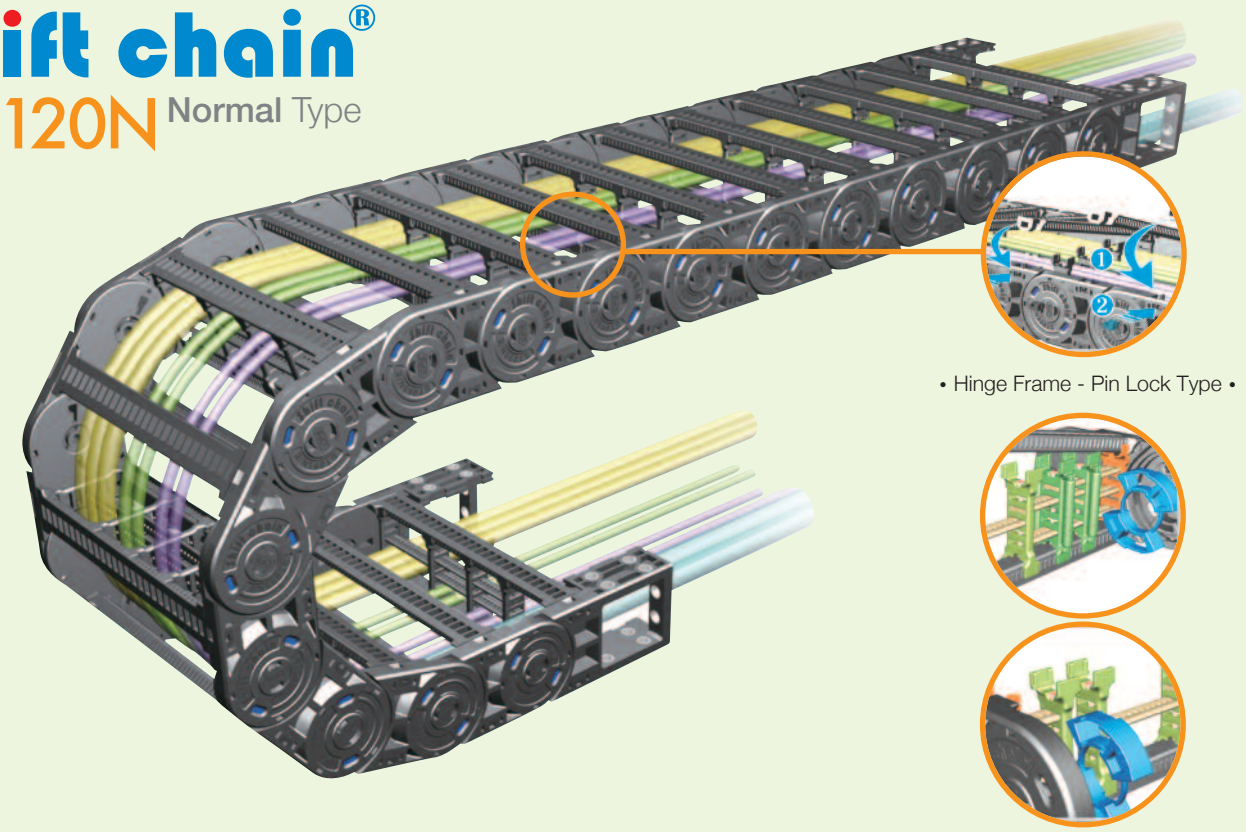
Min ●●●●●○ Max

Shift chain®
ST 120N Normal Type



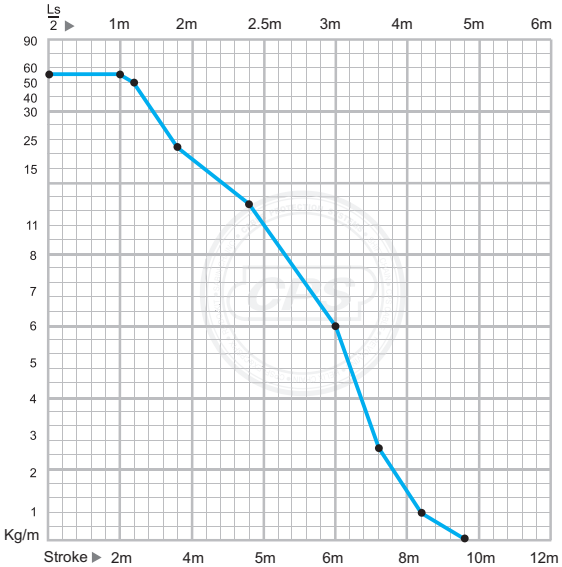
• Hinge Frame - Pin Lock Type •

MATERIAL

- **Chain material:**
  CPS-amide with glass fiber reinforced UL94-HB
- **Low Noise**
- **Low Mote**
- **Speed :** 10m / sec
- **Temperature :** -30°C ~ +130°C
- **Other installation Length:**
  Vertical curve above= max 6.0m
  Vertical curve below= max 120m
  Side Mounted, Unsupported= max 3.0m
- **Applications**
  Gantry robot, Machining center, Textile machine, Welding machine, Feeder unit, Assembly Loader, Wood work machine, Fabric machine.
- **Calculation of the chain length**

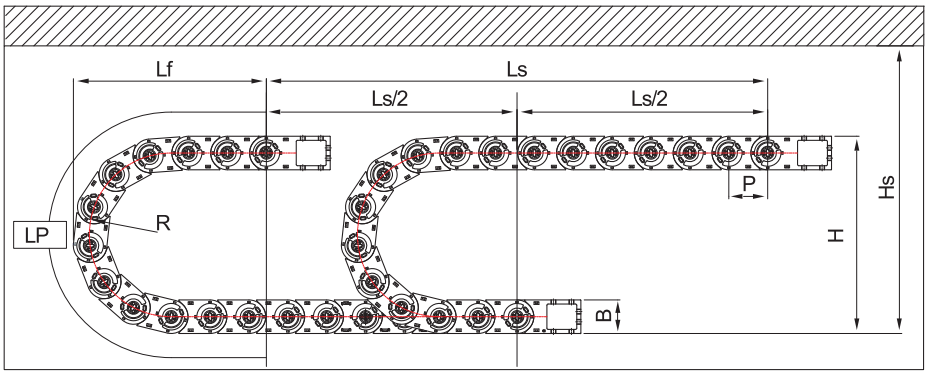
