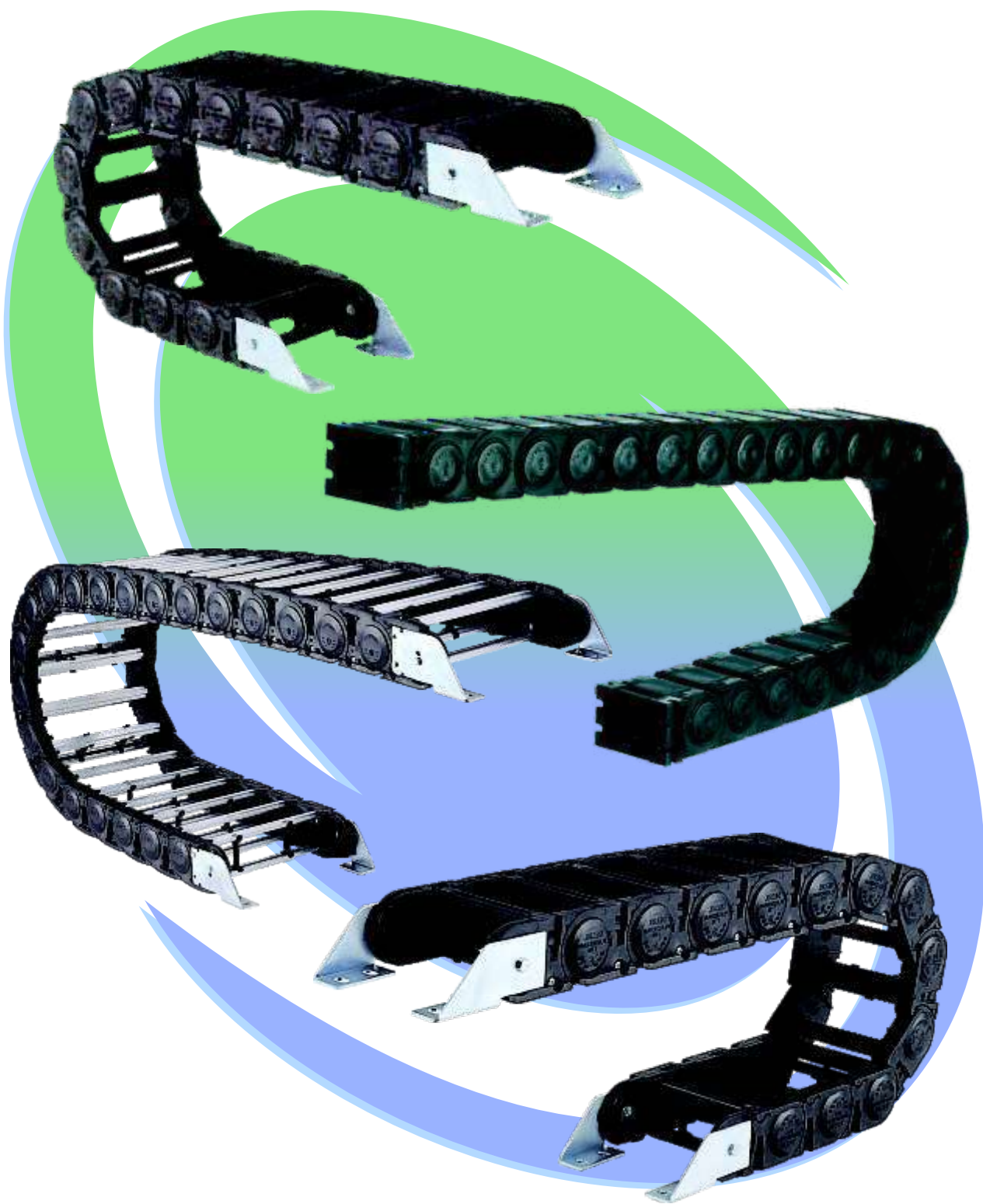


# TEKNIC

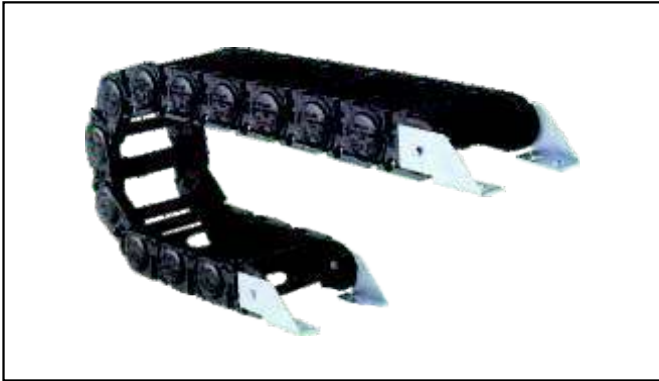
Cable Carriers - Plastic / Metal



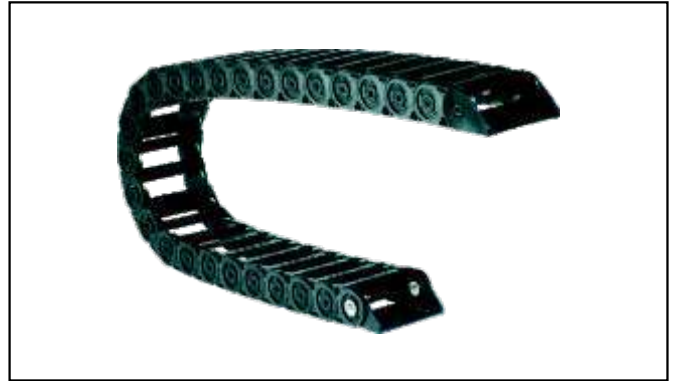
# Cable Carriers

plastic and metal-plastic  
open type & closed type

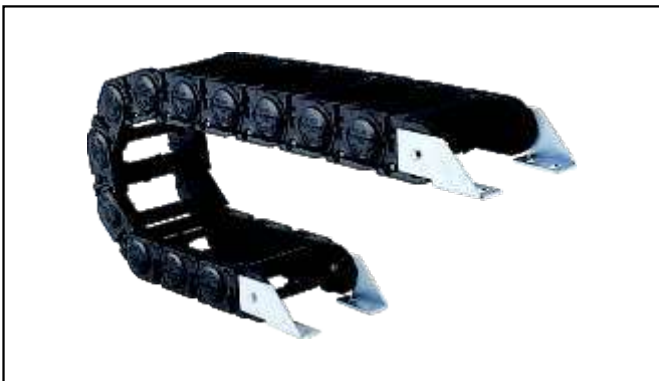
**Heavy Series Model 4710**



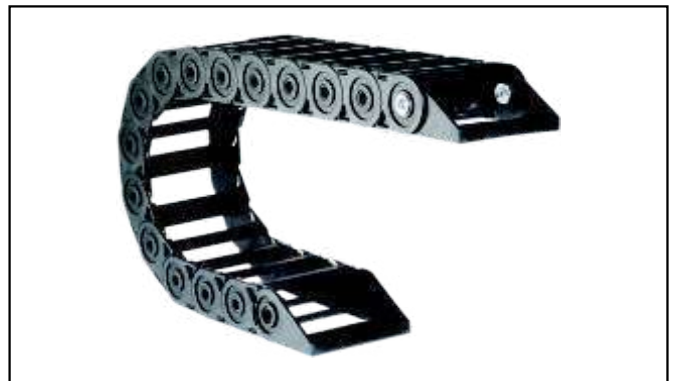
**Light Series Model 4230**



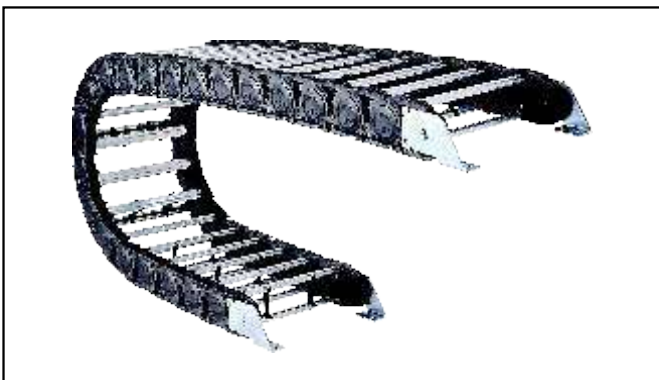
**Heavy Series Model 7710**



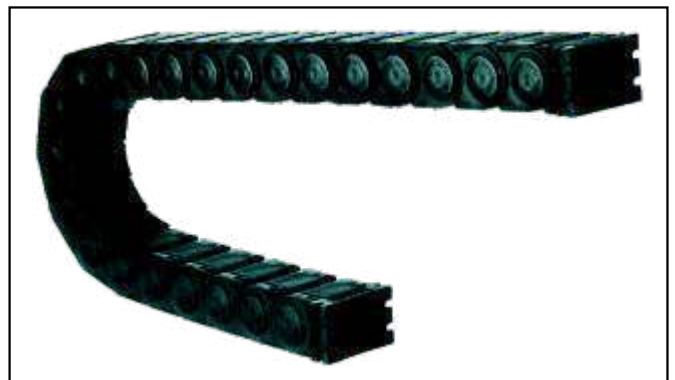
**Medium Series Model 6830**



**Heavy Series Model 9210**



**Closed Series Model 4760**



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## PLASTICHAIN - INTRODUCTION

TEKNIC India, known for their controlgear and industrial electronic products, used in CNC machine tool industry, and DECRIL France, known manufacturers of Drag Chains in France, have agreed to cooperate with each other for development of open and closed type of plastic and metal drag chains in India for the Indian and overseas market.

Plastichains provide a suitable protection to the various power lines of machinery in motion.

Protection is provided against cuts, tensions and distortions as well as any kinds of stresses that may be generated during the reciprocating movement.

Plastichain carriers differ from existing products by a unique system including a removable stop that enables the designer to determine a selected radius of curvature. With a chain link of a given size, several radii of curvature can be obtained according to the type of stop selected. They are available as closed or open versions.

Due to their design features, the plastic chain carriers withstand high travel speeds and allow high acceleration and deceleration.

Our cable carriers made of composite plastic material are designed to run either on plane surfaces of the machine frame or in suitable guide channels. Guide channels are a must for all lengths over the maximum allowed value. The guide channels also provide a lateral guiding with a limited amount of clearance, as absolutely necessary for the satisfactory behaviour of the carrier. Upstream of a fixed point, said channels must be complemented with either an inclined plane or a roller so that the chain can ascend naturally upon itself without touching the fixed end pieces in the reciprocating movement. Our polyamide plastic material is formulated with a patented composition suitable for working under adverse weather conditions in monsoons, under water or summer. The material does not get softened and maintains its strength.









When designing the carrier size best suited for your application, a 10% clearance is to be taken in excess to cable diameter (the dividing walls must be considered too in the calculation of the overall width).

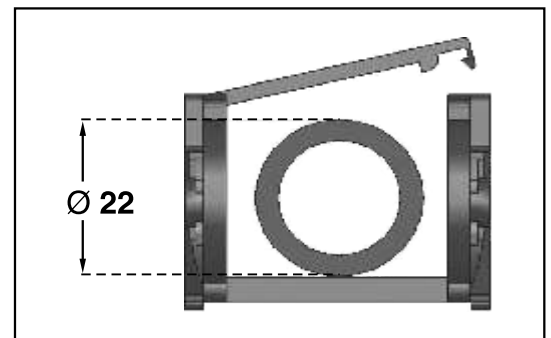
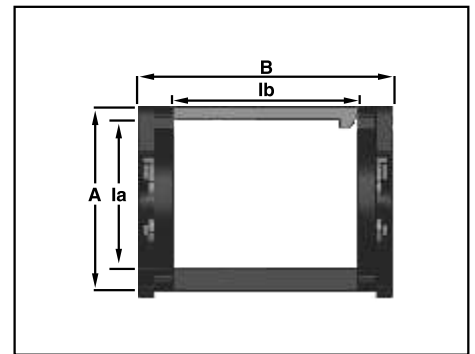
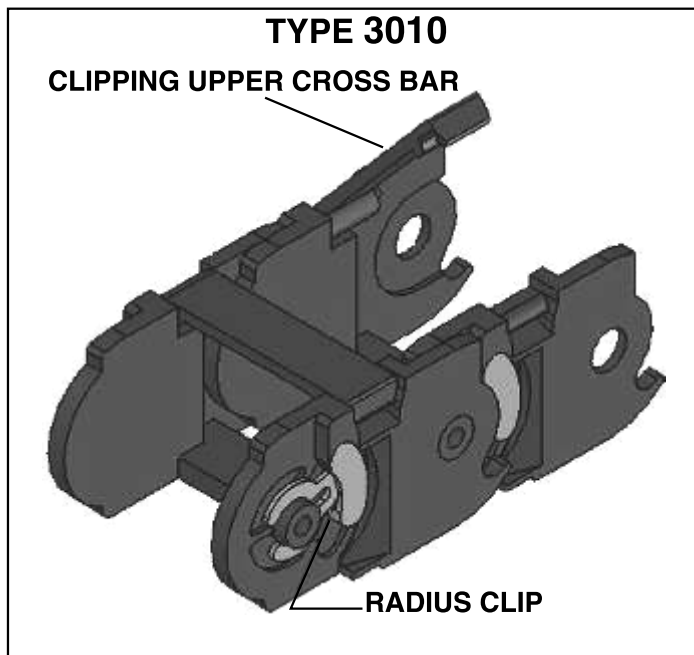
To ensure a satisfactory operation, be careful to lay the biggest cables and / or tubings close to the external side of the carrier. Please do not lay cables of much dissimilar diameters side by side in order to avoid overlapping risks.

