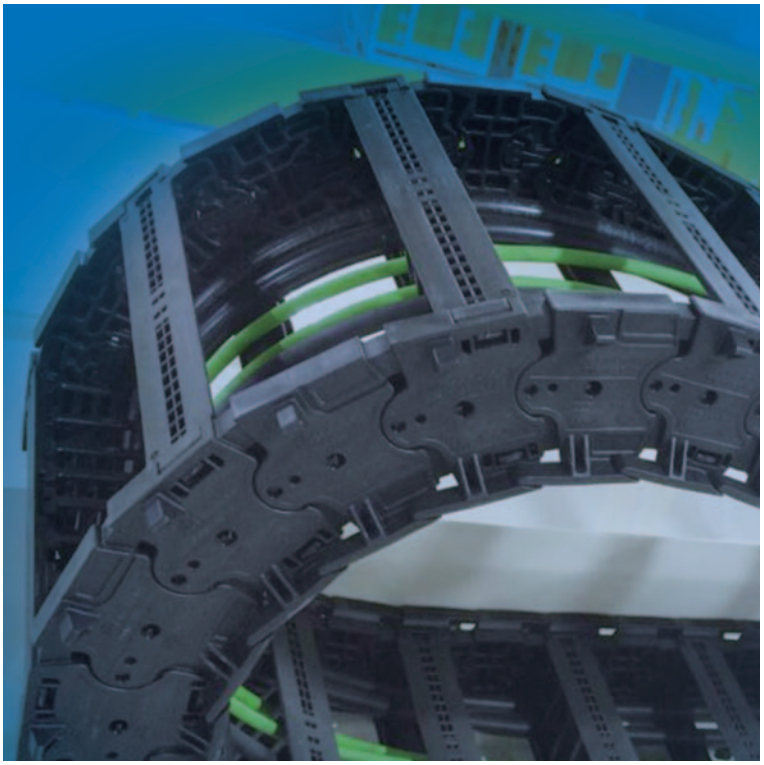
Sabin Chain®

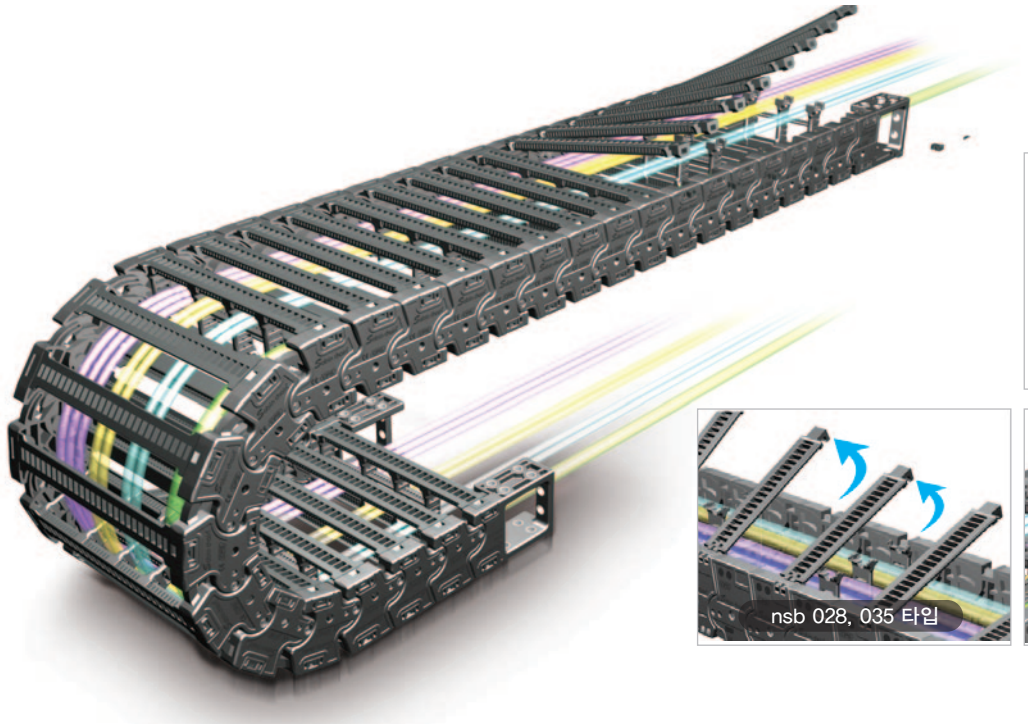


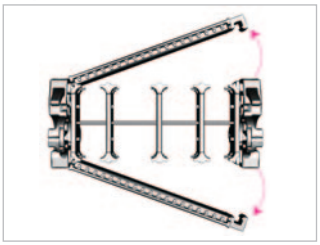
Product Application

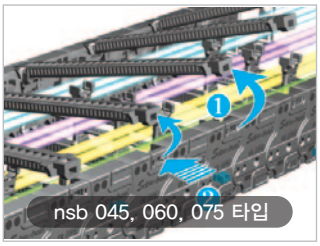
nsb Normal, Sliding Type

nsb065S

Feature of nsb Chain Clearin Room, Normal, Enclosed Type







Convenient Feature of Hinge Type of Frame

One side of Frame is pin type and the other side of Frame is hinge type that makes easy maintenance of assembly and disassembly.
Applicable at new Sabin Chain Cleanroom(nsb020/022CR excluded), Normal and Enclosed Type.
Nsb045/060/075E' frame is Alignment pin applied type
It is convenient to insert cables and hoses by opening upper and lower frame. Frame Alignment pin is applied to nsb045/060/075CR,N type to prevent separation of frame.

Effective Use of Divider

There are various types of Divider such as DV-S, DV-R, DV-M to establish effective section composition.

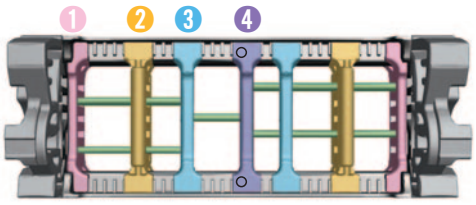
DV/S :
Used to fix a separator that is the same length as the frames

DV/R :
Roller applied Divider to prevent abrasion of cables

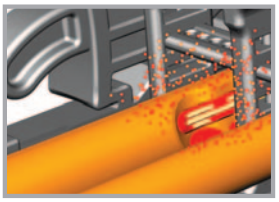
DV/M :
Used to separate individual cables

DV/T :
Used to not be separated from frame. It is used with Divider Pin.

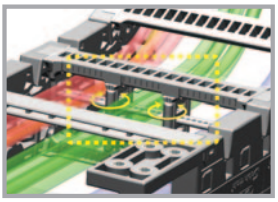
DV/W :
Used to hold the cables in place at both ends of the cable chain



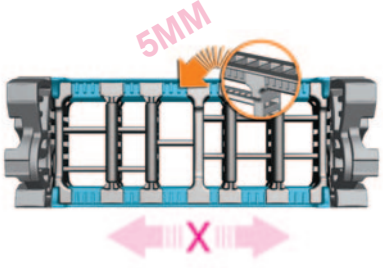
DV-R, DV-M are adopted to nsb045, 060, 075 size of Cable Chain.



Friction occurred and it causes damage of cable's sheath



DV-R is designed to prevent damage of Cable's sheath. When cables are not securely tightened, they rub surface of Roller. In this case, roller unit prevents damage of Cable's sheath.(When dust is strictly prohibited environment, DV-R is recommended to be used.)

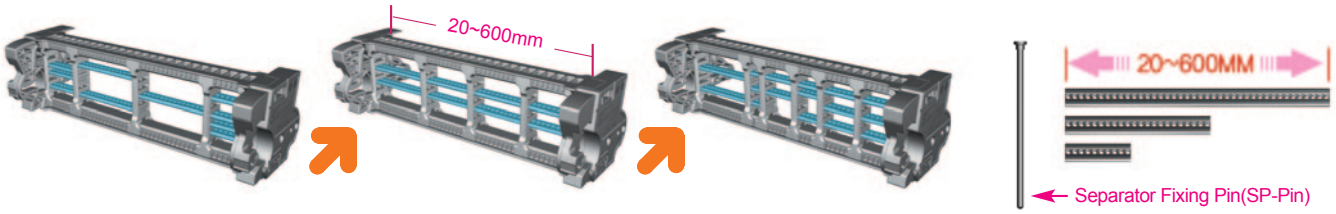


Frame with teeth every 5mm makes frame does not move to left and right side but placed firmly.
(Applied to nsb028/035/045/060/075)

Feature of nsb Chain Clearin Room, Normal, Enclosed Type

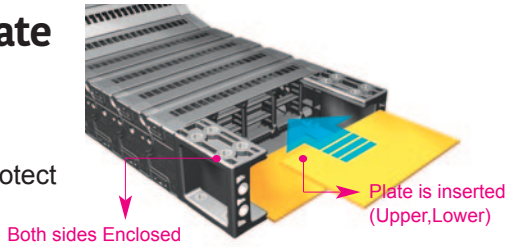
Secure Space by utilizing Divider and Separator

You should make section composition every second frames to make sure long lifetime of cables by preventing from twisting and lost of cables inside. (It's strongly recommended for customers who want to use for long time). It's basic issue and one of the most important factors showing long lifetime of cables.
You can make suitable section composition by using our diverse our dividers and separators that can be modified from 20mm ~ 600mm.



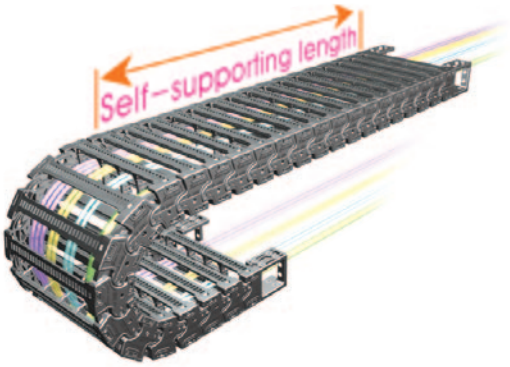
FEB can be fully enclosed by inserting Steel Plate like in the image.
(Steel Plate can be ordered separately)

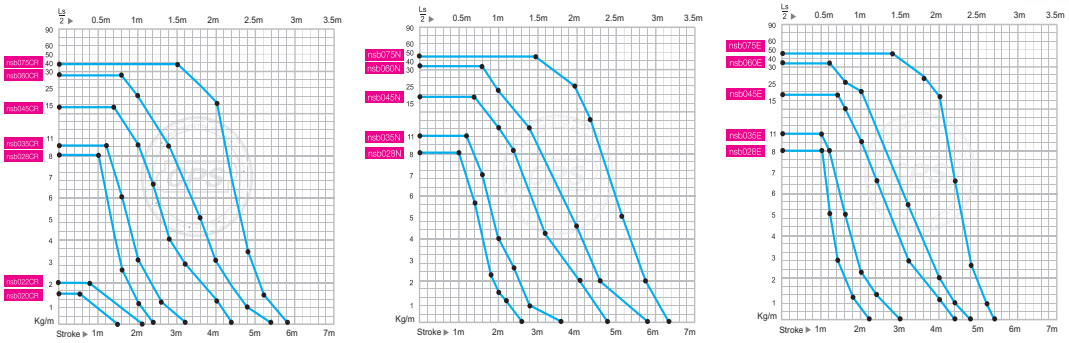
Steel Plate is inserted thru the connecting groove of FEB. It helps to protect cables more securely from external particles.



Unsupported Length

Unsupported Length means Cable Chain maintained in rigid linear state while it is moving forward like in the image. Generally, when size of Cable Chain become bigger, its Unsupported Length also become increased. So if Unsupported Length is an important factor to the application, please check each Cable Chain's property of Unsupported Length to select correct Cable Chain model.





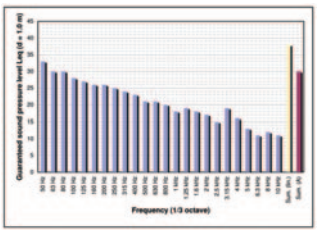
nsb Cleanroom Type(CR) | nsb Normal Type(N) | nsb Enclosed Type(E)

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Feature of nsb Chain Clearin Room, Normal, Enclosed Type

The Quietest Cable Chain In The World

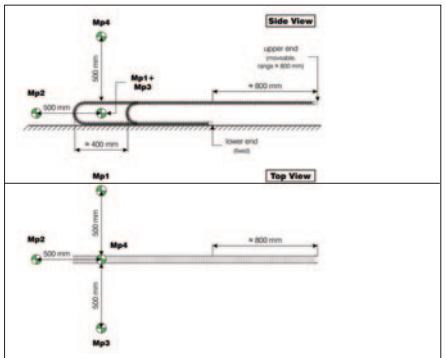
30dB noise level was recorded at TUV testing facility in Germany. Patent obtained!



3 Measurement Procedure

3.1 Fundamentals

- Date and time of measurements: March 15th 2007
- Environmental conditions:
  - Temperature: 21 °C (indoor, air conditioned)
  - Background noise level: $L_{pA} \leq 29$ dB(A) (air condition off during measurements) ⇒ no correction was made for the influence of background noise (see Annex 2, p. 9)
  - Environmental correction K_{UA}: $K_{UA} = 0$ dB



Test sample & position of measuring points

All measurement results in detail are compiled in Annex 2 (p. 9). The summary below describes the evaluation of the measurements according to 2000/14/EC [1] and the guidelines belong to this directive [2].

