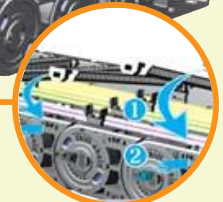
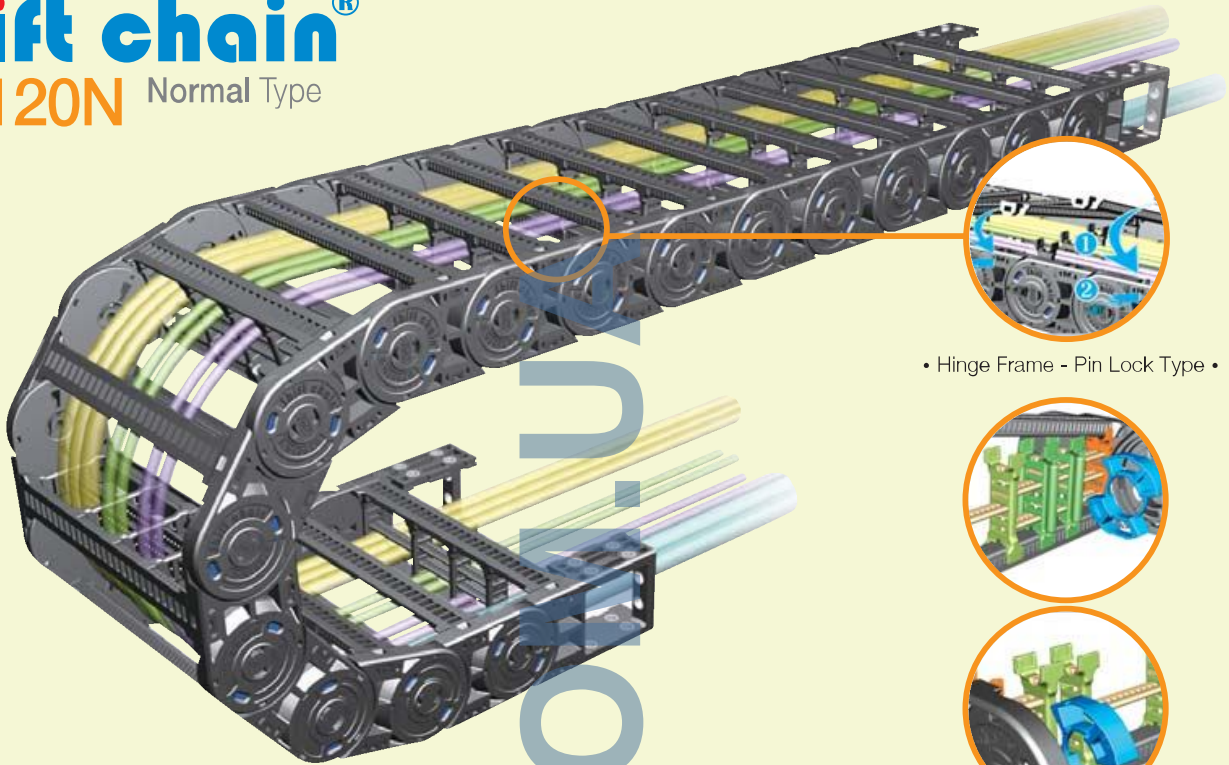
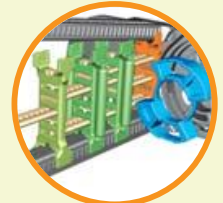


Min ●●●●● Max

Shift chain® ST 120N Normal Type



• Hinge Frame - Pin Lock Type •



• Shift chain - 내부구조 •

SHIFT CHAIN

SAVEN CHAIN

REVOLVING CHAIN

HELIX CHAIN

ROBOT-IT

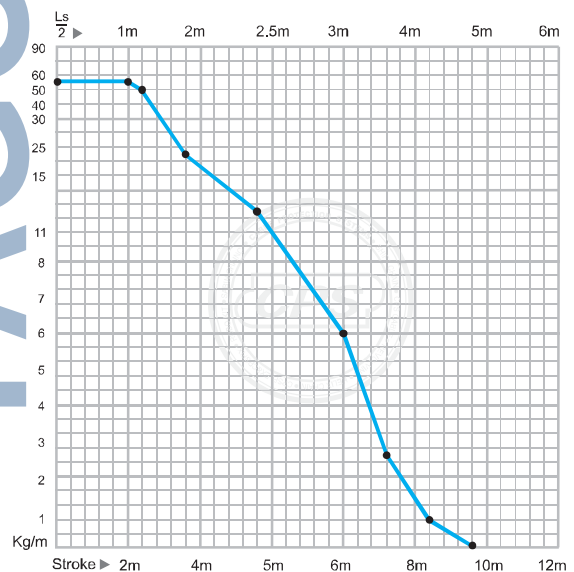
OPSTILEX

OPSTIK

MATERIAL

- **Chain material:**
CPS-polyamide 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.
컨츄리로봇, 공작기계, 용접기계, 인쇄기계, 로봇케리지등 케이를 체인의 적용사업장에 사용가능.

