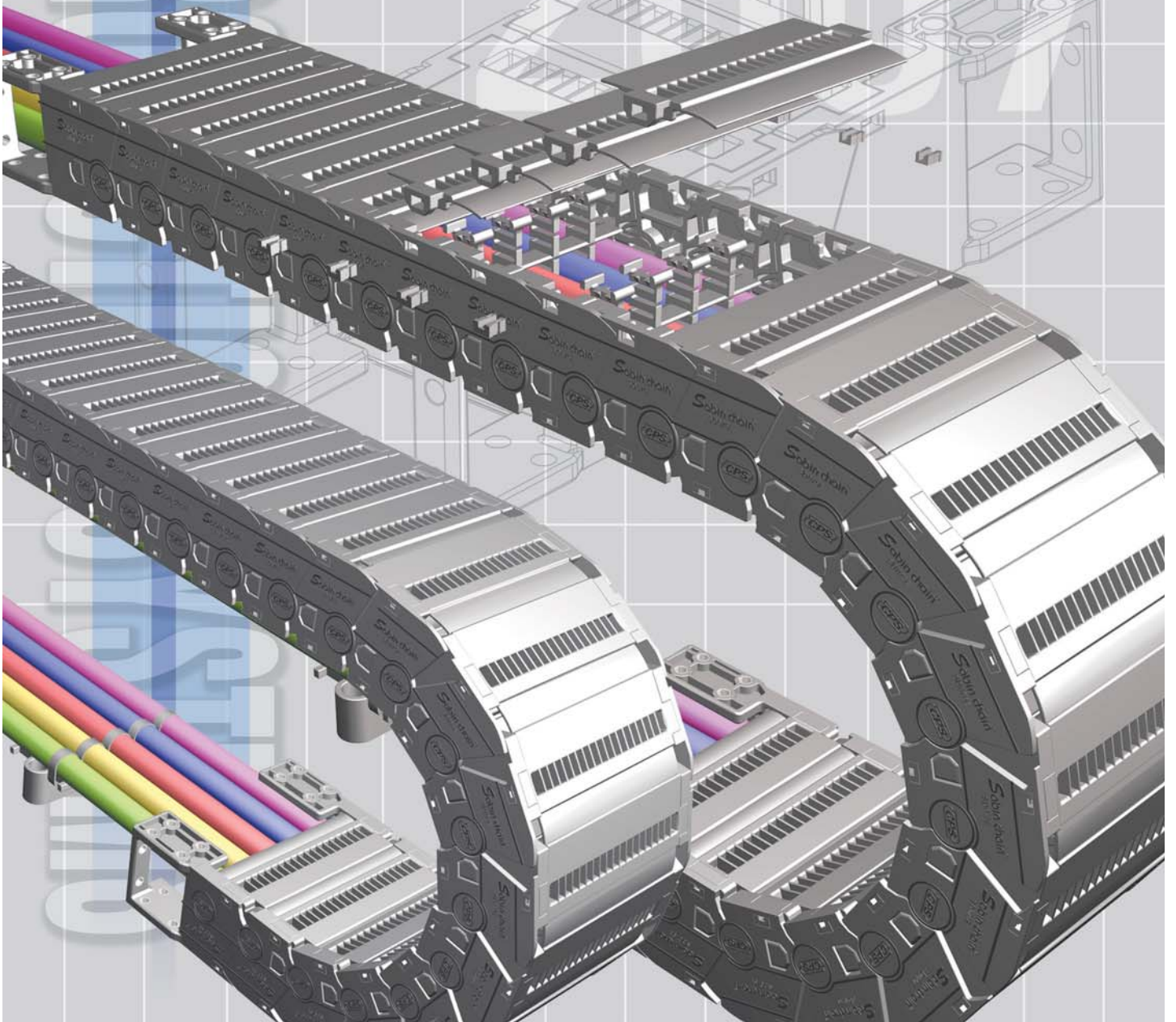


**NEW**  
[www.cpsystem.co.kr](http://www.cpsystem.co.kr)

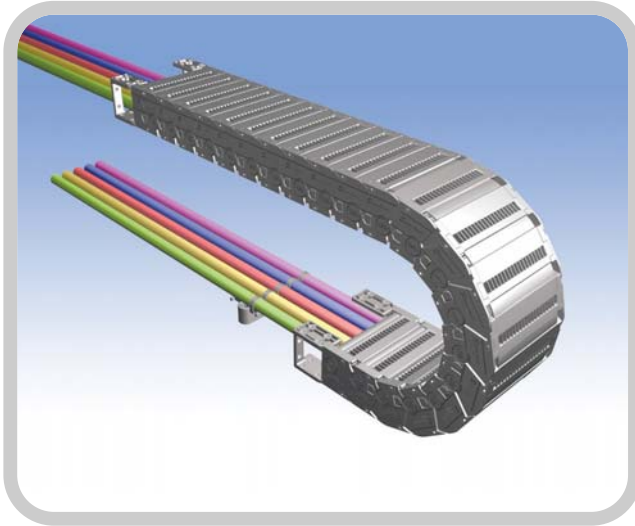


Using material of high quality

# Sabin chain<sup>®</sup> E Type



## Sabin chain<sup>®</sup> E Type



**S**abin chain E type use new material “CPS-Amide” and this is the progressive **next generation cable chain** which improve the **dust** and **noise** problem of exist enclosed type cable chain by the changing the link pin connection method to **band connection method for the first time in the world**.

The elasticity of band connection method of Sabin chain make the chain smoothly and can resist the high speed of machine, this can improve the productivity more than 30%.

**Sabin chain E type** have been designed to protect the cable perfectly from the external dust and foreign substance and this condition protect the cables safely from many of dangerous factors at the car welding production line. The technology of banding connection

method is our own new technic development. We got the **NET(New excellent technic)** certificate after strict investigation from The Ministry of Science and Technology. With this Sabin chain, we got the **IPA dust test certificate (VDI2083 CLASS2/DINEN14644-1 ISO CLASS4)** and **TUV noise test certificate(30dB)**.

The new product, **Sabin Chain E type**, is the **most suitable cable protection system** which had been tested in various situation and developed various dimension to adapt at any of application environment.