### PROPERTIES OF COMPOSITE PLASTIC MATERIAL

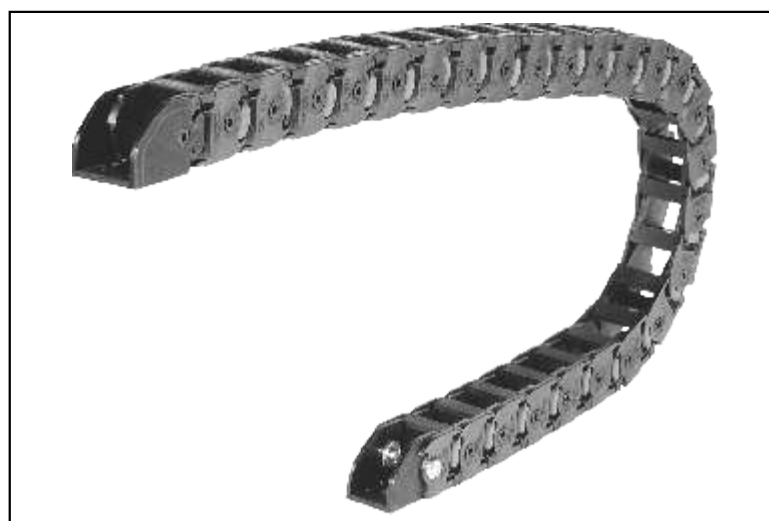
	UNIT	PA 66 FV 20
<b>PHYSICAL / THERMAL PROPERTIES</b>		
• BULK DENSITY	Kg/m <sup>3</sup>	1300
• HUMIDITY ABSORPTION	%	± 2
• LIMIT OXYGEN INDEX		23
• FLAMMABILITY UNDER UL 94		HB
• MELTING POINT	°C	280
• HEAT DISTORTION TEMPERATURE UNDER LOAD 0.46 Mpa	°C	255
<b>MECHANICAL PROPERTIES</b>		
• TENSILE MODULUS	MPa	5500
• STRESS AT BREAK	MPa	105
• BREAKING STRESS (FLEXURAL)	MPa	105
• FRICTION RATE		0.4
<b>ELECTRICAL PROPERTIES</b>		
• VOLUME RESISTIVITY	ohm m	1E11
• ELECTRICAL STRENGTH	Kv/mm	38
• LEAK CURRENT RESISTANCE	V	>600

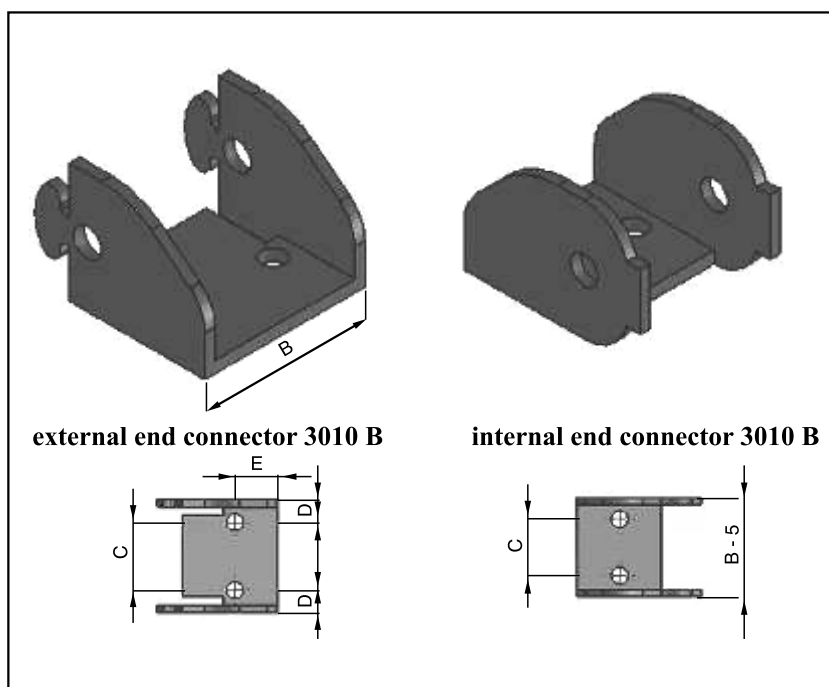
**SPECIFICATION OF TEKNIC DECRIL MODELS**

Cable Carrier Chains Specification	MODELS	Outside Width	Outside Height	Inside Width	Inside Height	Pitch	Bending Radius (BR)			Average Self- Supporting Length	Reverse BR	Snap-On Cross Bars	Closed Chains		Dividers		
							35	55	75				95	Vertical	Horizontal		
	3010/A	30	30	20	24	30	35	55	75	95	-	no	yes	yes	-	-	
	3010/B	40	30	30	24	30	35	55	75	95	-	no	yes	yes	-	-	
	3010/D	60	30	50	24	30	35	55	75	95	-	no	yes	yes	-	-	
	4230/A	54	40	40	34	42	55	105	155	-	-	no	yes	yes	yes	yes	
	4230/B	74	40	60	34	42	55	105	155	-	-	no	yes	yes	yes	yes	
	4230/C	94	40	80	34	42	55	105	155	-	-	no	yes	yes	yes	yes	
	4230/D	114	40	100	34	42	55	105	155	-	-	no	yes	yes	yes	yes	
	4710/A	56	40	32	31	47	55	75	95	125	145	190	yes	yes	yes	-	-
	4710/B	75	40	51	31	47	55	75	95	125	145	190	yes	yes	yes	-	-
	4710/C	95	40	71	31	47	55	75	95	125	145	190	yes	yes	yes	-	-
	4710/D	119	40	95	31	47	55	75	95	125	145	190	yes	yes	yes	-	-
	4760/A	70	50	48	39	47	95	125	145	190	-	-	no	yes	yes	-	-
	4760/B	120	50	98	39	47	95	125	145	190	-	-	no	yes	yes	-	-
	4760/C	170	50	148	39	47	95	125	145	190	-	-	no	yes	yes	-	-
	7710/A	95	60	53	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/B	126	60	84	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/C	150	60	108	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/D	174	60	132	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/E	192	60	150	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/F	224	60	182	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/G	274	60	232	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/H	324	60	282	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	7710/MIP	80~600	60	38~558	37	77	90	110	145	170	215	295	yes	yes	yes	-	-
	6830/A	100	64	75	45	68	85	105	125	155	205	-	no	yes	yes	yes	yes
	6830/B	150	64	125	45	68	85	105	125	155	205	-	no	yes	yes	yes	yes
	6830/C	200	64	175	45	68	85	105	125	155	205	-	no	yes	yes	yes	yes
	9210/A	150	85	100	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
	9210/B	200	85	150	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
	9210/C	250	85	200	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
	9210/D	300	85	250	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
	9210/E	350	85	300	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
	9210/F	435	85	385	60	91	155	205	255	305	355	405	yes	yes	yes	yes	yes
9210/MIP	100~1000	85	50~950	50	91	155	205	255	305	355	405	yes	yes	yes	yes	yes	yes



Type	A	B	Ia	Ib	References				Kg/m
3010/A	30	30	24	20	D 691301	D 691302	D 691303	D 691304	0.31
3010/B	30	40	24	30	D 691351	D 691352	D 691353	D 691354	0.33
3010/D	30	60	24	50	D 691381	D 691382	D 691383	D 691384	0.37
Rd in mm	Pitch = 30 mm				35	55	75	95	
Ht in mm	+ or - 10%				103	147	191	235	
	radius clips				None	Blue	Green		



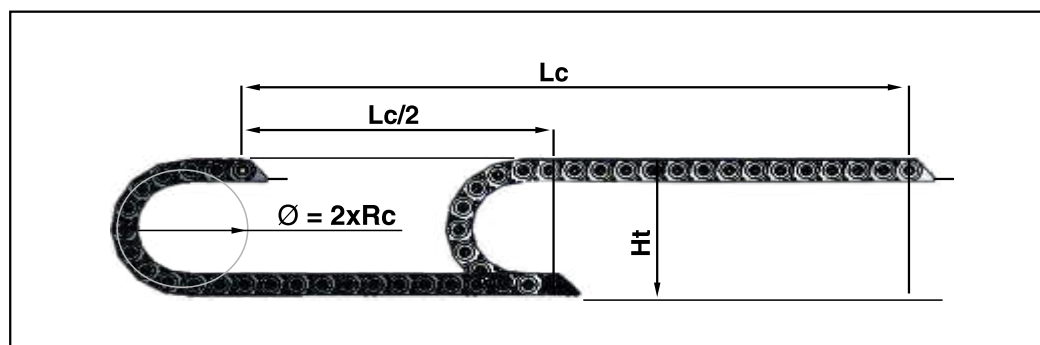


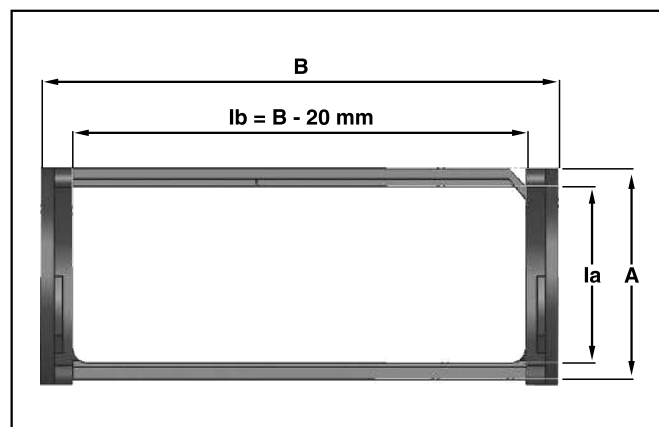
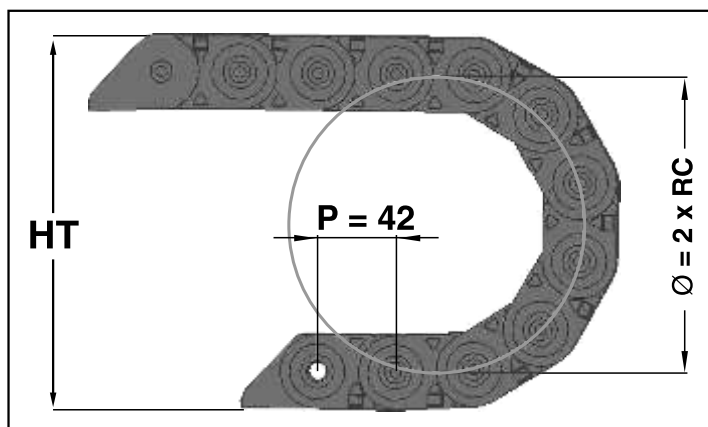
Type	End connector (kit) References	E In mm	C In mm	D In mm	Screw	Thickness	Material
3010/A	E 3010/A PL	15	0	Center	M5	3	PA6 15 FV
3010/B	E 3010/B PL	15	24	8	M5	3	PA6 15 FV
3010/D	E 3010/D PL	15	44	8	M5	3	PA6 15 FV

**Chain length calculation** from the stroke Lc (in mm) :

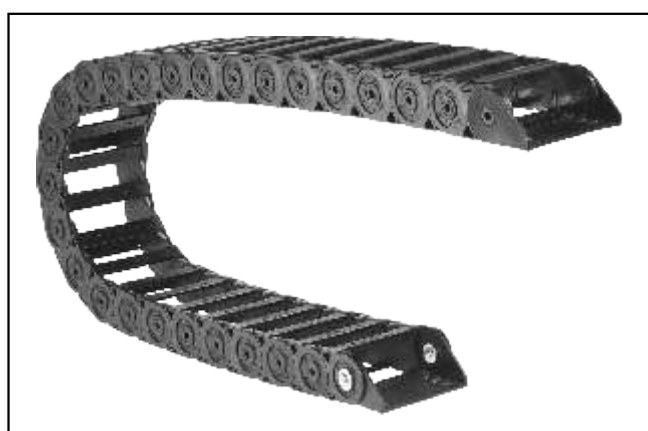
*please note that to calculate the length, the fixed point has to be in the middle of the stroke*

Rc (Chain radius)	35	55	75	95
Ht (Height of the mobile point)	103	147	191	235
Chain length	$Lc/2 + 200$	$Lc/2 + 263$	$Lc/2 + 326$	$Lc/2 + 388$





Type	A	B	Ia	Ib	References			Kg/m
4230/A	40	54	34	40	D 011401	D 011402	D 011403	0.31
4230/B	40	74	34	60	D 011451	D 011452	D 011453	0.33
4230/C	40	94	34	80	D 011471	D 011472	D 011473	0.37
4230/D	40	114	34	100	D 011481	D 011482	D 011483	
Rd in mm	Pitch = 42 mm		55	105	155			
Ht in mm	+ or - 10%		176	276	376			
	radius clips colour		Blue	Green				

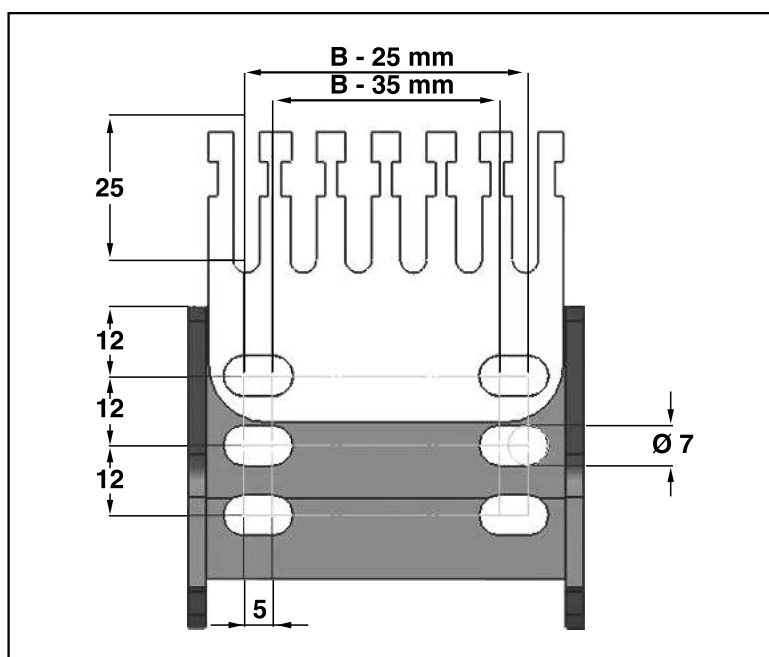


The chain 4230 is light in weight, rapid, and is suitable for all type of applications where travel lengths are up to 6 meters.

Since the inside height is 34 mm, it can accept 30mm diameter cables.

Steel tiewrap can be used to fix cables at both sides of the chain. The divider separates and guides the cables. The use of tiewrap and dividers helps to increase the life of the cables.

