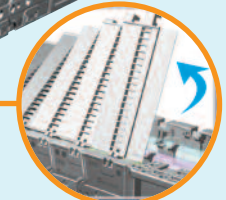
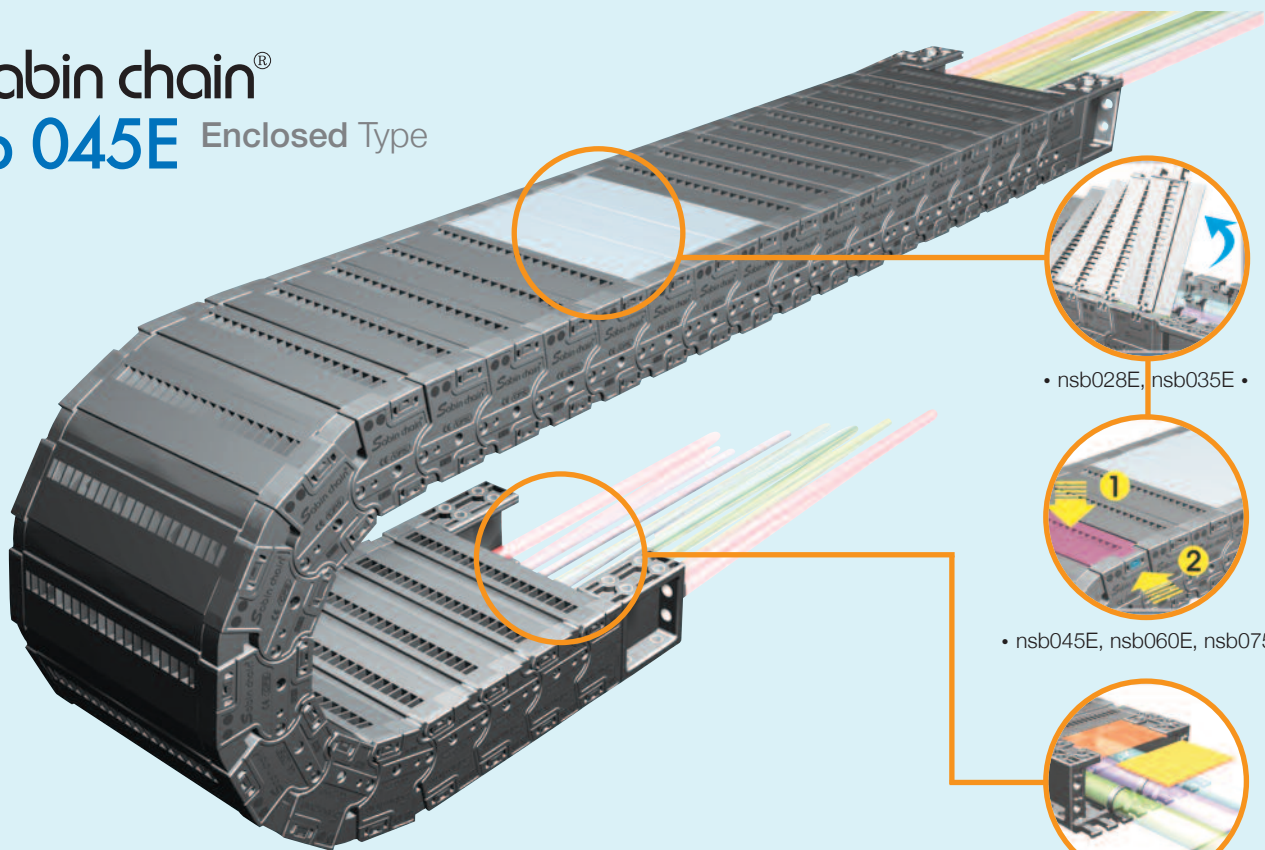


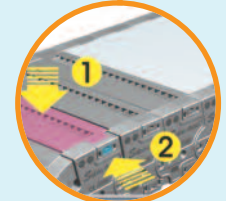


Min ●●●●●●●●●● Max

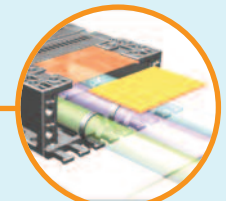
Sabin chain[®] nsb 045E Enclosed Type



• nsb028E, nsb035E •



• nsb045E, nsb060E, nsb075E •



• nsb E-Type End Bracket •

- Aluminum material for nsb E-Type frame is available on customer request.
- nsb-E Type 프레임 재질은 고객의 요청시 알루미늄 재질로 제작가능.