Moreover, this new Sabin Chain do not have the **6 poisons(Ph, Cd, Hg, Cr+6, PBB, PBEDs)** which is regulated in European market and recyclable **high quality engineering plastic**.

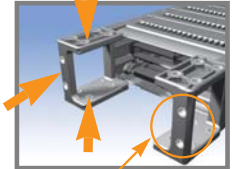
The characteristic and merit

1 Enclosed type frame



The frame for this type is designed as a enclosed shape can protect the inserted cable perfectly from foreign substance or other dangerous things.

4 Free End Bracket



\*Steel washer

The fixing end part of cable chain which improve the efficiency of mounting condition by unify the exist easy end bracket and normal end bracket. Moreover, the connection condition can be stronger by the steel washer.

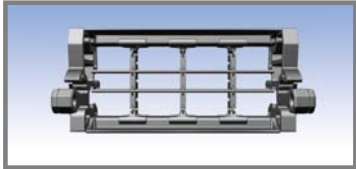
2 Low dust



Our own technology of banding connection method minimize the friction part and restrain the dust happen This item got the record CLASS 2 from IPA dust test. Very suitable to apply at

the semi conductor production line and at the production area which require dust regulation within CLASS 10.

5 Divider & Separator



This item can separate the inserted cables can utilize the inside space maximize and prevent the damage of cable cover or breaking cables by friction.

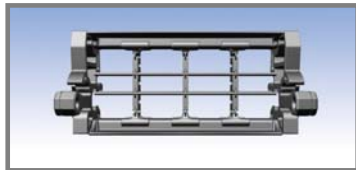
3 Low noise



Our own technology of banding connection method minimize the friction part and also noisy condition. We got the score of 30dB from TUV noise test and this is the quietest level of the

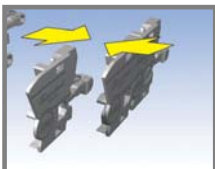
world. Can apply at the production area require the low noise regulation.