Load diagrams self-supporting length

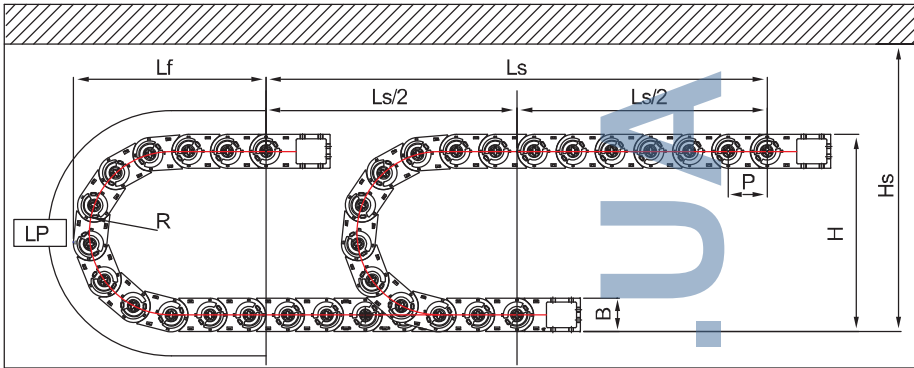


Calculation of the chain length

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

ST 120N Normal Type

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	808	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 (주문방법)

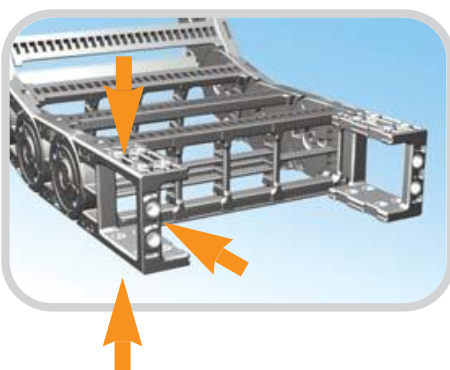
ST 120N. 400. R300 / F - 3000L : 10ST



- 주문수량 Q'ty(set)
- 체인길이 Length(mm)
- 브라켓 Free End Bracket
- 곡률반경 Bending Radius
- 내폭 Inside Width
- 표준형타입 Normal Type

Shift Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

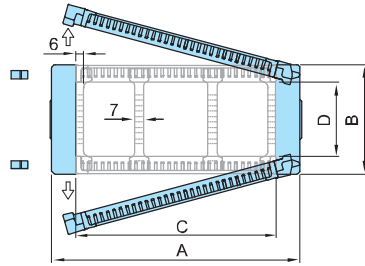
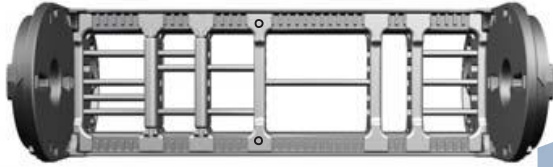
FEB Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket. For added strength, steel spacers are inserted into the fixing holes of each Free End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임, 또한 스틸와셔를 결합하여 더욱 견고한 취부가 가능.

▶ Above products are patent registered item which can be protected by industrial property right. (상기제품은 특허등록 제품으로 산업재산권의 보호를 받는 제품입니다.)