MATERIAL

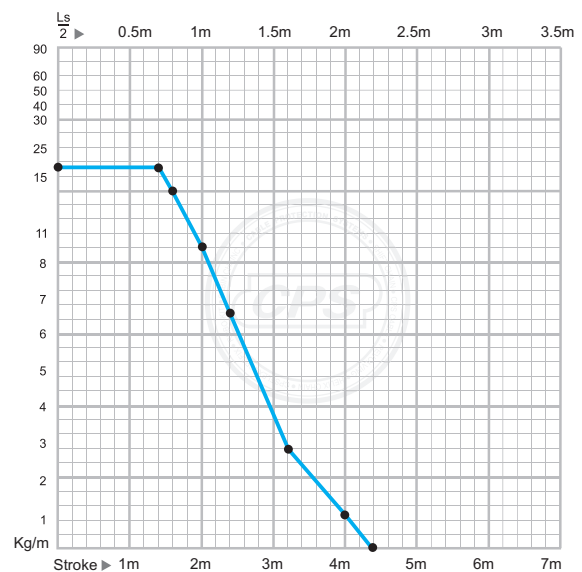
- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:**
- **Low Mote:**
- **Speed :** 15m/sec
- **Temperature :** -30°C ~ +130°C
- **Other installation Length:**
Vertical curve above= max 6.0m
Vertical curve below= max 100m
Side Mounted, Unsupported= max 2.5m

- **Applications**
Sabin Chain E can be found on car manufacturer's welding line, robot carriages and press lines and on any machine where excess material can damage your inserted cables.
저분진, 저소음을 요구하는 산업현장, 외부위험 요소로부터 케이블의 보호가 필요한 용접라인, 도장라인 등에 적용.

Calculation of the chain length

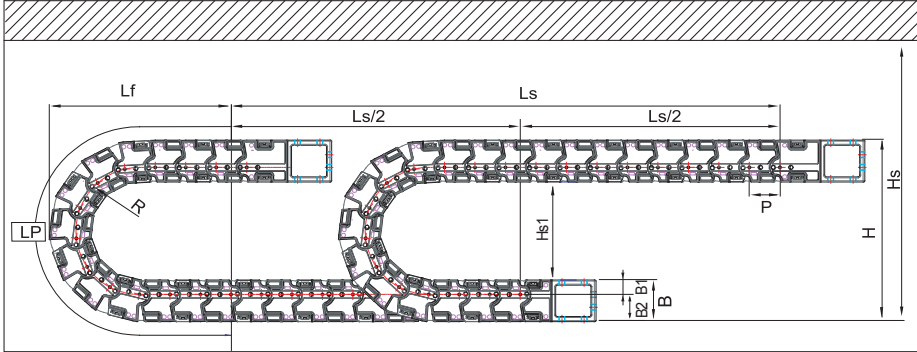
$$\left[L = \frac{Ls}{2} + Lp \right]$$

Load diagrams self-supporting length



Enclosed Type **nsb 045E**

LAYOUT OF THE CHAIN



- Ls:** Stroke
- Lp:** Loop Length
- Lf:** Loop Projection
- Hs:** Safe Space

nsb 045E Type

- Pitch P:** 45mm
- Height B:** 66mm
- Height H:** 2R+86mm
- Hs ≥ H+40mm**
- B1:** 23mm **B2:** 43mm

(Dimensions in mm)

Bending radius R	90	110	135	165	185	235	285
Lp	633	695	774	868	931	1,088	1,245
Lf	291	311	336	366	386	436	486
H	266	306	356	416	456	556	656

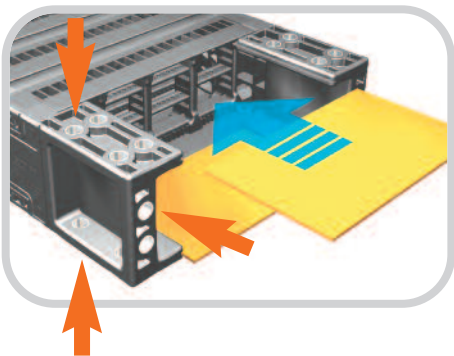
ORDERING (주문방법)

nsb 045E. 100. R135 /F- 2000L : 10ST



- 주문수량 Q'ty(set)
- 체인길이 Length(mm)
- 브라켓 F : Free End Bracket
G : Guide Channel Type
V : Vertical Guide Type
- 곡률반경 Bending Radius
- 내폭 Inside Width
- 밀폐형태입 Enclosed Type

BRACKET TYPE (브라켓타입)



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

FEB (Free End Bracket)

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. Any contaminants can't get into through the gap of bracket by inserted subsidiary parts in the FEB.