5 Clean treatment of inside surface



The inside of Sabin chain is designed with smooth treatment and prevent the damage of cable cover from friction with rough inside.

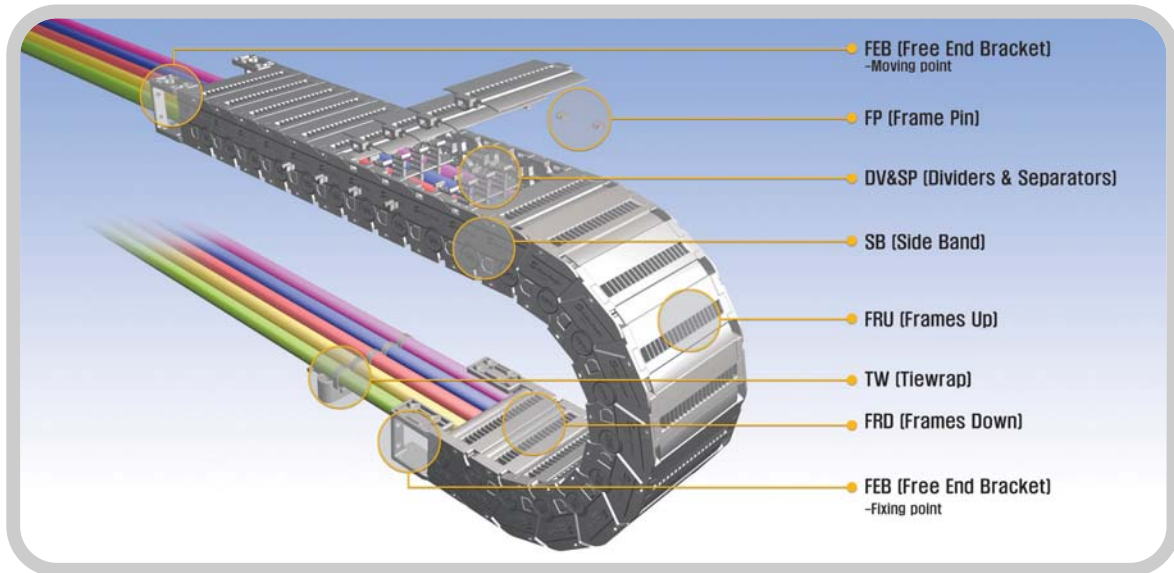
4 Band connection method



This band connection method can solve the exist cable chain's dust problem and noisy problem and can take the New Excellent Technology certificate form the Ministry of Science and

Technology.

# Sabin chain<sup>®</sup> E Type



**Chain material**

CPS-AMIDE  
UL94-HB

**Low Noise :**

TUV 30 dB

**Low Mote :**

IPA VDI 2083 CLASS 2  
DIN EN 14644-1 ISO CLASS4

**Speed:** 15m/sec

**Temperature :** -40°C ~ +130°C

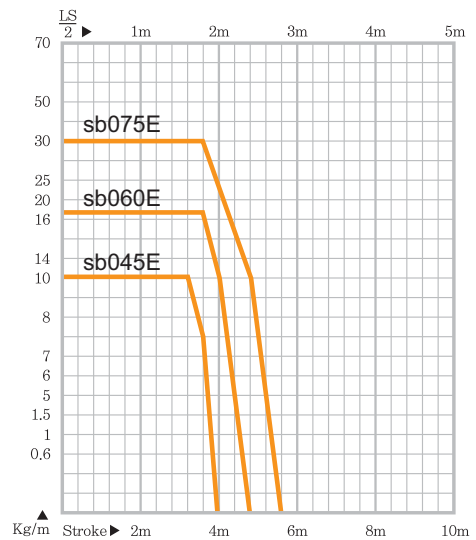
**Vertical installation Length**

Curve above= max. 6.0m  
Curve below= max. 100 ~ 120m  
Side Mounted, Unsupported= max. 2.5~3.0m

**적용 (Applications) :**

Semiconductor production line which requests dust regulation minimum Class10, industrial zone request low noise, automation machine tool or industrial machine which requires cable protection from dust or foreign substance.