- Arithmetic mean of the L_{eq} (d = 0.5 m (as measured)): 33.1 dB
  (d = 1.0 m (calculated)): 27.1 dB
- Product standard deviation S_P: 0.8 dB
- Estimated comparative standard deviation S_R: 1.0 dB
- Total standard deviation S_t: 1.3 dB
- Confidence level: 95 %
- Quantity of samples: 5
- Coverage factor (see [2], annex A to part 4, table A1): 2.132
- Correction value K (K = S_t x coverage factor): 2.8
- **Guaranteed sound pressure level L_{WA} (d = 1.0 m): 30 dB**

Figure 2 shows the guaranteed sound pressure level L_{eq} for frequencies from 50 Hz to 10 kHz (1/3 octave). The values for each frequency band are calculated as given above.

Measurement results

[1] DIRECTIVE 2000/14/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors

[2] Position paper on guidelines for the application of the European Parliament and Council Directive 2000/14/EC on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors. December 2001

[3] DIN EN ISO 3744 (ISO 3744 : 1995), Acoustics – Determination of sound power level of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane, November 1995

[4] DIN EN ISO 4871(ISO 4871 : 1996), Acoustics – Declaration an verification of noise emission values of machinery and equipment, March 1997

[5] DIN EN 61672-1 (IEC 61672-1:2002), Electroacoustics – Sound level meters – Part 1: Specification, October 2003

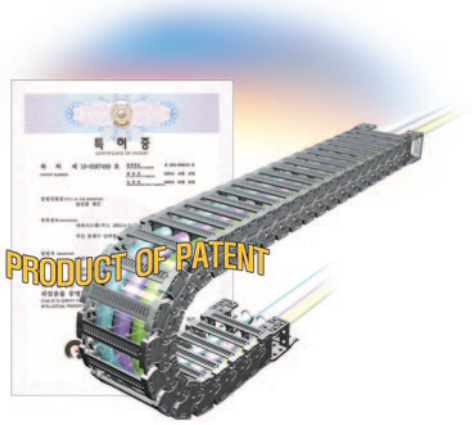
Reference documents

Low Dust Cable Chain That Is Appropriate At Clean Room Environment

sabin Chain is 'NET' certified product by Ministry of Science and Technology in terms of level of low dust and noise.

Next Cable Chain developed by CPS' Own Technology

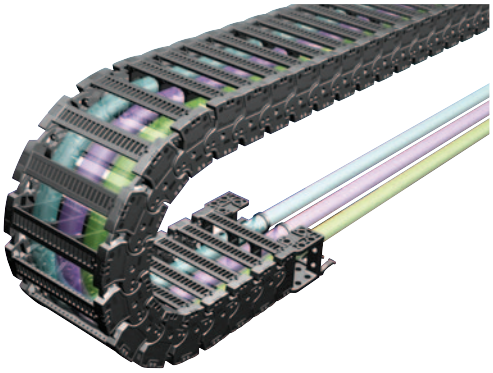
Sabin Chain was developed by CPS' independent Technology and patent registered in USA, China, Republic of Korea, Germany and Italy.
* CR-Type: 10-0587499, E-Type: 10-0838583, S-Type: 10-0854053



Feature of Each nsb Chain Series

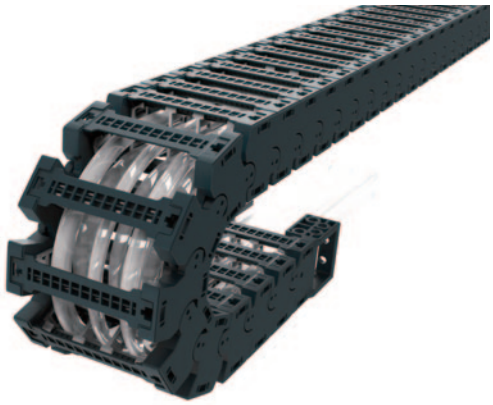
nsb-CR : Cleanroom Type

Cable Chain that performs Low Noise and Low Dust applying to production line of Semiconductors, LCD and PDP where dust and noise is strictly regulated environment.
It can be produced ATEX, ESD retardant type to prevent damage of High Concentration circuit, Explosion and static electricity.



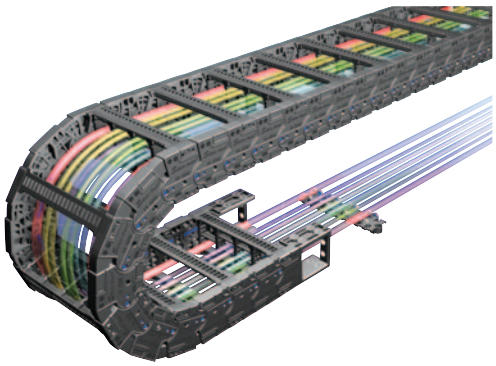
G Clean Chain

Cable Chain that performs Low Noise and Low Dust applying to production line of Semiconductors, LCD and PDP where dust and noise is strictly regulated environment.
G Clean Chain is newly launched made of UHMW-PE material(molecular 6.7M) which could substitute "Gore cable chain and GUR Pad cable chain.
World first Certificates IPA ISO CLASS 1 as cable inserted test.



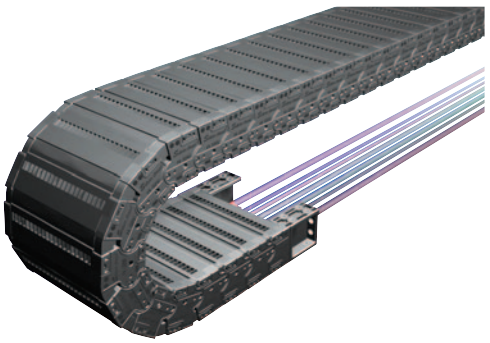
nsb-N : Normal Type

Cable Chain that performs Low Noise and Low Dust as its durability and elastic force improved.



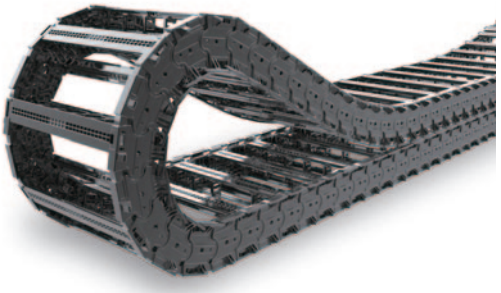
nsb-E : Enclosed Type

Cable Chain that used in external particle-exposed environment such as Welding Line of Automobile Manufacturer, Painting Shop. It protects cables and hoses by using fully enclosed type of frame.



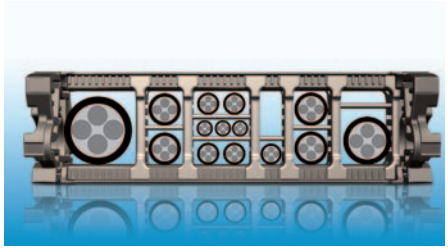
nsb-S : Sliding Type (for Long Travel)

Cable Chain that is used for Long Travel Operation required environment. It is sliding type of Cable Chain and widely used where Low noise, low dust and Speedy Operation is required.



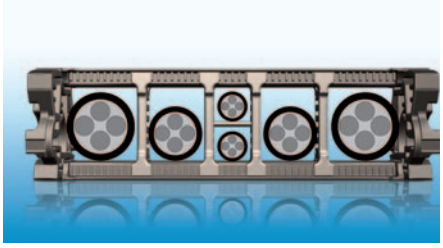
Installation Method of Cable Chain

Arrangement and Installation of cable

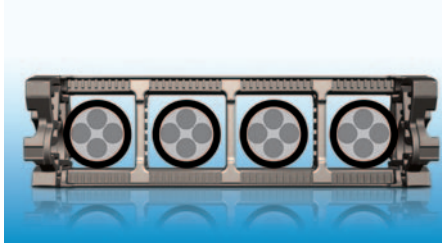


Available Space
Rounded Cable : 10% of space to be guaranteed based on Dia. of cable
Flat Cable : 10% of space to be guaranteed based on thickness of cable
Hose : 20% of space to be guaranteed based on Dia. of hose

10% of space should be secured between cables. When different dia. of cables are inserted, divider should be used. When there is 10% of space between cables, separator should be used.

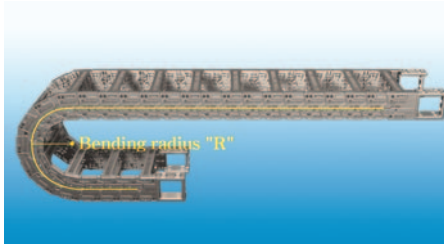


Single layer arrangement of cables are a standard. Big sized cables are placed outside and small sized cables are placed at center. Do not overlap cables but separate them by using separator.



Cables should be placed straightly and arrange them to maintain balance of weight like in the image.

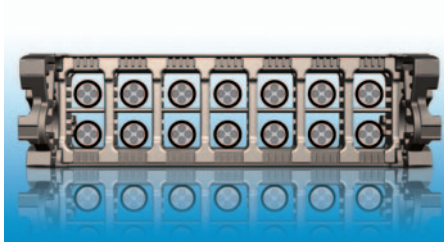
Bending Radius Value,"R"



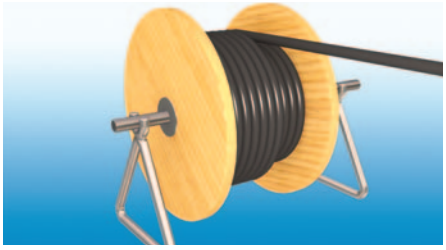
Minimum "R" Value of Cable :
Multiply 8 to 10 against the biggest cable
Minimum "R" Value of Hose :
Multiply 15 to 20 against the biggest hose

R value of Cable Chain should exceeds the R value of cable or hose.

Arrangement of Cable and Hose

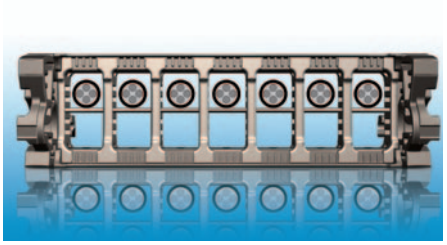


When sum of 2 cables are bigger than X1.2, Inner Height of Cable Chain, Divider does not to be installed. But when it does not exceed X1.2, Divider is recommended to be used.
In case of separator, when cable or hose' dia is lower than X0.5, separators is recommended to be used.



When cable is inserted inside of Cable Chain, its condition should be maintained straightly to prevent cable that to be entangled.

Arrangement of Cable and Hose



Cables should be placed the upper section when it designed one row arrangement

General Information

Material : CPS-Amide (PA6+G.F)
Noise level : 30dB(DIN EN 61672-1)
Speed : 10m/s
Acceleration : 20m/s²
Temperature : -30℃ ~ +130℃
Special production : ESD, UV, Customized color
Certificate : CE, IPA, ATEX(Ex), TUV, RoHs2

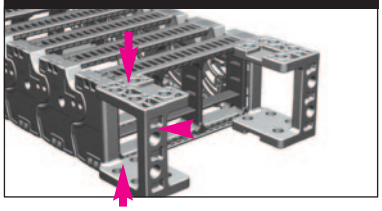
Value of Speed/Acceleration is subject to change according to cable's amount and travel length.

Calculation Table

Length of Cable Chain
: L = ½ X Ls +Lp
Bending Radius
: Multiply 8~10 of the biggest cable
: Multiply 15~20 of the biggest hose

Bracket Type

Free End Bracket (FEB)



IPA Test result
nsb020CR.20.R48 : ISO Class1
nsb035CR.55.R75 : ISO Class2
nsb045CR.75.R75 : ISO Class1

Dimension Table

nsb Chain Clean Room Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Temperature ℃	Size A	Size B	Size C	Size D	Frame Type	Section-Composition
nsb020CR	20	28, 38, 48	0.32 0.35	10	-30 ~+130	34 54	22	20 40	15		
nsb022CR	22	35 45 75 100 120	0.43 0.47 0.51 0.55 0.67 0.69	10	-30 ~+130	30 41 51 61 81 91 114	29	16 27 37 47 67 77 100	22		
nsb028CR	28	50 70 90 120 150	0.90 0.98 1.02 1.12 1.27 1.41 1.59 1.74 1.84	10	-30 ~+130	55 70 75 95 120 145 170 195 220	38	35 50 55 75 100 125 150 175 200	26		
nsb035CR	35	75 100 125 150 200	1.00 1.06 1.09 1.17 1.29 1.39 1.53 1.65 1.73	10	-30 ~+130	55 70 75 95 120 145 170 195 220	52	35 50 55 75 100 125 150 175 200	40		
nsb045CR	45	75 100 120 140 200 250 300	2.59 2.74 2.90 3.11 3.23 3.31 3.41 3.48 3.90 4.18 4.64 4.76 5.32	10	-30 ~+130	80 105 130 155 170 180 195 205 220 230 270 280 330	70	50 75 100 125 140 150 165 175 190 200 240 250 300	49		
nsb060CR	60	125 140 190 220 270 390	3.56 3.66 3.97 4.16 4.33 4.52 4.64 4.98 5.06 5.48 6.09 6.66	10	-30 ~+130	115 140 165 190 215 230 240 280 290 340 390 440	82	75 100 125 150 175 190 200 240 250 300 350 400	56		
nsb075CR	75	180 200 250 300 350 400 500	5.37 5.57 5.72 5.82 6.01 6.26 6.68 7.11 7.22 7.80 7.94 8.67 9.43 10.01 10.41 11.88 12.17	10	-30 ~+130	115 140 155 165 190 215 240 280 290 330 340 390 440 490 540 590 640	108	75 100 115 125 150 175 200 240 250 290 300 350 400 450 500 550 600	78		

Ordering

nsb | **028CR** | **35.** | **R50** | **/** | **F** | **840L** | **:** | **(DV:2)**

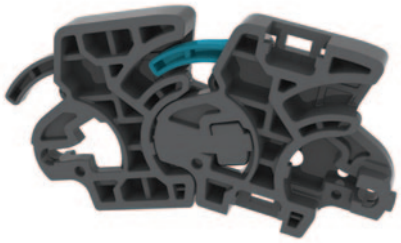
- (DV:2) — Quantity of Divider(Link)
- 840L — Length(mm)
- F — Bracket Type : **F**-Free End Bracket **FT**-Tie Wrap **FST**-System Tie Wrap
- R50 — Bending radius
- 35. — Inside width
- 028CR — Clean Room type (CR)
- nsb — Sabin Chain

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

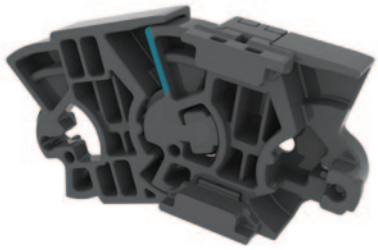
nsb Chain-Clean Room Type

Sabin Chain®

Low Noise due to innovative design of side band.



nsb CR type

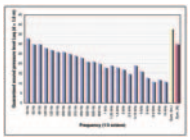


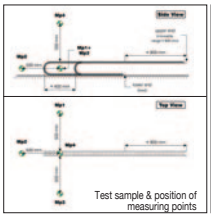
nsb N type

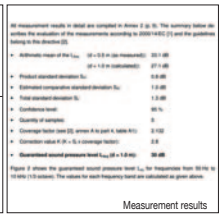
As it's designed differently compared to Normal type that has more friction space when assembled. It means that CR type has less friction space each other when assembled, thus, it makes low noise during operation.

