

Sabin chain[®] CR TYPE : Clean Room

nsb020CR _ 236p

nsb022CR _ 240p

nsb028CR _ 244p

nsb035CR _ 248p

nsb045CR _ 252p

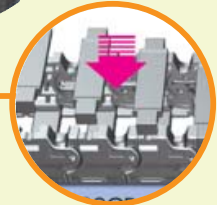
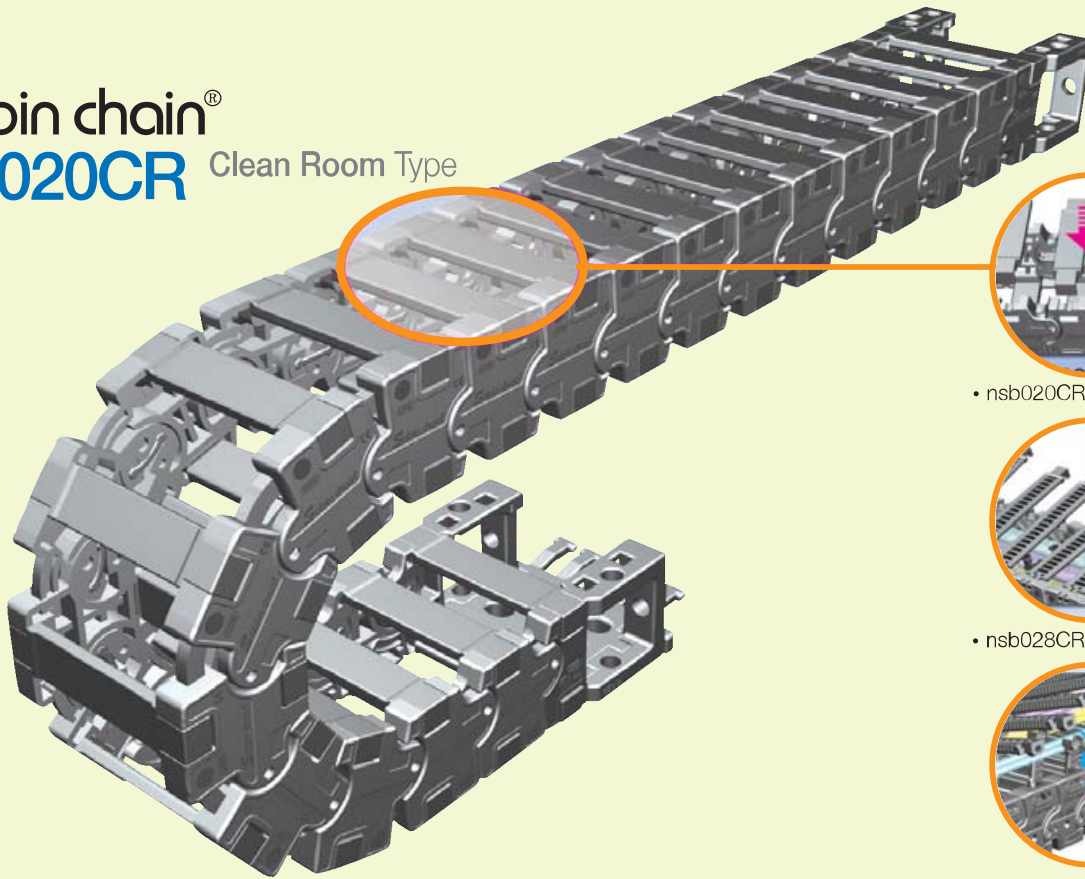
nsb060CR _ 256p

nsb075CR _ 260p



Min ●●●●●●●● Max

Sabin chain® nsb 020CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •



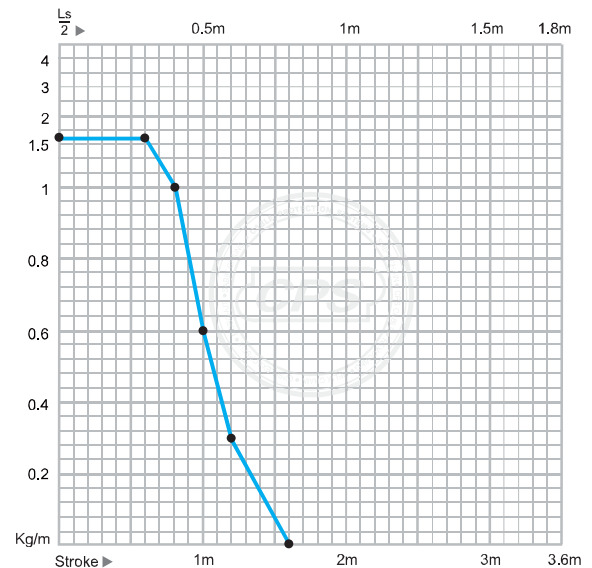
• nsb045CR, nsb060CR, nsb075CR •

• Frames are assembled at every link. (각 링크마다 프레임 결합방식)

MATERIAL

- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:** TUV Test 30 dB (DIN EN61672-1)
- **Low Mote:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m/sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above= max 1.0m
Vertical curve below= max 5m
Side Mounted, Unsupported= max 0.5m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation.
CLASS 10 이내의 분진규제가 적용되는 반도체라인, 저소음을 요구하는 사업장, 고속을 요구하는 자동화 공작기계 및 산업기계 등에 적용.

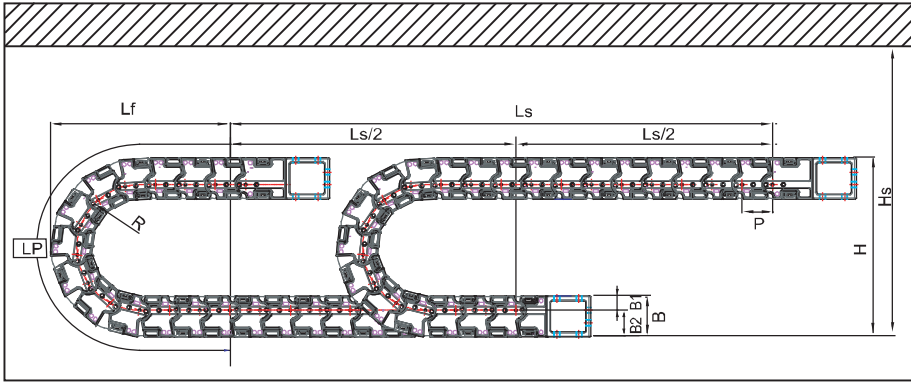
Load diagrams self-supporting length



Calculation of the chain length

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

LAYOUT OF THE CHAIN



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

nsb 020CR Type

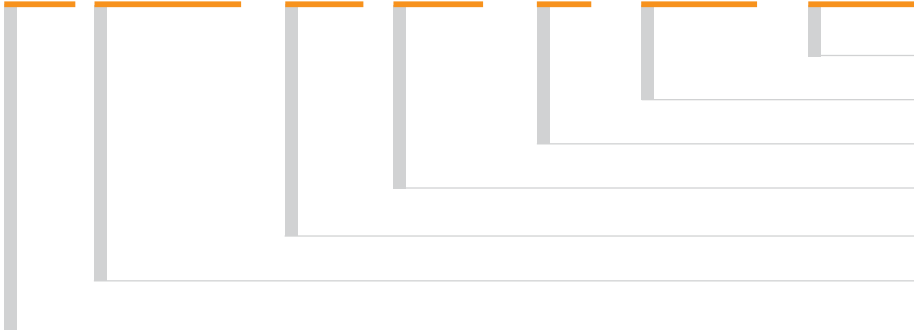
- Pitch P:** 20mm
- Height B:** 22mm
- Height H:** 2R+23mm
- Hs** ≥ H+30mm
- B1:** 10.5mm **B2:** 11.5mm

(Dimensions in mm)

Bending radius R	-	-	28	38	48
Lp	-	-	162	202	242
Lf	-	-	76	90	105
H	-	-	79	99	119

ORDERING (주문방법)

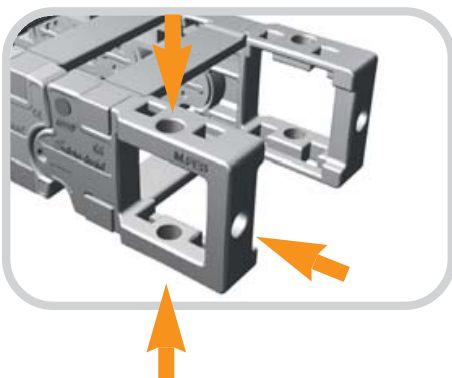
nsb 020CR. 20. R48 / F - 600L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

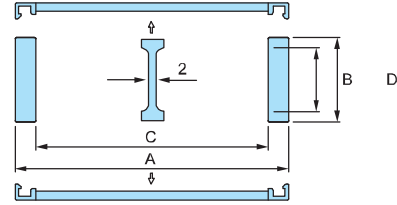
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

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

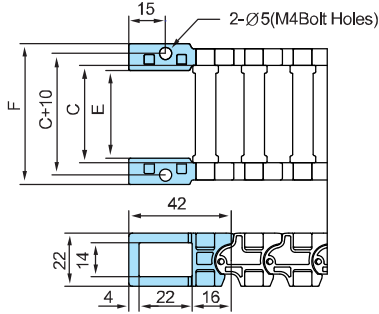
nsb 020CR Clean Room Type

CHAIN CROSS SECTION

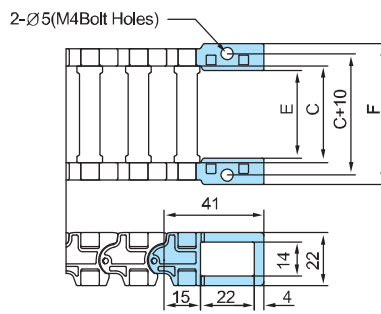


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 020CR.20	34	22	20	15	28, 38, 48	0.32
nsb 020CR.40	54	22	40	15		0.35

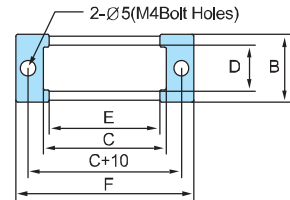
FREE END BRACKET



nsb020CR Fixing point

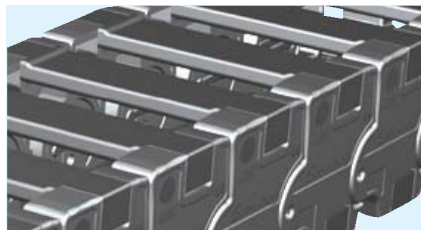


nsb020CR Moving point

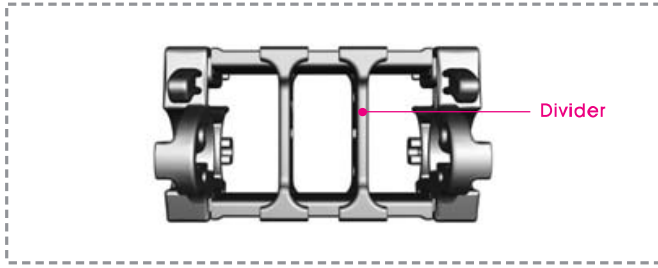


nsb020CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 020CR.20	38	22	20	15	-	M4 Bolt Holes
nsb 020CR.40	58		40			



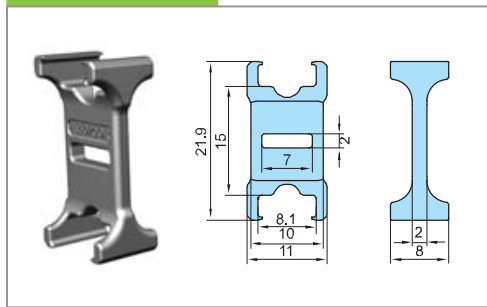
DIVIDERS



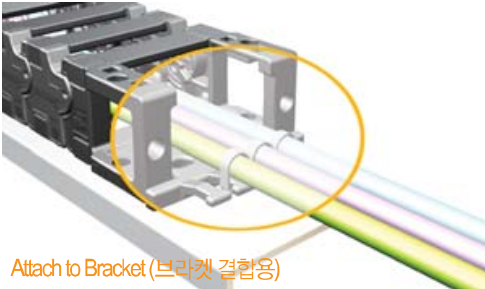
Dividers (Vertical) divide the inner chamber of the cable chain to give each cable diameter its own center and keep the cables separate from each other. The use of the dividers can reduce the width requirements as two or more levels can be made within the same chamber. To prevent twisting or damage to the cables, as a rule there needs to be at least 10% space between the inserted cable and its enclosure. Also, for nsb020CR and 022CR, Separators (Horizontal) are not used but dividers (Vertical) are only used to divide space in the inner chamber of the cable chain.

디바이더(세로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 피복손상 및 단선을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다. 또한 nsb020CR, 022CR의 경우 세퍼레이터(가로분리대)는 사용하지 않고 디바이더만 사용하여 체인 내 공간을 분리합니다.

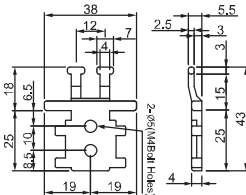
nsb020CR DV-M



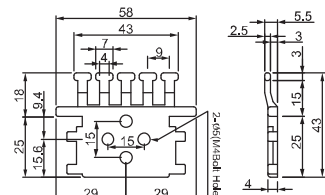
TIE WRAP



Attach to Bracket (브라켓 결합용)



nsb-TW020.20



nsb-TW020.40

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 Chain 체인의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인 내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다.

