4,50
KA 3008 female end	62,00	53,50	74,00	31,50	6,50	18,50	4,50
KA 3008 male end	62,00	58,50	74,00	31,50	6,50	18,50	4,50
KA 3008 female end	76,00	67,50	80,00	31,50	6,50	18,50	4,50
KA 3008 male end	76,00	72,50	80,00	31,50	6,50	18,50	4,50
KA 3008 female end	87,00	78,50	94,00	31,50	6,50	18,50	4,50
KA 3008 male end	87,00	83,00	94,00	31,50	6,50	18,50	4,50
KA 3008 female end	101,00	92,50	105,00	31,50	6,50	18,50	4,50
KA 3008 male end	101,00	97,50	105,00	31,50	6,50	18,50	4,50

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de

Responsible: PM-EFK
- Subject to alterations -

As at: 2007-02-22

8902803031
Page 8 of 10



Labelling systems

Cable drag chains and wiring systems



Cable entry and cable holding systems

Cable protection conduit and screw fitting systems



Cable drag chain, type MP 3000

Separator

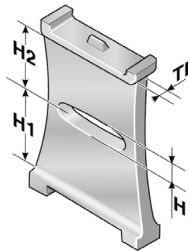
Dimensions in mm



Type	Order number	Designation	Pack
TR 3000	030000009000	Movable separator	1
TR 3001	030000009200	Lockable separator	1

Lock grid spacing 3.00 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	H	TI	H1	H2
TR 3000	2,50	1,50	12,90	12,90
TR 3001	2,50	1,50	12,90	12,90

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de

Responsible: PM-EFK
- Subject to alterations -

As at: 2007-02-22

8902803031
Page 9 of 10



Labelling systems



Cable entry and cable holding systems



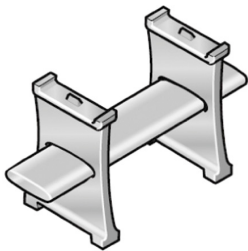
Cable drag chains and wiring systems



Cable protection conduit and screw fitting systems

Cable drag chain, type MP 3000

Shelving system



Type	Order number	Designation	Width in mm	Pack
RBT 037	100000003700	RBT 037 shelf	37	1
RBT 062	100000006200	RBT 062 shelf	62	1
RBT 086	100000008600	RBT 086 shelf	86	1
RBT 101	100000010100	RBT 101 shelf	101	1
Lock grid spacing 3.00 mm				

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

Special versions (note additional charges and delivery times!)

- Plastic chain components in custom colour
- Special material for ESD/EX applications with ATEX approval **CE EX II 2 GD**
- Special material for special fire classifications V1, V2, V0

Murrplastik Systemtechnik GmbH - Fabrikstraße 10 - 71570 Oppenweiler - Germany -
Tel.: +49-7191-482-0 - www.murrplastik.de - info@murrplastik.de

Responsible: PM-EFK
- Subject to alterations -

As at: 2007-02-22

8902803031
Page 10 of 10