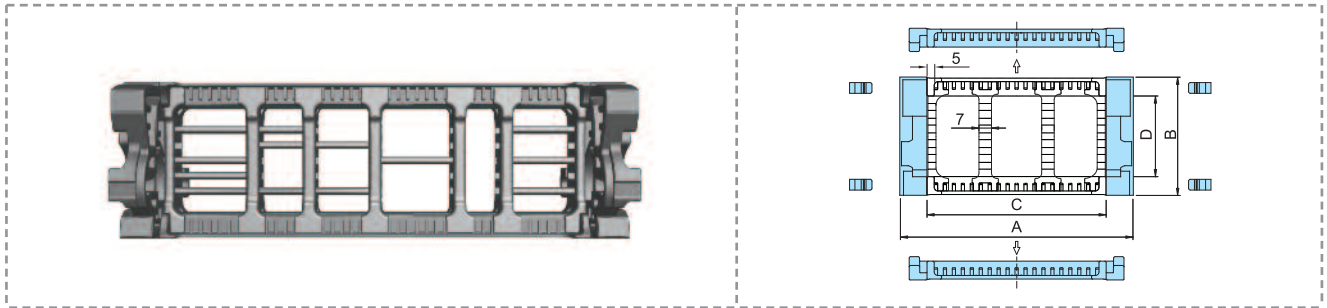
체인을 고정하는 끝부분으로 기존 Easy End bracket 과 Normal End bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임. 또한 스틸와셔를 결합하여 더욱 견고한 취부가 가능.

New Sain chain의 밀폐형 Type의 FEB(브라켓)부분에 부자재를 삽입하여 브라켓부분을 통해 외부 이물질이 체인안으로 침투하는 현상을 방지하고 완벽한 밀폐로 입선된 케이블을 보호할 수 있습니다.

New Sabin Chain

Enclosed Type **nsb 045E**

CHAIN CROSS SECTION

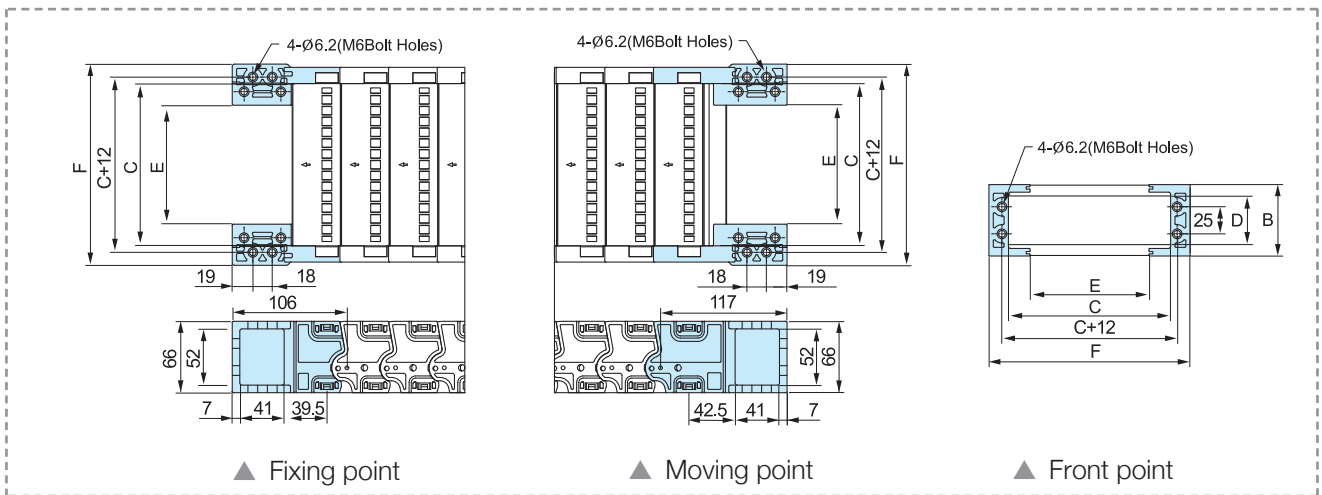


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 045E.075	105		75		90, 110, 135, 165, 185 235, 285	2.78
nsb 045E.100	130	66	100	45		3.07
nsb 045E.125	155		125			3.35
nsb 045E.150	180		150			3.58

▲ 특수 프레임 적용 가능. (C:140,165,190,240)

▲ Application of special frame. (C:140,165,190,240)

FREE END BRACKET



▲ Fixing point

▲ Moving point

▲ Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 045E.075	111		75		35	M6 Bolt Holes
nsb 045E.100	136	66	100	45	60	
nsb 045E.125	161		125		85	
nsb 045E.150	186		150		110	

▲ 특수 프레임 적용 가능. (C:140,165,190,240)

▲ Application of special frame. (C:140,165,190,240)

2014 NEW PRODUCT
Unity Systems®

Enclosed Type **nsb 045E**

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.
 케이블 보호 장치에 전해지는 하중을 지지하여 케이블 체인의 처짐이 없이 일정구간을 끈게 유지 하므로, 케이블 체인의 파손을 방지하는 Guide Channel 일체형 브라켓입니다.