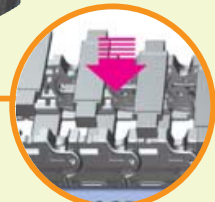
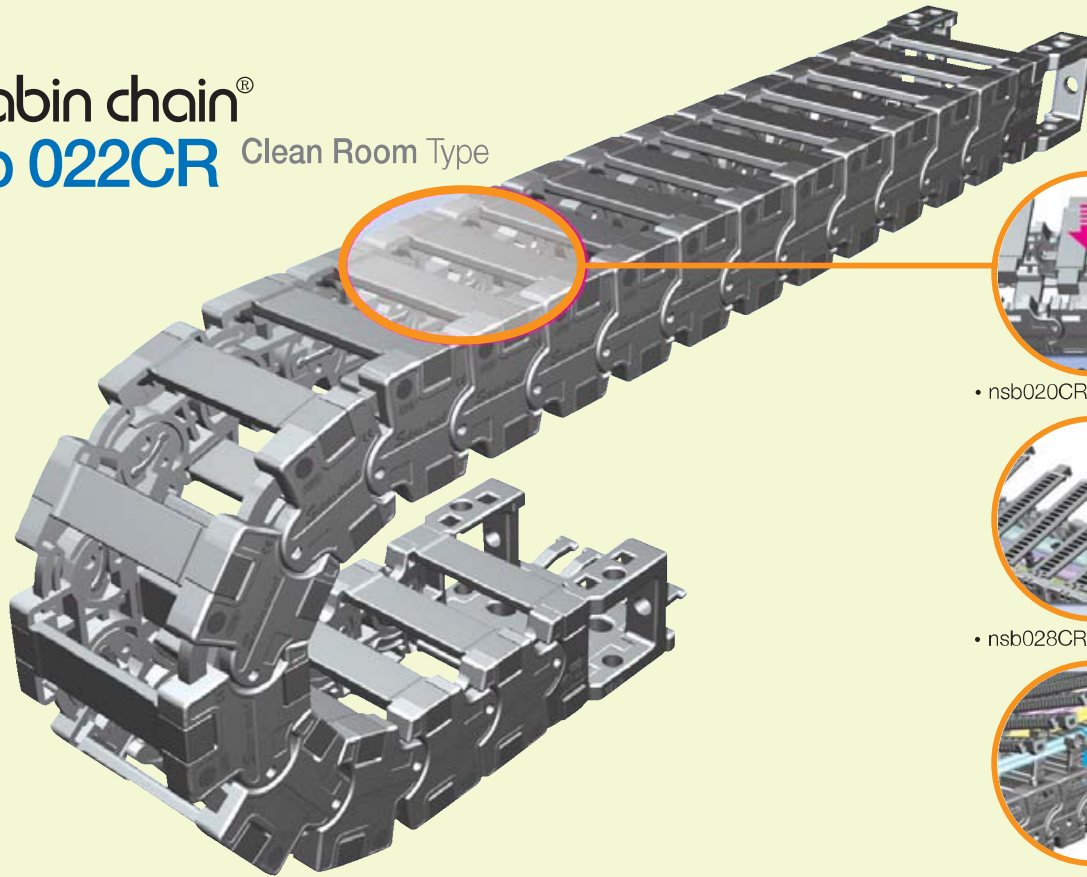


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Min ●●●●●●●● Max

Sabin chain[®]
nsb 022CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •



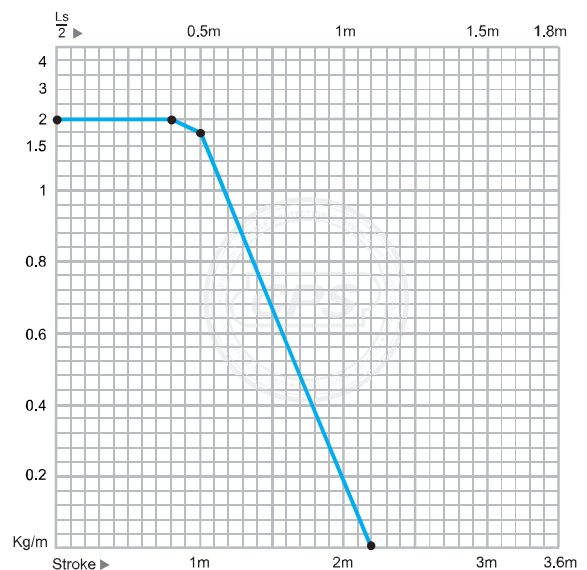
• nsb045CR, nsb060CR, nsb075CR •

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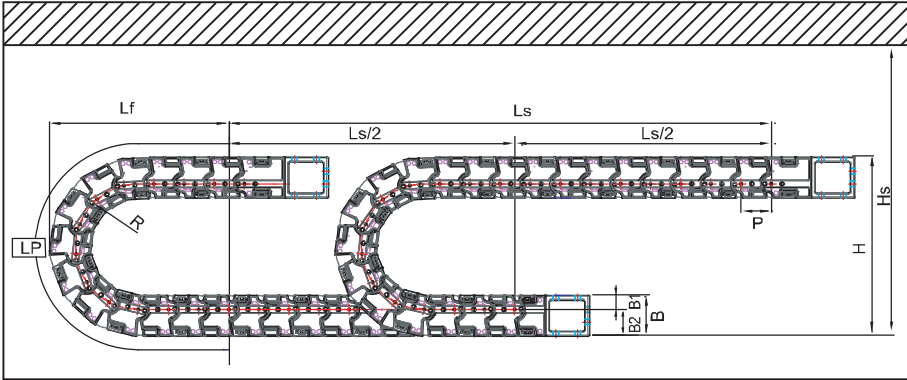
● **Load diagrams self-supporting length**



● **Calculation of the chain length**

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

LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	35	45	75	100	120
Lp	222	266	353	441	485
L f	108	125	152	182	192
H	106	126	186	236	276

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

nsb 022CR Type

- Pitch P:** 22mm
- Height B:** 29mm
- Height H:** 2R+36mm
- Hs** ≥ H+30mm
- B1:** 11mm **B2:** 18mm

ORDERING (주문방법)

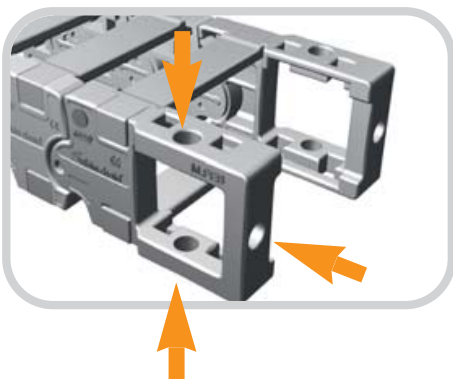
nsb 022CR. 47. R45 / F - 846L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

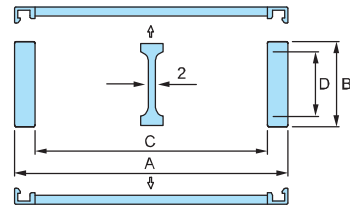
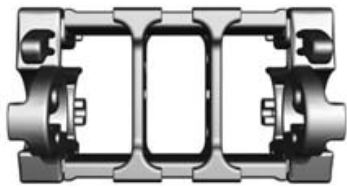
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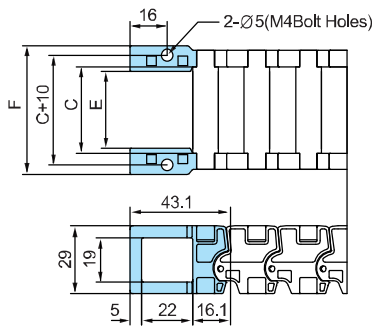
nsb 022CR Clean Room Type

CHAIN CROSS SECTION

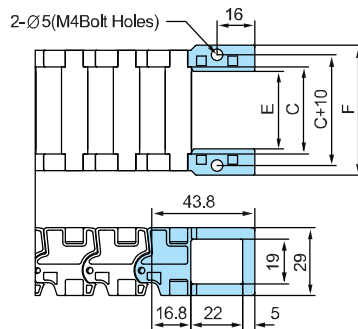


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 022CR.16	30		16		35, 45, 75, 100, 120	0.43
nsb 022CR.27	41		27			0.47
nsb 022CR.37	51	29	37	22		0.51
nsb 022CR.47	61		47			0.55
nsb 022CR.67	81		67			0.67
nsb 022CR.77	91		77			0.69

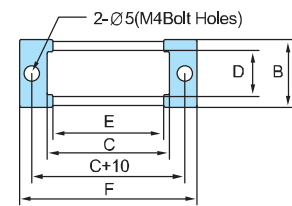
FREE END BRACKET



nsb022CR Fixing point



nsb022CR Moving point



nsb022CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 022CR.16	34		16		12	M4 Bolt Holes
nsb 022CR.27	45		27		23	
nsb 022CR.37	55	29	37	22	33	
nsb 022CR.47	65		43			
nsb 022CR.67	85		67		63	
nsb 022CR.77	95		77		73	

nsb 022CR Clean Room Type

SHIFT CHAIN

SABIN CHAIN

REVOLVING CHAIN

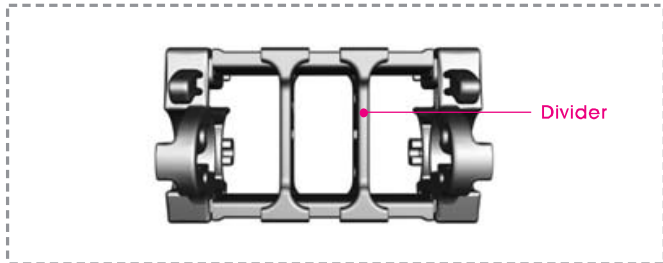
INDEX CHAIN

ROD-KIT

OPT-BOX

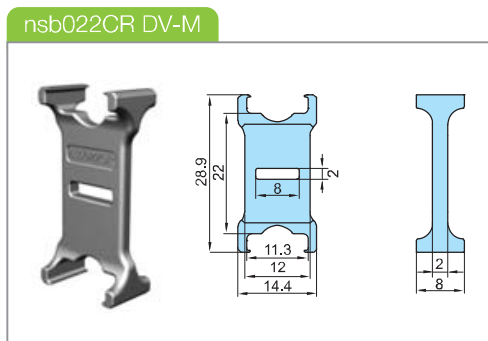
OPT-BOX

DIVIDERS

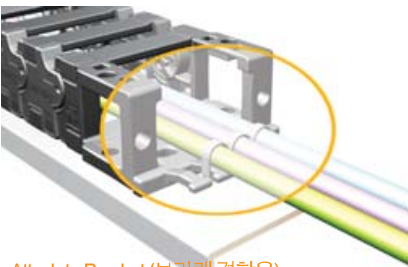


Dividers (Vertical) divide the inner chamber of the cable chain to give each cable diameter its own center and keep the cables separate from each other. The use of the dividers can reduce the width requirements as two or more levels can be made within the same chamber. To prevent twisting or damage to the cables, as a rule there needs to be at least 10% space between the inserted cable and its enclosure. Also, for nsb020CR and 022CR, Separators (Horizontal) are not used but dividers (Vertical) are only used to divide space in the inner chamber of the cable chain.

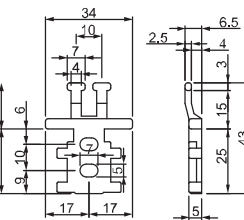
디바이더(세로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 피복손상 및 단선을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다. 또한 nsb020CR, 022CR의 경우 세퍼레이터(가로분리대)는 사용하지 않고 디바이더만 사용하여 체인 내 공간을 분리합니다.