**Load diagrams self-supporting length**



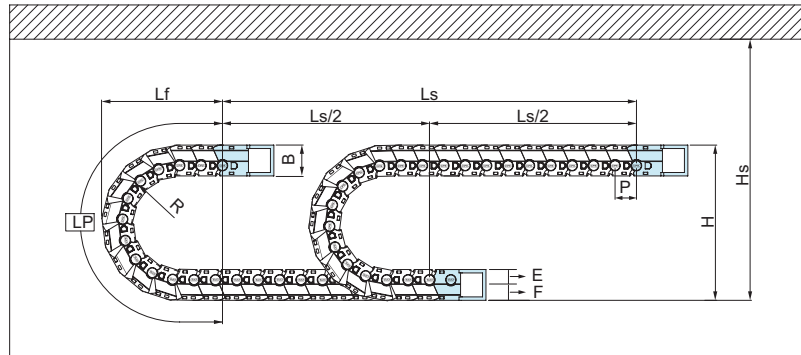
**Calculation of the chain length**

$$L = \frac{LS}{2} + LP$$

# Sabin chain® E Type

## Layout of the chain

- Ls : stroke
- Lp : loof length
- Lf : loof projection
- Hs : safe space



(dimensions in mm)

### sb 045E Type

Pitch P : 45mm  
 Height B : 66mm  
 Height H : 2R+88  
 HS  $\geq$  H+40mm  
 E : 22mm F : 44mm

Bending radius R	90	110	135	165	185	235	285
Lp	463	526	604	699	761	918	1,075
Lf	224	244	269	299	319	369	419
H	268	308	358	418	458	558	658

### sb 060E Type

Pitch P : 60mm  
 Height B : 82mm  
 Height H : 2R+108  
 HS  $\geq$  H+40mm  
 E : 28mm F : 54mm

Bending radius R	125	135	150	180	230	270	340
Lp	633	664	711	806	963	1,088	1,308
Lf	299	309	324	354	404	444	514
H	358	378	408	468	568	648	788

### sb 075E Type

Pitch P : 75mm  
 Height B : 108mm  
 Height H : 2R+144  
 HS  $\geq$  H+40mm  
 E : 36mm F : 72mm

Bending radius R	160	180	230	280	330	380	480
Lp	803	866	1,023	1,180	1,337	1,494	1,808
Lf	382	402	452	502	552	602	702
H	464	504	604	704	804	904	1104

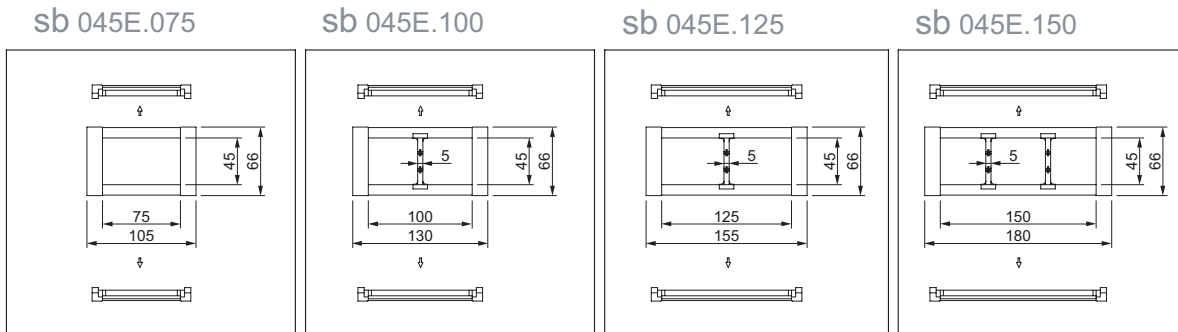
## Ordering

### sb 075E. 200. R180 / F - 3000L : 10ST

- Q' ty(set)
- Length(mm)
- Free End Bracket
- Bending radius
- Inside Width
- Enclosed Type sb45E, 060E, 075E
- Sabin Chain