$$[\ L = \frac{Ls}{2} + Lp\ ]$$

- **Load diagrams self-supporting length**



Normal Type ST 120N

LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	180	200	250	300	350	400	500
Lp	1,046	1,109	1,266	1,423	1,580	1,737	2,051
L f	474	494	544	594	644	694	794
H	468	508	608	708	808	908	1,108

Ls: Stroke
Lp: Loop Length
L f: Loop Projection
Hs: Safe Space

ST 120N Type

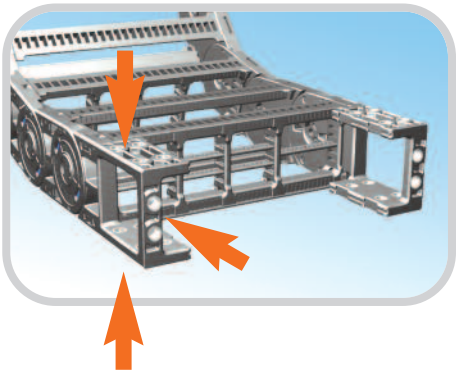
Pitch P: 120mm
Height B: 108mm
Height H: 2R+108mm
Hs≧ H+60mm

ORDERING

ST 120N. 400. R300 / F - 3000L : 10ST

- Q'ty(set)
- Length(mm)
- F : Free End Bracket
  G : Guide Channel Type
  V : Vertical Guide Type
- Bending Radius
- Inside Width
- Normal Type
- Shift Chain