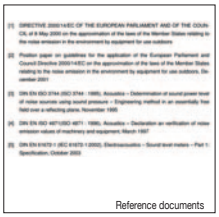
The Quietest Cable Chain in the world

Unsatisfied with only our own internal testing, we sent our cable chain to the experts at the TUV testing facility in Germany and let them decide. The result was 30db noise level. The quietest ever recorded. It is the patented techniques CPS spends so much time perfecting this astounding accomplishment possible.

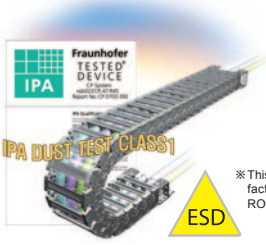






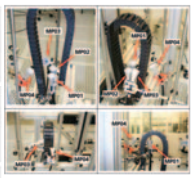


Low Dust Cable Chain



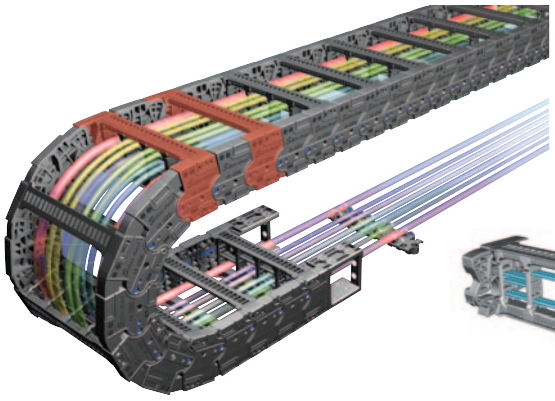
Sabin Chain was given ISO CLASS1 clean room certification according to the Germany IPA Dust Collection Test (VDI 2083 CLASS 1 / DIN EN 14644-1 ISO CLASS 1) It is qualified to be used in semiconductor production lines on automation machine tools and machines requiring quiet and quick applications.

※This test was done by the IPA TEST CENTER for the semiconductor manufacturer equipment and measurement processed with CLASS1 CLEAN ROOM. (US Federal Standard 209E)

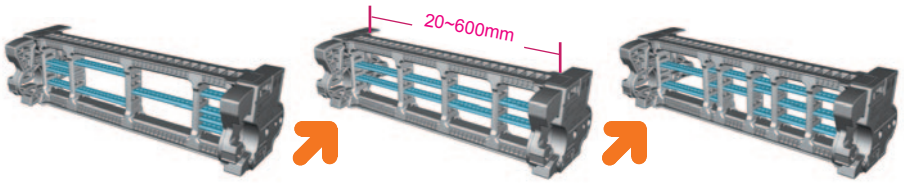


- Clean room environment
  Air speed(0.45 m/s)
  Temperature(+5°C)
  Humidity (45%)
- Test equipment
  Fraunhofer IPA Test machine
- Measurement Skill
  To checking the dust dimension of >0.2㎛, >0.3㎛,>0.5㎛, use LPSA210 TYPE machine made by PMS.
- Test operation and analysis
  Operated by the guideline of VDI 2083 Part8

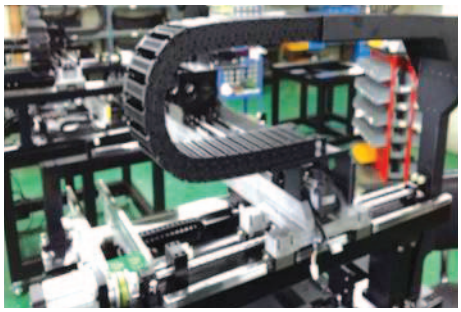
Section composition method



You should make section composition every second frames to make sure long lifetime of cables by preventing from twisting and lost of cables inside. (It's strongly recommended for customers who want to use for long time). It's basic issue and one of the most important factors showing long lifetime of cables.
You can make suitable section composition by using our diverse our dividers and separators that can be modified from 20mm ~ 600mm.

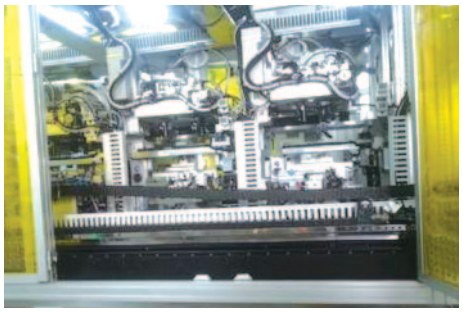


Application of nsb Chain Clean Room type



NSB 022CR

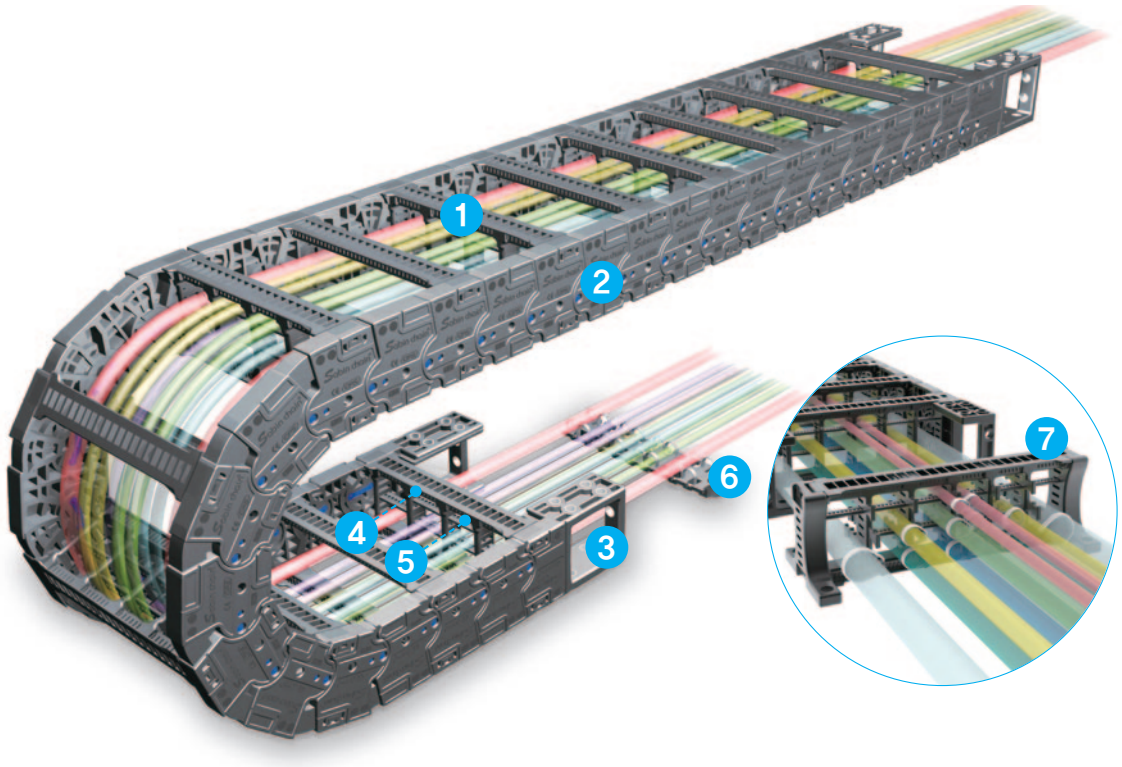
Application: Testing machine for Lead application
Location: Korea



NSB 035CR

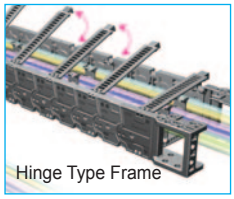
Application: LCD Cleaner Line
Location: Korea

Part of nsb Chain Clean Room Type



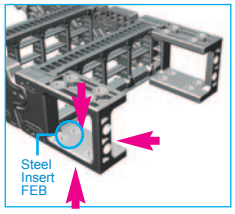
❶ Frame (Hinge Type) (FR)

A part that connects with LH, RH Side Band. There are every 5mm bumps that prevent dividers to be securely positioned at a place. One side of frame has a hinge structure that helps easy assembly and disassembly.


Hinge Type Frame

❷ Side Band (SB)

A part that connects upper and lower frame. There are LH and RH type.



❸ FREE END BRACKET (FEB)

A part that connects to each end of Cable Chain. There are holes are formed where steel washers are inserted to fix FEB to fixing plate securely.

❹ Divider (DV-S, M, R, T)

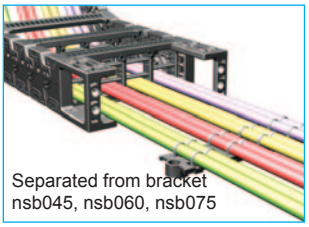
A part that prevents entanglement risk of cables and hoses by being installed vertically.

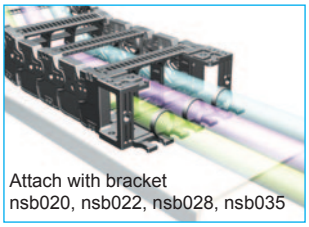
❺ Separators (SP)

A part that prevent entanglement risk of cable and hoses by being installed horizontally.

❻ Tie wrap (TW)

A part that prevents damage of the cable and hose by twisting & pulling movements. It can be used as assembling with bracket or separating from the bracket at end position of chain.


Separated from bracket
nsb045, nsb060, nsb075


Attach with bracket
nsb020, nsb022, nsb028, nsb035

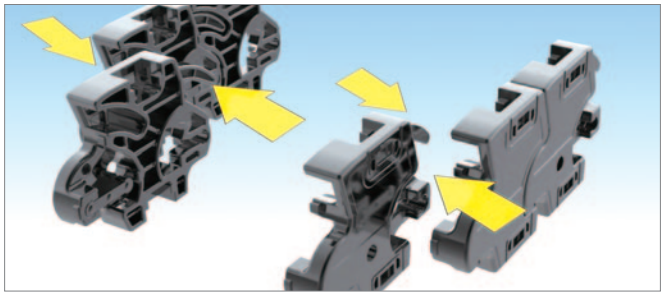
❼ System tie wrap (STW)

A part that connects to first or end of Cable Chain. Cables and hoses are arranged at System Tie Wrap by several layers and being tightened using Cable Tie. There are 2 types. One is separated from FEB and the other one is assembled to FEB.

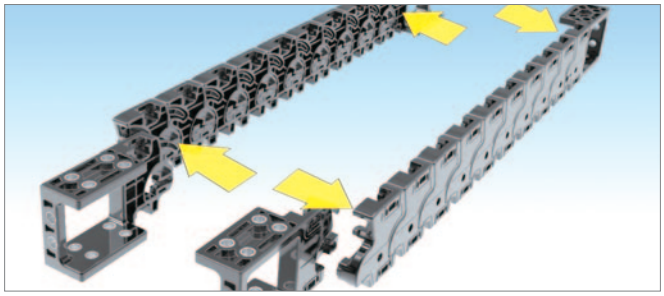
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Assembly procedure of nsb Chain Clean Room Type

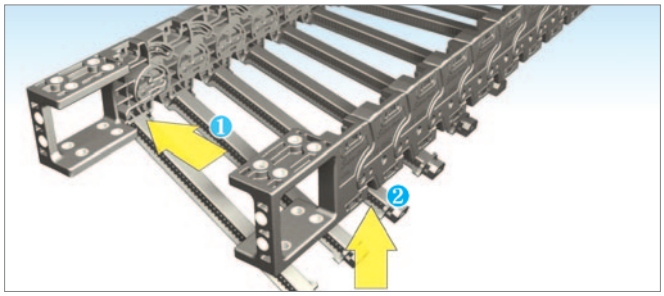
The assembling process of CR-Type of New Sabin Chain is like below and users must use rubber hammer with careful combination of Divider and Separator.