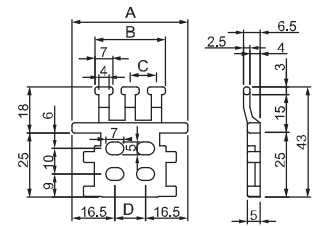
TIE WRAP



Attach to Bracket (브라켓 결합용)



nsb-TW022.16



nsb-TW022.27/37/47/67/77

	16	27	37	47	67	77
A	-	45.0	55.0	65.0	85	95
B	-	27.5	41.0	48.0	68	78
C	-	10.2	8.5	10.4	10	8.87
D	-	12.0	22.0	32.0	52	62

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

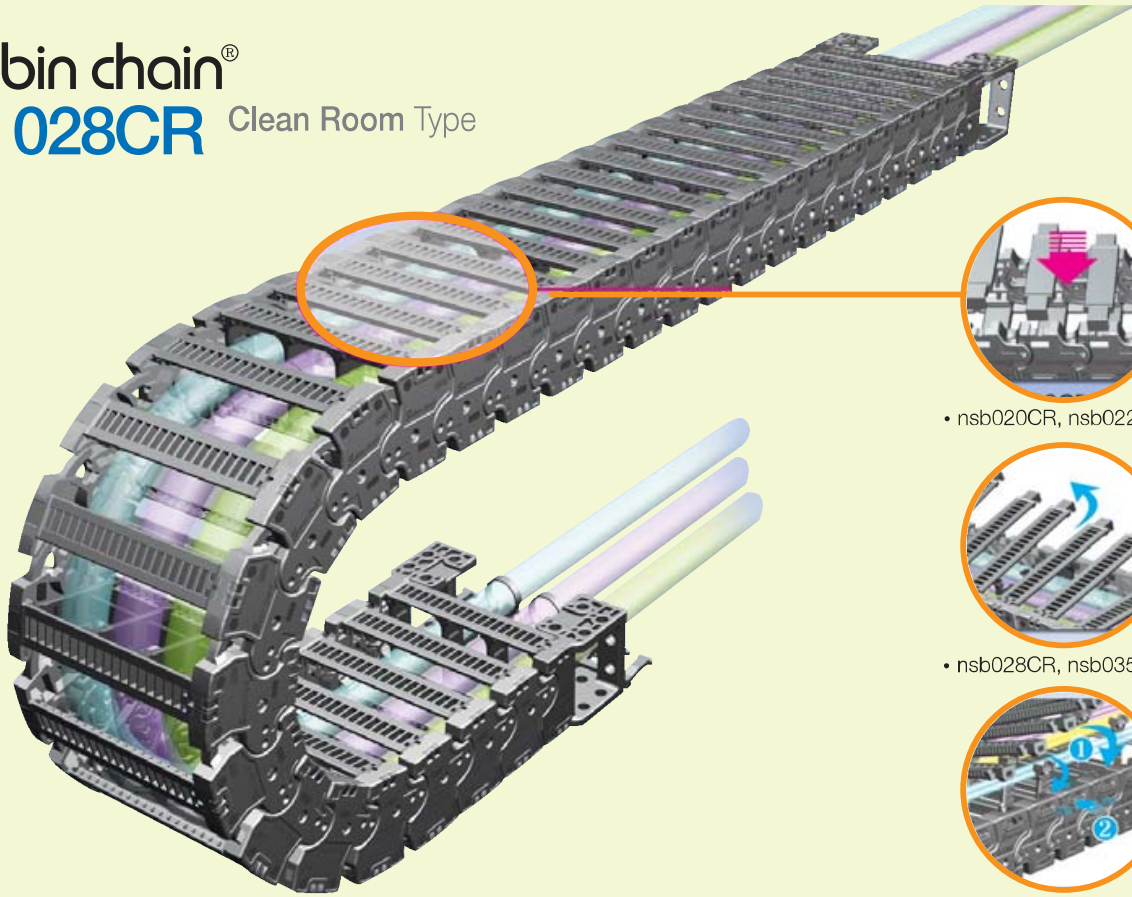
There are two types in the tie wrap; Attached & Unattached to the bracket.

Tie Wrap은 Sabin Chain의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.



Min ●●●●●●●● Max

Sabin chain® nsb 028CR Clean Room Type



• nsb020CR, nsb022CR •

• nsb028CR, nsb035CR •

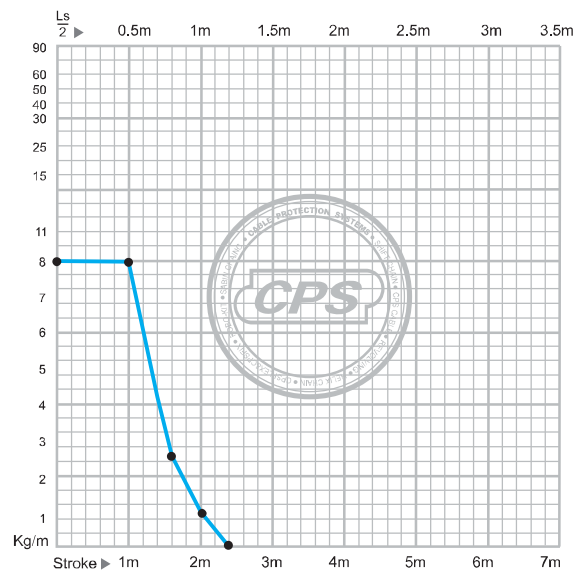
• nsb045CR, nsb060CR, nsb075CR •

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MATERIAL

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- **Low Noise:** TUV Test 30 dB (DIN EN 61672-1)
- **Low Mote:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m / sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above= max 2.0m
Vertical curve below= max 40m
Side Mounted, Unsupported= max 1.0m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation.
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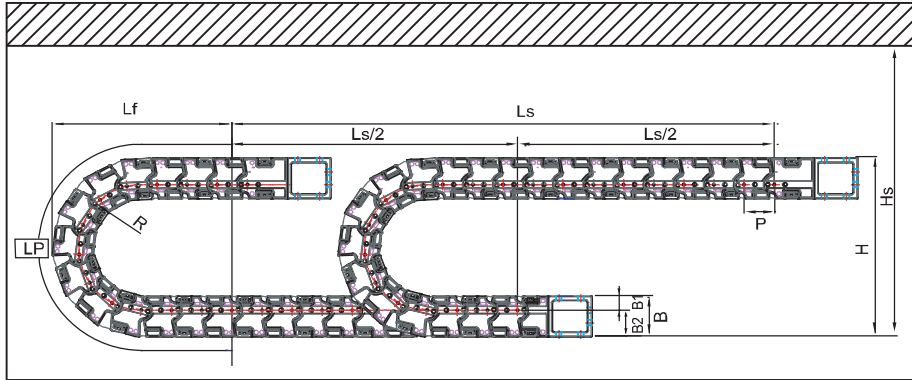
Load diagrams self-supporting length



Calculation of the chain length

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

LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	50	70	90	120	150
Lp	311	367	422	533	589
L f	149	135	182	221	232
H	146	186	226	286	346

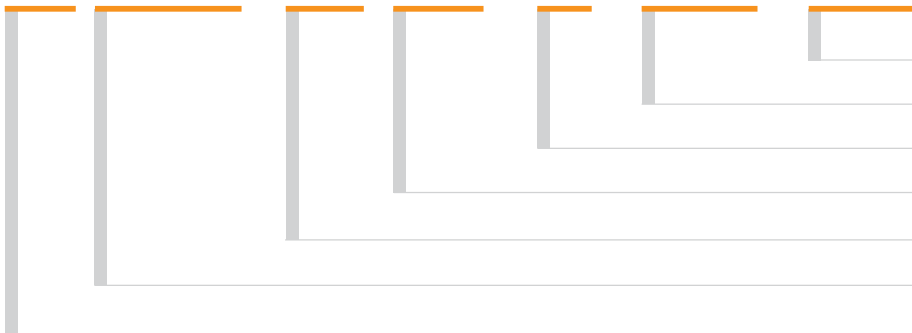
- Ls:** Stroke
- Lp:** Loop Length
- L f:** Loop Projection
- Hs:** Safe Space

nsb 028CR Type

- Pitch P:** 28mm
- Height B:** 38mm
- Height H:** 2R+46mm
- Hs** ≥ H+30mm
- B1:** 15mm **B2:** 23mm

ORDERING (주문방법)

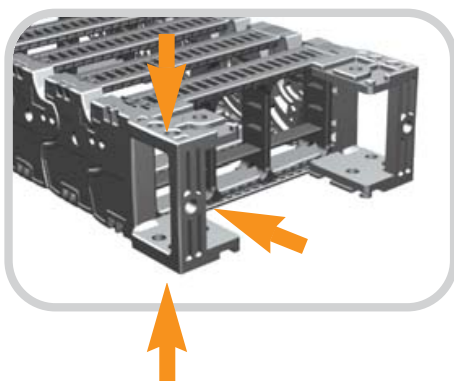
nsb 028CR. 075. R70 / F - 1000L: 10ST



- 주문수량 Q' ty(set)
- 체인길이 Length(mm)
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- 클린룸타입 Clean Room Type

New Sabin Chain

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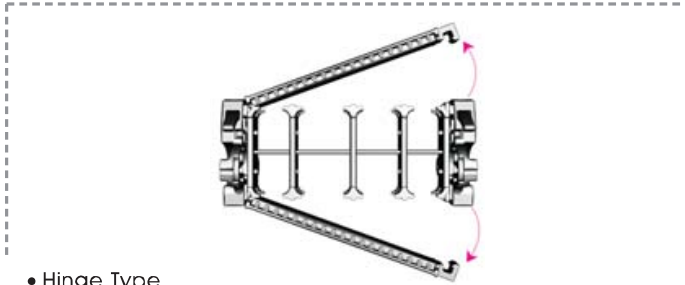
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

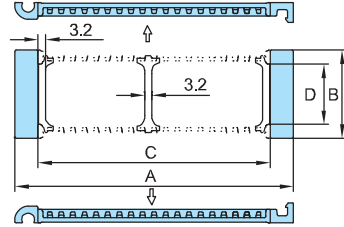
▶ Above products are patent registered item which can be protected by industrial property right. (상기제품은 특허등록 제품으로 산업재산권의 보호를 받는 제품입니다.)

nsb 028CR Clean Room Type

CHAIN CROSS SECTION

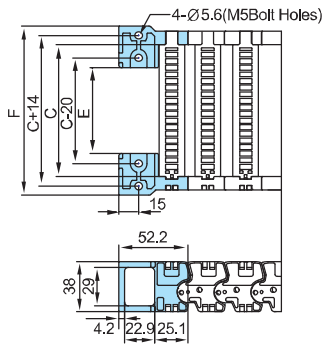


• Hinge Type

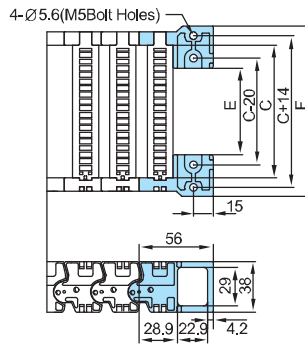


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 028CR.035	55		35			0.90
nsb 028CR.050	70		50			0.98
nsb 028CR.055	75		55			1.02
nsb 028CR.075	95		75			1.12
nsb 028CR.100	120	38	100	26	50, 70, 90, 120, 150	1.27
nsb 028CR.125	145		125			1.41
nsb 028CR.150	170		150			1.59
nsb 028CR.175	195		175			1.74
nsb 028CR.200	220		200			1.84

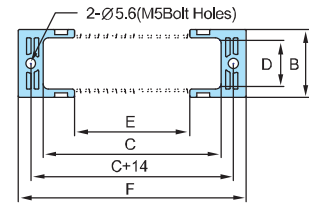
FREE END BRACKET



nsb028CR Fixing point



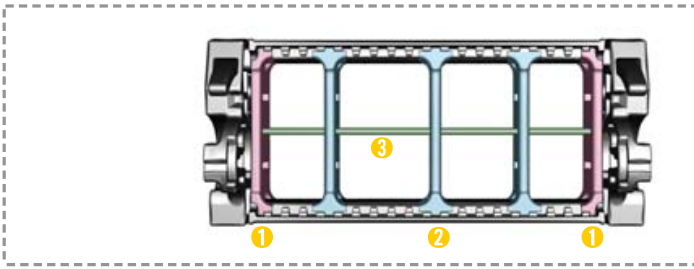
nsb028CR Moving point



nsb028CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 028CR.035	63		35		0	
nsb 028CR.050	78		50		15	
nsb 028CR.055	83		55		20	
nsb 028CR.075	103		75		40	
nsb 028CR.100	128	38	100	26	65	M5 Bolt Holes
nsb 028CR.125	153		125		90	
nsb 028CR.150	178		150		115	
nsb 028CR.175	203		175		140	
nsb 028CR.200	228		200		165	

DIVIDERS & SEPARATORS

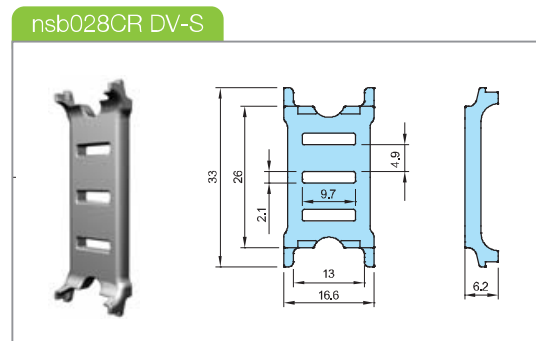
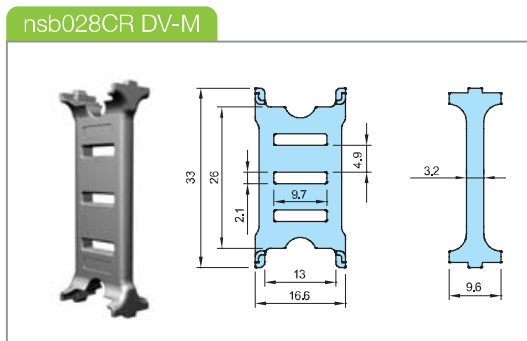


- ① DV-S (측면전용디바이더)
- ② DV-M
- ③ Separator(SP)

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 단선을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다.