BRACKET TYPE



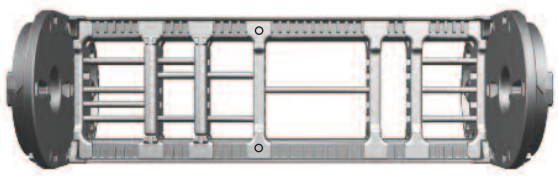
FEB (Free End Bracket)

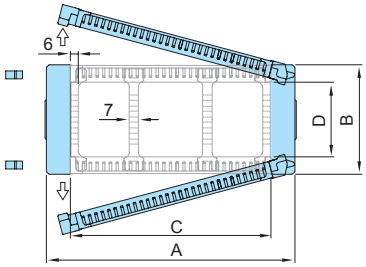
FEB Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket. For added strength, steel spacers are inserted into the fixing holes of each Free End Bracket.

▶ Above products are patent registered item which can be protected by industrial property right.

Normal Type ST 120N

CHAIN CROSS SECTION

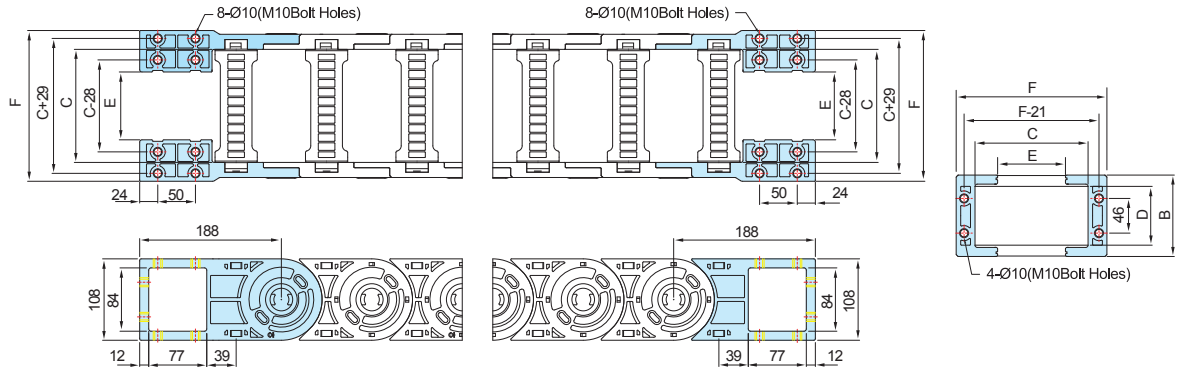




Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
ST 120N.075	117	108	75	78	180, 200, 250, 300, 350, 400, 500	4.41
ST 120N.100	142		100			4.53
ST 120N.125	167		125			4.67
ST 120N.150	192		150			4.78
ST 120N.175	217		175			4.93
ST 120N.200	242		200			5.17
ST 120N.250	292		250			5.47
ST 120N.300	342		300			5.88
ST 120N.350	392		350			6.30
ST 120N.400	442		400			6.73
ST 120N.450	492		450			7.07
ST 120N.500	542		500			7.30
ST 120N.550	592		550			8.13
ST 120N.600	642		600			8.30

▲ Application of special frame. (C:115,240,290)

FREE END BRACKET



▲ Moving point ▲ Fixing point ▲ Front point

Chain Type	F	B	C	D	E	Hole Type
ST 120N.075	125	108	75	78	15	M10 Bolt Holes
ST 120N.100	150		100		40	
ST 120N.125	175		125		65	
ST 120N.150	200		150		90	
ST 120N.175	225		175		115	
ST 120N.200	250		200		140	
ST 120N.250	300		250		190	
ST 120N.300	350		300		240	
ST 120N.350	400		350		290	
ST 120N.400	450		400		340	
ST 120N.450	500		450		390	
ST 120N.500	550		500		440	
ST 120N.550	600		550		490	
ST 120N.600	650		600		540	