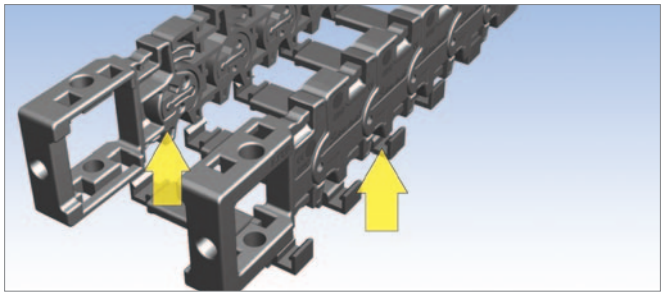
1 Connect each side band as many as you need.



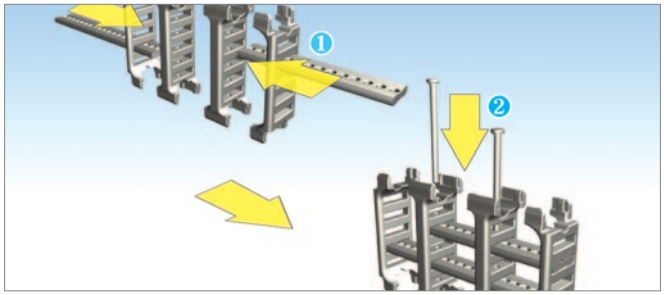
2 Assemble the end brackets on both ends.



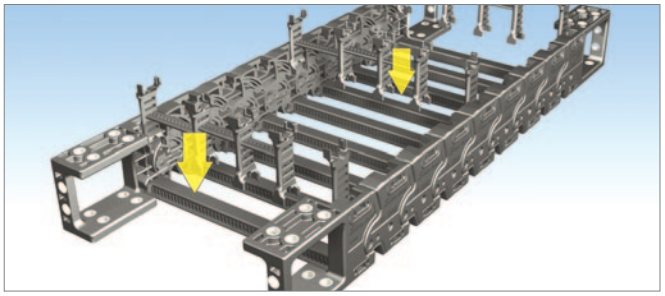
3 Attach frames to one side groove on the frames, then the other side.



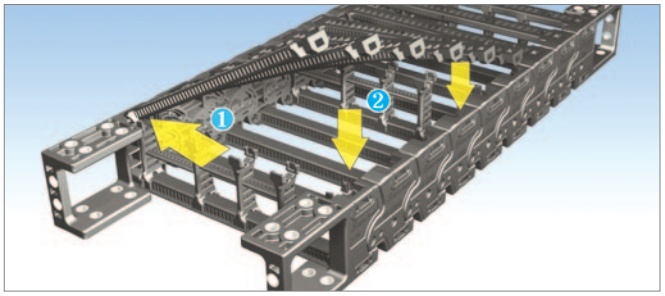
3-1 For nsb020CR and nsb022CR, they are not Hinge Type for method to connect frames, but Hook Type on both sides.



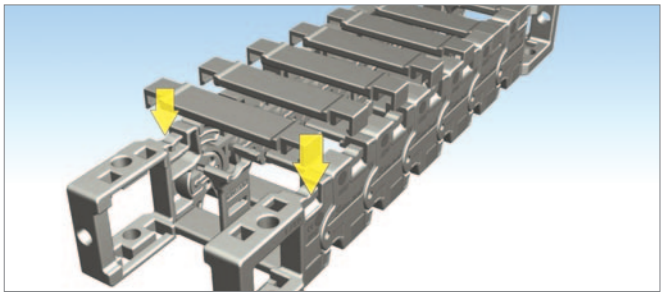
4 For nsb045, 060 and 075, connect the pin of separator in hole of divider after inserting separator in hole of divider.
For nsb028 and nsb035, separator fixing pins are not used.



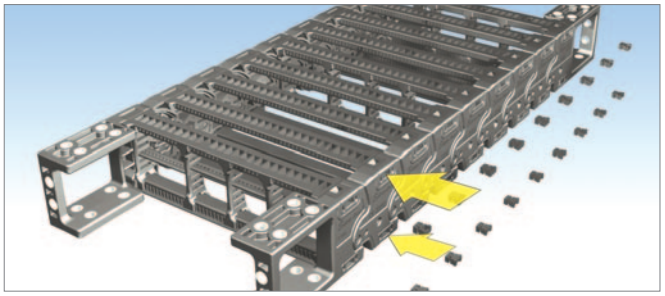
5 Fix the separator and divider patterns to the bottom-side frames as needed.



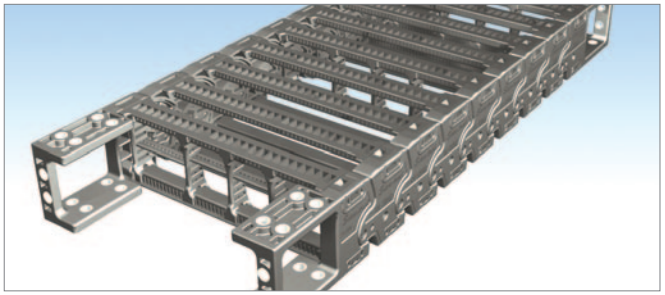
6 Attach frames to one side groove on the frames, then the other side.



6-1 For nsb020CR and nsb022CR, they are not Hinge Type for method to connect frames, but Hook Type on both sides.



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.)



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

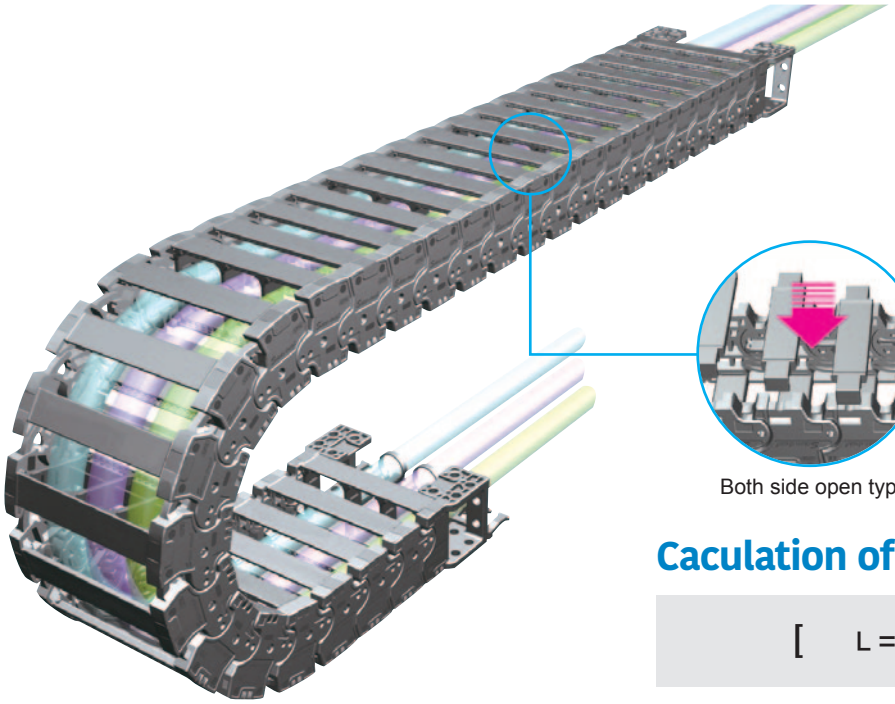
Part list of Shift Chain-Normal Type

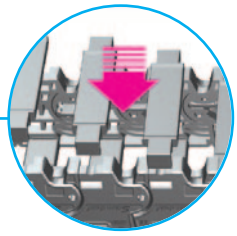
Model	Classification	Part number	Description
nsb020CR	SIDE BAND	nsb-SB020CR.R*(LH) nsb-SB020CR.R*(RH)	Left side band of nsb020CR Right side band of nsb020CR
	FRAME	sb-FR018CR.20 sb-FR018CR.40	Frame, 20mm Frame, 40mm
	FREE END BRACKET	nsb-FEB020CR	Free End bracket of nsb020CR
	DIVIDER	nsb-DV020CR	Normal divider, clean room type
	TIE WRAP	sb-TW018CR.20 sb-TW018CR.40	Tie wrap for end bracket to fix cables, 20mm Tie wrap for end bracket to fix cables, 40mm
nsb022CR	SIDE BAND	nsb-SB022CR.R*(LH) nsb-SB022CR.R*(RH)	Left side band of nsb022CR Right side band of nsb022CR
	FRAME	sb-FR020CR.16 S-FR033/020CR.27 S-FR033/020CR.37 S-FR033/020CR.47 S-FR033/020CR.67 S-FR033/020CR.77 sb-FR020CR.100	Frame, 16mm Frame, 27mm Frame, 37mm Frame, 47mm Frame, 67mm Frame, 77mm Frame, 100mm
	FREE END BRACKET	nsb-FEB022CR	Free End bracket of nsb022CR
	DIVIDER	nsb-DV022CR	Normal divider, cleanroom type
	TIE WRAP	sb-TW020CR.16 S-TW033/020CR.27 S-TW033/020CR.37 S-TW033/020CR.47 S-TW033/020CR.67 S-TW033/020CR.77	Tie wrap for end bracket to fix cables, 16mm Tie wrap for end bracket to fix cables, 27m Tie wrap for end bracket to fix cables, 37mm Tie wrap for end bracket to fix cables, 47mm Tie wrap for end bracket to fix cables, 67mm Tie wrap for end bracket to fix cables, 77mm
nsb028CR	SIDE BAND	nsb-SB028CR.R*(LH) nsb-SB028CR.R*(RH)	Left side band of nsb028CR Right side band of nsb028CR
	FRAME	sb-FR/M.35 sb-FR/M.50 sb-FR/M.55 sb-FR/M.75 sb-FR/M.100 sb-FR/M.125 sb-FR/M.150 sb-FR/M.175 sb-FR/M.200	Frame, 35mm Frame, 50mm Frame, 55mm Frame, 75mm Frame, 100mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 200mm
	FREE END BRACKET	nsb-FEB028CR	Free End bracket of nsb028CR
	DIVIDER	sb-DV028/M sb-DV028/S	Normal divider, cleanroom type To fix separstors at the both side section
	SEPARATOR	S-SP/M.35 S-SP/M.50 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150 S-SP/M.175 S-SP/M.200	Separator, 35mm Separator, 50mm Separator, 75mm Separator, 100mm Separator, 125mm Separator, 150mm Separator, 175mm Separator, 200mm
	TIE WRAP	S–TW036/025CR.35 S–TW036/025CR.50 S-TW036/025CR.55 S-TW036/025CR.75 S-TW036/025CR.100 S-TW036/025CR.125 S-TW036/025CR.150	Tie wrap for end bracket to fix cables, 35mm Tie wrap for end bracket to fix cables, 50m Tie wrap for end bracket to fix cables, 55mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb–DV028/W S–TW.EB028	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket
nsb035CR	SIDE BAND	nsb-SB035CR.R*(LH) nsb-SB035CR.R*(RH)	Left side band of nsb035CR Right side band of nsb035CR
	FRAME	sb-FR/M.35 sb-FR/M.50 sb-FR/M.55 sb-FR/M.75 sb-FR/M.100 sb-FR/M.125 sb-FR/M.150 sb-FR/M.175 sb-FR/M.200	Frame, 35mm Frame, 50mm Frame, 55mm Frame, 75mm Frame, 100mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 200mm
	FREE END BRACKET	nsb-FEB035CR	Free End bracket of nsb035CR
	DIVIDER	sb-DV035/M sb-DV035/S	Normal divider, cleanroom type To fix separstors at the both side section
	SEPARATOR	S-SP/M.35 S-SP/M.50 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150 S-SP/M.175 S-SP/M.200	Separator, 35mm Separator, 50mm Separator, 75mm Separator, 100mm Separator, 125mm Separator, 150mm Separator, 175mm Separator, 200mm
	TIE WRAP	S-TW050/035N.50 S-TW050/035N.55 S-TW050/035N.75 S-TW050/035N.100 S-TW050/035N.125 S-TW050/035N.150 S-TW050/035N.175	Tie wrap for end bracket to fix cables, 50m Tie wrap for end bracket to fix cables, 55mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm Tie wrap for end bracket to fix cables, 175mm
	SYSTEM TIE WRAP	S-TW050/035N.200 sb–DV035/W S–TW.EB035	Tie wrap for end bracket to fix cables, 200mm Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket

Model	Classification	Part number	Description
nsb045CR	SIDE BAND	nsb-SB045CR.R*(LH) nsb-SB045CR.R*(RH)	Left side band of 045CR Right side band of 045CR
	FRAME PIN	S-FP/S1	Frame Pin
	FRAME	sb-FR045.50 sb-FR045.75 sb-FR045.100 sb-FR045.125 sb-FR045.140 sb-FR045.150 sb-FR045.165 sb-FR045.175 sb-FR045.190 sb-FR045.200 sb-FR045.240 sb-FR045.250 sb-FR045.300	Frame, 50mm Frame, 75mm Frame, 100mm Frame, 125mm Frame, 140mm Frame, 150mm Frame, 165mm Frame, 175mm Frame, 190mm Frame, 200mm Frame, 240mm Frame, 250mm Frame, 300mm
	FREE END BRACKET	nsb-FEB045CR sb-FEB/WH045	Free End bracket of nsb045CR Steel washer
	DIVIDER	sb-DV045CR/M sb-DV045CR/S sb-DV045CR/R sb-DV045CR/T sb-DV045/TP	Normal divider To fix separstors at the both side section Roller divider to reduce friction with cables, Clean room type T divider T divider pin
	SEPARATOR	sb-SP/400.Frame SP-PIN045	Separator, 400mm Separator pin to fix
	TIE WRAP	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	Tie wrap for end bracket to fix cables, 50mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV045/W S-TW.EB045	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket
nsb060CR nsb060CRL	SIDE BAND	nsb-SB060CR.R*(LH) nsb-SB060CR.R*(RH)	Left side band of 060CR Right side band of 060CR
	FRAME PIN	S-FP/S1	Frame Pin
	FRAME	sb-FR060.75 sb-FR060.100 sb-FR060.125 sb-FR060.150 sb-FR060.175 sb-FR060.190 sb-FR060.200 sb-FR060.230 sb-FR060.250 sb-FR060.300 sb-FR060.350 sb-FR060.400	Frame, 75mm Frame, 100mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 190mm Frame, 200mm Frame, 230mm Frame, 250mm Frame, 300mm Frame, 350mm Frame, 400mm
	FREE END BRACKET	nsb-FEB060CR sb-FEB/WH060	Free End bracket of nsb060CR Steel washer
	DIVIDER	sb-DV060/M sb-DV060/S sb-DV060/R sb-DV060/T sb-DV060/TP	Normal divider To fix separstors at the both side section Roller divider to reduce friction with cables, Clean room type T divider T divider pin
	SEPARATOR	sb-SP/400.Frame SP-PIN060	Separator, 400mm Separator pin to fix
	TIE WRAP	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	Tie wrap for end bracket to fix cables, 50mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV060/W S-TW.EB060	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket
nsb075CR	SIDE BAND	nsb-SB075CR.R*(LH) nsb-SB075CR.R*(RH)	Left side band of 075CR Right side band of 075CR
	FRAME PIN	S-FP/S2	Frame Pin
	FRAME	sb-FR075/100.75 sb-FR075/100.100 sb-FR075/100.115 sb-FR075/100.125 sb-FR075/100.150 sb-FR075/100.175 sb-FR075/100.200 sb-FR075/100.240 sb-FR075/100.250 sb-FR075/100.290 sb-FR075/100.300 sb-FR075/100.350 sb-FR075/100.400 sb-FR075/100.450 sb-FR075/100.500 sb-FR075/100.550 sb-FR075/100.600	Frame, 75mm Frame, 100mm Frame, 115mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 200mm Frame, 240mm Frame, 250mm Frame, 290mm Frame, 300mm Frame, 350mm Frame, 400mm Frame, 450mm Frame, 500mm Frame, 550mm Frame, 600mm
	STEEL END BRACKET	nsb-FEB075CR sb-FEB/WH075	Free End bracket of nsb075CR Steel washer
	DIVIDER	sb-DV075/M sb-DV075/S sb-DV075/R sb-DV075/T sb-DV075/TP	Normal divider To fix separstors at the both side section Roller divider to reduce friction with cables, Clean room type T divider T divider pin
	SEPARATOR	sb-SP/400.Frame SP-PIN075	Separator, 400mm Separator pin to fix
	TIE WRAP	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	Tie wrap for end bracket to fix cables, 50mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV075/W S-TW.EB075	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket

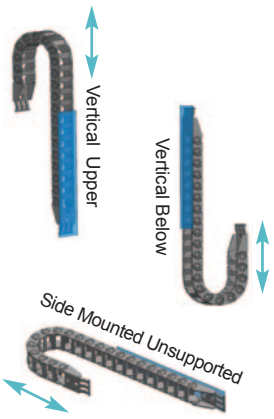
nsb020CR

Sabin Chain®





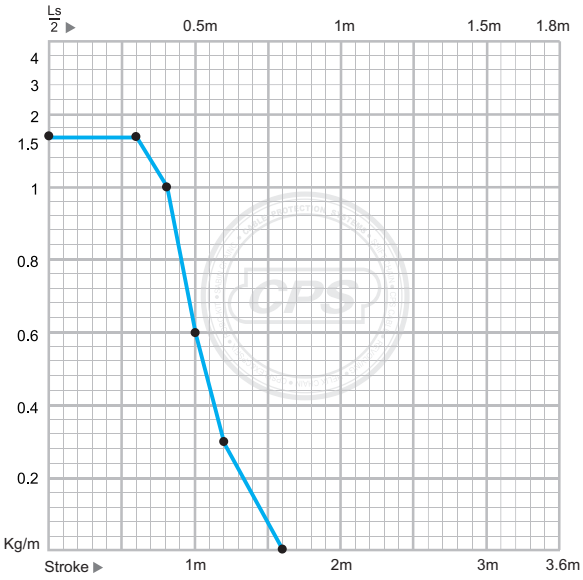
Both side open type



Caculation of the Chain Length

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

Unsupported Length



Other Length Restrictions

Vertical Upper(Max)	= 1.0m
Vertical Below(Max)	= 5.0m
Side Mounted Unsupported(Max)	= 0.5m

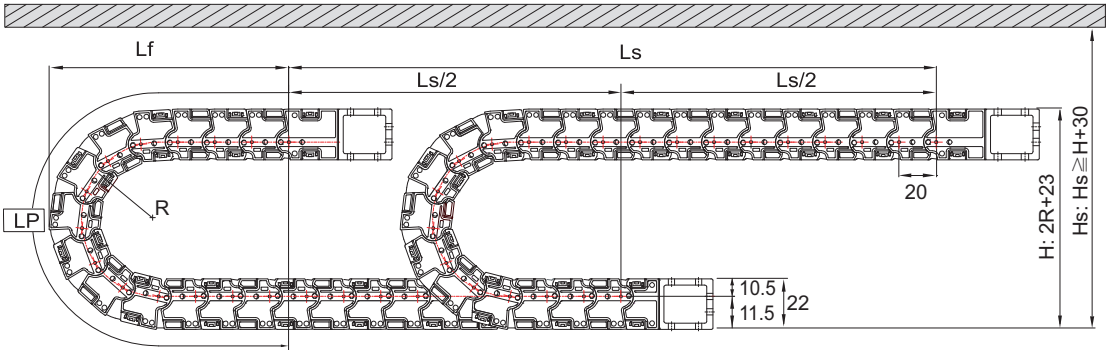
Ordering

nsb 020CR. 20. R48 / F – 600L : (DV:2)

- Clean Room Type (CR)
- Inside Width
- Bending Radius
- Bracket Type
- Length (mm)
- Quantity of Divider (Link)
- Sabin Chain

Layout of the Chain

Ls: Stroke Hs: Safe Space



Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
28	168	80	79
38	200	90	99
48	231	100	119

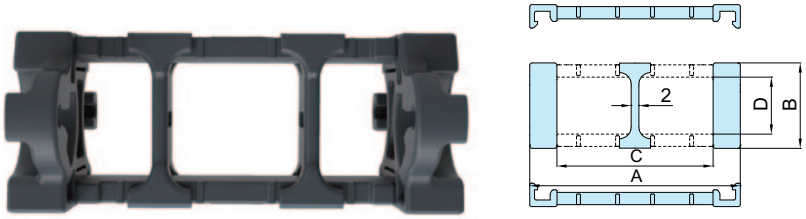
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

Dividers (DV) Assemble divider every third links.

❶ nsb-DV020CR

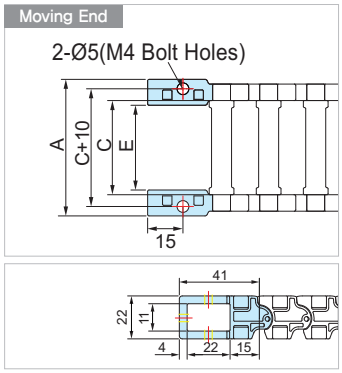
Chain Cross Section



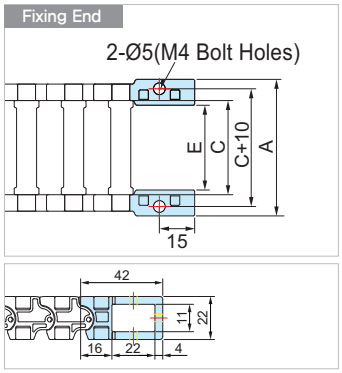
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb020CR	34 54	22	20 40	15	0.32 0.35

Free End Bracket (FEB)

Moving End

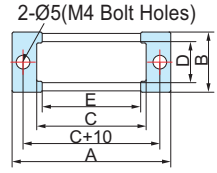


Fixing End

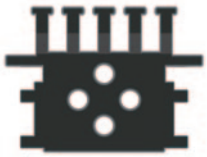


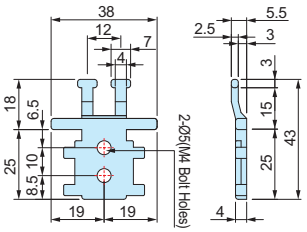
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb020CR	38 58	22	20 40	15	16 36	M4 Bolt Holes

Front point

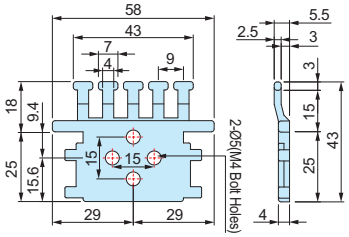


Tie Wrap (TW)





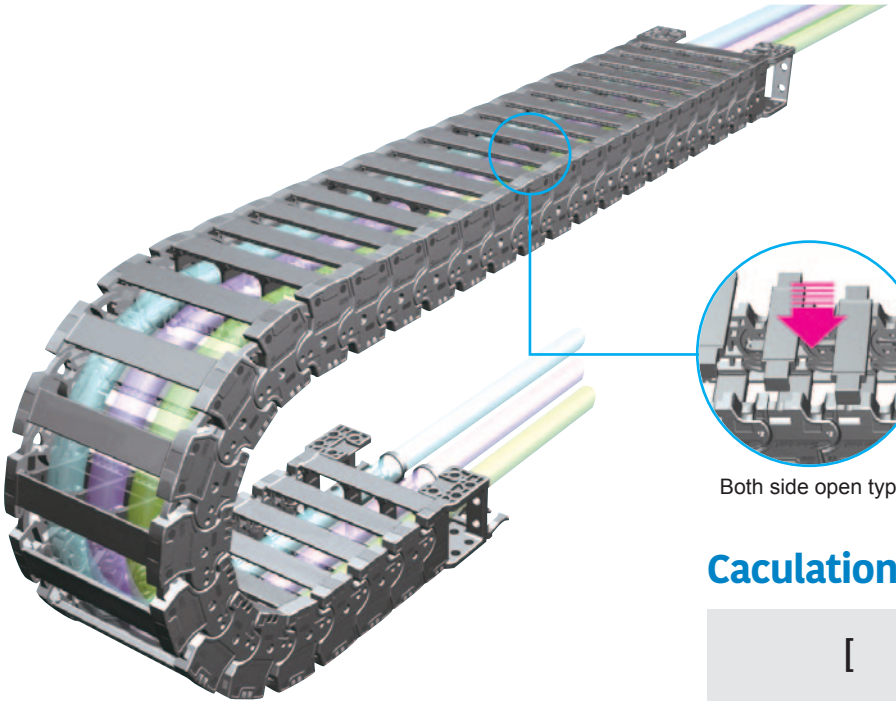
Ordering No. : sb-TW018CR.20

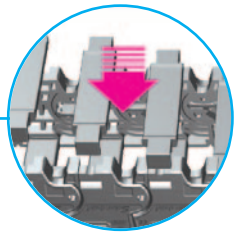


Ordering No. : sb-TW018CR.40

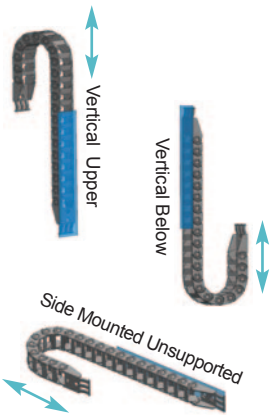
nsb022CR

Sabin Chain®





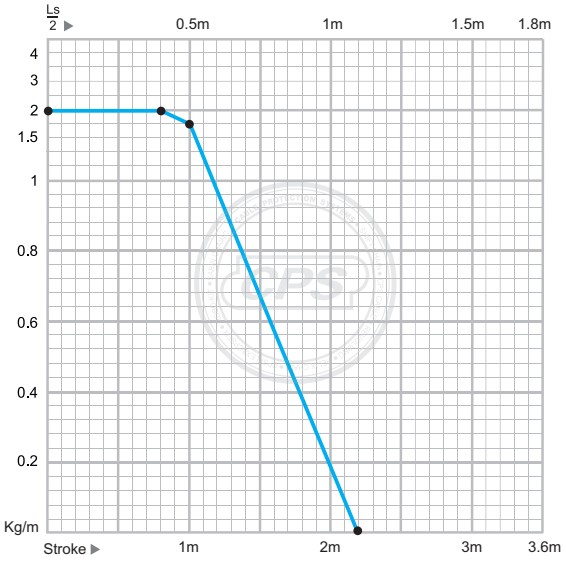
Both side open type



Caculation of the Chain Length

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

Unsupported Length



Other Length Restrictions

Vertical Upper(Max) = 1.0m
Vertical Below(Max) = 5.0m
Side Mounted Unsupported(Max) = 0.5m

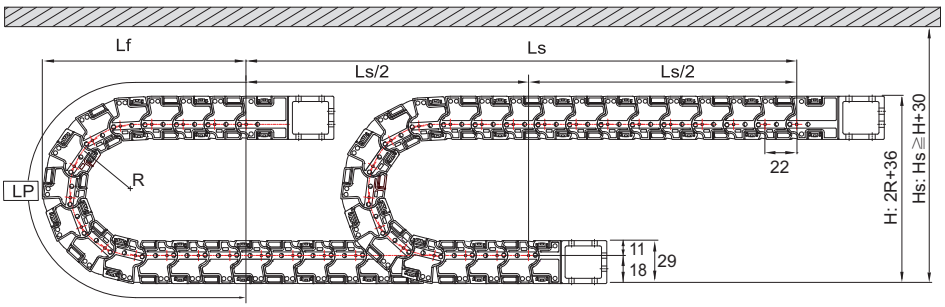
Ordering

nsb 022CR. 16. R35 / F – 660L : (DV:2)

- nsb: Sabin Chain
- 022CR: Clean Room Type (CR)
- 16: Inside Width
- R35: Bending Radius
- F: Bracket Type
- 660L: Length (mm)
- (DV:2): Quantity of Divider (Link)

Layout of the Chain

Ls: Stroke Hs: Safe Space

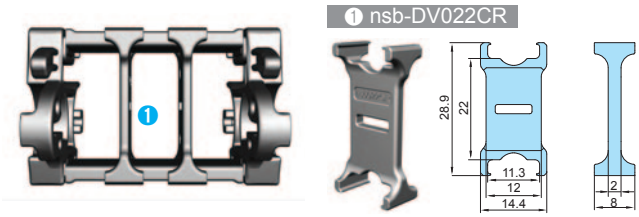


Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
35	198	97	106
45	230	107	126
75	324	137	186
100	402	162	236
120	465	182	276

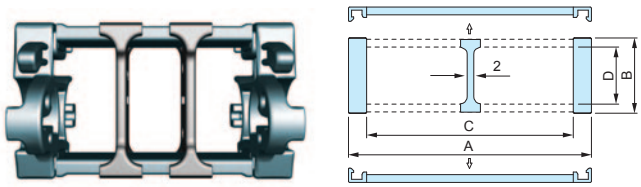
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

Dividers (DV) Assemble divider every third links.