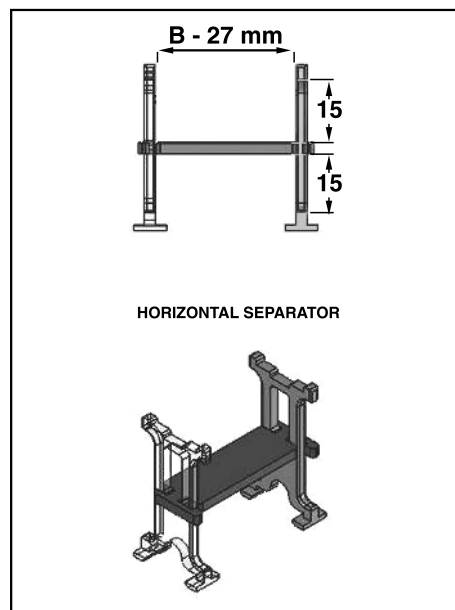
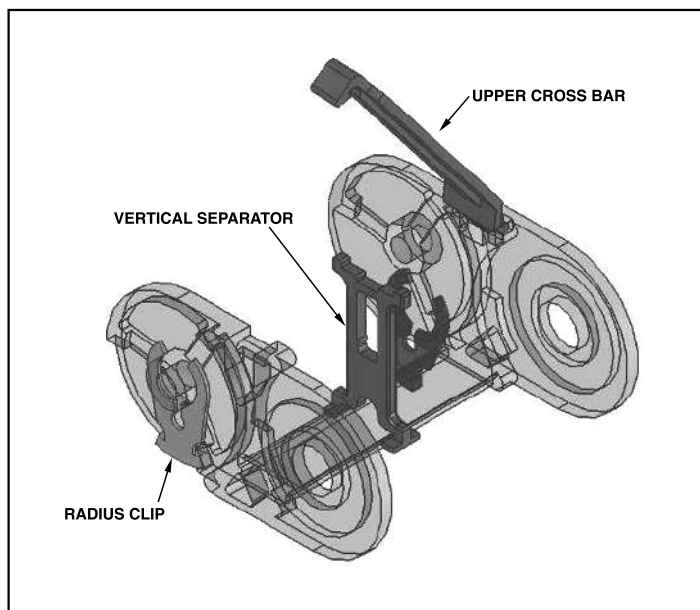




Type	End connector (kit) References	B-25 In mm	B-35 In mm	Thickness	Material
4230/A	D 010491	29	19	3	PA6 15 FV
4230/B	D 015491	49	39	3	PA6 15 FV
4230/C	D 017491	69	59	3	PA6 15 FV
4230/D	D 018491	89	79	3	PA6 15 FV

Type	End connector (kit) References	B-25 In mm	B-35 In mm	Thickness	Material
4230/A	D 010491	29	19	5	Steel
4230/B	D 015491	49	39	7	Steel
4230/C	D 017491	69	59	9	Steel
4230/D	D 018491	89	79	11	Steel

*one set of 2 tiewraps needed for one chain  
tiewraps in stainless steel can be provided on request*

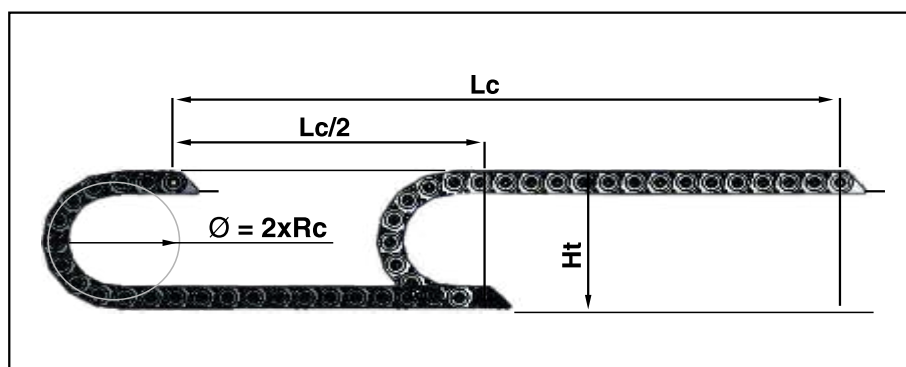


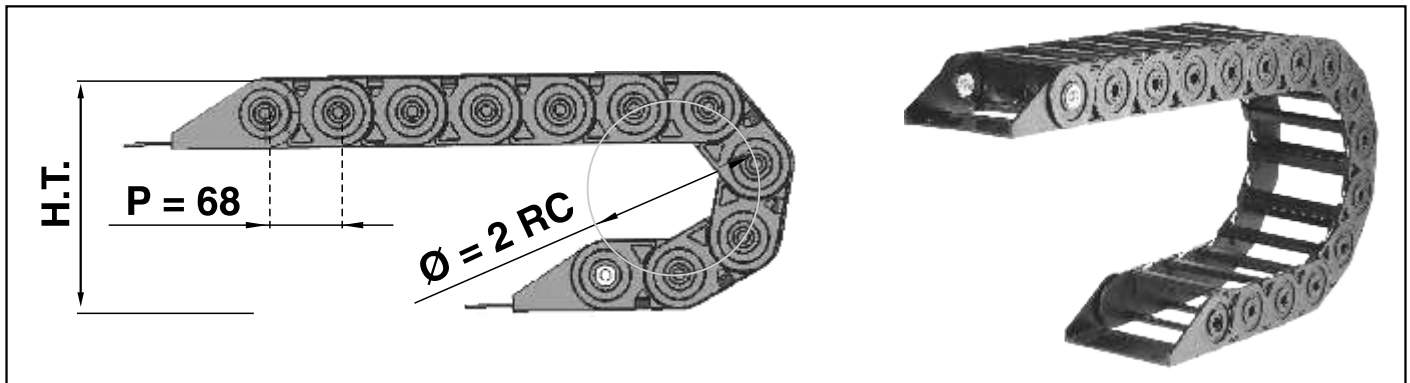
Type	Vertical Divider References	Horizontal Divider References	B-28 In mm	Thickness	Material
4230/A	D 010495	D 010495	26	2.5	PA6 15 FV
4230/B	D 010495	D 010495	46	2.5	PA6 15 FV
4230/C	D 010495	D 010495	66	2.5	PA6 15 FV
4230/D	D 010495	D 010495	86	2.5	PA6 15 FV

**Chain length calculation** from the stroke Lc (in mm) :

please note that to calculate the length, the fixed point has to be in the middle of the stroke

Rc (Chain radius)	55	105	155
Ht (Height of the mobile point)	176	276	376
Chain length	Lc/2 + 298	Lc/2 + 456	Lc/2 + 613



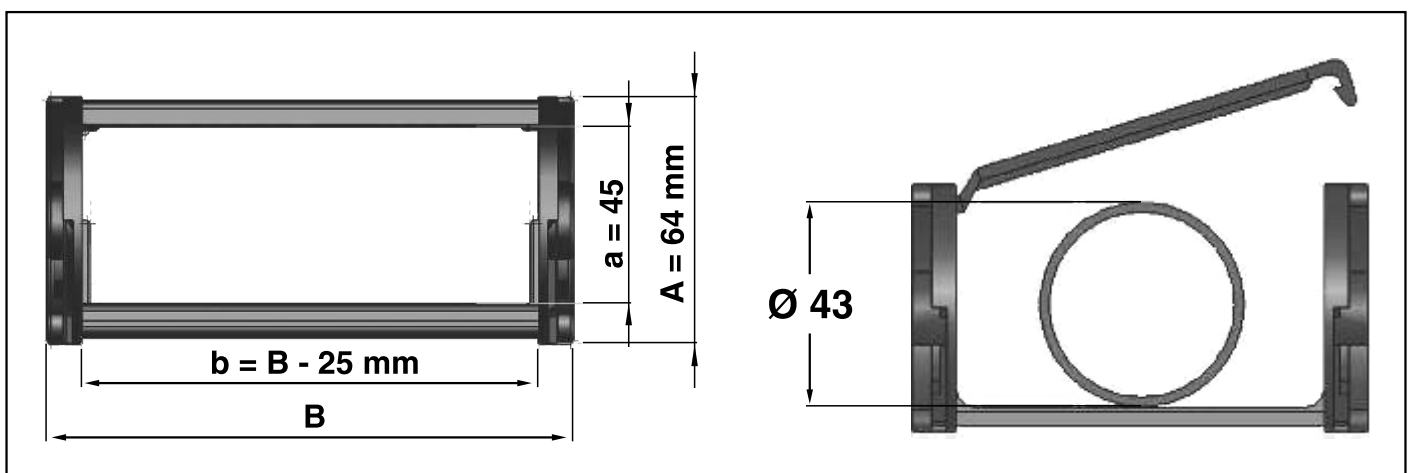


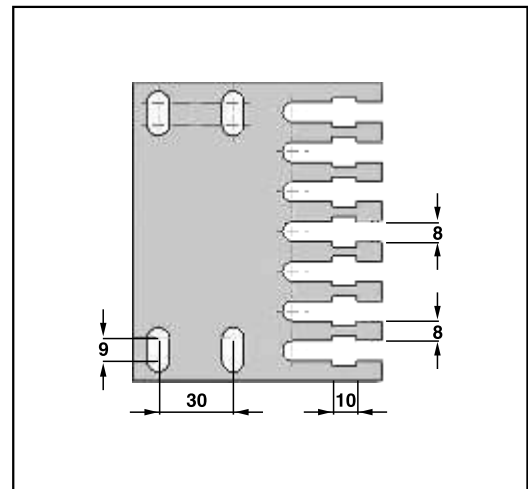
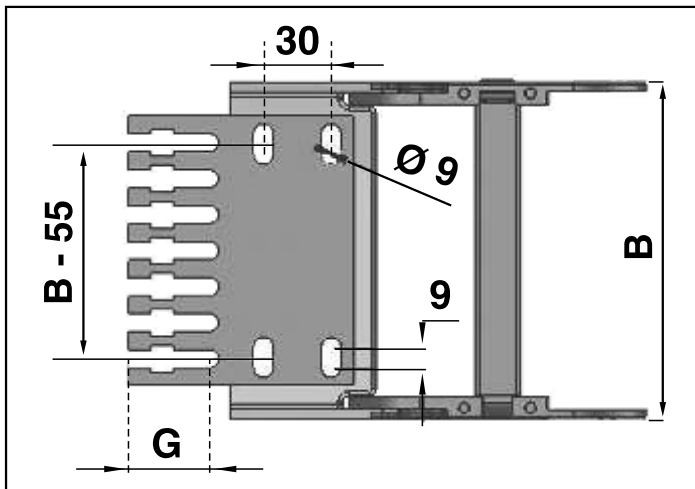
The chain 6830 is light in weight, rapid, and is suitable for all type of applications where travel lengths are up to 8 meters.

Since the inside height is 43 mm, it can accept 40 mm diameter cables .

Steel tiewrap can be used to fix cables at both sides of the chain. The divider separates and guides the cables. The use of tiewrap and dividers helps to increase the life of the cables.

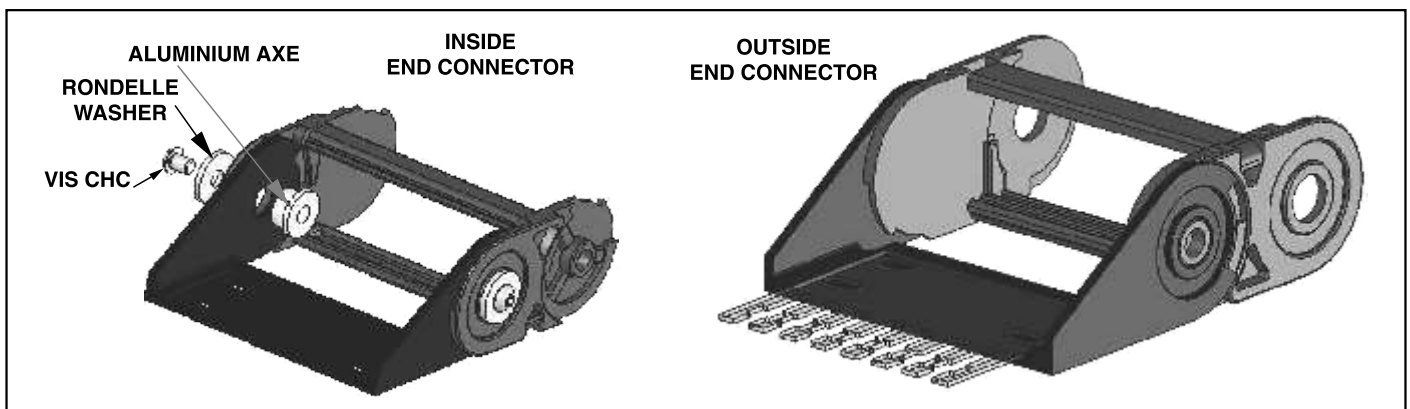
Type	A	B	Ia	Ib	References					Kg/m
6830/A	64	100	45	75	D 011601	D 011602	D 011603	D 011604	D 011605	1.4
6830/B	64	150	45	125	D 011651	D 011652	D 011653	D 011654	D 011655	1.6
6830/C	64	200	45	75	D 011671	D 011672	D 011673	D 011674	D 011675	1.8
Rd in mm	Pitch = 68 mm		85	105	125	155	205			
Ht in mm	+ or - 10%		245	285	325	385	485			
	radius clips colour		Blue	Green	White	Yellow	Red			

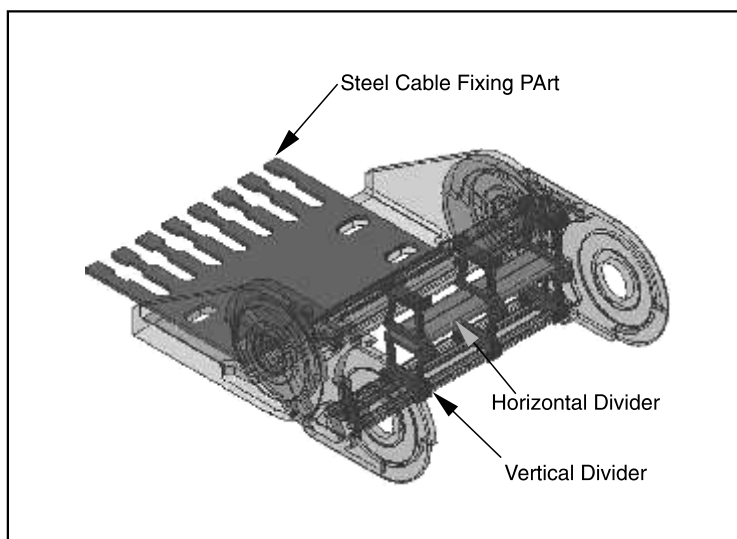




Type	End connector set References	B-55 In mm	Screw	Thickness mm	Material
6830/A	D 010690	45	4 x M8	5	PA6 15 FV
6830/B	D 015690	95	5 x M8	5	PA6 15 FV
6830/C	D 017690	145	6 x M8	5	PA6 15 FV

Type	Tiewrap References	B-55 In mm	Teeth nbre	Thickness mm	Material
6830/A	P 010691	45	5	2	Steel
6830/B	P 015691	95	8	2	Steel
6830/C	P 017691	145	11	2	Steel