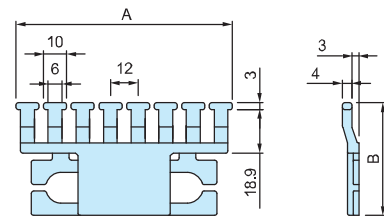
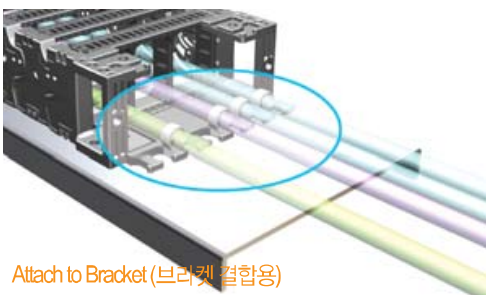
또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 디바이더에 결합하여 사용하여 케이블의 꼬임방지와 피복손상을 방지할 수 있습니다.



nsb028CR Separators (SP) (No. : S-SP/M)

Chain Type	Separators	SP 035	SP 050	SP 055	SP 075	SP 100	SP 125	SP 150	SP 175	SP 200
nsb028CR		○	○	○	○	○	○	○	○	○
nsb035CR		○	○	○	○	○	○	○	○	○

TIE WRAP



(Dimensions in mm)

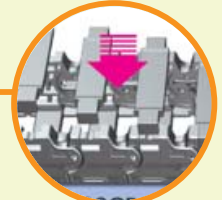
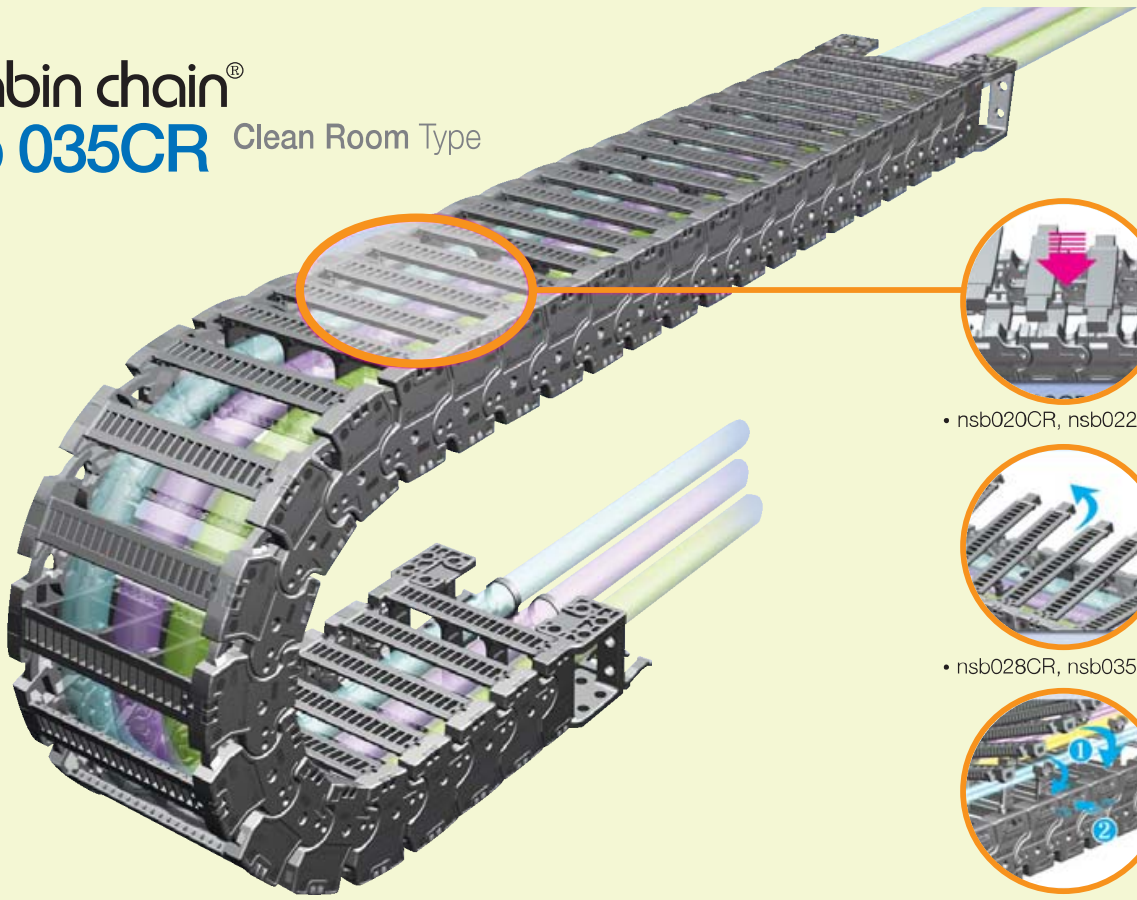
The Tie Wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the bracket.

Tie Wrap	035	055	075	100	125
A	46	70	94	118	142
B	35.4	48.9	48.9	48.9	48.9

Tie Wrap은 Sabin Chain 의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.

Min ●●●●●●●● Max

Sabin chain[®] nsb 035CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •

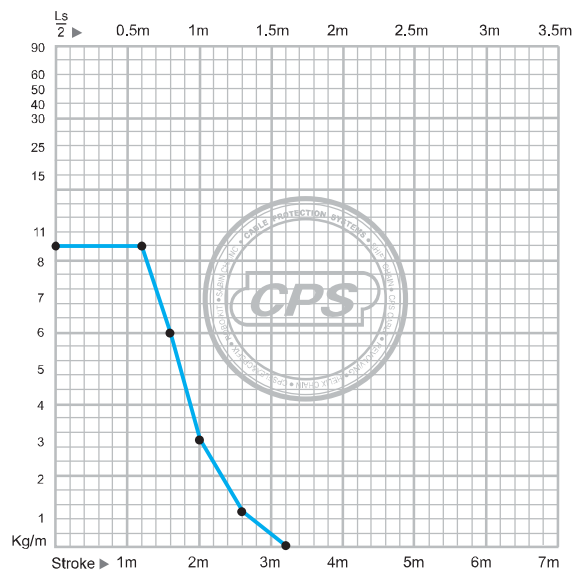


• nsb045CR, nsb060CR, nsb075CR •

MATERIAL

- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:** TUV Test 30 dB (DIN EN 61672-1)
- **Low Note:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m / sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above= max 3.0m
Vertical curve below= max 50m
Side Mounted, Unsupported= max 1.0m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation.
CLASS 10 이내의 분진규제가 적용되는 반도체라인, 저소음을 요구하는 사업장, 고속을 요구하는 자동화 공작기계 및 산업기계 등에 적용.

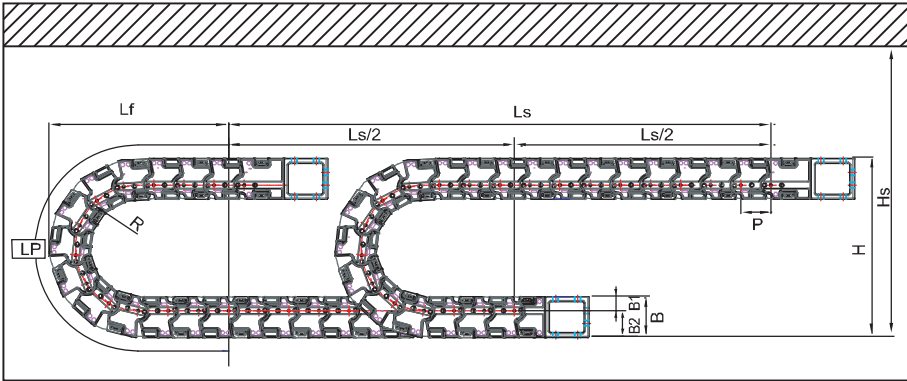
Load diagrams self-supporting length



Calculation of the chain length

$$\left[L = \frac{L_s}{2} + L_p \right]$$

LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	75	100	125	150	200
Lp	471	550	628	706	863
L f	226	251	276	301	351
H	218	268	318	368	468

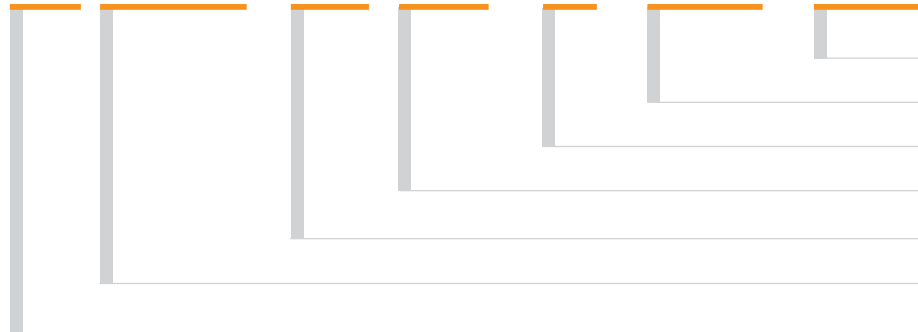
- Ls:** Stroke
- Lp:** Loop Length
- Lf:** Loop Projection
- Hs:** Safe Space

nsb 035CR Type

- Pitch P:** 35mm
- Height B:** 52mm
- Height H:** 2R+68mm
- Hs** ≥ H+30mm
- B1:** 18mm **B2:** 34mm

ORDERING (주문방법)

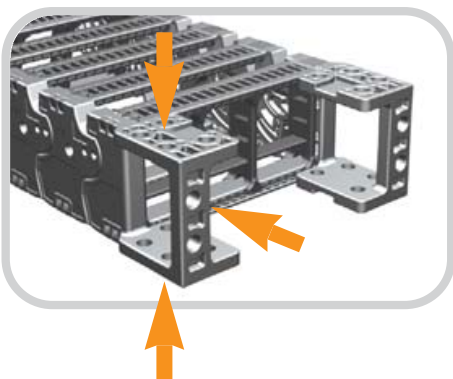
nsb 035CR. 100. R75 / F - 1200L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

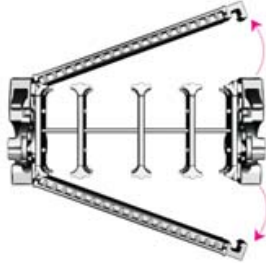
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

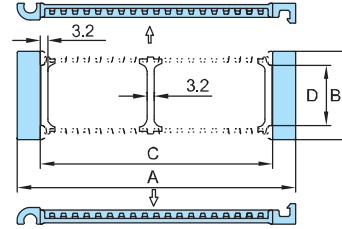
▶ Above products are patent registered item which can be protected by industrial property right. (상기제품은 특허등록 제품으로 산업재산권의 보호를 받는 제품입니다.)

nsb 035CR Clean Room Type

CHAIN CROSS SECTION

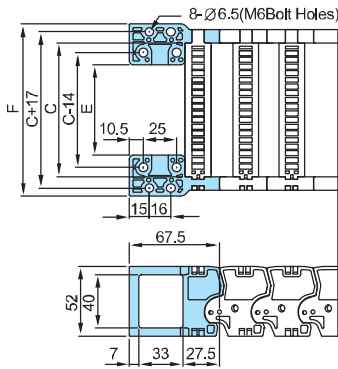


• Hinge Type

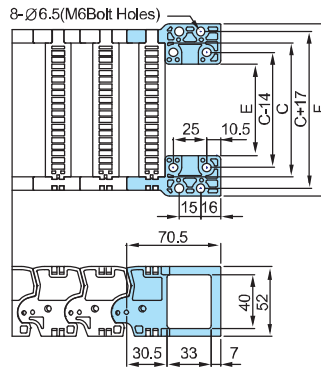


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 035CR.035	55		35			1.00
nsb 035CR.050	70		50			1.06
nsb 035CR.055	75		55			1.09
nsb 035CR.075	95		75			1.17
nsb 035CR.100	120	52	100	40	75, 100, 125, 150, 200	1.29
nsb 035CR.125	145		125			1.39
nsb 035CR.150	170		150			1.53
nsb 035CR.175	195		175			1.65
nsb 035CR.200	220		200			1.73

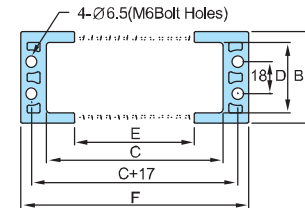
FREE END BRACKET



nsb035CR Fixing point



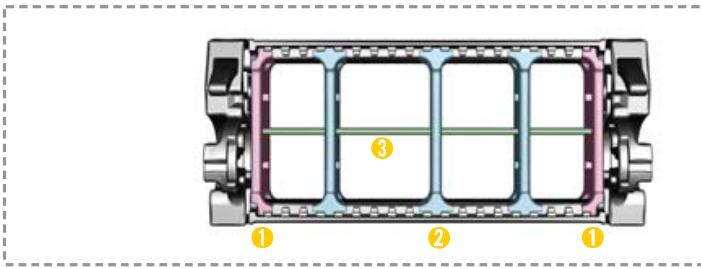
nsb035CR Moving point



nsb035CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 035CR.035	64		35		3	M6 Bolt Holes
nsb 035CR.050	79		50		18	
nsb 035CR.055	84		55		23	
nsb 035CR.075	104		75		43	
nsb 035CR.100	129	52	100	40	68	
nsb 035CR.125	154		125		93	
nsb 035CR.150	179		150		118	
nsb 035CR.175	204		175		143	
nsb 035CR.200	229		200		168	

DIVIDERS & SEPARATORS

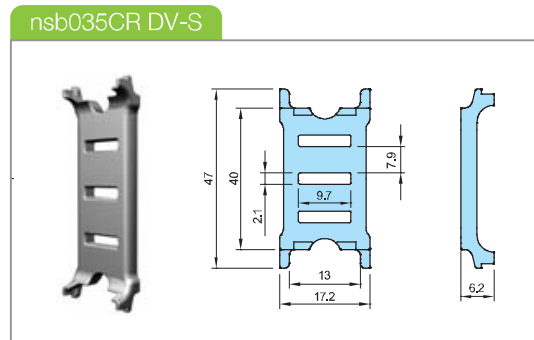
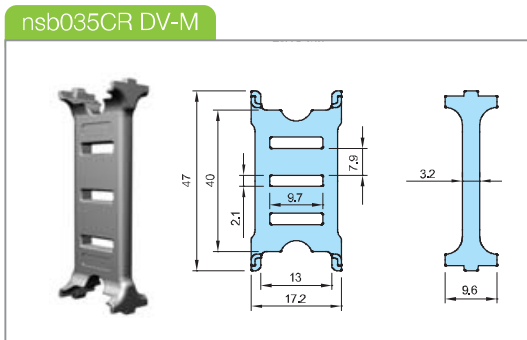


- ① DV-S (측면전용디바이더)
- ② DV-M
- ③ Separator(SP)

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 확보해야 합니다.