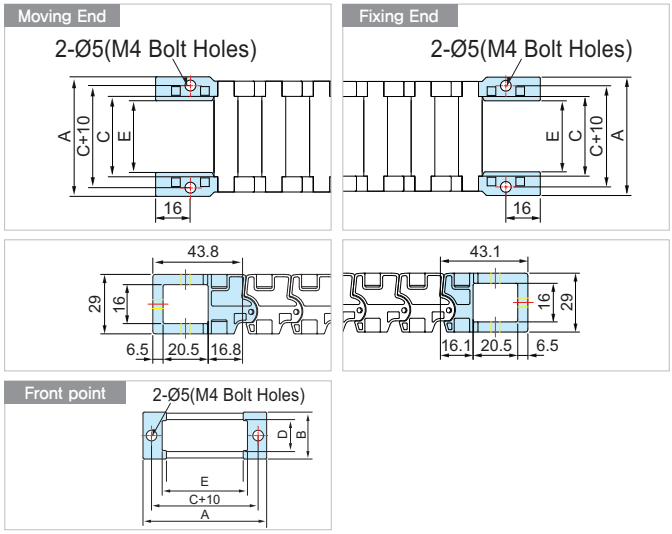


Chain Cross Section



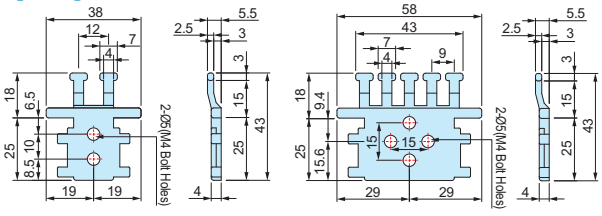
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb022CR	30	29	16	22	0.43
	41		27		0.47
	51		37		0.51
	61		47		0.55
	81		67		0.67
	91		77		0.69
	114		100		0.81

Free End Bracket (FEB)



Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb022CR	34	29	16	22	26	M4 Bolt Holes
	45		27		37	
	55		37		47	
	65		47		57	
	85		67		77	
	95		77		87	
	118		100		110	

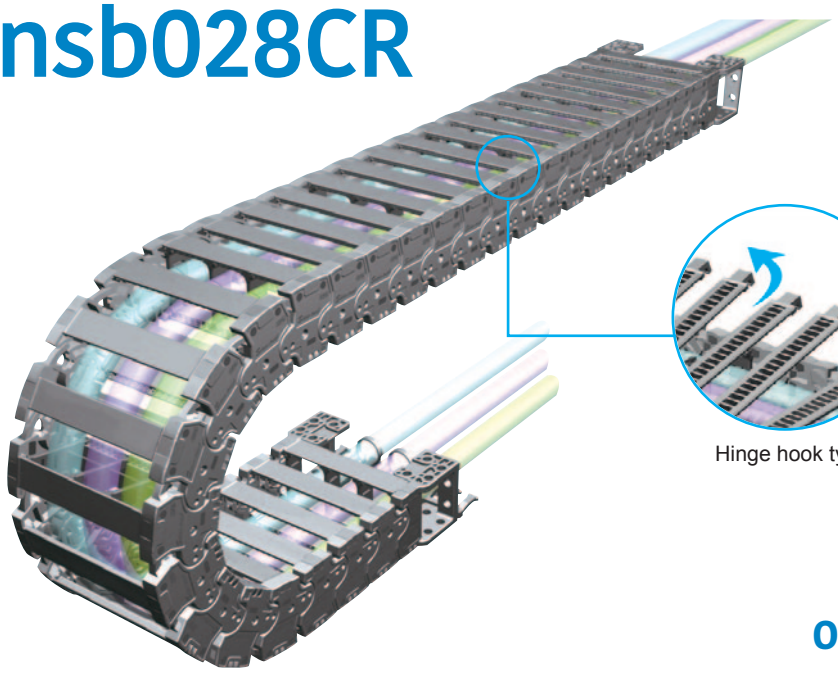
Tie Wrap (TW)

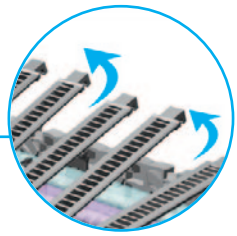


Ordering No. : sb-TW018CR.20 Ordering No. : sb-TW018CR.40

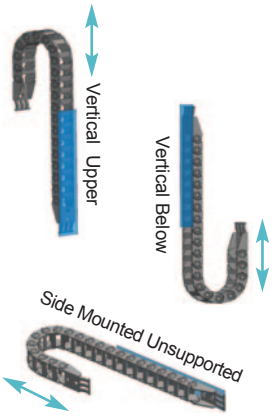
Chain Type	Ordering No.	A	B	C	D
nsb022CR	sb-TW020CR.16	34	-	10.00	-
	S-TW033/020CR.27	45	27.5	10.20	12
	S-TW033/020CR.37	55	41.0	8.50	22
	S-TW033/020CR.47	65	48.0	10.40	32
	S-TW033/020CR.67	85	68.0	10.00	52
	S-TW033/020CR.77	95	78.0	8.87	62

nsb028CR





Hinge hook type



Caculation of the Chain Length

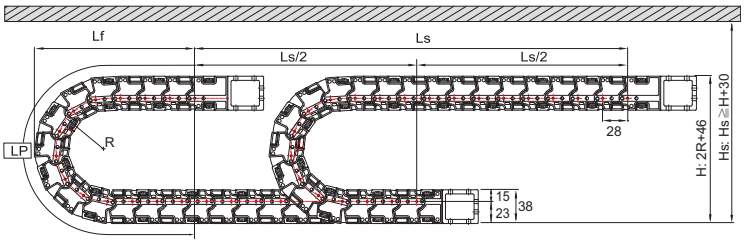
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Upper(Max) = 2.0m
Vertical Below(Max) = 40.0m
Side Mounted Unsupported(Max) = 1.0m

Layout of the Chain

Ls: Stroke Hs: Safe Space



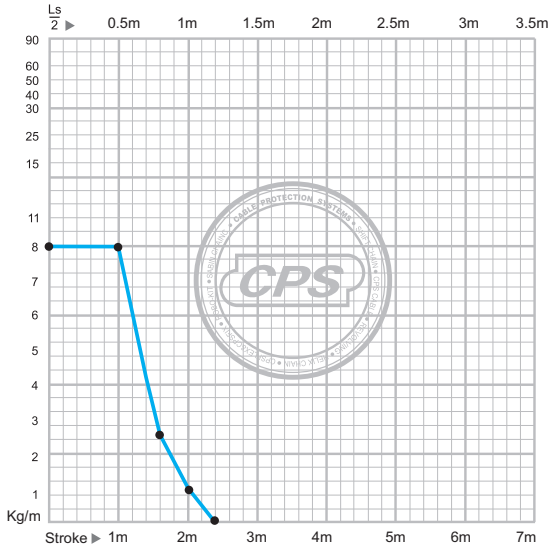
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
50	269	129	146
70	332	149	186
90	395	169	226
120	489	199	286
150	583	229	346

Ordering

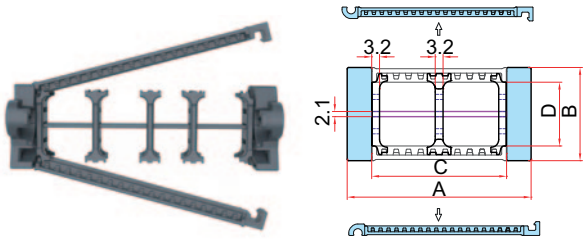
nsb 028CR. 35. R50 / F – 616L : (DV:2)

- Clean Room Type (CR)
- Sabin Chain
- Inside Width
- Bending Radius
- Bracket Type
- Length (mm)
- Quantity of Divider (Link)

Unsupported Length



Chain Cross Section



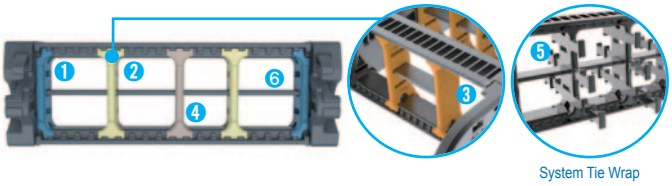
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb028CR	55	38	35	26	0.90
	70		50		0.98
	75		55		1.02
	95		75		1.12
	120		100		1.27
	145		125		1.41
	170		150		1.59
	195		175		1.74
	220		200		1.84

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

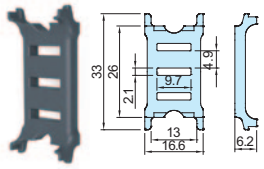
Dividers (DV)

Assemble divider every fourth frame
DV/T Applied to Frame 125~200
(connect upper&below frame)
DV/M Normal Divider
DV/W
Can be assembled at System Tie Wrap or FEB

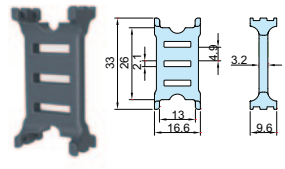


System Tie Wrap

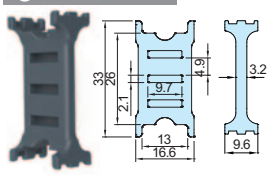
❶ sb-DV028/S



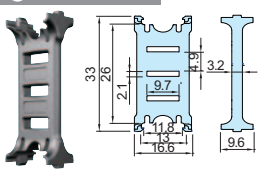
❷ sb-DV028/M1



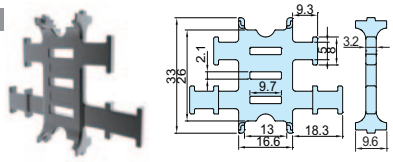
❸ sb-DV028/M2



❹ sb-DV028/T

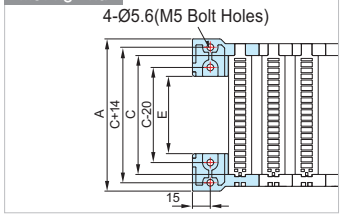


❺ sb-DV028/W

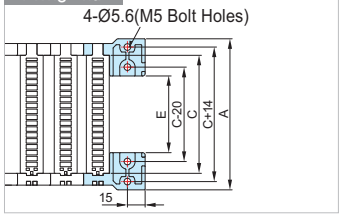


Free End Bracket (FEB)

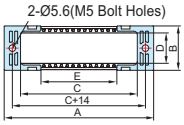
Moving End



Fixing End

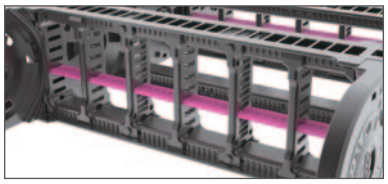


Front point

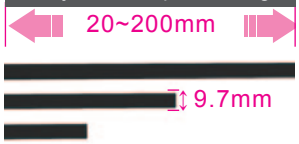


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb 028CR	63 78 83 103 128 153 178 203 228	38	35 50 55 75 100 125 150 175 200	26	0 15 20 40 65 90 115 140 165	M5 Bolt Holes

Separators (SP)



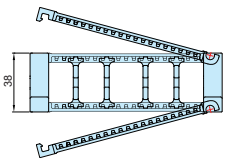
❻ Adjustable Separator length



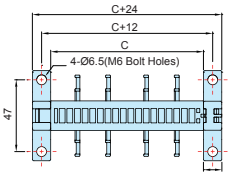
Chain Type	Ordering No.	Frame
nsb028CR	S-SP/M.35 S-SP/M.50 S-SP/M.55 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150 S-SP/M.175 S-SP/M.200	35 50 55 75 100 125 150 175 200

System Tie Wrap (STW)

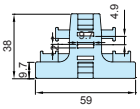
Front View



Top View

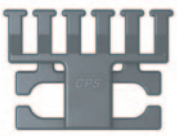


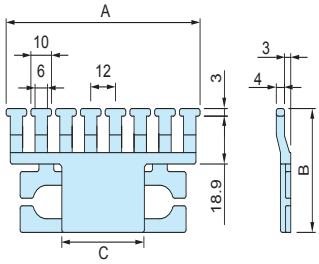
Side View



Chain Type	Ordering No.	C Frame	Hole Type
nsb028CR	S-TW.EB028.35 S-TW.EB028.50 S-TW.EB028.55 S-TW.EB028.75 S-TW.EB028.100 S-TW.EB028.125 S-TW.EB028.150 S-TW.EB028.175 S-TW.EB028.200	35 50 55 75 100 125 150 175 200	M6 Bolt Holes