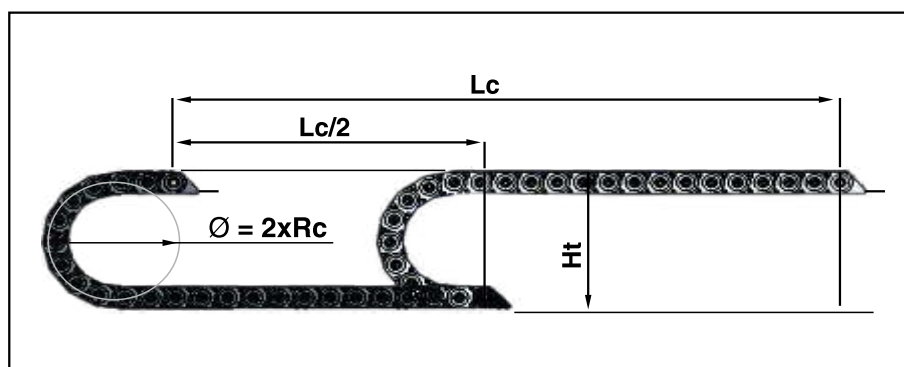


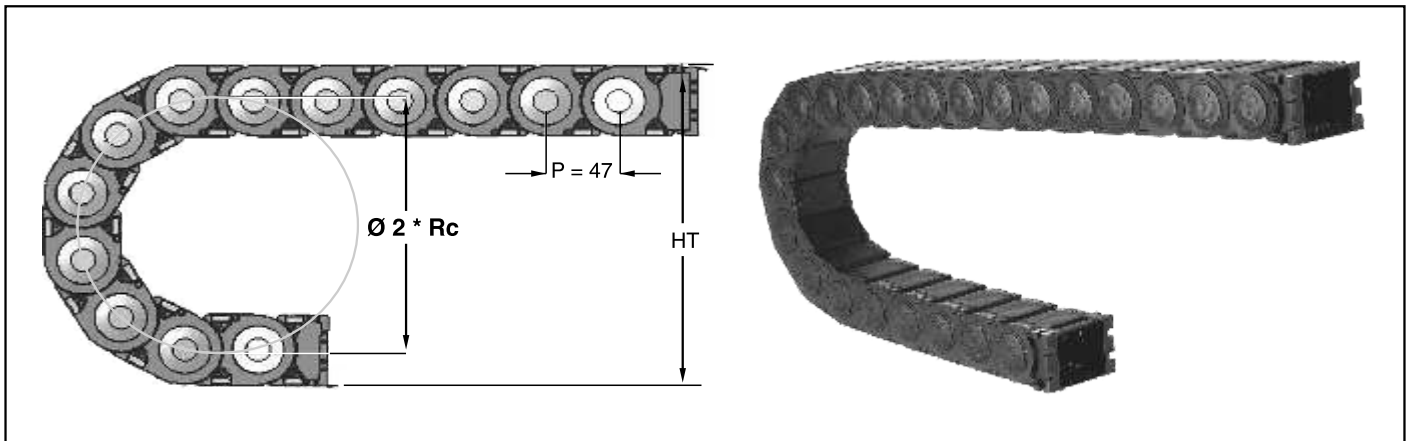


Type	Vertical Divider References	Horizontal Divider References	B-28 In mm	Thickness	Material
6830/A	D 010695	D 010605	20	3	PA6 15 FV
6830/B	D 010695	D 010655	20	3	PA6 15 FV
6830/C	D 010695	D 010675	20	3	PA6 15 FV

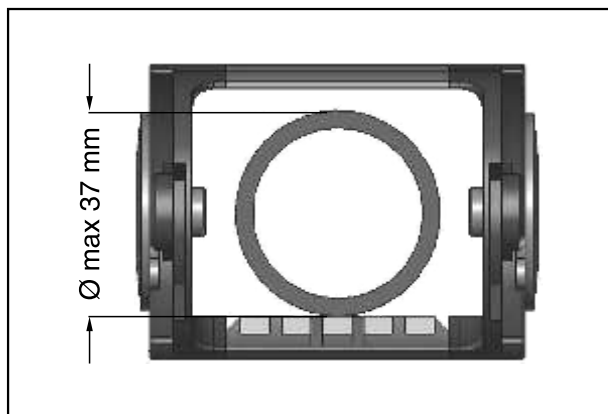
**Chain length calculation** from the stroke  $L_c$  (in mm) :  
 please note that to calculate the length, the fixed point has to be in the middle of the stroke

<b>Rc (Chain radius)</b>	85	105	155	205	4055
<b>Ht (Height of the mobile point)</b>	275	285	385	485	671
<b>Chain length</b>	$L_c/2 + 471$	$L_c/2 + 534$	$L_c/2 + 691$	$L_c/2 + 848$	$L_c/2 + 1545$



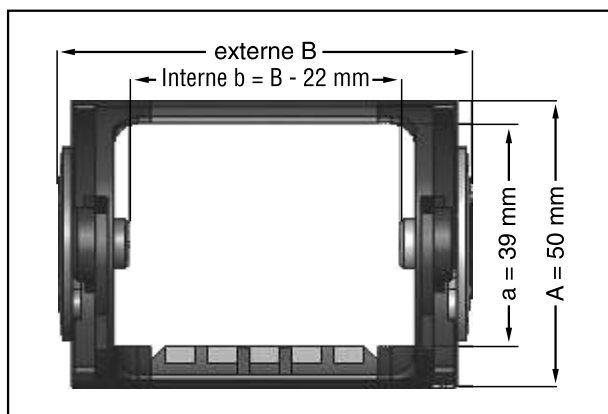


Type	A	B	Ia	Ib	References				Kg/m
4760/A	50	70	39	48	D 011701	D 011702	D 011703	D 011704	1.22
4760/B	50	120	39	98	D 011751	D 011752	D 011753	D 011754	1.63
4760/C	50	170	39	148	D 011771	D 011772	D 011773	D 011774	2
Rd in mm	Pitch = 47 mm		<b>95</b>		<b>125</b>	<b>145</b>	<b>190</b>	<b>190</b>	
Ht in mm	+ or - 10%		245		285	325	385		



The chain 4760 is a closed chain. It is suitable for all types of **applications in machine tools**. Since the chain is robust and the inside height is large, it is possible to carry a cable or a hose up to a diameter of 37 mm.

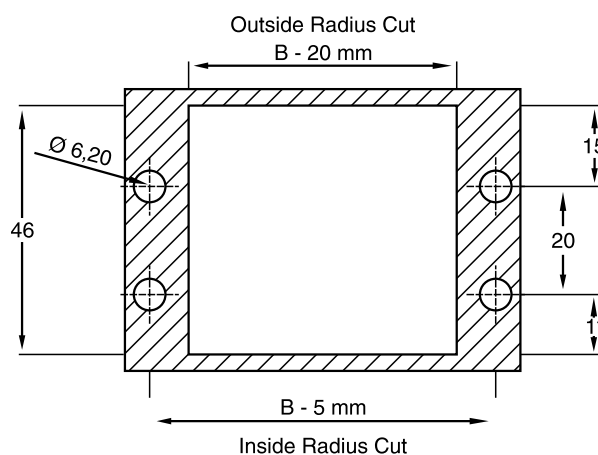
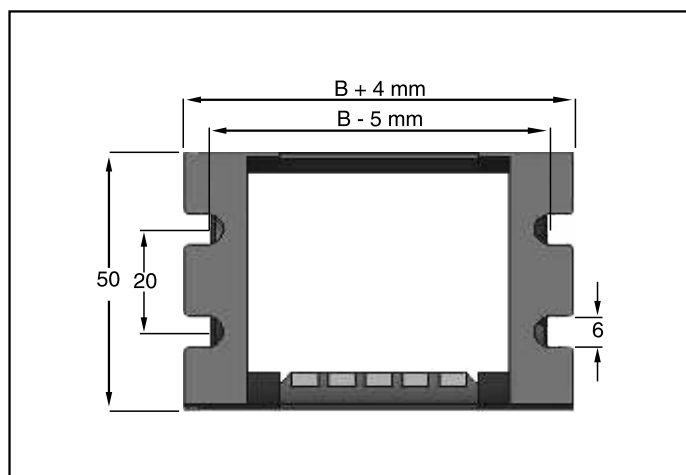
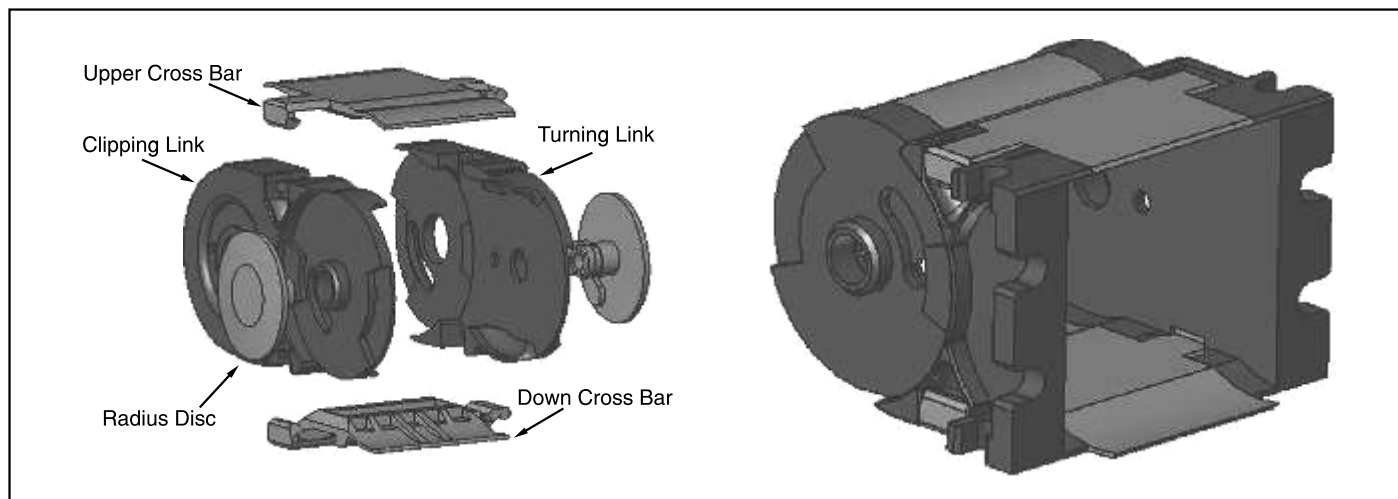
The radius discs are interchangeable and provide a long self supporting length.



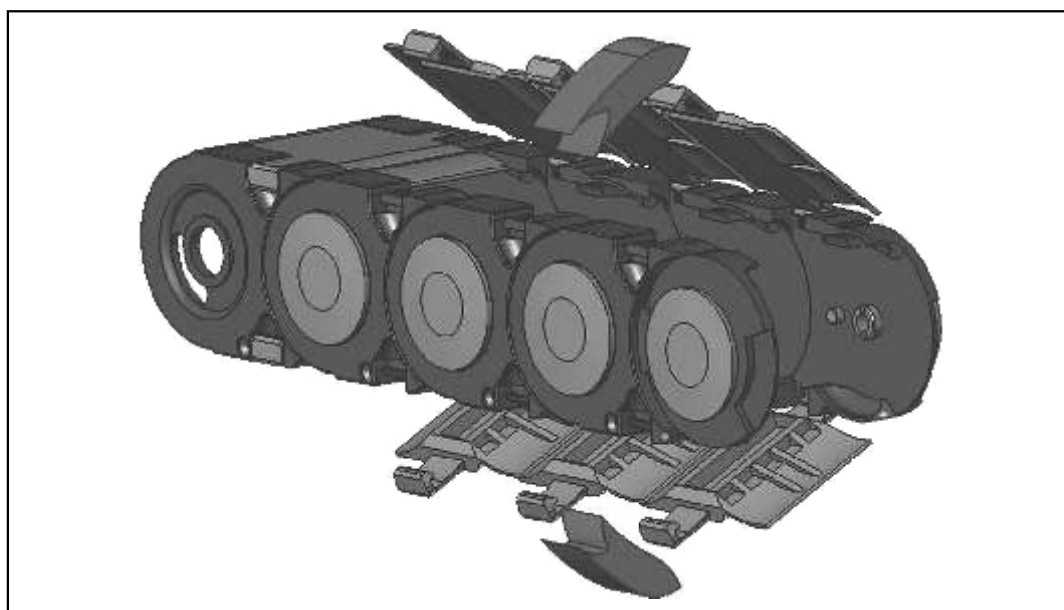
**The upper cross bars and the lower cross bars can be opened from the same side.**

Due to this feature the chain can be installed on the side of the machine also.

This feature also allows quick installation of cables / hoses.



Type	End connector set References	B-5 In mm	B + 4 In mm	Screw type	Thickness	Material
4760/A	D 010790	65	74	M6	5	PA6 30 FV
4760/B	D 015790	115	124	M6	5	PA6 30 FV
4760/C	D 017790	165	174	M6	5	PA6 30 FV

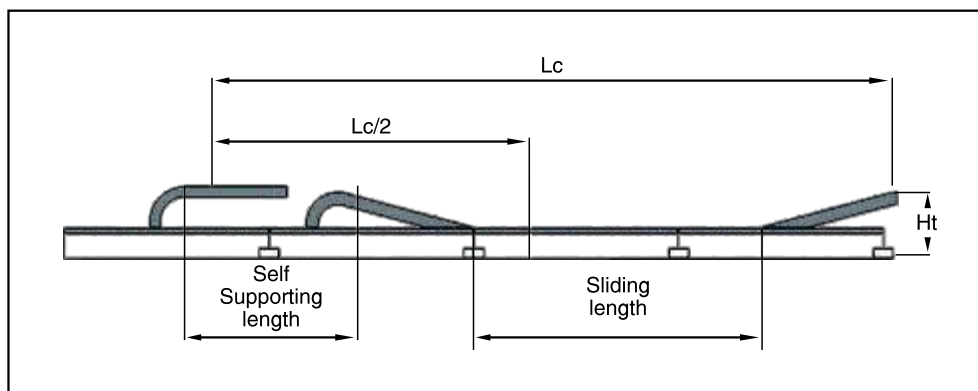


*you can open the cross bars both side of the radius*

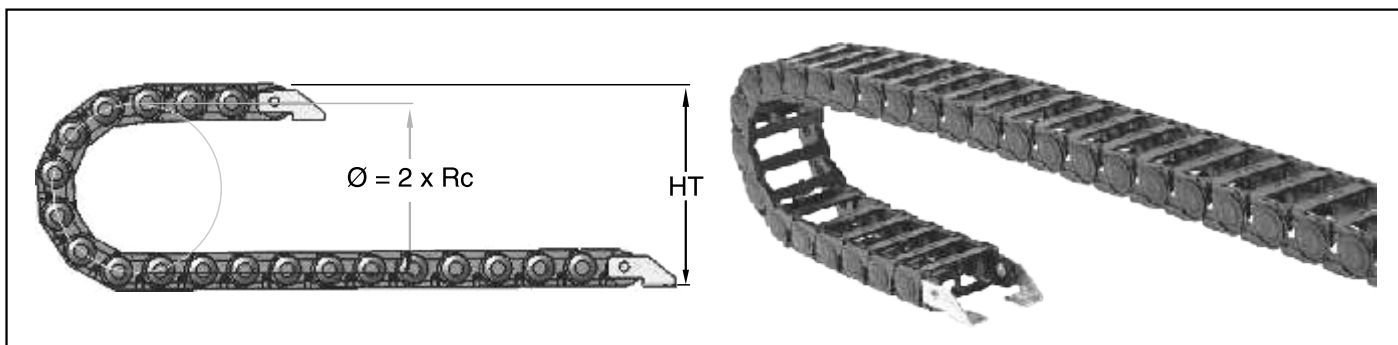
**Chain length calculation** from the stroke  $L_c$  (in mm) :

please note that to calculate the length, the fixed point has to be in the middle of the stroke