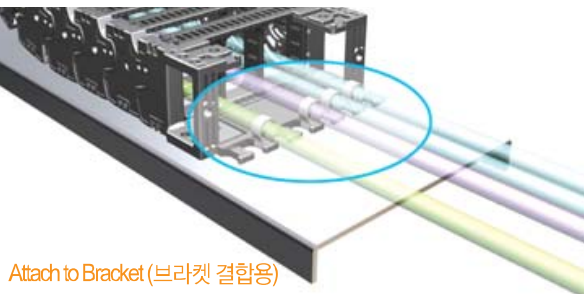
또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 디바이더에 결합하여 사용해야 케이블의 꼬임방지와 피복손상을 방지할 수 있습니다.



nsb035CR Separators (SP) (No. : S-SP/M)

Chain Type	Separators	SP035	SP050	SP055	SP075	SP100	SP125	SP150	SP175	SP200
nsb028CR		○	○	○	○	○	○	○	○	○
nsb035CR		○	○	○	○	○	○	○	○	○

TIE WRAP



Attach to Bracket (브라켓 결합용)



Tie Wrap for the Sabin Chain nsb035 series, the range of the corresponding frame sizes will be 50, 75, 100, 125, 150, 175 and 200mm respectively.

nsb035 제품은 삽입형 Tie Wrap을 사용하며 적용되는 Frame은 50, 75, 100, 125, 150, 175, 200 입니다.

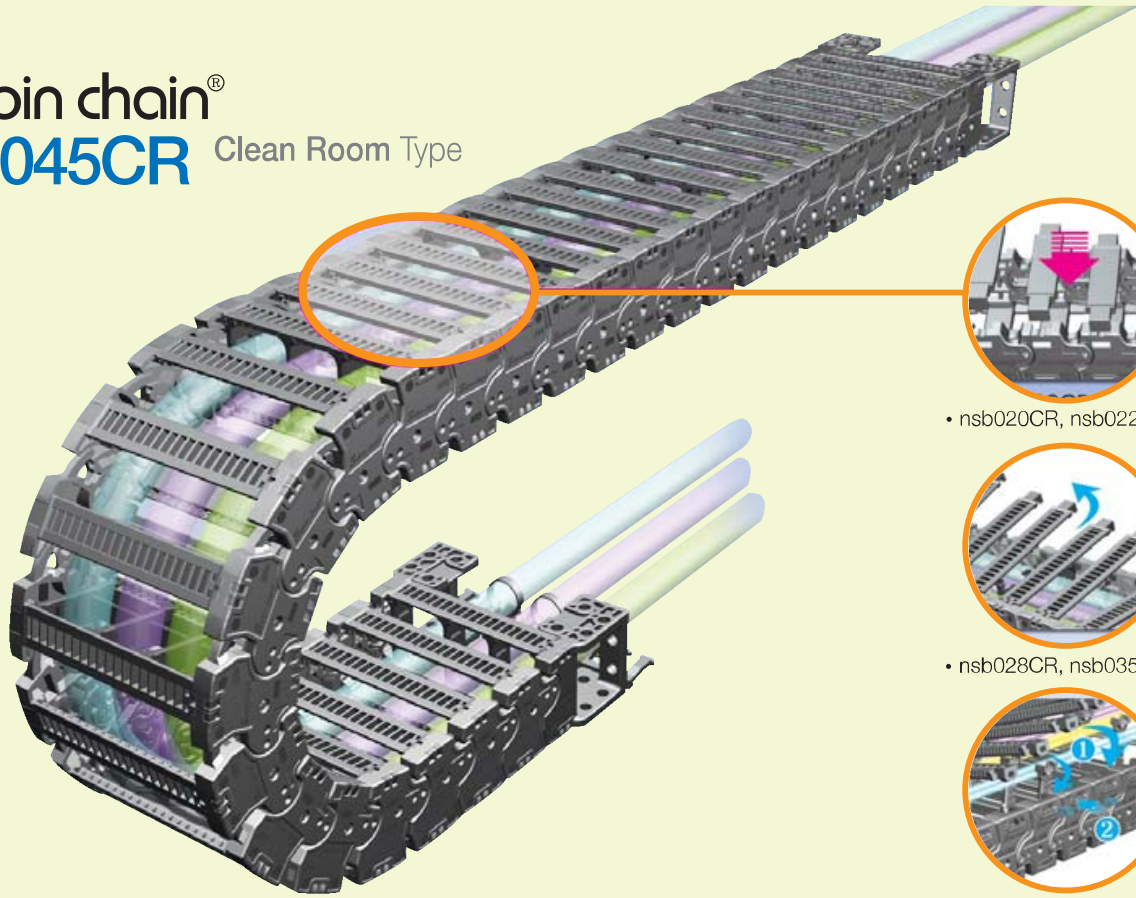
The Tie Wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the brakcet.

Tie Wrap은 Sabin Chain 의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.

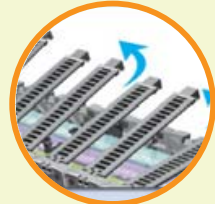


Min ●●●●●●●● Max

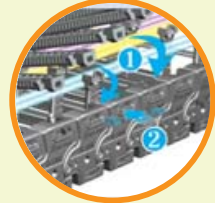
Sabin chain[®] nsb 045CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •

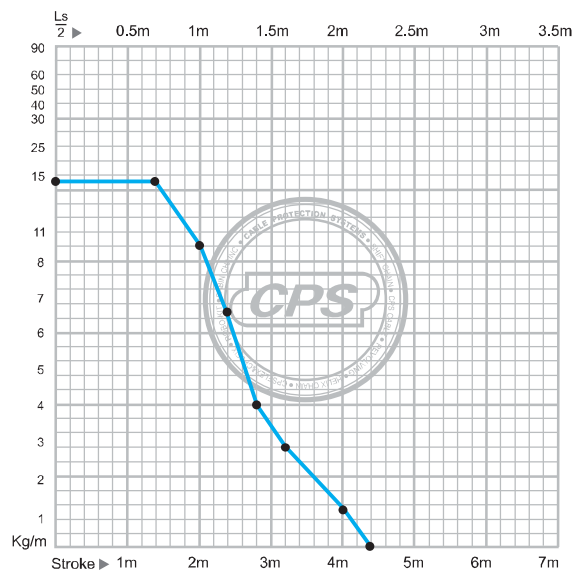


• nsb045CR, nsb060CR, nsb075CR •

MATERIAL

- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:** TUV Test 30 dB (DIN EN 61672-1)
- **Low Mote:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m/sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above, Unsupported= max 6.0m
Vertical curve below, Unsupported= max 100m
Side Mounted, Unsupported= max 2.5m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation..
CLASS 10 이내의 분진규제가 적용되는 반도체라인, 저소음을 요구하는 사업장, 고속을 요구하는 자동화 공작기계 및 산업기계 등에 적용.

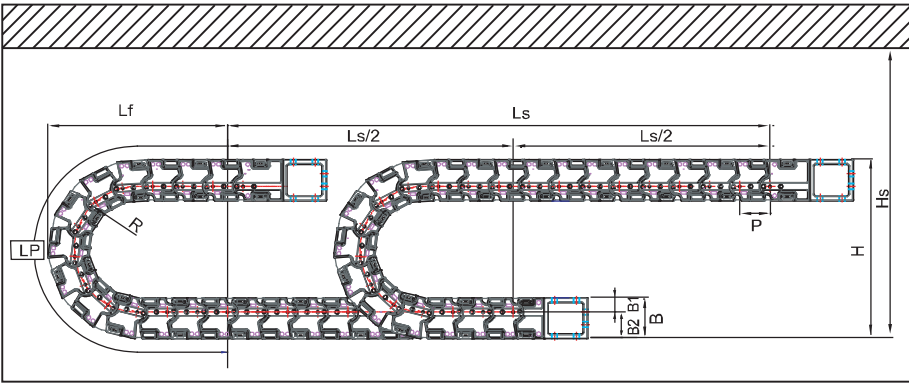
Load diagrams self-supporting length



Calculation of the chain length

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

LAYOUT OF THE CHAIN



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

nsb 045CR Type

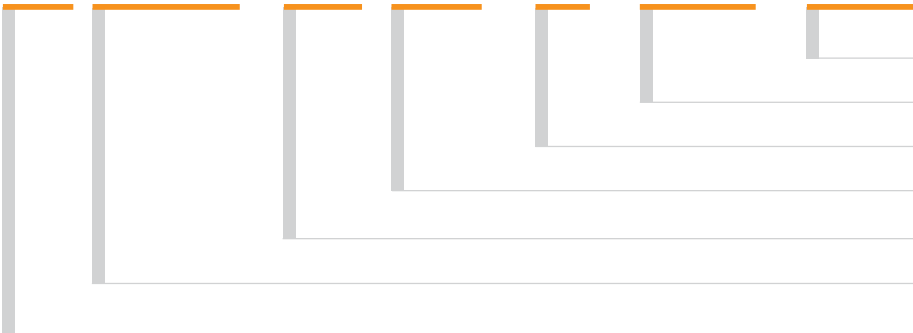
- Pitch P:** 45mm
- Height B:** 70mm
- Height H:** 2R+93mm
- Hs** ≥ H+40mm
- B1: 23.5mm B2: 46.5mm**

(Dimensions in mm)

Bending radius R	75	100	120	140	200	250	300
Lp	587	665	728	791	979	1,136	1,293
L f	279	304	324	344	404	454	504
H	243	293	333	373	493	593	693

ORDERING (주문방법)

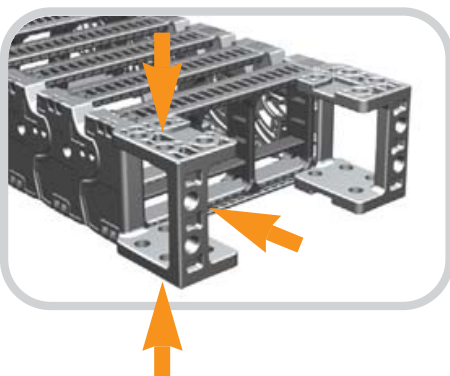
nsb 045CR. 100. R75 / F - 2000L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

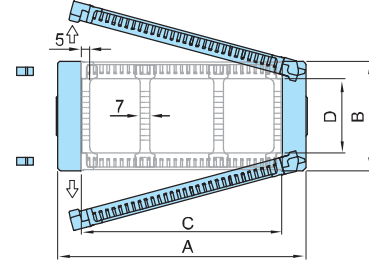
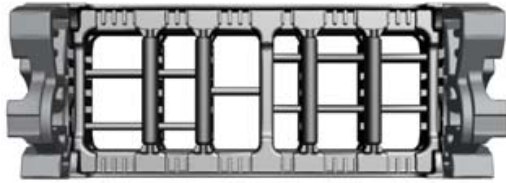
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

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

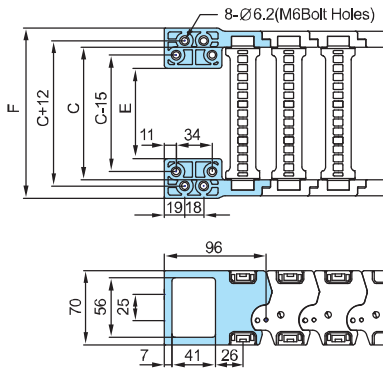
nsb 045CR Clean Room Type

CHAIN CROSS SECTION

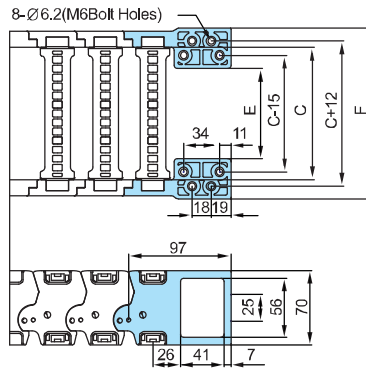


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 045CR.050	80	70	50	49	75, 100, 120, 140 200, 250, 300	2.59
nsb 045CR.075	105		75			2.74
nsb 045CR.100	130		100			2.90
nsb 045CR.125	155		125			3.11
nsb 045CR.150	180		150			3.31
nsb 045CR.175	205		175			3.48
nsb 045CR.200	230		200			4.18
nsb 045CR.250	280		250			4.76
nsb 045CR.300	330		300			5.32

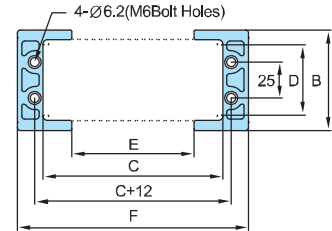
FREE END BRACKET



nsb045CR Fixing point



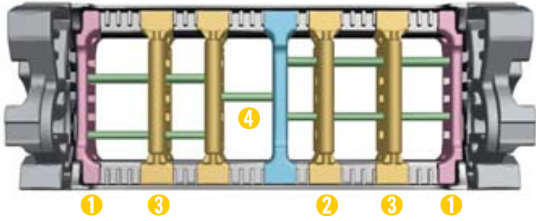
nsb045CR Moving point



nsb045CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 045CR.050	86	70	50	49	10	M6 Bolt Holes
nsb 045CR.075	111		75		35	
nsb 045CR.100	136		100		60	
nsb 045CR.125	161		125		85	
nsb 045CR.150	186		150		110	
nsb 045CR.175	211		175		135	
nsb 045CR.200	236		200		160	
nsb 045CR.250	286		250		210	
nsb 045CR.300	336		300		260	

DIVIDERS

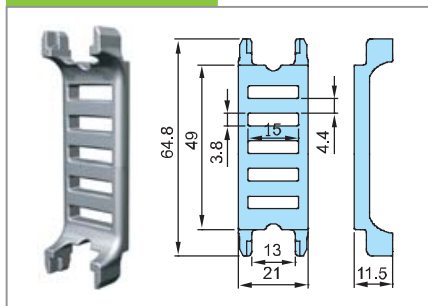


- ① DV-S (추면전용디바이더)
- ② DV-M (핀결합용 디바이더)
- ③ DV-R (롤러결합용 디바이더)
- ④ Separator (SP)

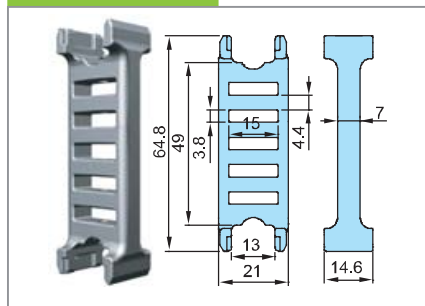
디바이더(세로분리대)와 세퍼레이터(가로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 **피복손상 및 단선**을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다.