▲ Application of special frame. (C:115,240,290)

2014 NEW PRODUCT

Unity Systems®

Normal Type ST 120N

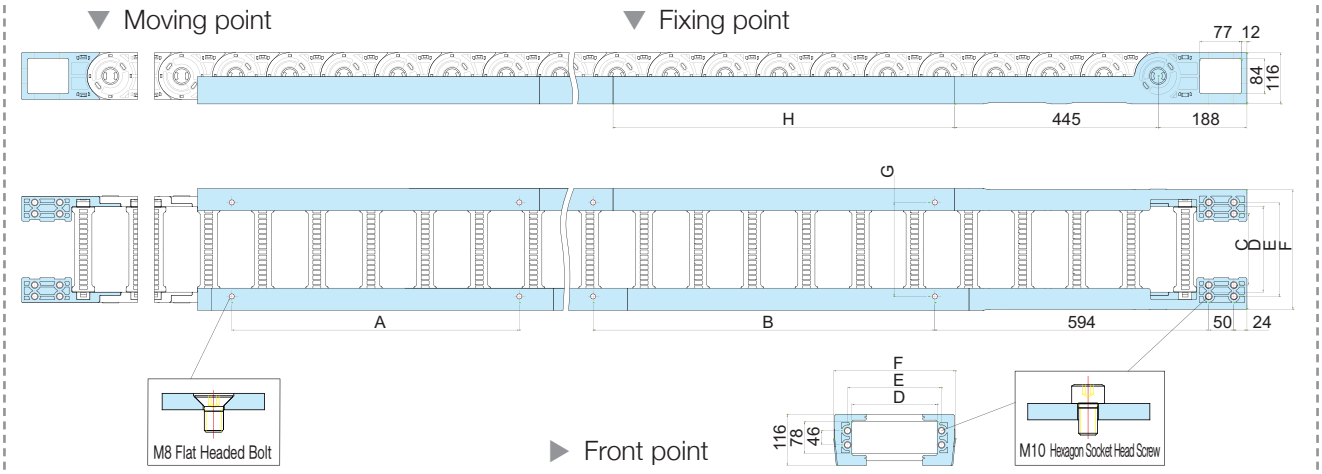
This type of bracket is to protect deflection of chain which will support the weight of certain section start from bracket, also will protect the damage of chain.

▼ Horizon Type

▼ Vertical Type

GUIDE CHANNEL TYPE END BRACKET

(Dimensions in mm)



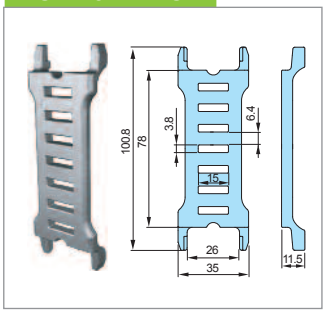
Chain Type	C FEB fix hole(inner)	D Frame length dimension	E FEB width	F FEB width	G GC hole width	GC TYPE	H GC length	B GC fixing hole	A GC hole dimension
ST 120N.075	47	75	104	139	94				
ST 120N.100	72	100	129	164	119				
ST 120N.125	97	125	154	189	144				
ST 120N.150	122	150	179	214	169	GC600	600	601	505
ST 120N.175	147	175	204	239	194				
ST 120N.200	172	200	229	264	219				
ST 120N.250	222	250	279	314	269				
ST 120N.300	272	300	329	364	319				
ST 120N.350	322	350	379	414	369				
ST 120N.400	372	400	429	464	419				
ST 120N.450	422	450	479	514	469	GC800	800	801	705
ST 120N.500	472	500	529	564	519				
ST 120N.550	522	550	579	614	569				
ST 120N.600	572	600	629	664	619				