<b>Rc (Chain radius)</b>	95	125	145	190
<b>Ht (Height of the mobile point)</b>	243	273	293	338
<b>Chain length</b>	$L_c/2 + 440$	$L_c/2 + 534$	$L_c/2 + 597$	$L_c/2 + 848$





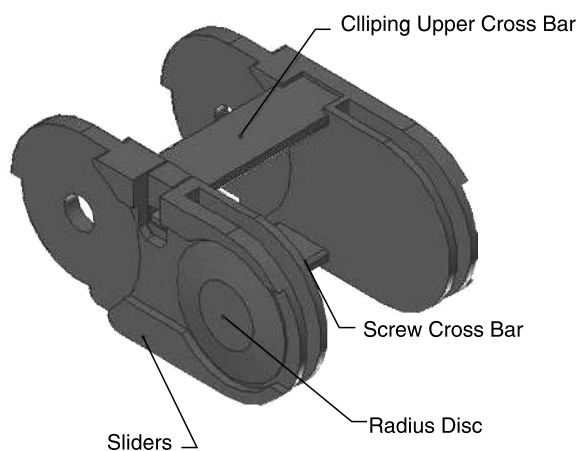
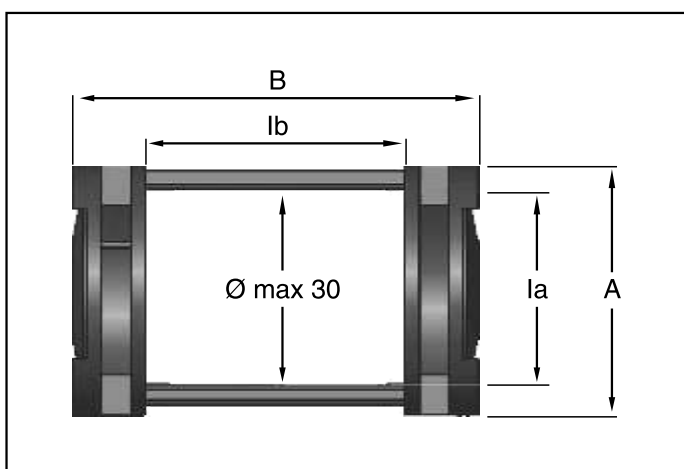


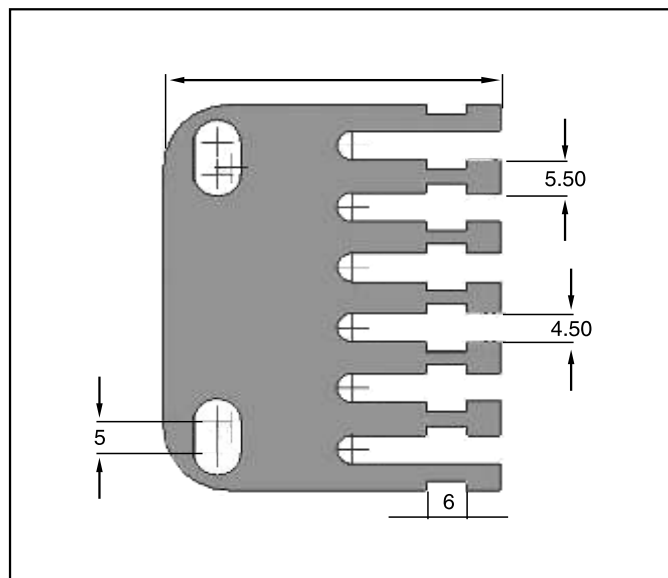
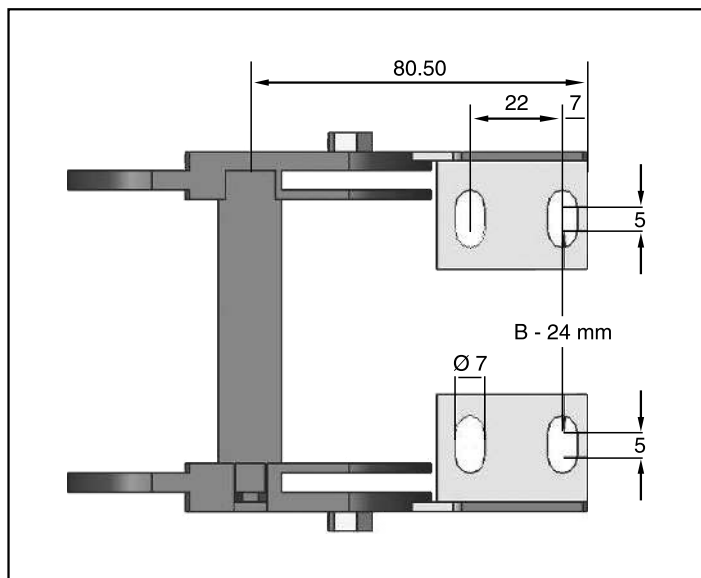
Type	A	B	Ia	Ib	References					
4710/A	40	56	31	32	D 691411	D 691412	D 691413	D 691414	D 691415	D 691416
4710/B	40	75	31	51	D 691421	D 691422	D 691423	D 691424	D 691425	D 691426
4710/C	40	95	31	71	D 691431	D 691432	D 691433	D 691434	D 691435	D 691436
4710/D	40	119	31	95	D 691441	D 691442	D 691443	D 691444	D 691445	D 691446
Rd in mm	Pitch = 47 mm		55	75	95	125	145	190		
Ht in mm	+ or - 10%		203	210	250	310	350	440		

The raw material used for the manufacture of the links « heavy series » is a **composite** plastic.

This series can be used for applications requiring **long travel length, high speed, acceleration (> 3 m/s) or heavy weights.**

These chains are used in **harsh environmental conditions** namely : refractories, saw mills, cement plants, chemical plants, extreme temperatures (-50° à 160°C), **tropical conditions**, submerged conditions, etc...





Type	End connector set References	Screw size	Thickness	Material
4710	D 691451	4*M6	3	Steel
4710	D 691452	4*M6	3	SS Steel

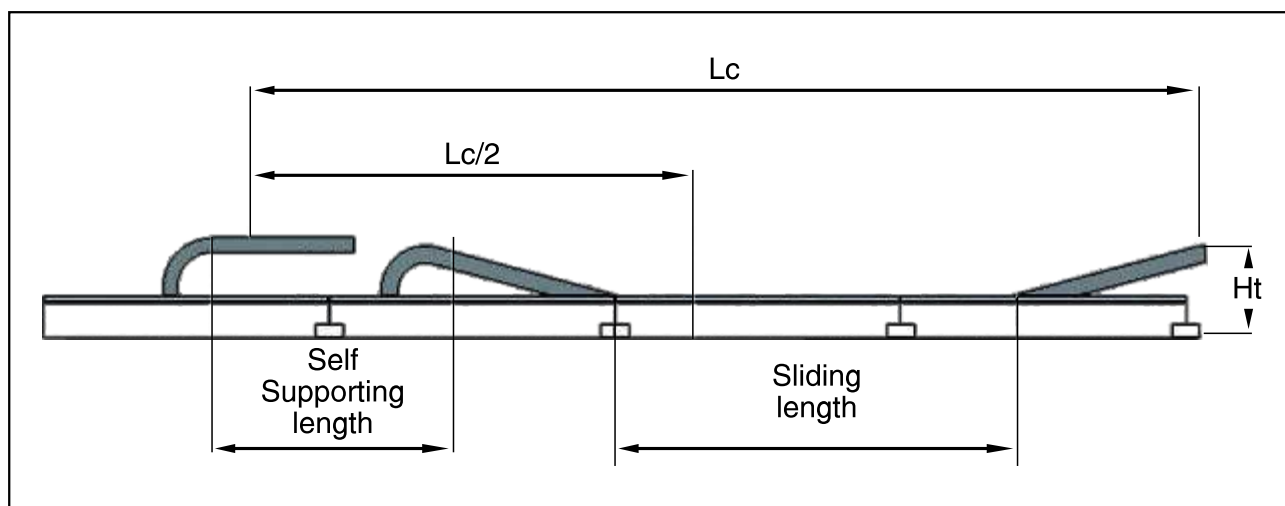
Type	Tie wrap References	Teeth Nbre	Thickness	Material
4710/A	D 691401	5	1,5	Steel
4710/B	D 691421	7		
4710/C	D 691431	9		
4710/D	D 691441	11		

**the divider reference is D 691496 and the thickness is 3 mm**

The dividers can be ordered separately (eg : **100 div. D 691496** )  
or installed on the chain at every alternate link, then the ref. is : **D 691496 M**

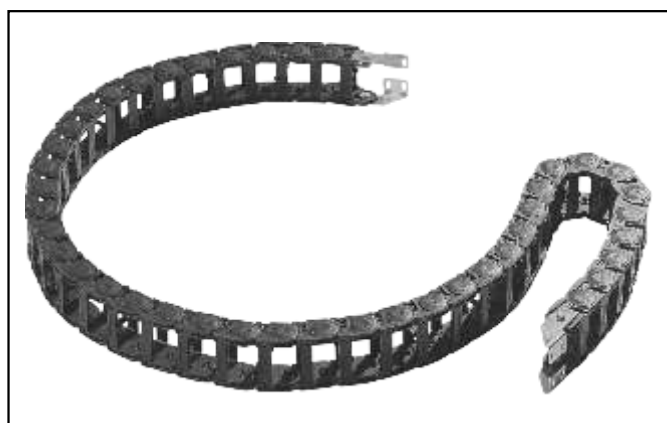
( eg : 3 div. D 691496 M for a chain having length Lg 1222 mm, i.e  $3 \times (1222/47)/2 = 39$  dividers assembled (i.e 3 nos.on every alternate cross bar).

The dividers slide easily along the length of the cross bar and can be clipped by hand and removed by screw driver.

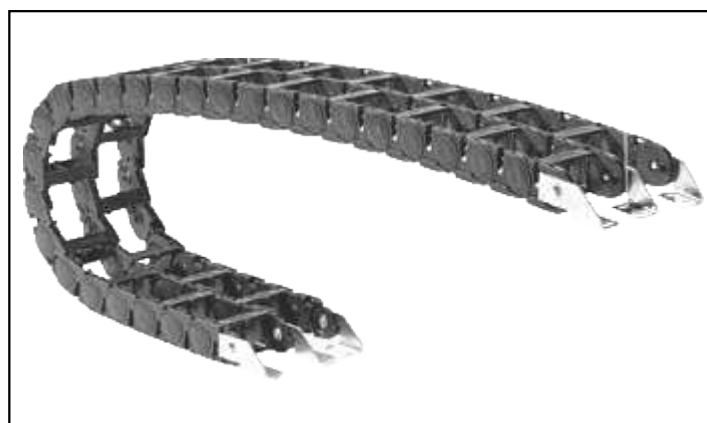


**Chain length calculation** from the stroke  $L_c$  (in mm) :  
 please note that to calculate the length, the fixed point has to be in the middle of the stroke

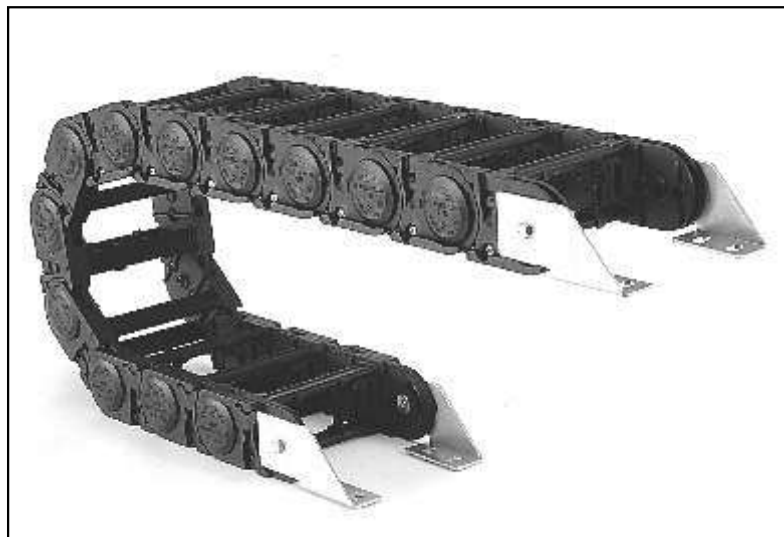
<b>Rc (Chain radius)</b>	55	75	95	125	145	190
<b>Ht (Height of the mobile point)</b>	203	223	243	273	293	338
<b>Chain length</b>	$L_c/2 + 314$	$L_c/2 + 377$	$L_c/2 + 440$	$L_c/2 + 534$	$L_c/2 + 597$	$L_c/2 + 738$



*sample of a turning application chain*



*for heavy cables weight use a 3 bands chain*



## 7710 PL

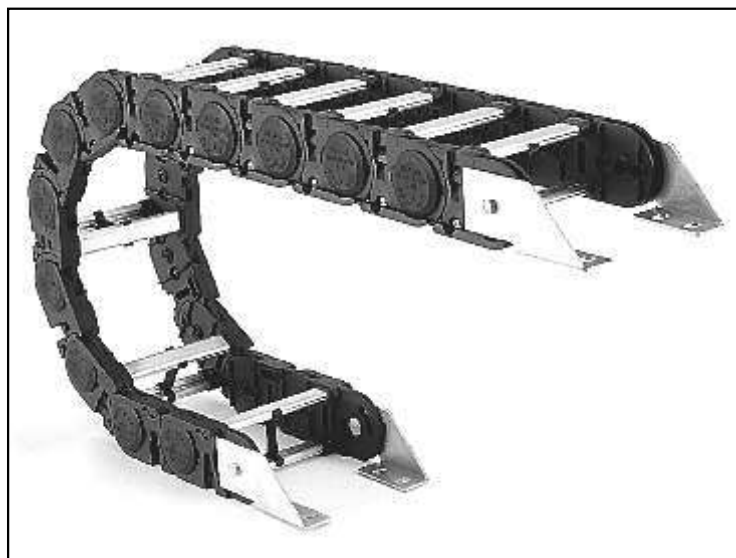
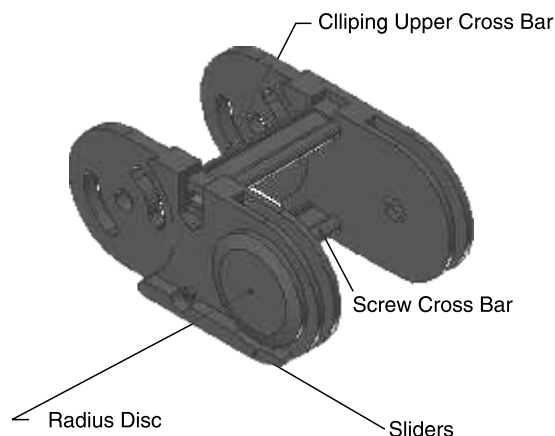
Links made of composite cross bars in PA 6

Standard Dimensions in stock

The raw material used for the manufacture of the links « **heavy series** » is a **composite plastic**.