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

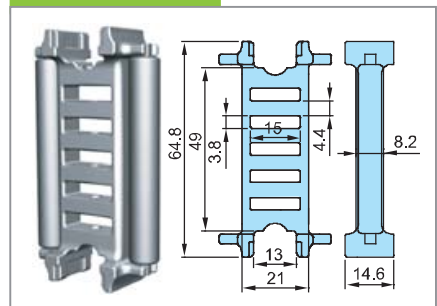
nsb045CR DV-S



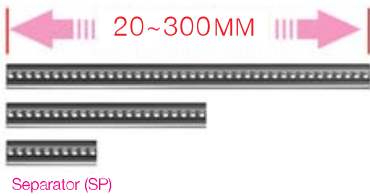
nsb045CR DV-M



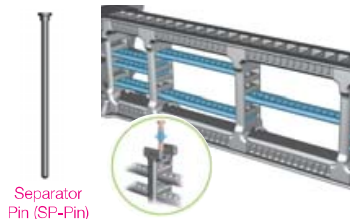
nsb045CR DV-R



SEPARATORS



Separator (SP)

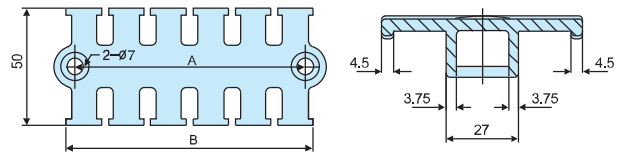
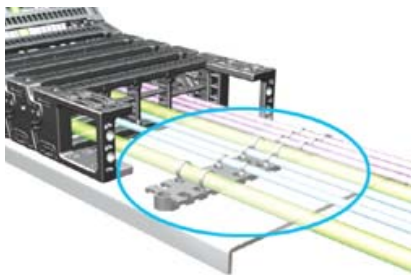


Separator Pin (SP-Pin)

Separator is available in length from 20mm to 300mm 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 최대300mm까지 사용가능하며 5mm간격으로 절단하여 원하는 길이로 사용가능합니다. 크기가 각각 다른 케이블 크기에 맞게끔 공간분할이 용이하고 세퍼레이터 핀으로 결합하여 어떠한 경우에도 안전하게 케이블의 입선공간을 유지하여 안전하게 케이블을 보호할 수 있습니다.

TIE WRAP



(Dimensions in mm)

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

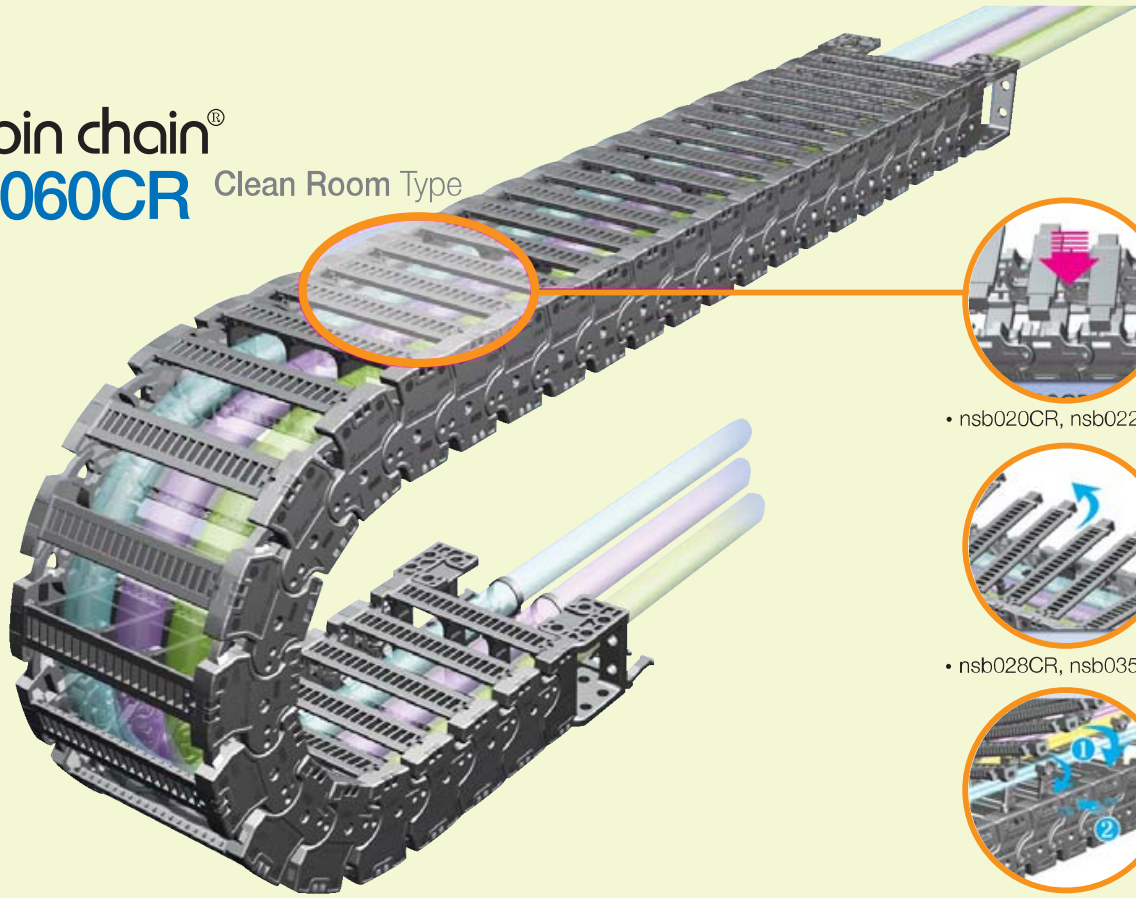
The Tie Wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the bracket.

Tie Wrap은 Sabin Chain 의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.

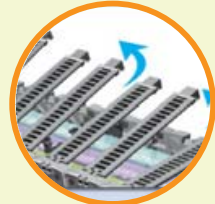


Min ●●●●●●●● Max

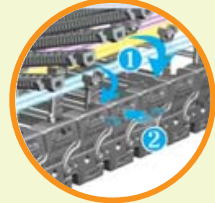
Sabin chain® nsb 060CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •

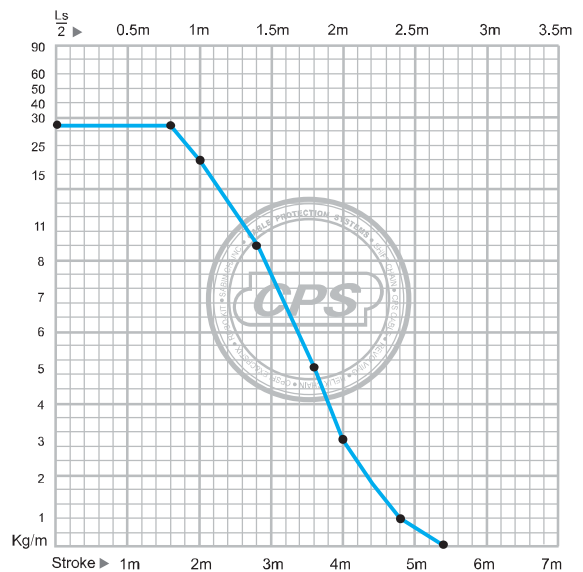


• nsb045CR, nsb060CR, nsb075CR •

MATERIAL

- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:** TUV Test 30 dB (DIN EN61672-1)
- **Low Note:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m / sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above, Unsupported= max 6.0m
Vertical curve below, Unsupported= max 100m
Side Mounted, Unsupported= max 3.0m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation.
CLASS 10 이내의 분진규제가 적용되는 반도체라인, 저소음을 요구하는 사업장, 고속을 요구하는 자동화 공작기계 및 산업기계 등에 적용.

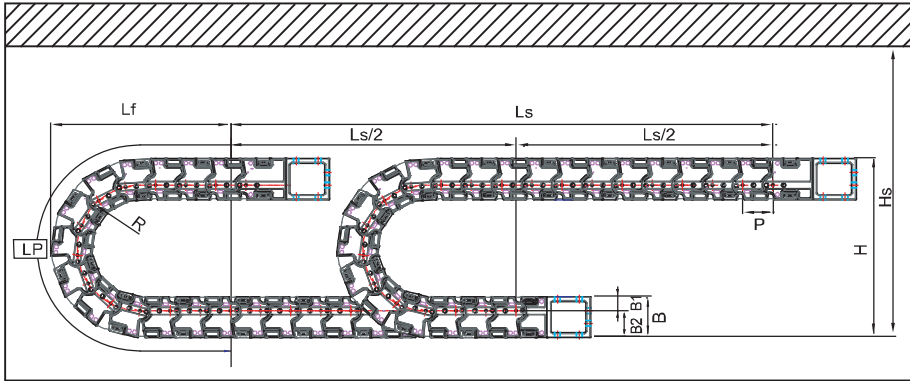
Load diagrams self-supporting length



Calculation of the chain length

$$\left[L = \frac{L_s}{2} + L_p \right]$$

LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	125	140	190	220	270	390
Lp	854	901	1,058	1,152	1,309	1,686
L f	389	404	454	484	574	654
H	358	388	488	548	648	888

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

nsb 060CR Type

- Pitch P:** 60mm
- Height B:** 82mm
- Height H:** 2R+108mm
- Hs** ≥ H+40mm
- B1:** 28mm **B2:** 54mm

ORDERING (주문방법)

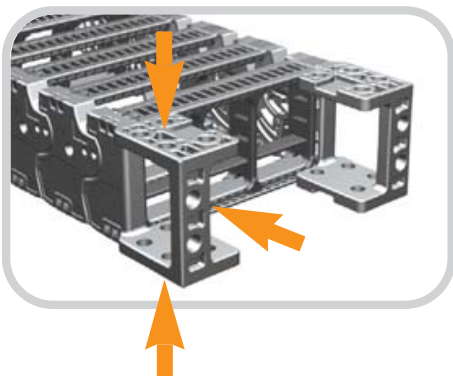
nsb 060CR. 150. R140 / F -2500L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

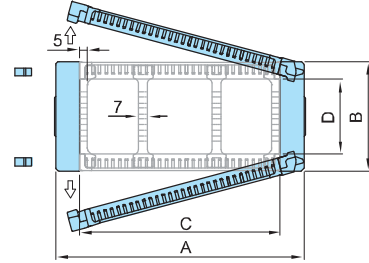
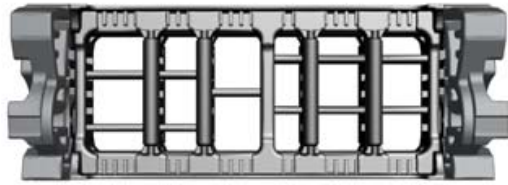
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

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

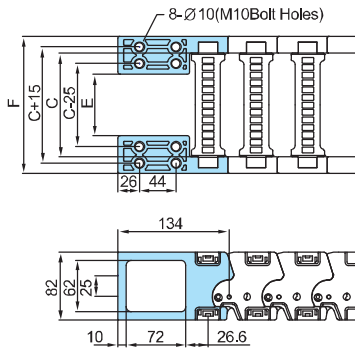
nsb 060CR Clean Room Type

CHAIN CROSS SECTION

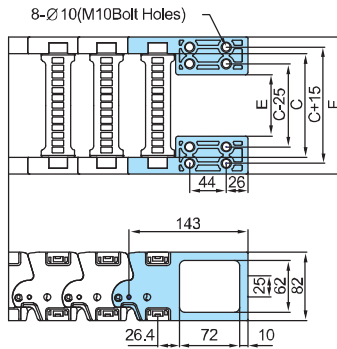


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 060CR.075	115		75			3.56
nsb 060CR.100	140		100			3.66
nsb 060CR.125	165		125			3.97
nsb 060CR.150	190		150			4.16
nsb 060CR.175	215	82	175	56	125, 140, 190, 220 270, 390	4.33
nsb 060CR.200	240		200			4.64
nsb 060CR.250	290		250			5.06
nsb 060CR.300	340		300			5.48
nsb 060CR.350	390		350			6.09
nsb 060CR.400	440		400			6.66