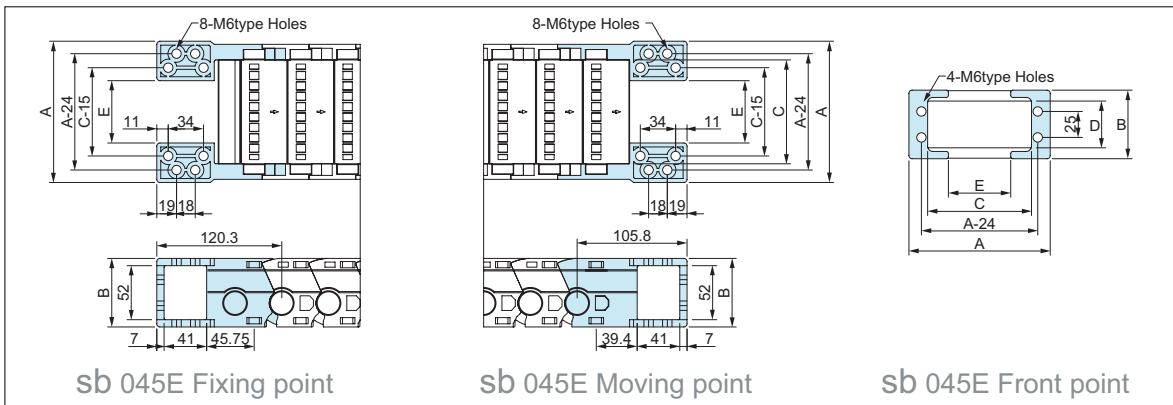
# Sabin chain<sup>®</sup> E Type **sb 045E**

**Chain cross section**



Chain Type	Bending Radius(R)	Weight in kg/m
sb 045E.075	90, 110, 135, 165, 185 235, 285	2.44
sb 045E.100		2.67
sb 045E.125		2.89
sb 045E.150		3.11

**Free End Bracket**

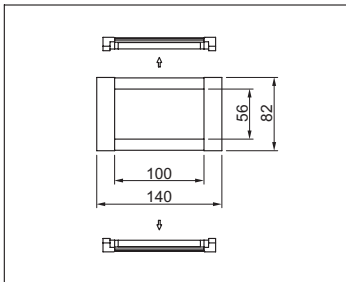


Chain Type	A	B	C	D	E	Hole Type
sb 045E.075	111	66	75	45	35	M6 Hole
sb 045E.100	136		100		60	
sb 045E.125	161		125		85	
sb 045E.150	186		150		110	

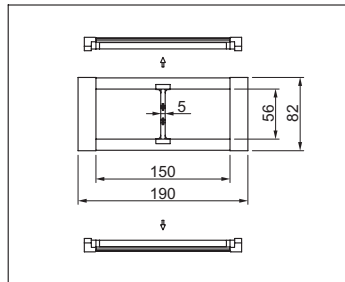
# Sabin chain<sup>®</sup> E Type **sb 060E**