▼ Horizon Type 수평형

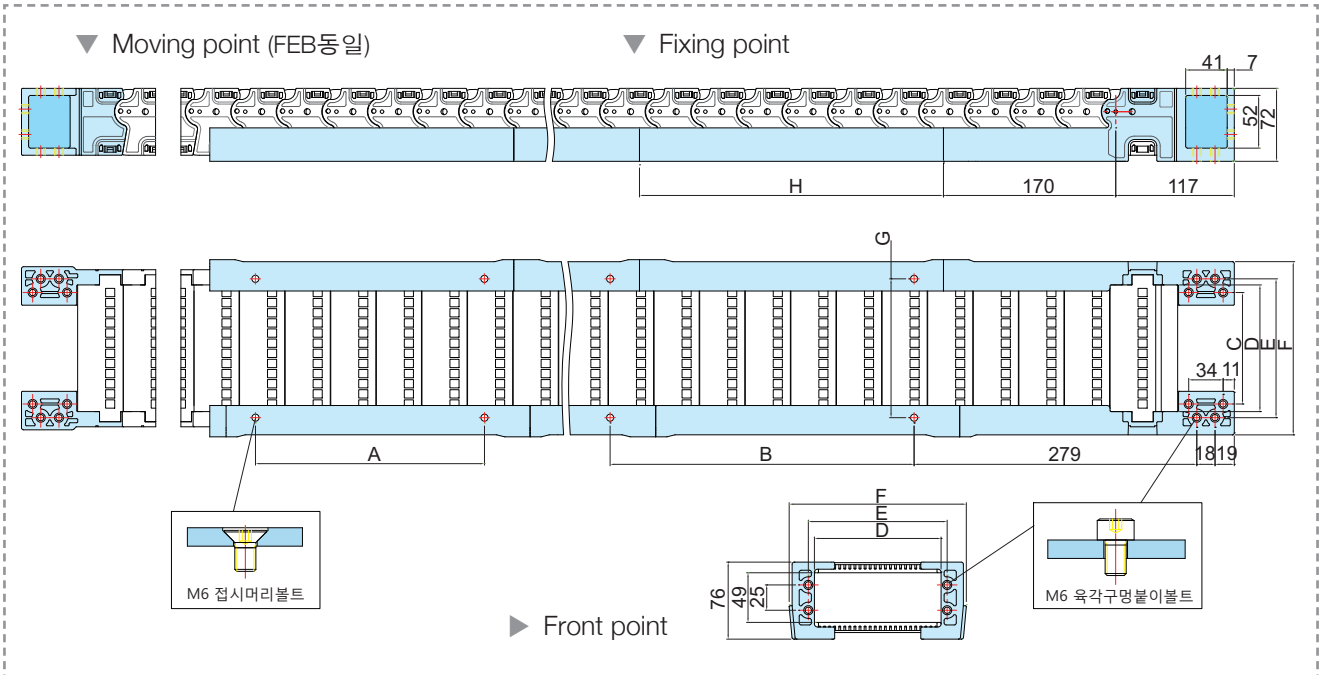


▼ Vertical Type 수직형



GUIDE CHANNEL TYPE END BRACKET

(Dimensions in mm)

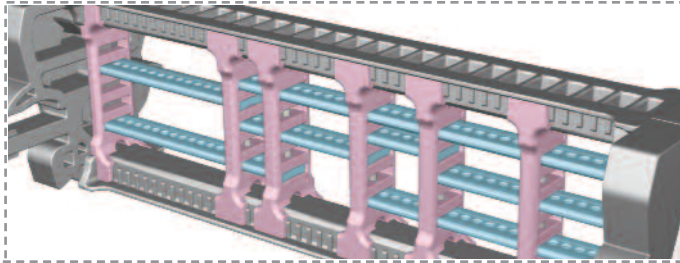


Chain Type	C FEB fix hole(inner)	D Frame length dimension	E FEB width	F FEB width	G GC hole width	GC TYPE	H GC length	B GC fixing hole	A GC hole dimension
nsb 045E.075	60	75	87	125	87	GC300	300	301	226
nsb 045E.100	85	100	112	150	112				
nsb 045E.125	110	125	137	175	137				
nsb 045E.150	135	150	162	200	162	GC500	500	501	426