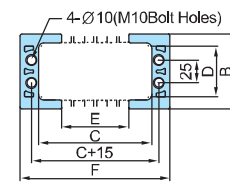
FREE END BRACKET



nsb060CR Fixing point



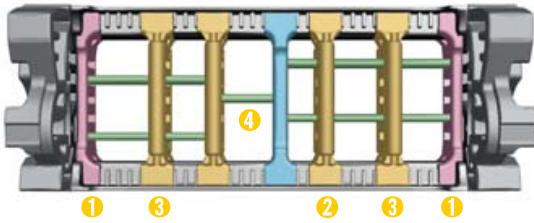
nsb060CR Moving point



nsb060CR Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 060CR.075	115		75		24	M10 Bolt Holes
nsb 060CR.100	140		100		49	
nsb 060CR.125	165		125		74	
nsb 060CR.150	190		150		99	
nsb 060CR.175	215	82	175	66	124	
nsb 060CR.200	240		200		149	
nsb 060CR.250	290		250		199	
nsb 060CR.300	340		300		249	
nsb 060CR.350	390		350		299	
nsb 060CR.400	440		400		349	

DIVIDERS



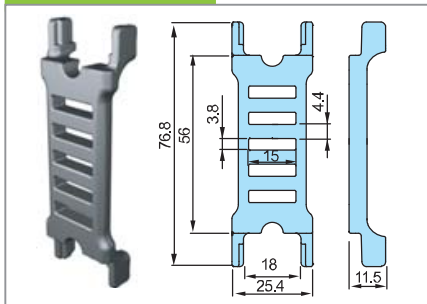
- ① DV-S (측면전용디바이더)
- ② DV-M (핀결합용 디바이더)
- ③ DV-R (롤러결합용 디바이더)
- ④ Separator(SP)

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.

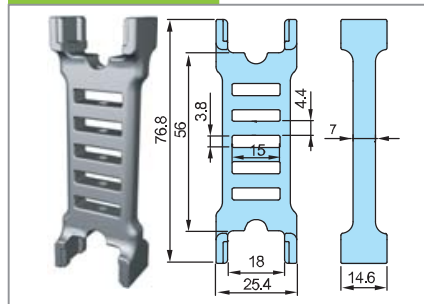
디바이더(세로분리대)와 세퍼레이터(가로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 **피복손상 및 단선**을 방지하는 역할을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다.

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

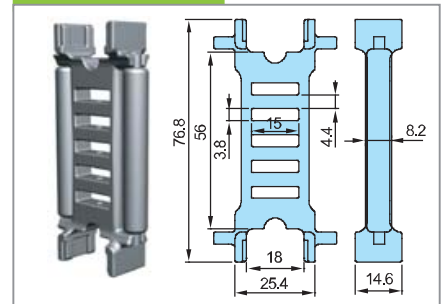
nsb060CR DV-S



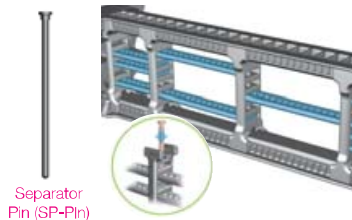
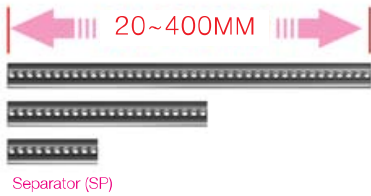
nsb060CR DV-M



nsb060CR DV-R



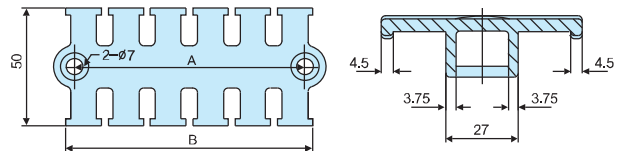
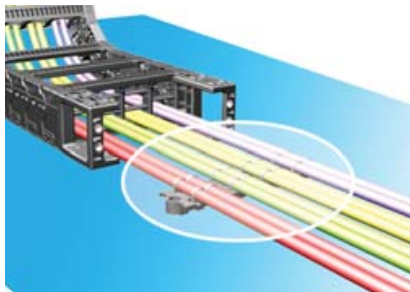
SEPARATORS



Separator is available in length from 20mm to 400mm 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 최대400mm까지 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)

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

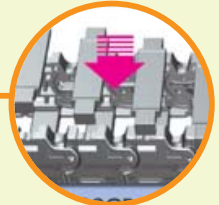
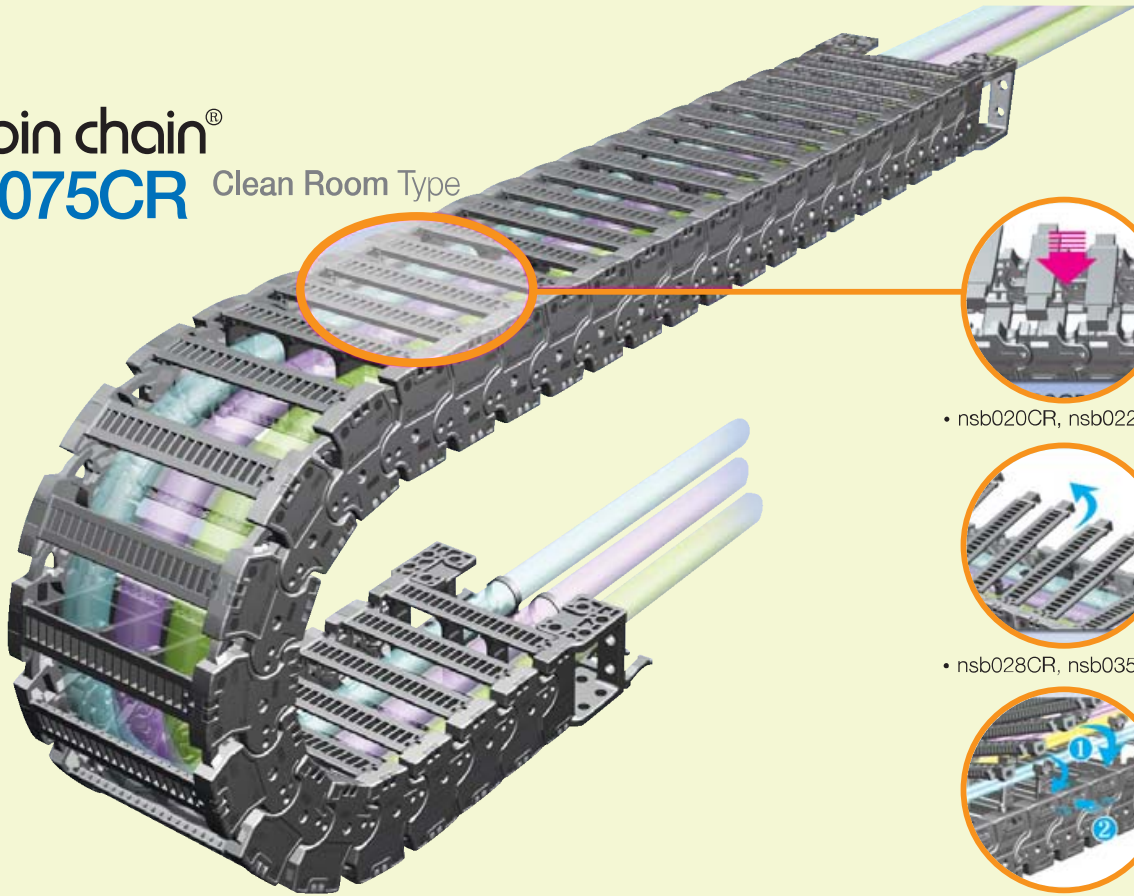
The Tie Wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the bracket.

Tie Wrap은 Sabin Chain 의 **브라켓을 기준으로 설치**함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 **브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양**으로 구분되어 사용할 수 있다.



Min ●●●●●●●● Max

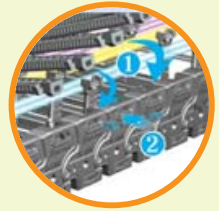
Sabin chain® nsb 075CR Clean Room Type



• nsb020CR, nsb022CR •



• nsb028CR, nsb035CR •

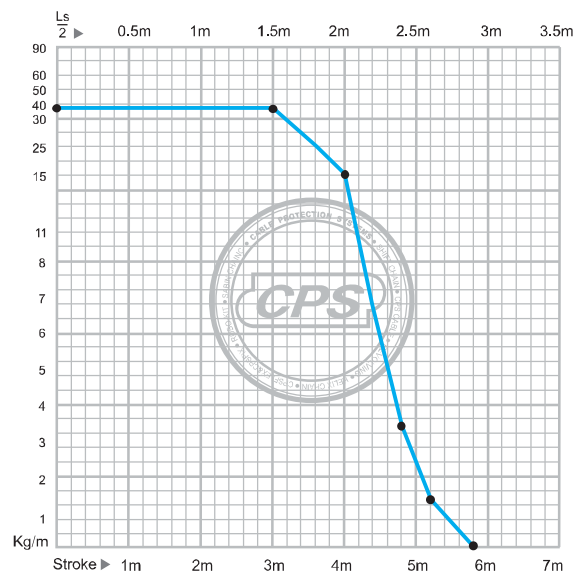


• nsb045CR, nsb060CR, nsb075CR •

MATERIAL

- **Chain material:**
CPS-amide UL94-HB
- **Low Noise:** TUV Test 30 dB (DIN EN61672-1)
- **Low Mote:** IPA Test VDI 2083 CLASS 1
DIN EN 14644-1 ISO CLASS 3
- **Speed :** 15m/sec
- **Temperature :** -40°C ~ +130°C
- **Other installation Length:**
Vertical curve above, Unsupported= max 6.0m
Vertical curve below, Unsupported= max 100m
Side Mounted, Unsupported= max 3.0m
- **Applications**
Applied to clean room for LCD/PDP and Semiconductor production Line requested Dust Regulation CLASS10, furthermore to Automation Machine Tool and Industrial Machinery needed high speed operation.
CLASS 10 이내의 분진규제가 적용되는 반도체라인, 저소음을 요구하는 사업장, 고속을 요구하는 자동화 공작기계 및 산업기계 등에 적용.

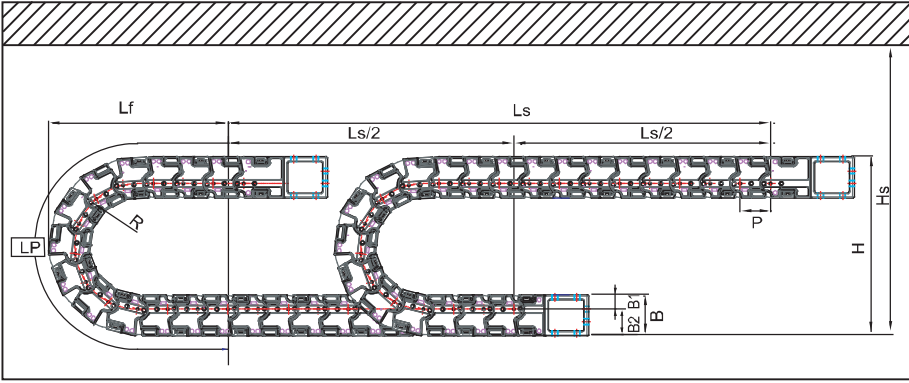
Load diagrams self-supporting length



Calculation of the chain length

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

LAYOUT OF THE CHAIN



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

nsb 075CR Type

- Pitch P:** 75mm
- Height B:** 108mm
- Height H:** 2R+44mm
- Hs ≥ H+40mm**
- B1: 36mm B2: 72mm**

(Dimensions in mm)

Bending radius R	180	200	250	300	350	400	500
Lp	1,147	1,210	1,367	1,524	1,681	1,838	2,152
Lf	515	535	585	635	685	735	835
H	504	544	644	744	844	944	1,144

ORDERING (주문방법)

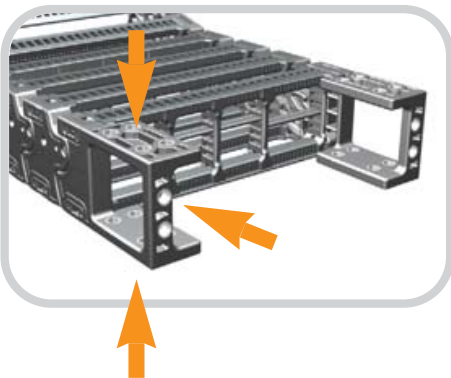
nsb 075CR. 300. R200 / F -3000L: 10ST



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

New Sabin Chain

BRACKET TYPE (브라켓타입)



FEB (Free End Bracket)

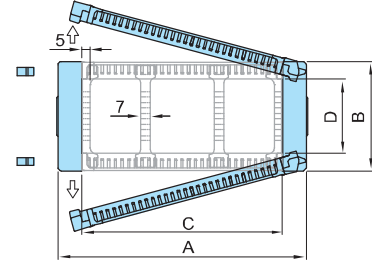
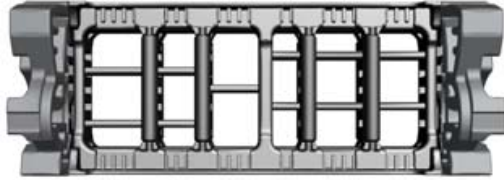
Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임.