This series can be used for applications requiring **long travel length, high speed, acceleration (> 3 m/s)** or **heavy weights**.

These chains are used in **harsh environmental conditions** namely : refractories, saw mills, cement plants, chemical plants, extreme temperatures (-50° à 160°C), **tropical conditions**, submerged conditions, etc...

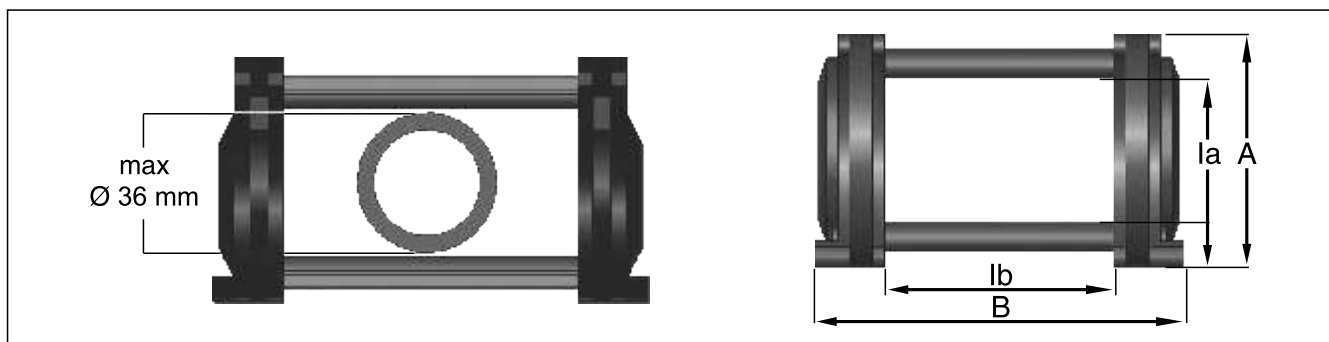


## 7710 MP

Links made of composite cross bars in Aluminium

**all Dimensions available on request**

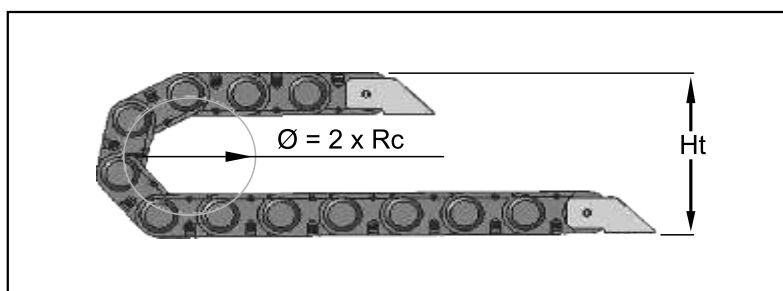
the type **7710 PL** are with standard length plastic cross bars. However if you need non standard width select the type **7710 MP** with aluminium cross bars.

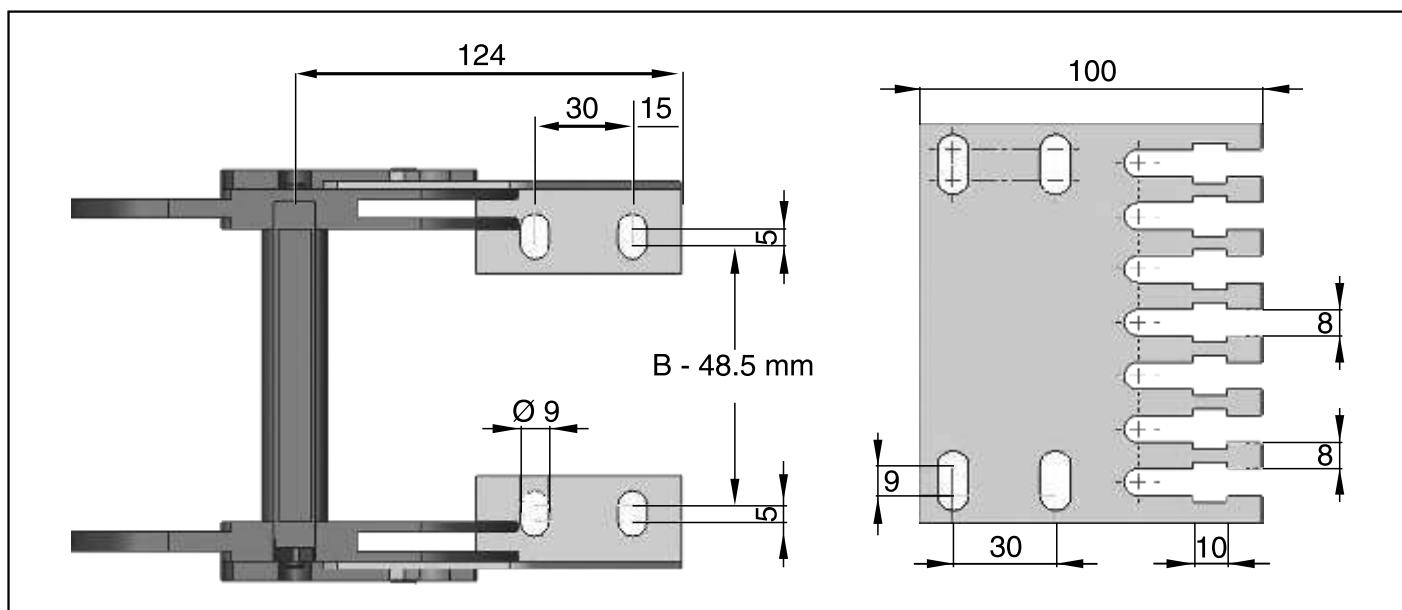


Type	A	B	Ia	Ib	References					
<b>7710/A</b>	60	95	37	53	D 691701	D 691702	D 691703	D 691704	D 691705	D 691706
<b>7710/B</b>	60	126	37	84	D 691721	D 691722	D 691723	D 691724	D 691725	D 691726
<b>7710/C</b>	60	150	37	108	D 691731	D 691732	D 691733	D 691734	D 691735	D 691736
<b>7710/D</b>	60	174	37	132	D 691741	D 691742	D 691743	D 691744	D 691745	D 691746
<b>7710/E</b>	60	192	37	150	D 691761	D 691762	D 691763	D 691764	D 691765	D 691766
<b>7710/F</b>	60	224	37	182	D 691771	D 691772	D 691773	D 691774	D 691775	D 691776
<b>7710/G</b>	60	274	37	232	D 691781	D 691782	D 691783	D 691784	D 691785	D 691786
<b>7710/H</b>	60	324	37	282	D 691791	D 691792	D 691793	D 691794	D 691795	D 691796
<b>7710/MP</b>	<b>60</b>	<b>B</b>	<b>37</b>	<b>B-42</b>	<b>D &lt;&lt;B&gt;&gt;711</b>	<b>D &lt;&lt;B&gt;&gt;712</b>	<b>D &lt;&lt;B&gt;&gt;713</b>	<b>D &lt;&lt;B&gt;&gt;714</b>	<b>D &lt;&lt;B&gt;&gt;715</b>	<b>D &lt;&lt;B&gt;&gt;716</b>
<b>Rd in mm</b>	<b>Pitch = 77 mm</b>		<b>90</b>	<b>110</b>	<b>145</b>	<b>170</b>	<b>215</b>	<b>295</b>		
<b>Ht in mm</b>	<b>+ or - 10%</b>		<b>260</b>	<b>300</b>	<b>371</b>	<b>420</b>	<b>510</b>	<b>670</b>		

**Order sample :**

- for a **7710 PL** chain, width B = 150 mm, radius 110mm and lenght 50 links (50\*77=3850), the ref. will be : **D 691732 length 3850 mm**
- for a **7710 MP** chain, width B = 355 mm, radius 215 mm and length 25 links (25\*77=1925), the ref. will be : **D 355715 length 1925 mm**





Type	End connector set References	Screw size	Thickness	Material
7710	D 691751	4*M8	5	Steel
7710	D 691752	4*M8	5	SS Steel

Type	Tie wrap set References	No. of Teeth	Thickness	Material
7710/A	D 691701	5	3	Steel
7710/B	D 691721	7		
7710/C	D 691731	8		
7710/D	D 691741	9		
7710/E	D 691761	11		
7710/F	D 691771	13		
7710/G	D 691781	16		
7710/H	D 691791	19		
7710/MP	Ask us			

note : PLEASE ASK US FOR SPECIAL SIZES OR STAINLESS STEEL TIEWRAP

It is possible to combine vertical dividers with different length of horizontal dividers :

The dividers can be ordered separately (eg : 100 div. D 691795 and 25 div. D 691707)

or installed on the chain at every alternate link, then the ref. is : **D 691795 M**

( eg : 3 div. D 691795 M for a chain having length Lg 3080 mm, i.e  $3 \times (3080/77)/2 = 60$  dividers assembled (i.e 3 nos.on every alternative cross bar).

The dividers slide easily along the length of the cross bar, can be clipped by hand and removed by screw driver.

**In case two levels are to be provided in the chain :**

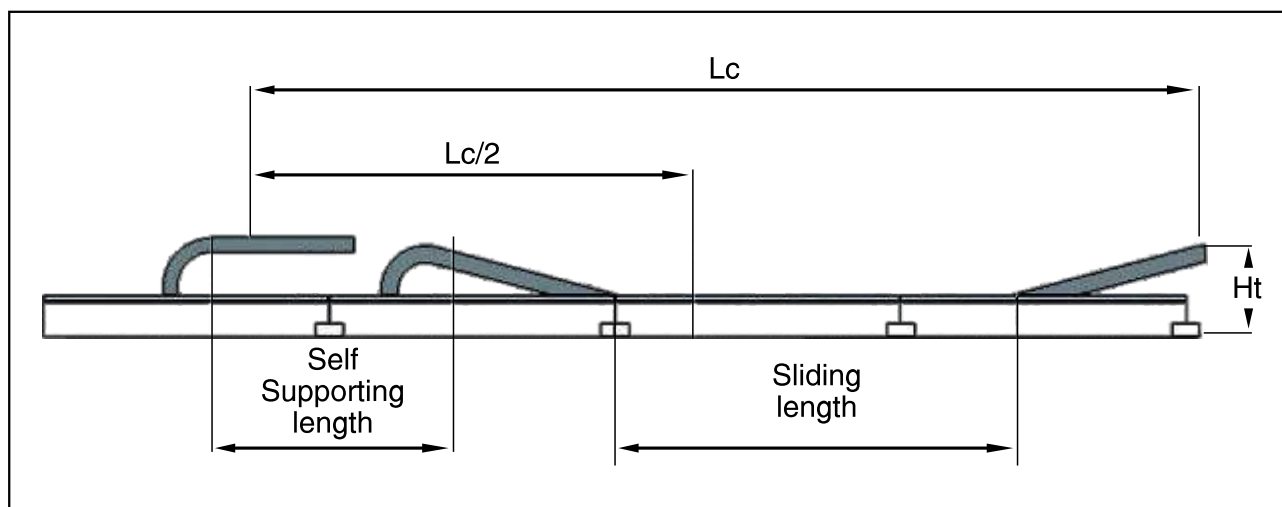
the vertical divider has a feature by which we can easily clip the horizontal divider on to it.

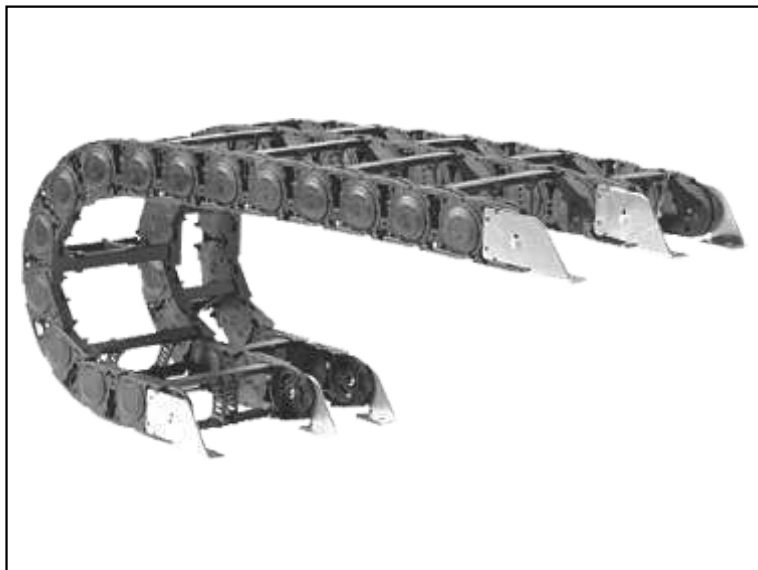
Type	Vertical divider References	Horizontal divider References	Length horizontal divider	Height in mm	Thickness	Material
7710/A	D 691795	D 691707	53	16	3 and 5	PA615 FV
7710/B	D 691795	D 691727	84	16	3 and 5	PA615 FV
7710/C	D 691795	D 691737	108	16	3 and 5	PA615 FV
7710/D	D 691795	D 691747	132	16	3 and 5	PA615 FV
7710/E	D 691795	D 691767	150	16	3 and 5	PA615 FV
7710/F	D 691795	D 691777	182	16	3 and 5	PA615 FV
7710/MP	D 691795	Ask us	-	16	3 and 5	PA615 FV

**Chain length calculation** from the stroke  $L_c$  (in mm) :

please note that to calculate the length, the fixed point has to be in the middle of the stroke

<b>Rc (Chain radius)</b>	90	110	145	170	215	295
<b>Ht (Height of the mobile point)</b>	260	300	370	420	510	670
<b>Chain length</b>	$L_c/2 + 514$	$L_c/2 + 576$	$L_c/2 + 671$	$L_c/2 + 765$	$L_c/2 + 906$	$L_c/2 + 1138$





## 9210 PL

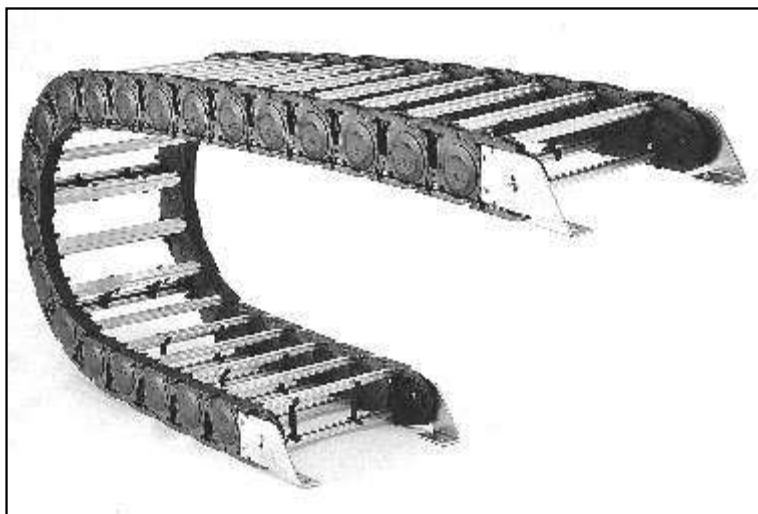
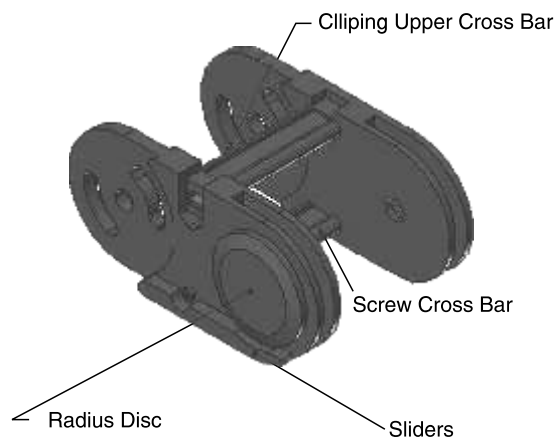
Links made of composite cross bars in PA 6

Standard Dimensions in stock

The raw material used for the manufacture of the links « **heavy series** » is a **composite** plastic.