## Chain cross section

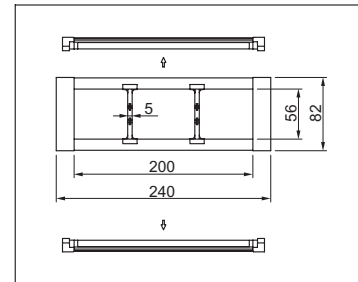
sb 060E.100



sb 060E.150

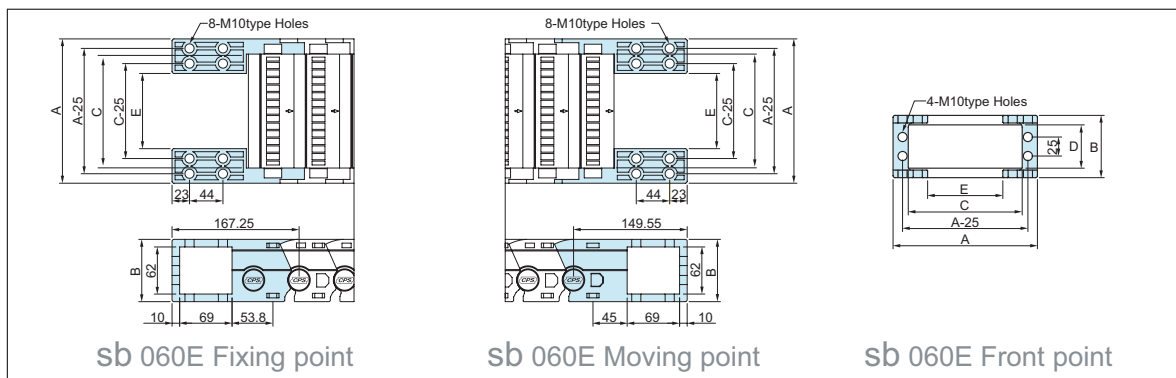


sb 060E.200



Chain Type	Bending Radius(R)	Weight in kg/m
sb 060E.100	125, 135, 150, 180, 230 270, 340	3.67
sb 060E.150		4.17
sb 060E.200		4.83

## Free End Bracket

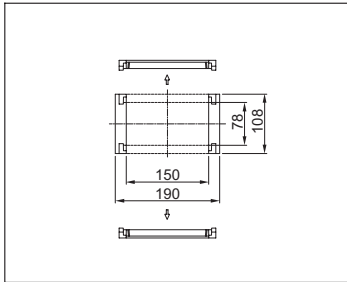


Chain Type	A	B	C	D	E	Hole Type
sb 060E.100	140	82	100	56	49	M10 Hole
sb 060E.150	190		150		99	
sb 060E.200	240		200		149	

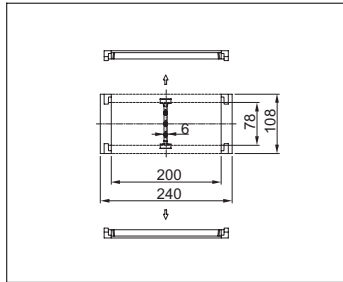
# Sabin chain<sup>®</sup> E Type **sb 075E**