Normal Type ST 120N

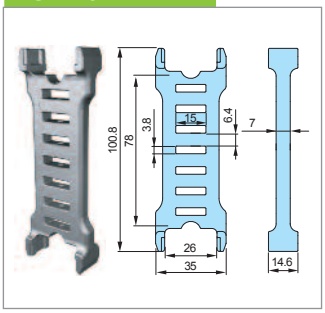
DIVIDERS

Dividers (Vertical) and Separators (Horizontal) divide the inner chamber of the cable chain to give each cable diameter its own center and keep the cables separated from each other. The use of separator in some cases, can also reduce the width requirements as two or more levels can be made within the same chamber. To prevent twisting or damage to the cables, as a rule, there needs to be at least 10% space between the inserted cable and its enclosure.

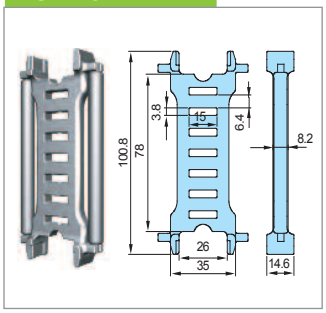
ST120N DV-S



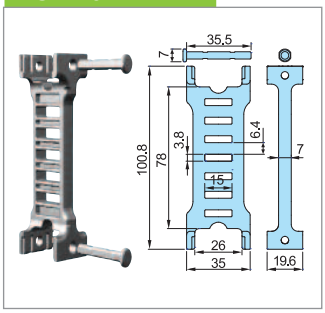
ST120N DV-M



ST120N DV-R



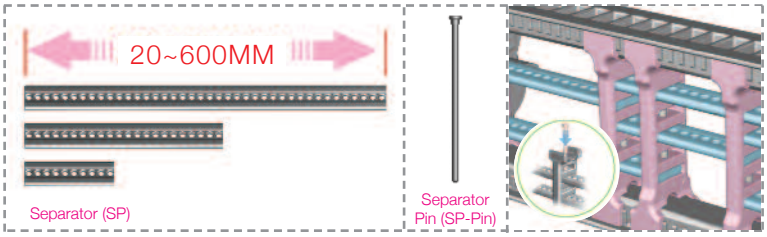
ST120N DV-T



▶ Assemble divider every Two links.

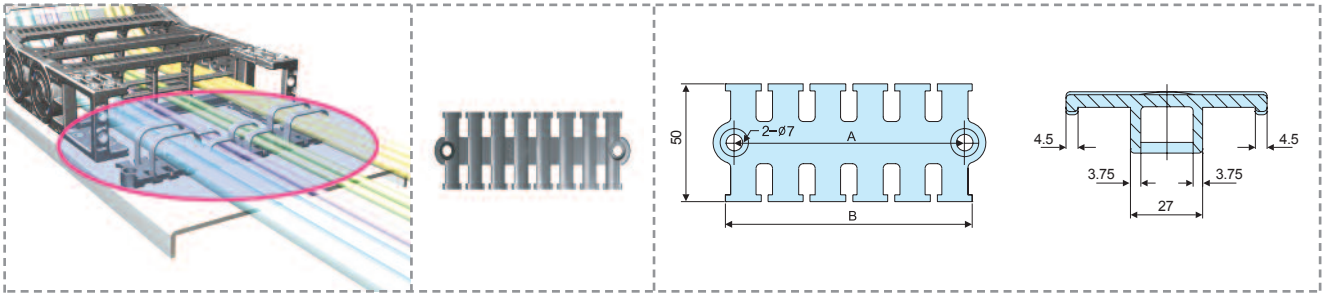
▶ DV/T : Frame 300~600

SEPARATORS (SP)



Separator is available in length from 20mm to 600mm and can be cut every 5mm for use.
The combined use of divider and sepatator with the pin creates the most effective cable pattern and keep insertion space for cables safely, so it protects the inserted cables.

TIE WRAP



(Dimensions in mm)

The Tie Wrap separated from the Shift Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation.

Tie Wrap	050	075	100	125	150
A	58	75	98	122	141
B	65	82	105	129	148