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

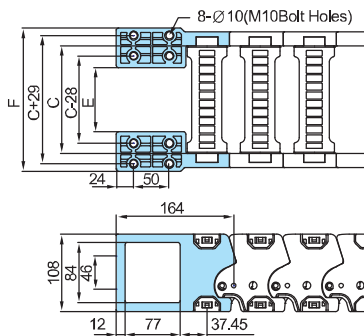
nsb 075CR Clean Room Type

CHAIN CROSS SECTION

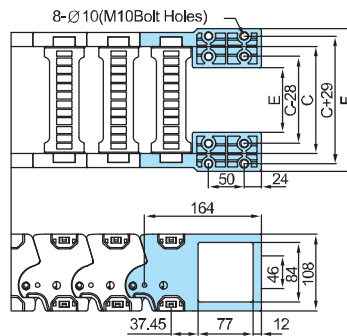


Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 075CR.075	115	82	75	56	180, 200, 250, 300 350, 400, 500	5.37
nsb 075CR.100	140		100			5.57
nsb 075CR.125	165		125			5.82
nsb 075CR.150	190		150			6.01
nsb 075CR.175	215		175			6.26
nsb 075CR.200	240		200			6.68
nsb 075CR.250	290		250			7.22
nsb 075CR.300	340		300			7.94
nsb 075CR.350	390		350			8.67
nsb 075CR.400	440		400			9.43
nsb 075CR.450	490		450			10.01
nsb 075CR.500	540		500			10.41
nsb 075CR.550	590		550			11.88
nsb 075CR.600	640		600			12.17

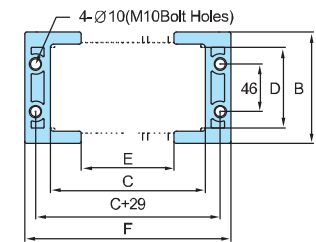
FREE END BRACKET



nsb075CR Fixing point



nsb075CR Moving point

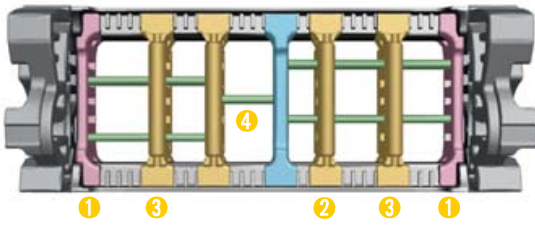


nsb075CR Front point

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

nsb 075CR Clean Room Type

DIVIDERS

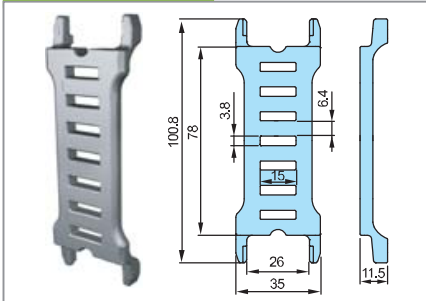


- ① DV-S (측면전용디바이더)
- ② DV-M (핀결합용 디바이더)
- ③ DV-R (롤러결합용 디바이더)
- ④ Separator(SP)

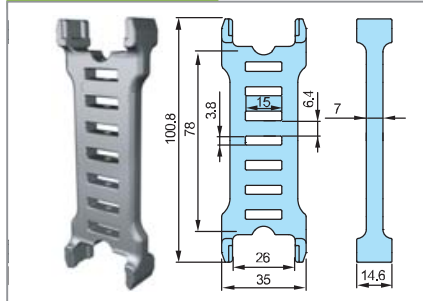
Dividers (Vertical) and Separators (Horizontal) divide the inner chamber of the cable chain to give each cable diameter its own center and keep the cables separated from each other. The use of a separator in some cases, can also reduce the width requirements as two or more levels can be made within the 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 확보해야 합니다. 또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 디바이더에 결합하여 사용하여 케이블의 꼬임방지과 피복손상을 방지할 수 있습니다.

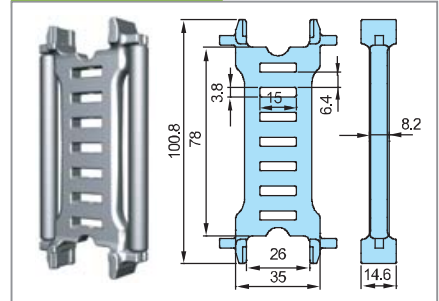
nsb075CR DV-S



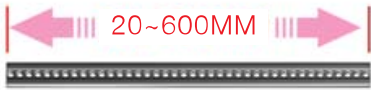
nsb075CR DV-M



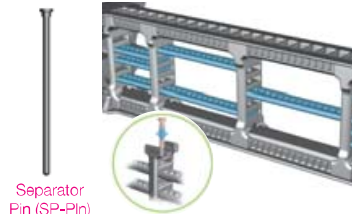
nsb075CR DV-R



SEPARATORS



Separator (SP)

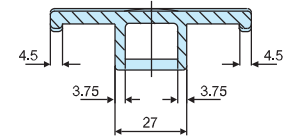
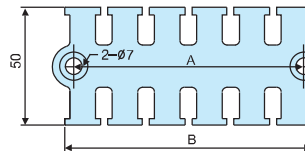
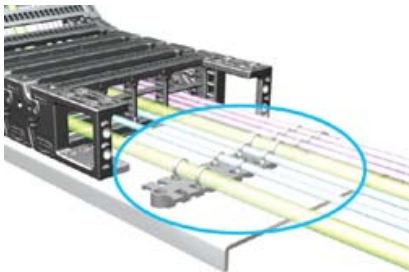


Separator Pin (SP-Pin)

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)

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

The Tie Wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the bracket.

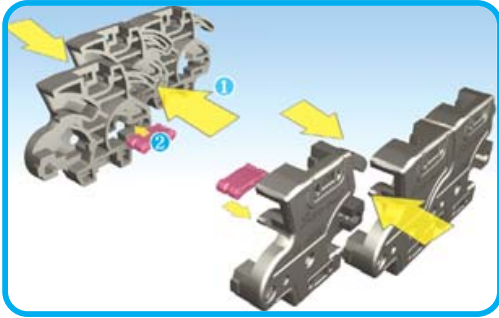
Tie Wrap은 Sabin Chain 의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.

ASSEMBLY PROCEDURE / CLEAN ROOM Type

The assembly process of CR-Type of New Sabin Chain is like below and you must use rubber hammer with careful combination of Divider and Separator.

New Sabin Chain의 CR-Type의 조립순서는 아래와 같이 진행하며 케이블의 입선수량에 따라 디바이더와 세퍼레이터의 조합을 유의하면서 반드시 고무망치를 사용하여 조립합니다.

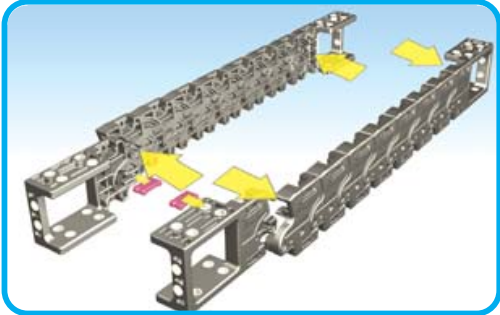
1



Connect each side band as many as you need, then insert holding pin to connecting groove.

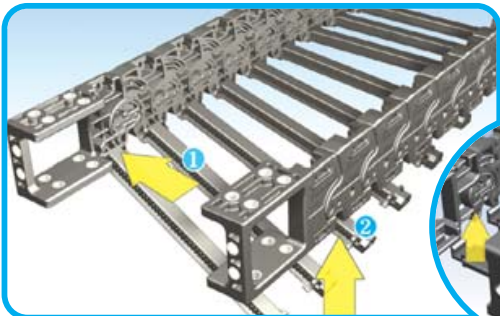
사이드밴드를 원하는 길이만큼 연결 ❶하고 홀딩핀을 사이드밴드 연결홈에 끼워서 고정 ❷).

2

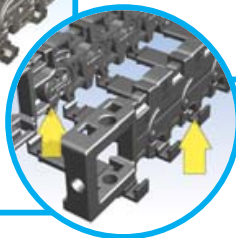


Assemble the end brackets on both ends with holding pin.
사이드밴드 양쪽 끝부분에 브라켓을 연결하고 홀딩핀으로 결합하여 고정.

3

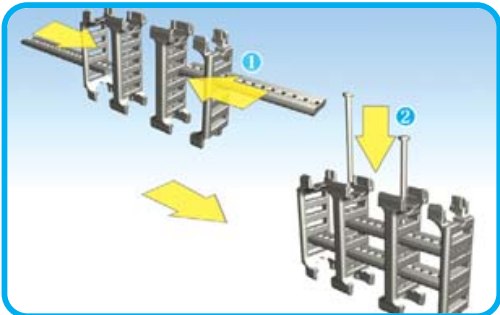


Attach frames to one side groove on the frames, then the other side.
프레임을 사이드밴드 측면 홈에 끼우고 ❶) 다른측면의 사이드밴드홈에 결합 ❷).



For nsb020CR and nsb022CR, they are not Hinge Type for method to connect frames, but Hook Type on both sides.
nsb020,022CR의 경우 프레임고정방식이 Hinge Type이 아닌 양측 Hook 고정방식.

4



For nsb045,060,and 075, connect the pin of separator in hole of divider after inserting separator in hole of divider.

For nsb028 and nsb035, separator fixing pins are not used.

For nsb020 and nsb022, separators are not used.

디바이더를 종류별로 구분하여 미리 절단된 세퍼레이터를 디바이더 홈에 결합시킨 후 세퍼레이터 고정핀을 디바이더 홈에 결합

(nsb045, 060, 075). 028,035 Type은 세퍼레이터 고정핀 사용안함.

020,022 Type은 세퍼레이터 사용안함.

ASSEMBLY PROCEDURE / CLEAN ROOM Type

SHIFT CHAIN

SABIN CHAIN

REVOLVING CHAIN

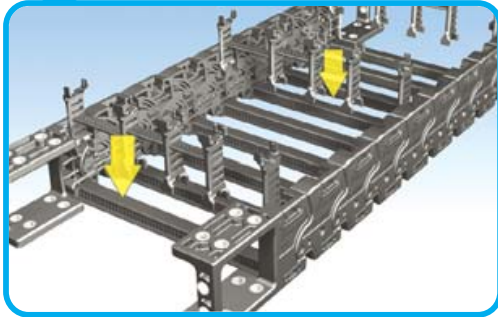
INDEX CHAIN

ROBO-KIT

OP-STEEL

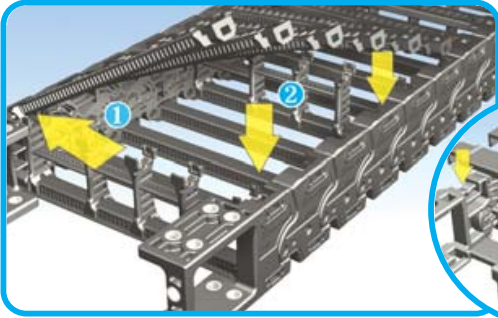
OP-STEEL

5

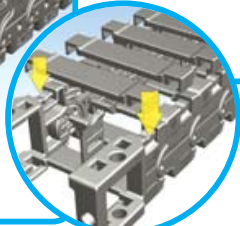


Fix the separator and divider patterns to the bottom-side frames as needed.
세퍼레이터가 결합된 디바이더를 하측프레임에 결합.

6

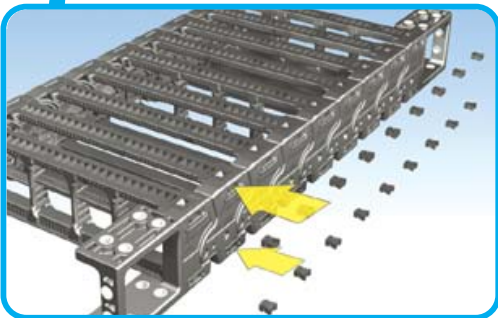


Attach frames to one side groove on the frames, then the other side.
프레임을 사이드밴드 측면 홈에 끼우고 ① 다른측면의 사이드밴드홈에 결합 ②.



For nsb020CR and nsb022CR, they are not Hinge Type for method to connect frames, but Hook Type on both sides.
nsb020,022CR의 경우 프레임 결합방식이 Hinge Type이 아닌 양측 Hook 결합 방식.

7



Insert frame pins to secure the frames and complete carrier.
(nsb045, 060, 075 are applied with frame pin, and nsb028, 035 are Hinge Type or Hook Type without frame pin.)

결합된 프레임과 사이드밴드의 측면의 홈에 프레임 고정핀으로 결합.
(프레임 고정핀은 nsb045,060,075 Type에 적용되며 028,035 Type의 경우 동일한 Hinge Type이나 프레임 고정핀없이 Hook 고정방식.)

8



Complete to assemble New Sabin CR-Type, Sabin Chain.
New Sabin Chain CR-Type조립완료.

Sabin chain[®] N - TYPE : Normal

nsb028N _ 267p

nsb035N _ 271p

nsb045N _ 275p

nsb060N _ 279p

nsb075N _ 283p