## Chain cross section

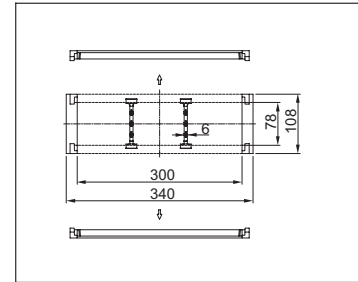
sb 075E.150



sb 075E.200

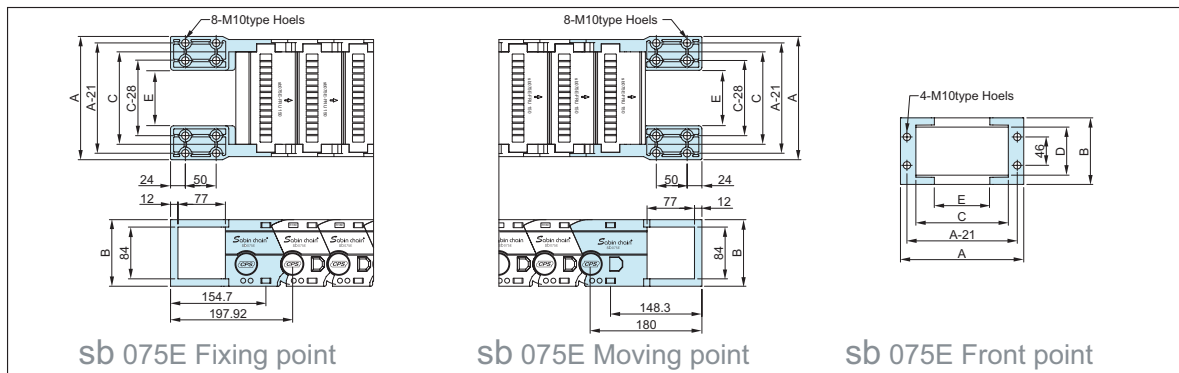


sb 075E.300



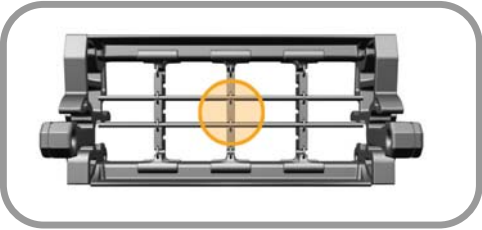
Chain Type	Bending Radius(R)	Weight in kg/m
sb 075E.150	160, 180, 230, 280, 330, 380, 480	4.67
sb 075E.200		6.40
sb 075E.300		7.60

## Free End Bracket



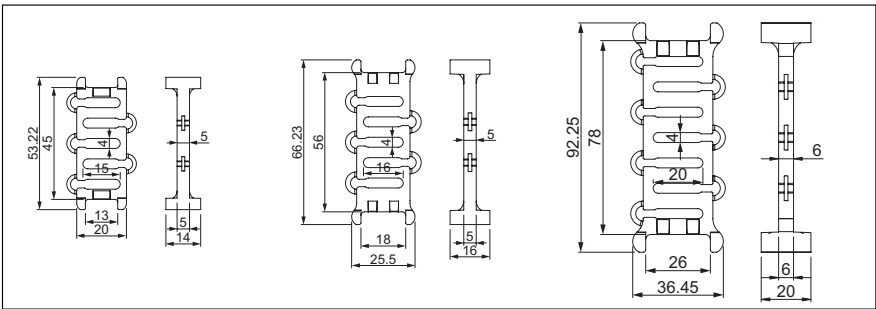
Chain Type	A	B	C	D	E	Hole Type
sb 075E.150	200	108	150	78	90	M10 Hole
sb 075E.200	250		200		140	
sb 075E.300	350		300		240	

**Dividers & Separators**



The function of **divider** and **separator** is to separate each inserted chain and prevent the **friction between cables** and preserve them from **damage of cable skin or cut off**. And there should be the extra space of minimum 10%.  
 The **separator should be applied with divider** when the cable overlap more than two in a section.

**DV (Dividers)**



sb045E

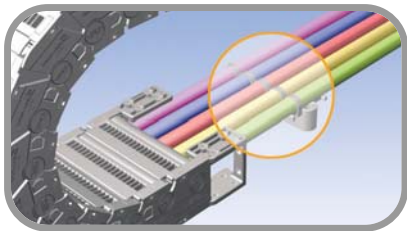
sb060E

sb075E

**SP (Separators)**

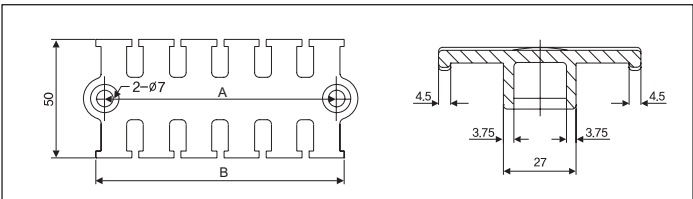
	SP075	SP100	SP125	SP150	SP200	SP300
sb 045E	○	○	○	○		
sb 060E		○		○	○	
sb 075E				○	○	○

**Tie Wrap**



Tie wrap **prevents cut off problem** of the cable by the twisting and pulling movement.