This series can be used for applications requiring **long travel length, high speed, acceleration (> 3 m/s)** or **heavy weights**.

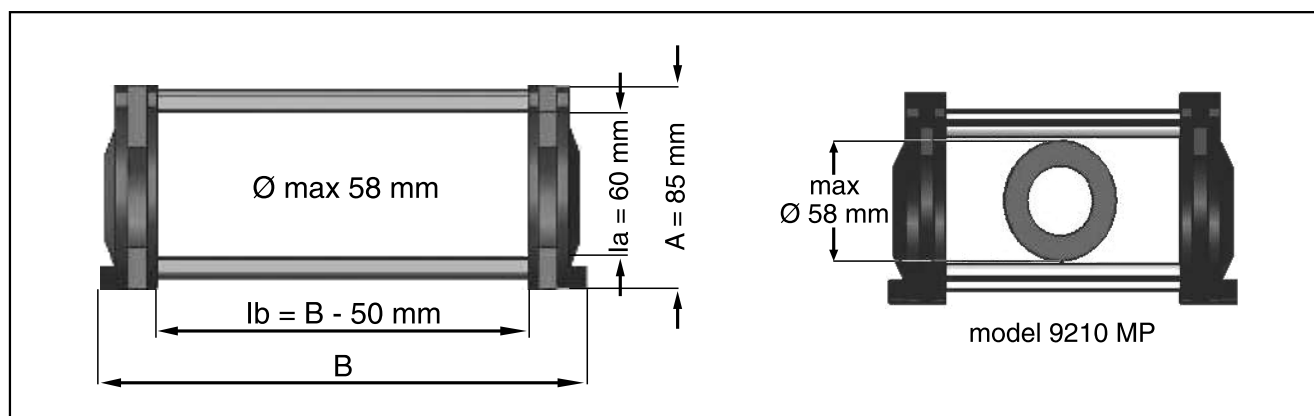
These chains are used in **harsh environmental conditions** namely : refractories, saw mills, cement plants, chemical plants, extreme temperatures (-50° à 160°C), **tropical conditions**, submerged conditions, etc...



Links made of composite cross bars in Aluminium

**all Dimensions available on request**



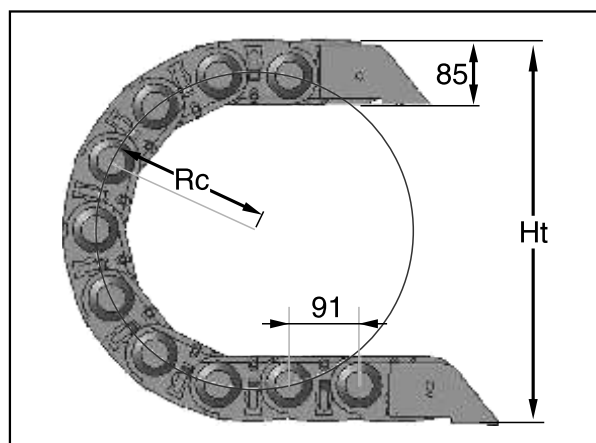


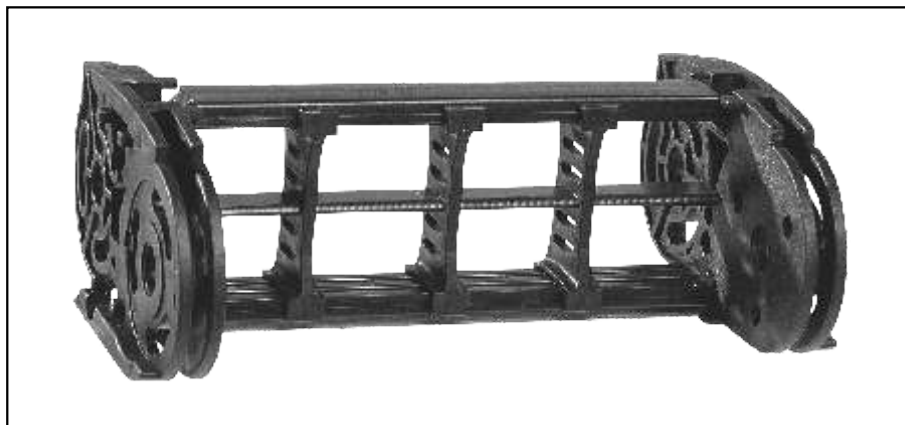
**NOTE : the inside heights for the types PL and MP are different :**

- inside height (a) for 9210 PL is 60 mm
- inside height (a) for 9210 MP is 50 mm

the type **9210 PL** are with standard length plastic cross bars. However if you need non standard width select the type **9210 MP** with aluminium cross bars.

Type	A	B	Ia	Ib	References					
<b>9210/A</b>	85	150	60	100	D 691801	D 691802	D 691803	D 691804	D 691805	D 691806
<b>9210/B</b>	85	200	60	150	D 691821	D 691822	D 691823	D 691824	D 691825	D 691826
<b>9210/C</b>	85	250	60	200	D 691831	D 691832	D 691833	D 691834	D 691835	D 691836
<b>9210/D</b>	85	300	60	250	D 691841	D 691842	D 691843	D 691844	D 691845	D 691846
<b>9210/E</b>	85	350	60	300	D 691861	D 691862	D 691863	D 691864	D 691865	D 691866
<b>9210/F</b>	85	435	60	385	D 691871	D 691872	D 691873	D 691874	D 691875	D 691876
<b>9210/MP</b>	85	<<B>>	50	<<B>>-50	D <<B>>911	D <<B>>912	D <<B>>913	D <<B>>914	D <<B>>915	D <<B>>916
<b>Rd in mm</b>	<b>Pitch = 91 mm</b>		<b>155</b>	<b>205</b>	<b>255</b>	<b>305</b>	<b>355</b>	<b>405</b>		
<b>Ht in mm</b>	<b>+ or - 10%</b>		<b>440</b>	<b>540</b>	<b>521</b>	<b>571</b>	<b>621</b>	<b>671</b>		

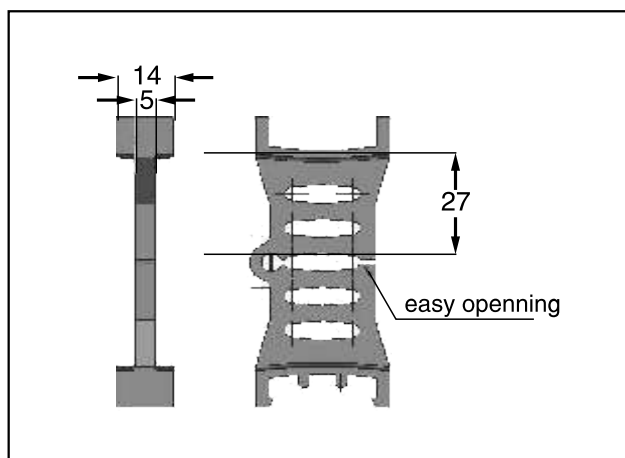




Type	Vertical divider References	Horizontal divider References	Length for horizontal divider	Height in mm	Thickness	Material
9210/A	D 691895	D 691807	100	27	5	PA615 FV
9210/B	D 691895	D 691827	150	27	5	PA615 FV
9210/C	D 691895	D 691837	200	27	5	PA615 FV
9210/D	D 691895	D 691747	250	27	5	PA615 FV
9210/E	D 691895	D 691867	300	27	5	PA615 FV
9210/F	D 691895	D 691877	385	27	5	PA615 FV
9210/MP	D 691895	Ask us	B	27	5	PA615 FV

It is possible to combine vertical dividers with different length of horizontal dividers .

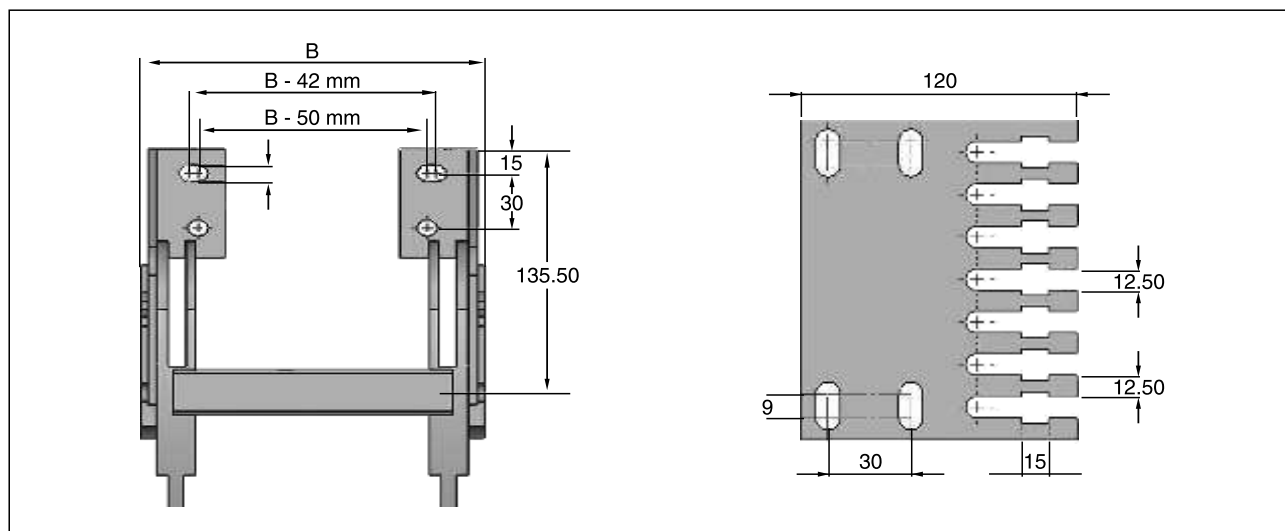
The dividers can be ordered separately (eg : **100 div. D 691895** and **25 div. D 691837**) or installed on the chain at every alternate link, then the ref. is : **D 691895 M** ( eg : 3 div. D 691895 M for a chain having length Lg 4004 mm, i.e  $3 \times (4004/91)/2 = 66$  dividers assembled (i.e 3 nos.on every alternative cross bar).



The dividers slide easily along the length of the cross bar, can be clipped by hand and removed by screw driver.

**In case two levels are to be provided in the chain :**

the vertical divider has a feature by which we can easily clip the horizontal divider on to it.



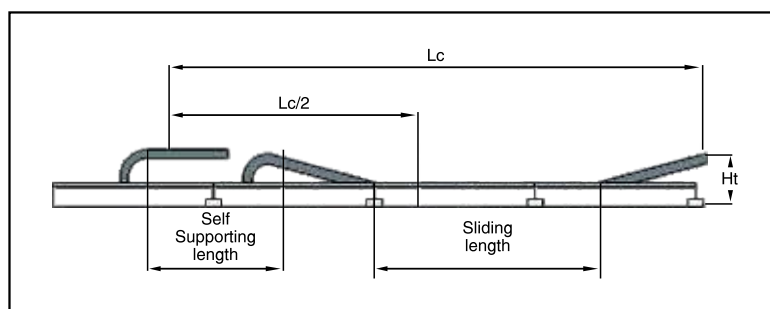
Type	End connector set References	Screw size	Thickness	Material
9210	D 691951	4*M8	5	Steel
9210	D 691952	4*M8	5	SS Steel

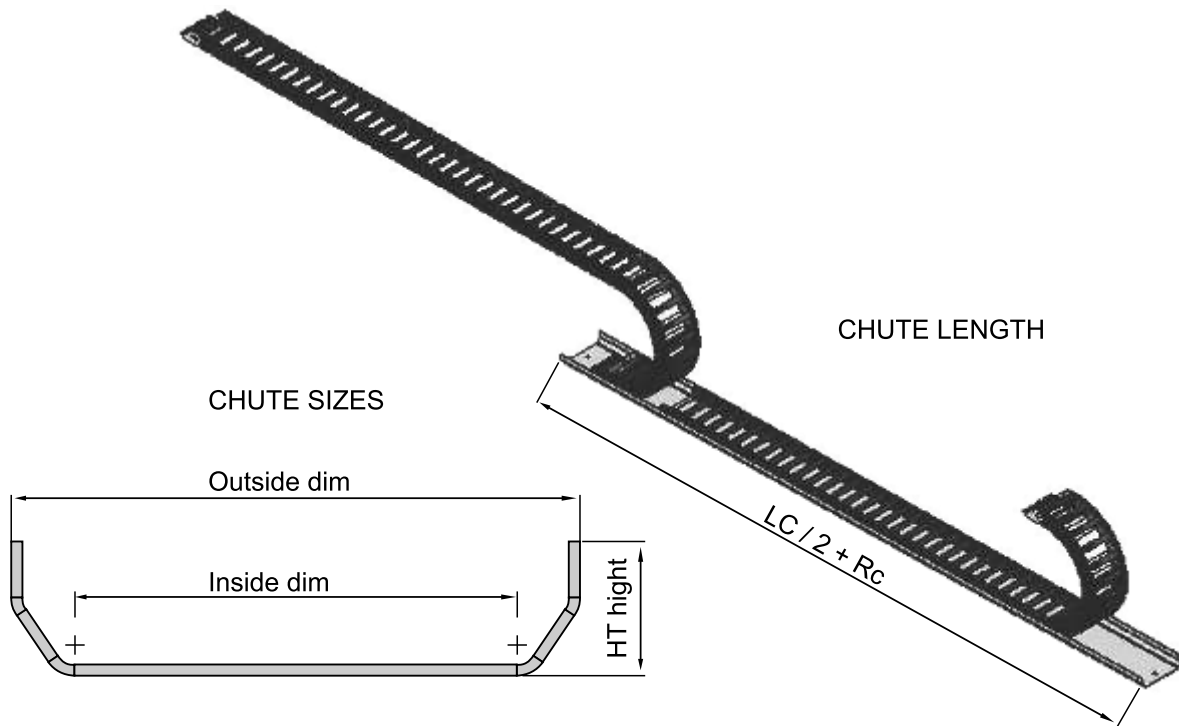
Type	Tie wrap set References	No. of Teeth	Thickness	Material
9210/A	D 691801	6	3	Steel
9210/B	D 691821	8		
9210/C	D 691831	10		
9210/D	D 691841	12		
9210/E	D 691861	14		
9210/F	D 691871	16		
9210/MP				