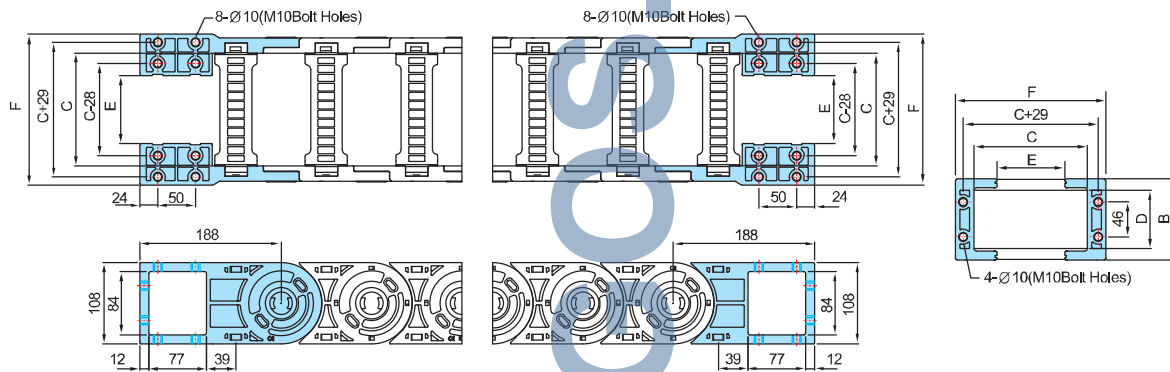
ST 120N Normal Type

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

FREE END BRACKET



ST120N Moving point

ST120N Fixing point

ST120N Front point

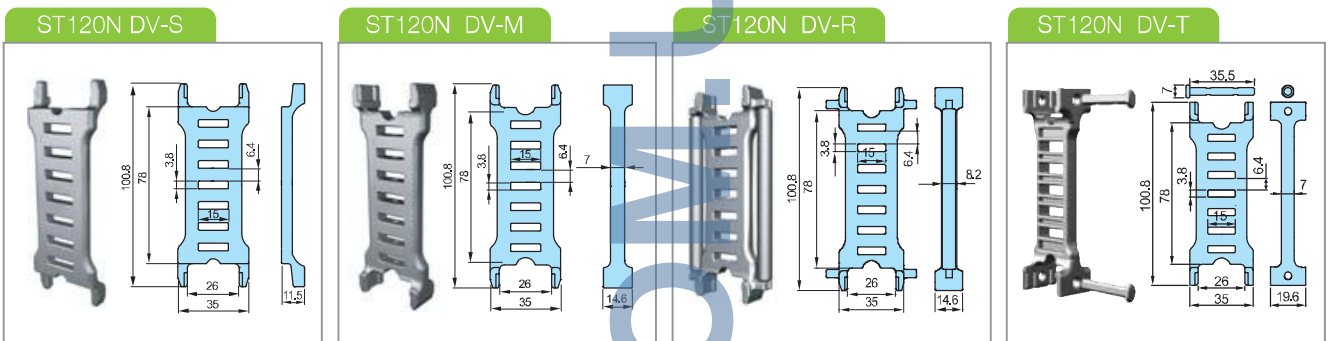
Chain Type	F	B	C	D	E	Hole Type
ST 120N.075	125	108	75	78	15	M10 Bolt Holes
ST 120N.100	150		100		40	
ST 120N.125	175		125		65	
ST 120N.150	200		150		90	
ST 120N.175	225		175		115	
ST 120N.200	250		200		140	
ST 120N.250	300		250		190	
ST 120N.300	350		300		240	
ST 120N.350	400		350		290	
ST 120N.400	450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

ST 120N Normal Type

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.

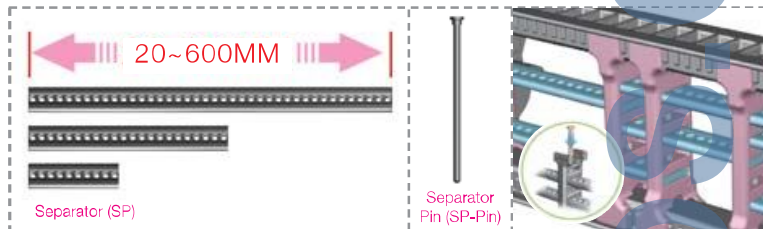
디바이더(세로분리대)와 세퍼레이터(가로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 **피복손상 및 단선**을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다. 또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 디바이더에 결합하여 사용하여 케이블의 꼬임방지와 피복손상을 방지할 수 있습니다.



▶ Assemble divider every Two links. / 2링크마다 결합

▶ DV/T : Frame 300~600적용(상하 프레임용 연결)

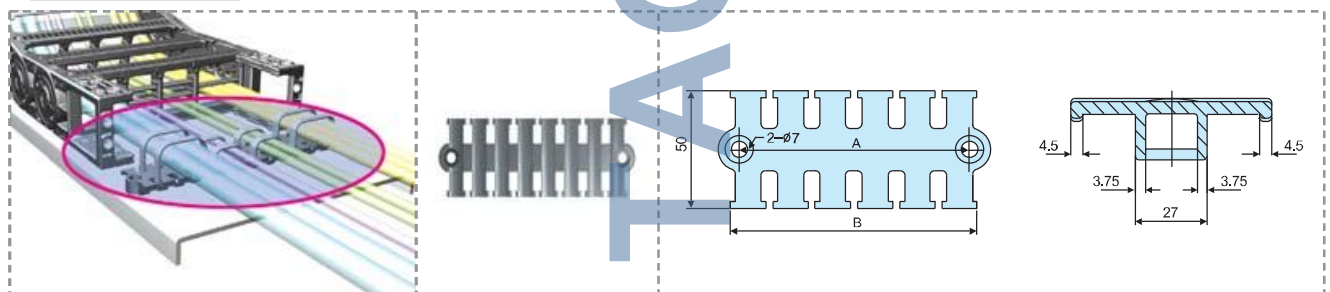
SEPARATORS (SP)



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

세퍼레이터의 사용길이는 최소20mm부터 최대600mm까지 사용가능하며 5mm간격으로 절단하여 원하는 길이로 사용가능합니다. 크기가 각각 다른 케이블을 크기에 맞게끔 공간분할이 용이하고 세퍼레이터 핀으로 결합하여 어떠한 경우에도 안전하게 케이블의 입선공간을 유지하여 안전하게 케이블을 보호할 수 있습니다.

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 Wrap은 Shift Chain의 브라켓을 기준으로 바깥쪽으로 설치함으로써 체인의 움직임으로 인해 케이블의 유동을 방지하고자 고정하는 시스템으로 케이블의 피복손상 및 단선을 방지하는 역할을 합니다.

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