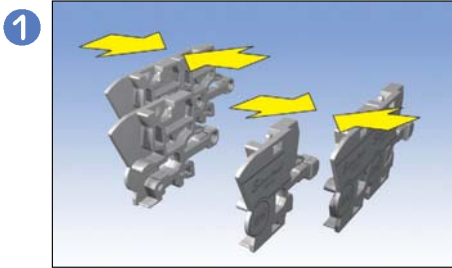
**sb-TW045 / sb-TW060 / sb-TW075**



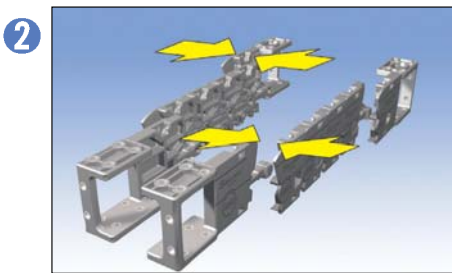
	050	075	100	125	150
A	58	75	98	122	141
B	65	82	105	129	148

Assembly procedure (조립순서)

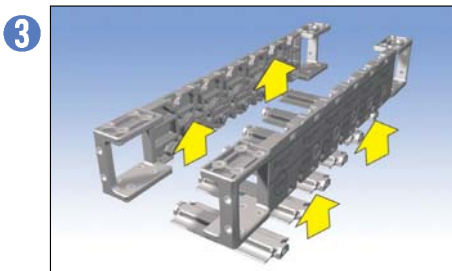
The assembly method is proceeded with following instruction and must use rubber hammer. And please discuss with CPS if the assembly under special circumstance.



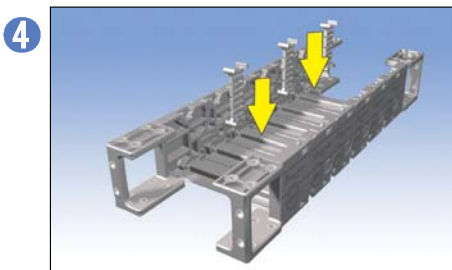
⊕ Assemble side band as many as you need.



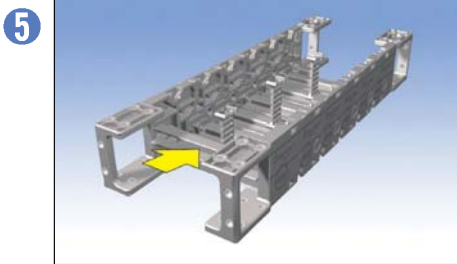
⊕ Assemble the end bracket at the both end part.



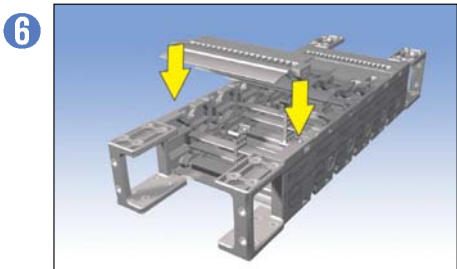
⊕ Assemble frame below part like a drawing.



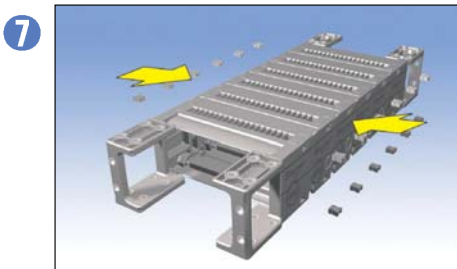
⊕ Insert the divider at every two links like a drawing.



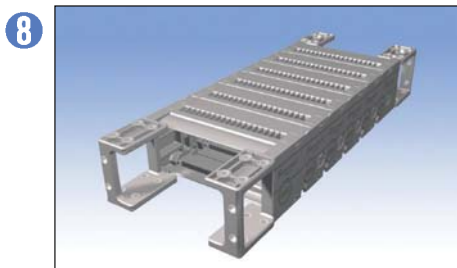
⌚ Insert the separator at the side part of divider.



⌚ Assemble the frame upper part like a drawing.



⌚ Fixing the frame pin.



⌚ Finishing to assemble Sabin Chain E Type.

# CABLE PROTECTION SYSTEMS



#160-2, Allak2-dong, Dongrae-gu, Busan, Korea.  
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E-mail: cpsystem@unitel.co.kr / cps@cpsystem.co.kr