**Chain length calculation** from the stroke  $L_c$  (in mm) :

please note that to calculate the length, the fixed point has to be in the middle of the stroke

<b>Rc (Chain radius)</b>	155	205	255	305	355	405
<b>Ht (Height of the mobile point)</b>	440	540	521	571	621	671
<b>Chain length</b>	$L_c/2 + 760$	$L_c/2 + 917$	$L_c/2 + 1024$	$L_c/2 + 1231$	$L_c/2 + 1388$	$L_c/2 + 1545$



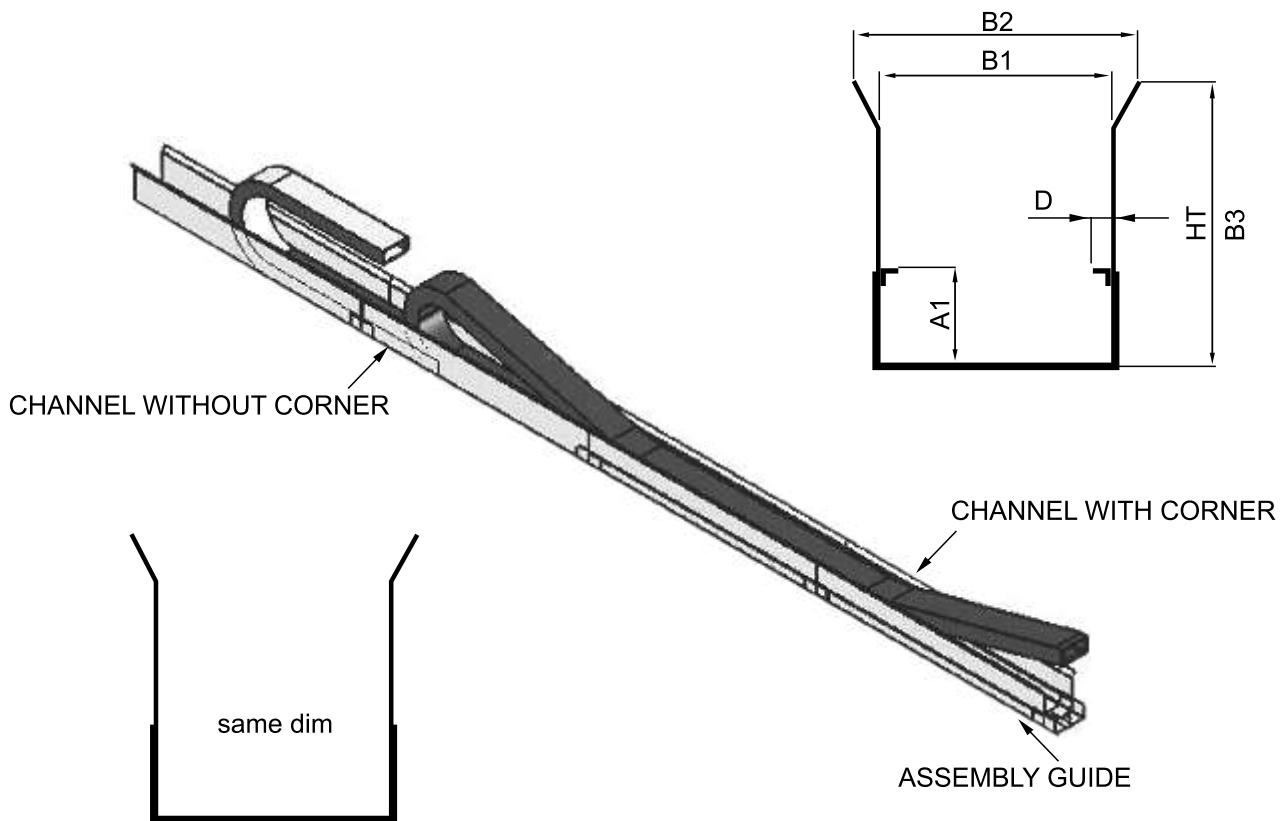


Type	dim inside in mm	dim outside in mm	H.T. in mm	Thickness in mm	Raw material Ss steel on demand	Sock length in mm
3010	B + 5	B + 20	20	2,5	Galvanized steel	2000
4230	B + 5	B + 20	30	2,5		2000
4710	B + 5	B + 20	30	2,5		2000
4760	B + 5	B + 20	30	2,5		2000
6830	B + 8	B + 25	50	2,5	Galvanized steel	2000
7710	B + 8	B + 25	50	2,5		2000
9210	B + 10	B + 30	30	2,5		2000

with B = chain outside width.

Item: G + type name eg G 6830 C

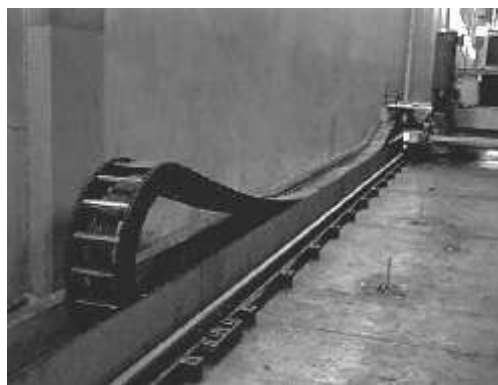




Type	inside in mm	B2 outside in mm	B3 Max. in mm	Thickness in mm	Raw material Ss steel on demand	D inside in mm	A2 inside in mm
3010	B + 5	B + 20	50	2,5	Galvanized steel	6	30
4230	B + 5	B + 20	120	2,5		10	40
4710	B + 5	B + 20	120	2,5		10	40
4760	B + 5	B + 20	120	2,5		10	40
6830	B + 8	B + 25	160	3	Galvanized steel	20	64
7710	B + 8	B + 25	160	3		20	58
9210	B + 10	B + 30	200	3		30	83

with B = width dim.

Item : C and CC + type name eg C 6810 D and CC 6830 D

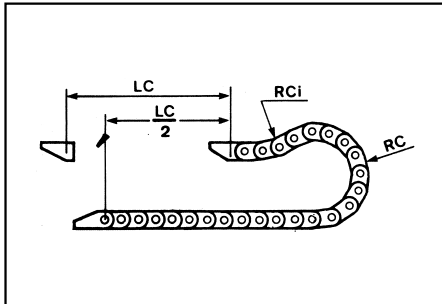


## OPERATION

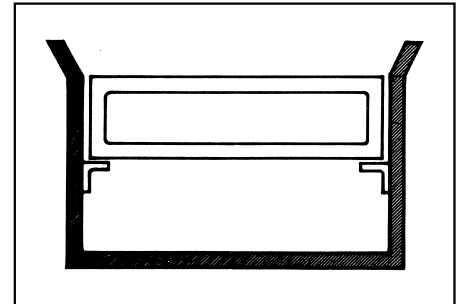
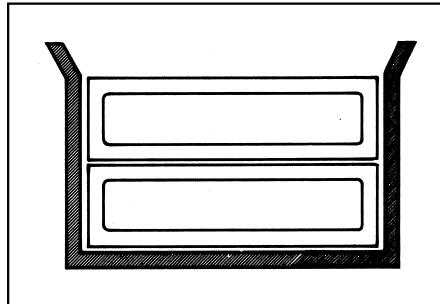
• As a rule, cable carriers made of thermoplastics are designed to run either on plane surfaces of the machine frame or in suitable guide channels. Guide channels are a must for all lengths over the maximum allowed value. The guide channels also provide lateral guiding with a limited amount of clearance, as absolutely necessary for the satisfactory behaviour of the carrier. Upstream of a fixed point, said channels must be complemented with either an inclined place or a roller so that the chain can ascend naturally upon itself without touching the fixing end pieces in the reciprocating movement.

• For travel lengths exceeding the self-supporting length yet under 15 m, or when the travel speed is higher than 0.5 m.p.sec., an inner angle steel must be fitted on either side of the channel as illustrated below.

• For travel speeds over 1 m.p.sec., considering the travel length of 15 m., the arrangement of fig 1 and 3 must be adhered to.

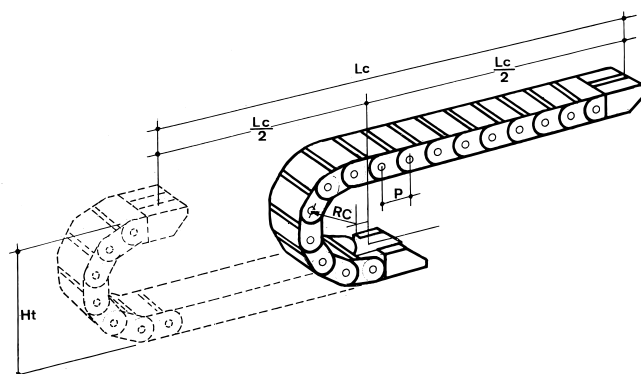
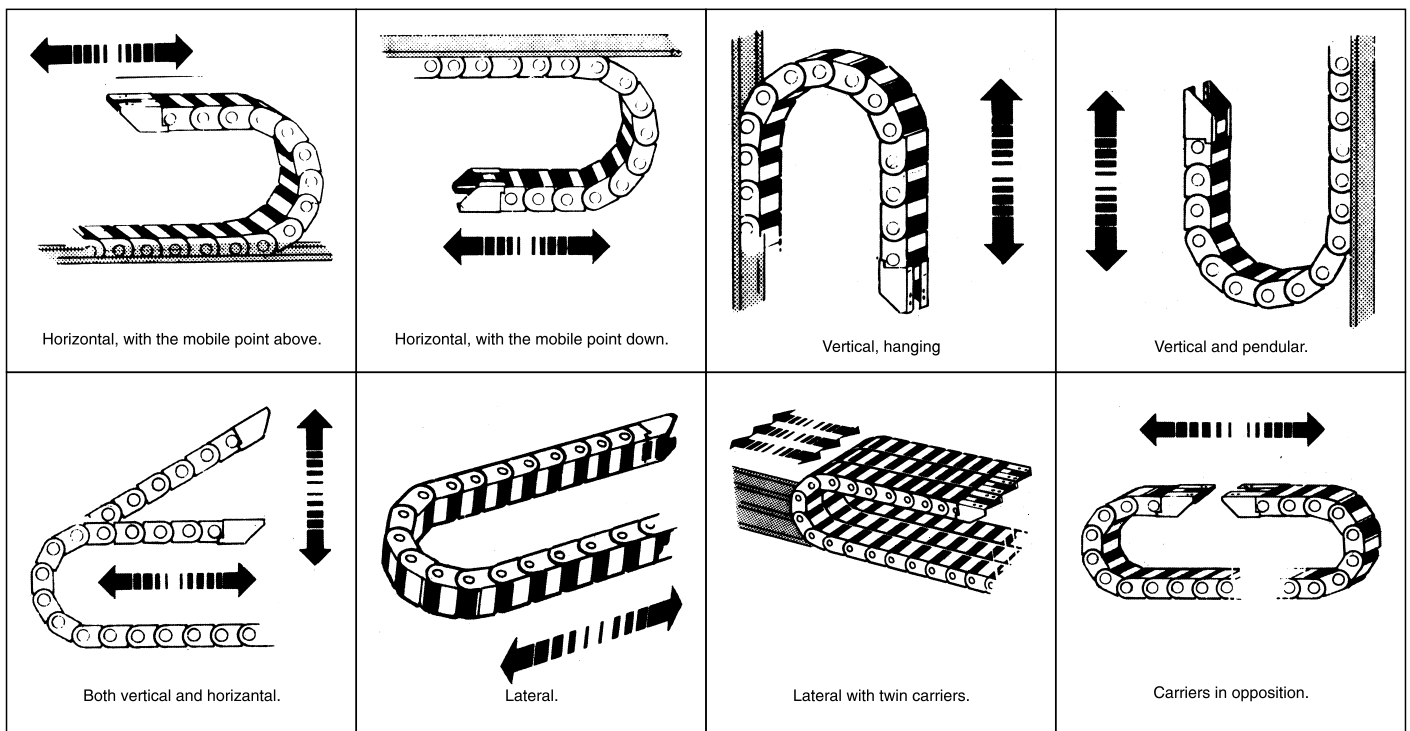


This configuration is compulsory when the length exceeds 15 m or the speed exceeds 1 m.p.sec.



This configuration is compulsory when the length exceeds the self-supporting length yet being less than 15 m.

## The motions according to the assembling process



Calculation of carrier length L for a travel length Lc, a bending radius RC and a fixed point in the middle of Lc :  $L = \frac{Lc}{2} + \pi RC + 3 \text{ links.}$

Client \_\_\_\_\_

Address : \_\_\_\_\_

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_ E-mail Id \_\_\_\_\_

## Questionnaire for cable carriers in plastic and metal plastics

### Installation Specifications

1. Application Type	
- Stroke	mm
- Acceleration	m/s <sup>2</sup>
- Deceleration	m/s <sup>2</sup>
- Speed	m/min
- Number of Movements	Per Hour
- Drawing of Installation [Additional information]	
2. Conductors	
- Conductors	
- Cables <input type="checkbox"/> Hoses <input type="checkbox"/>	
- Outside dimensions for cable and Hoses	
- Maximum Pressure	Bars
- Global weight inside	Kg/m
- Working radius for the maximum diameter	
- For hoses	mm
- For electrical cable	mm
3. Types of cross bars	
- Plastic	<input type="checkbox"/>
- Aluminium [7710 or 9210]	<input type="checkbox"/>
- Aluminium with lips [9210 only]	<input type="checkbox"/>
- No of separators for every other link	Nos.
4. Environment	
- Temperature variation	C to C
- Humidity	%
- Radiation	
- Special chemical environment	
- Other conditions	

#### Instructions for the laying of cables inside the cable carrier :

- The cables must be separated from each other by separators.
- Keep a minimum of 10% as free passage inside.
- Assemble preferably cables having diameter < 10 mm in a group.
- Ensure distribution of weight of cable inside.

## Other products available

- Control & signaling devices Ø 22.5mm & Ø 30.5mm
- Pilot lights & illuminated push buttons with LED
- Control stations (cast aluminium & plastic enclosures)
- Inductive proximity switches
- Single / Multiple limit switches
- Switches for appliances
- Rocker switches
- Micro switches
- Circuit breaker for equipment
- Terminal strips
- Fuse base
- Relay base
- Isolators / Safety switches
- Switch fuse units / Switch disconnectors
- Tower lights

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