Enclosed Type **nsb 045E**

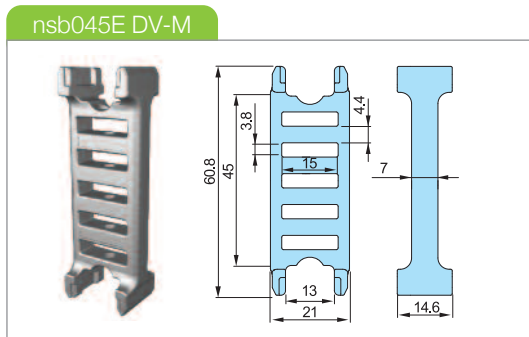
DIVIDERS



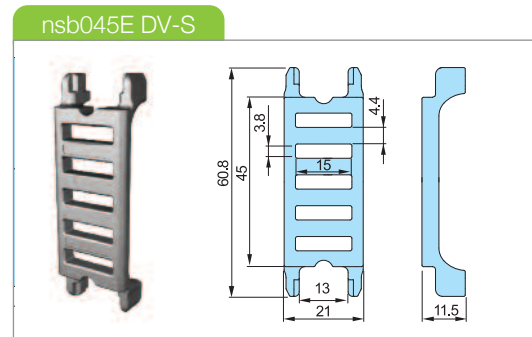
Dividers (Vertical) and Separators (Horizontal) divide the inner chamber of the cable chain to give each cable diameter its own center and keep the cables separated from each other. The use of a separator in some cases, can also reduce the width requirements as two or more levels can be made within the 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 확보해야합니다.

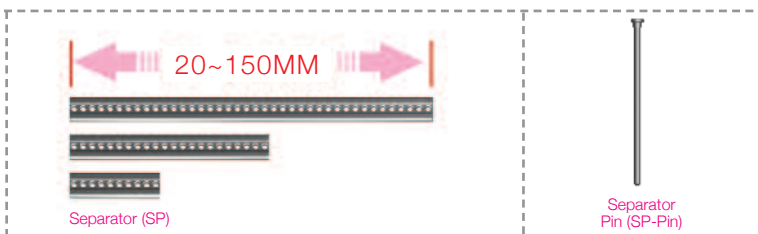
또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 디바이더에 결합하여 사용해야 케이블의 꼬임방지과 피복손상을 방지할 수 있습니다.



▶ Assemble divider every four links.(4링크마다 결합.)



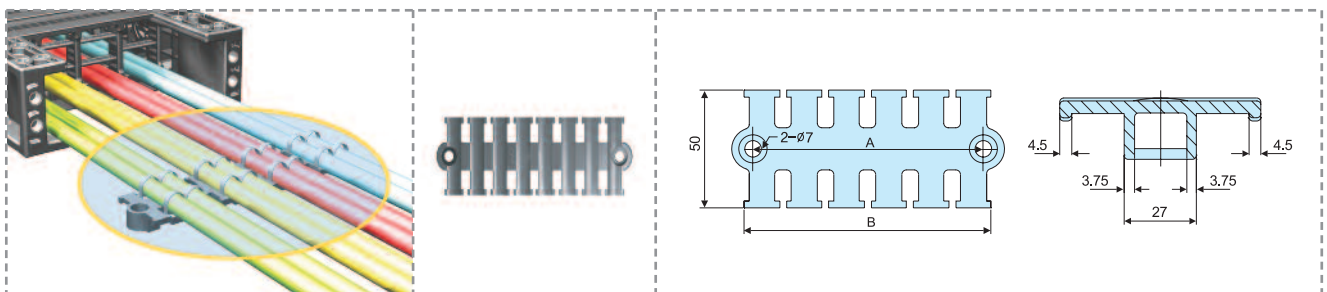
SEPARATORS (SP)



Separator is available in length from 20mm to 150mm 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 최대150mm까지 사용가능하며 **5mm간격으로 절단**하여 원하는 길이로 사용가능합니다. 크기가 각각 다른 케이블을 크기에 맞게끔 공간분할이 용이하고 **세퍼레이터 핀으로 결합**하여 어떠한 경우에도 안전하게 케이블의 입선공간을 유지하여 안전하게 케이블을 보호할 수 있습니다.

TIE WRAP



(Dimensions in mm)

The tie wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation.

Tie wrap은 Sabin Chain의 브라켓을 기준으로 바깥쪽으로 설치함으로써 체인의 움직임으로 인해 **케이블의 유동**을 방지하고자 **고정하는 시스템**으로 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