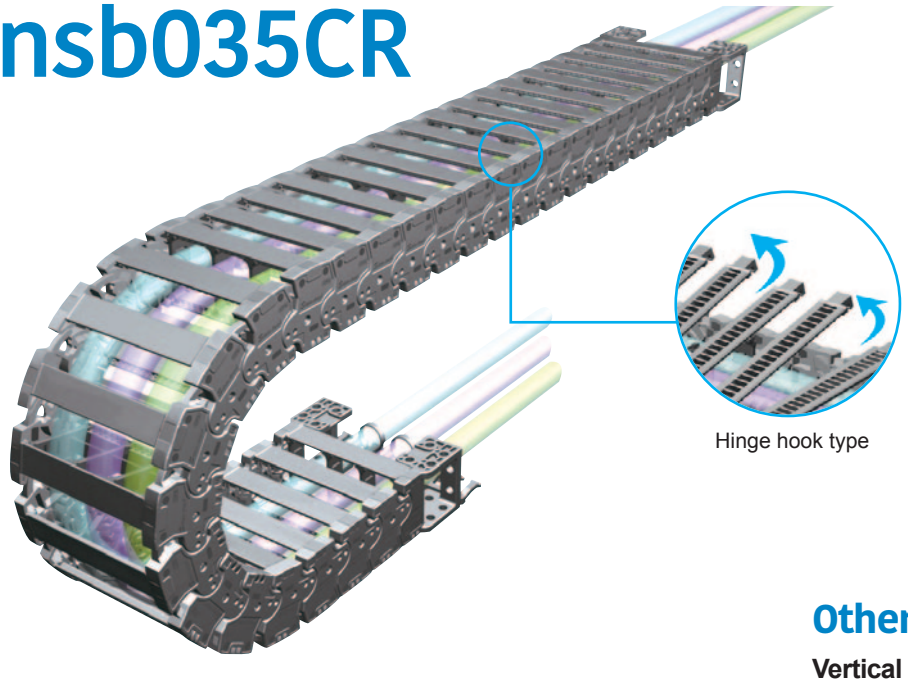
Tie Wrap (TW)



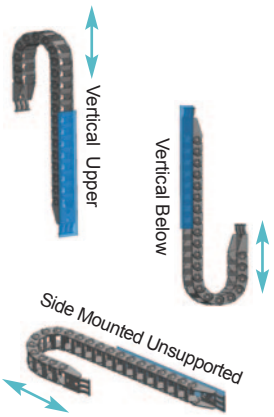


Chain Type	Ordering No.	A	B	C
nsb028CR	S-TW036/025CR.35 S-TW036/025CR.50 S-TW036/025CR.55 S-TW036/025CR.75 S-TW036/025CR.100 S-TW036/025CR.125 S-TW036/025CR.150	46 69 70 94 118 142 166	35.4 48.9 48.9 48.9 48.9 48.9 49	- 15 20 40 65 90 115

nsb035CR



Hinge hook type



Caculation of the Chain Length

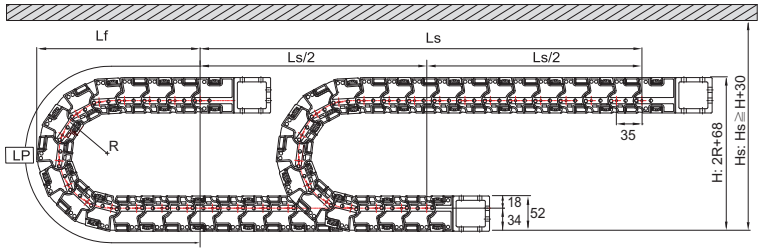
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Upper(Max)	= 2.0m
Vertical Below(Max)	= 40.0m
Side Mounted Unsupported(Max)	= 1.0m

Layout of the Chain

Ls: Stroke Hs: Safe Space



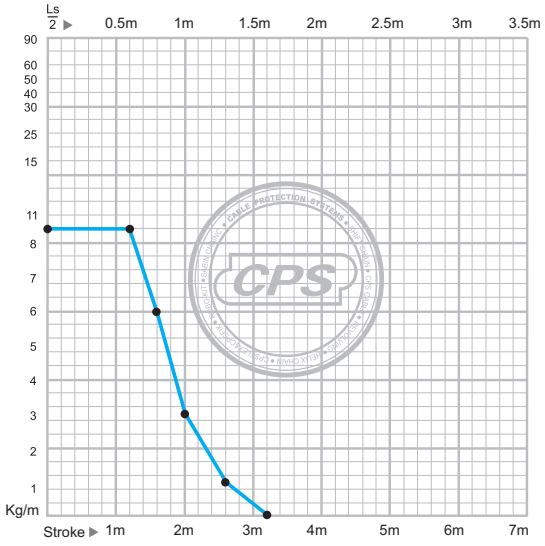
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
75	376	179	218
100	454	204	268
125	533	229	318
150	611	254	368
200	768	304	468

Ordering

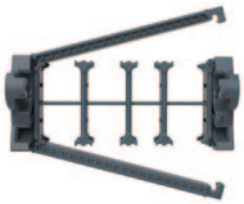
nsb 035CR. 35. R75 / F – 1050L : (DV:2)

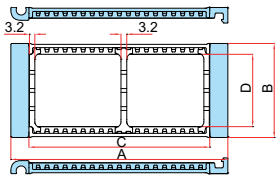
- Clean Room Type (CR)
- Sabin Chain
- Inside Width
- Bending Radius
- Bracket Type
- Length (mm)
- Quantity of Divider (Link)

Unsupported Length



Chain Cross Section





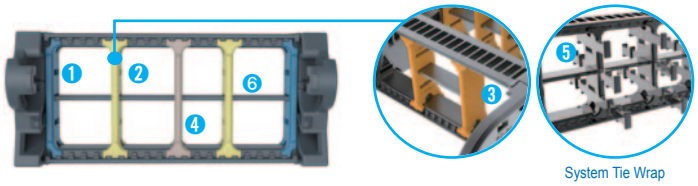
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb035CR	55	52	35	40	1.00
	70		50		1.06
	75		55		1.09
	95		75		1.17
	120		100		1.29
	145		125		1.39
	170		150		1.53
	195		175		1.65
	220		200		1.73

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

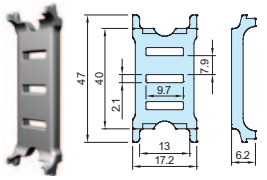
Dividers (DV)

Assemble divider every fourth frame
DV/T Applied to Frame 125~200
(connect upper&below frame)
DV/M Normal Divider
DV/W Can be assembled at System Tie Wrap or FEB

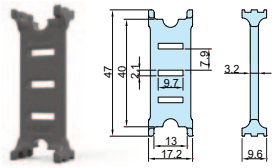


System Tie Wrap

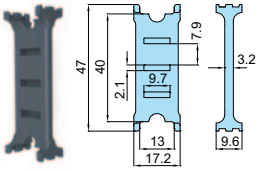
① sb-DV035/S



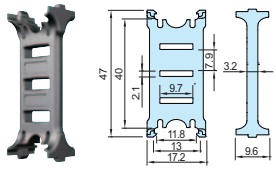
② sb-DV035/M1



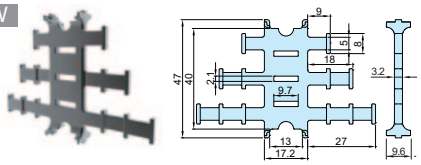
③ sb-DV035/M2



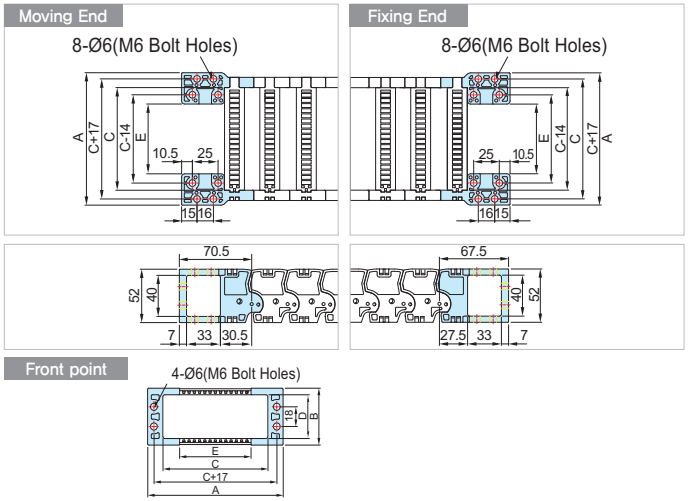
④ sb-DV035/T



⑤ sb-DV035/W

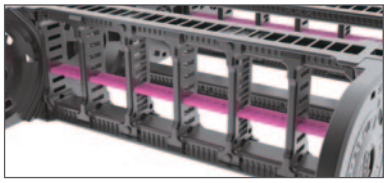


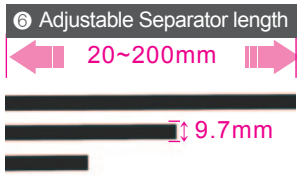
Free End Bracket (FEB)



Chain-Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb035CR	64 79 84 104 129 154 179 204 229	52	35 50 55 75 100 125 150 175 200	40	3 18 23 43 68 93 118 143 168	M6 Bolt Holes

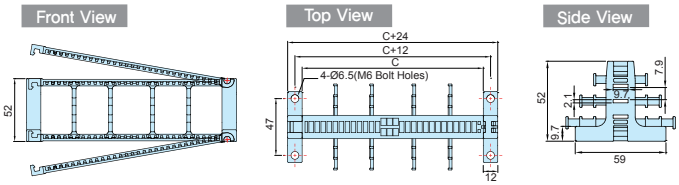
Separators (SP)





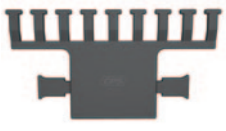
Chain Type	Ordering No.	Frame
nsb035CR	S-SP/M.35 S-SP/M.50 S-SP/M.55 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150 S-SP/M.175 S-SP/M.200	35 50 55 75 100 125 150 175 200

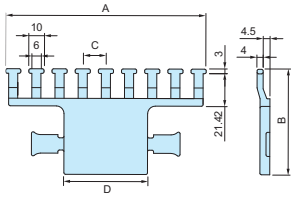
System Tie Wrap (STW)



Chain Type	Ordering No.	C Frame	Hole Type
nsb035CR	S-TW.EB035.35 S-TW.EB035.50 S-TW.EB035.55 S-TW.EB035.75 S-TW.EB035.100 S-TW.EB035.125 S-TW.EB035.150 S-TW.EB035.175 S-TW.EB035.200	35 50 55 75 100 125 150 175 200	M6 Bolt Holes

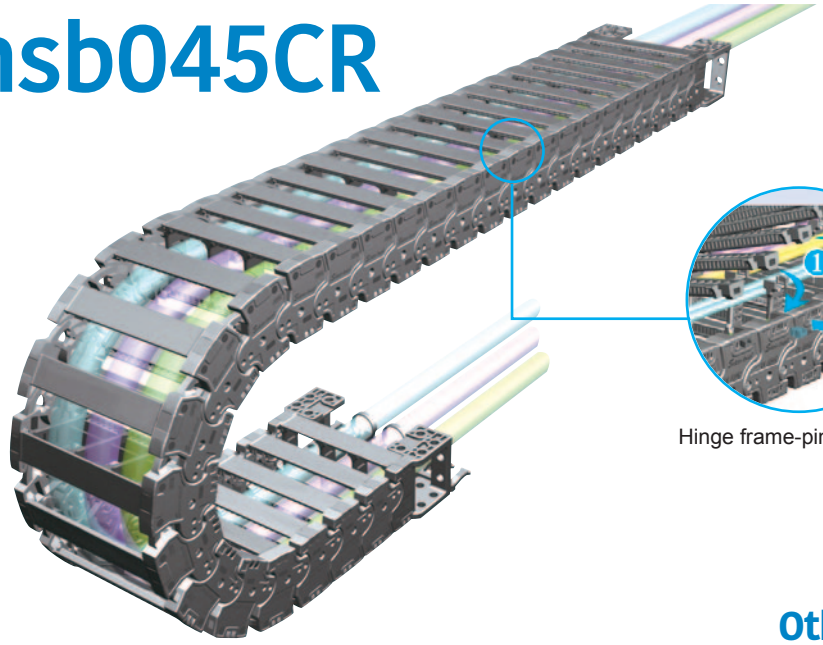
Tie Wrap (TW)

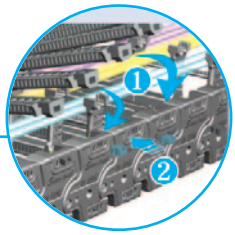




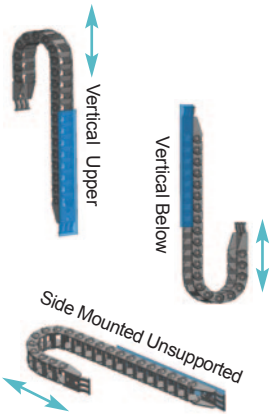
Chain Type	Ordering No.	A	B	C	D
nsb035CR	S-TW050/035N.50 S-TW050/035N.55 S-TW050/035N.75 S-TW050/035N.100 S-TW050/035N.125 S-TW050/035N.150 S-TW050/035N.175 S-TW050/035N.200	82 82 107 132 157 182 203 232	64.5	12.00 12.00 12.13 15.25 14.70 14.35 12.31 13.88	5 10 30 55 80 105 130 155

nsb045CR





Hinge frame-pin lock type



Caculation of the Chain Length

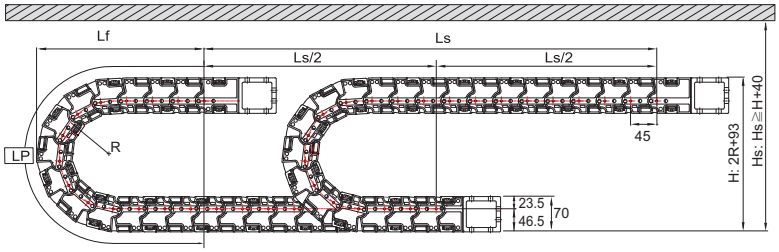
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Upper(Max) = 6.0m
Vertical Below(Max) =100.0m
Side Mounted Unsupported(Max) = 2.5m

Layout of the Chain

Ls: Stroke Hs: Safe Space



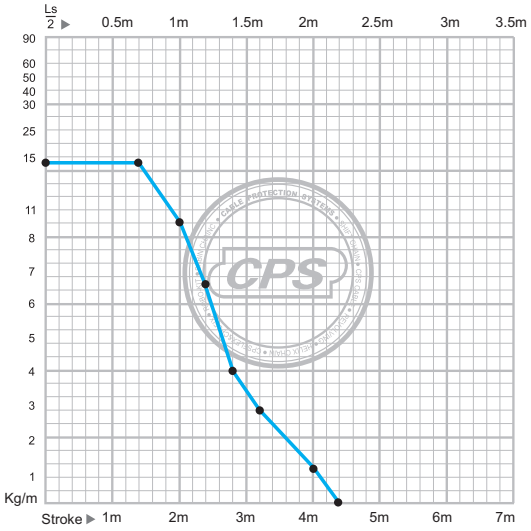
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
75	506	257	243
100	584	282	293
120	647	302	333
140	710	322	373
200	898	382	493
250	1055	432	593
300	1212	482	693

Ordering

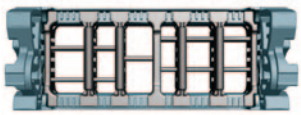
nsb 045CR. 50. R75 / F – 1350L : (DV:2)

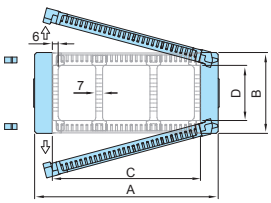
- Clean Room Type (CR)
- Bending Radius
- Length (mm)
- Quantity of Divider (Link)
- Sabin Chain
- Inside Width
- Bracket Type

Unsupported Length



Chain Cross Section





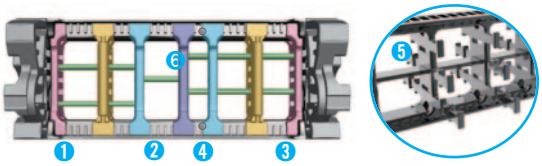
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb045CR	80	70	50	49	2.59
	105		75		2.74
	130		100		2.90
	155		125		3.11
	170		140		3.23
	180		150		3.31
	195		165		3.41
	205		175		3.48
	220		190		3.90
	230		200		4.18
	270		240		4.64
	280		250		4.76
	330		300		5.32

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

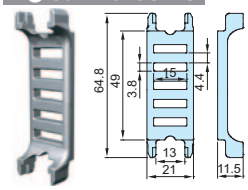
Dividers (DV)

Assemble divider every fourth frame
DV/T Applied to Frame 125~200
(connect upper&below frame)
DV/M Normal Divider
DV/W
Can be assembled at System Tie Wrap or FEB

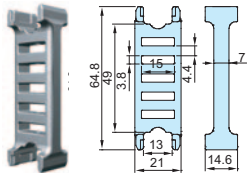


System Tie Wrap

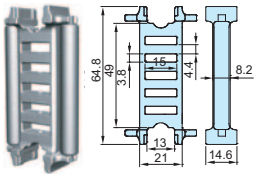
❶ sb-DV045CR/S



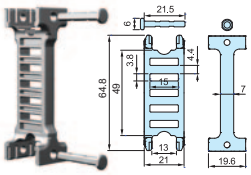
❷ sb-DV045CR/M



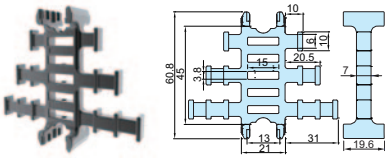
❸ sb-DV045CR/R



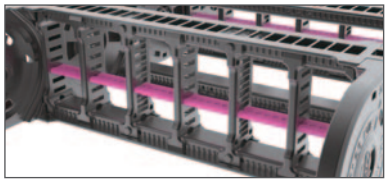
❹ sb-DV045CR/T



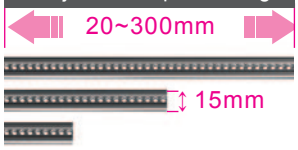
❺ sb-DV045CR/W (can not be assembled at FEB)



Separators (SP)



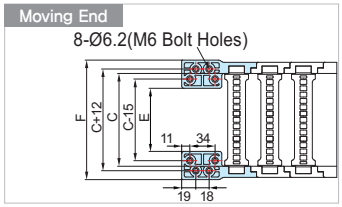
❻ Adjustable Separator length



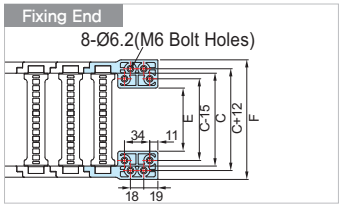
Chain Type	Ordering No.
nsb045CR	sb-SP/400.Frame

Free End Bracket (FEB)

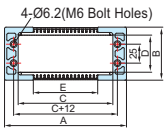
Moving End



Fixing End



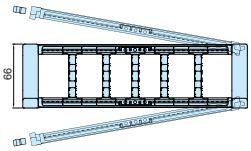
Front point



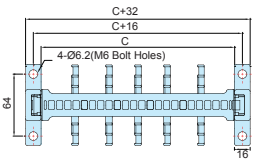
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb045CR	86 111 136 161 176 186 201 211 226 236 276 286 336	70	50 75 100 125 140 150 165 175 190 200 240 250 300	49	10 35 60 85 100 110 125 135 150 160 200 210 260	M6 Bolt Holes

System Tie Wrap (STW)

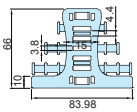
Front View



Top View

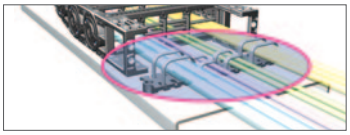


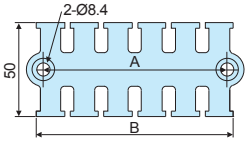
Side View

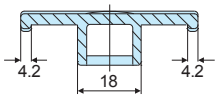


Chain Type	Ordering No.	C Frame	Hole Type
nsb045CR	S-TW.EB045.50 S-TW.EB045.75 S-TW.EB045.100 S-TW.EB045.125 S-TW.EB045.140 S-TW.EB045.150 S-TW.EB045.165 S-TW.EB045.175 S-TW.EB045.190 S-TW.EB045.200 S-TW.EB045.240 S-TW.EB045.250 S-TW.EB045.300	50 75 100 125 140 150 165 175 190 200 240 250 300	M6 Bolt Holes

Tie Wrap (TW)

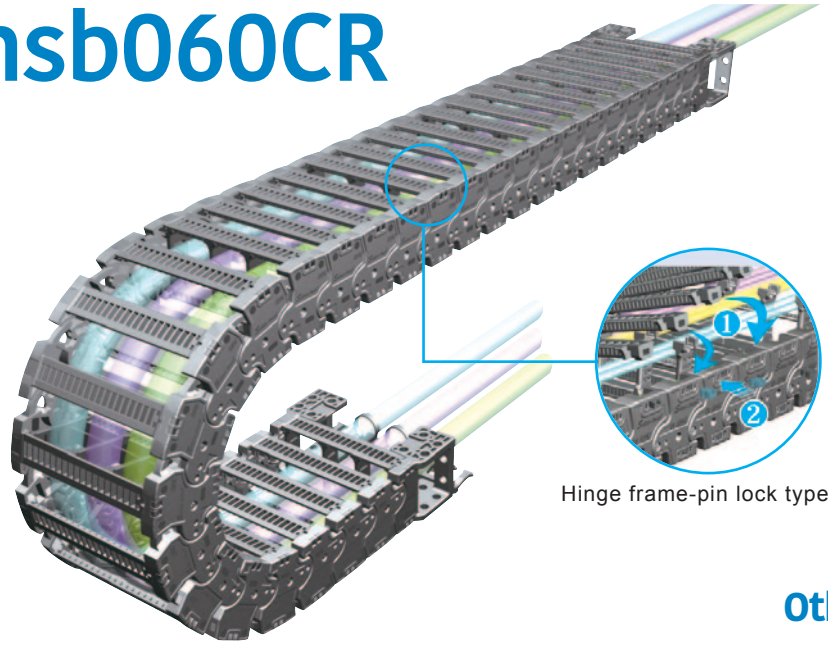




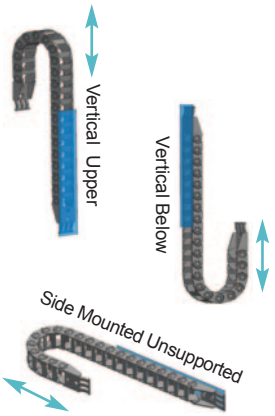


Chain Type	Ordering No.	A	B
nsb045CR	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

nsb060CR



Hinge frame-pin lock type



Caculation of the Chain Length

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

Other Length Restrictions

Vertical Upper(Max)	= 6.0m
Vertical Below(Max)	= 100.0m
Side Mounted Unsupported(Max)	= 3.0m

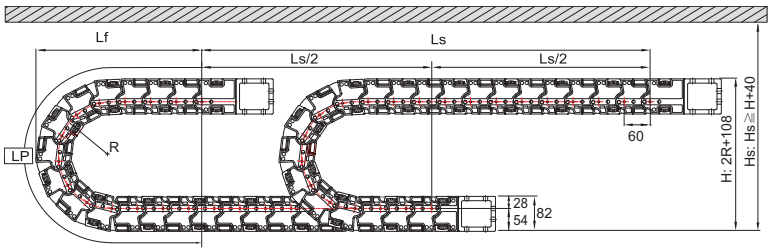
Ordering

nsb060CR.75.R125/F-1800L:(DV:2)

- Clean Room Type (CR)
- Bending Radius
- Length (mm)
- Quantity of Divider (Link)
- Sabin Chain
- Inside Width
- Bracket Type

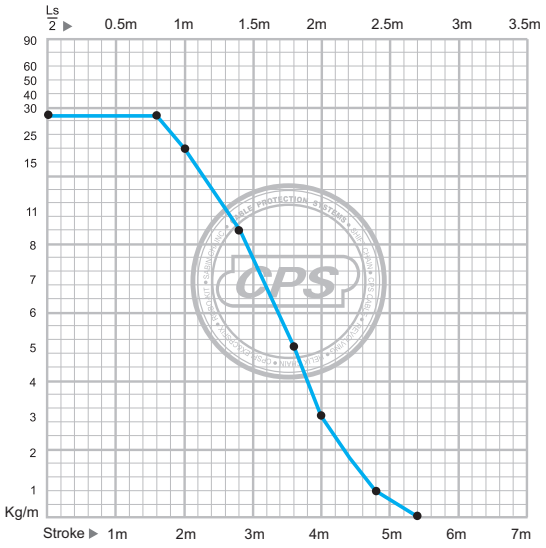
Layout of the Chain

Ls: Stroke Hs: Safe Space

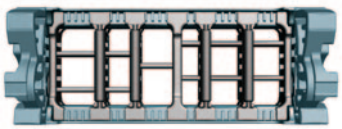


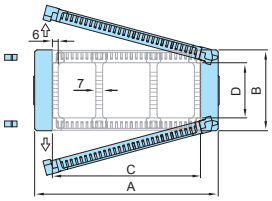
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
125	753	359	358
140	800	374	388
190	957	424	488
220	1051	454	548
270	1208	504	648
390	1585	624	888

Unsupported Length



Chain Cross Section





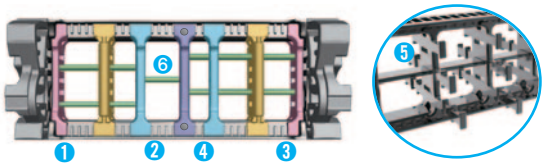
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb060CR	115 140 165 190 215 230 240 270 280 290 340 390 440	82	75 100 125 150 175 190 200 230 240 250 300 350 400	55	3.56 3.66 3.97 4.16 4.33 4.52 4.64 4.90 4.98 5.06 5.48 6.09 6.66

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

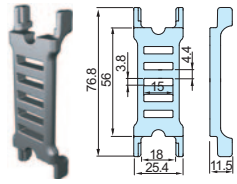
Dividers (DV)

Assemble divider every fourth frame
DV/T Applied at Frame 250~400 Size
(connect upper&below frame)
DV/W
Applicable to System Tie Wrap or FEB

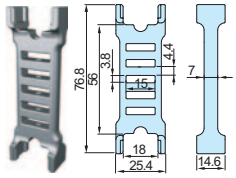


System Tie Wrap

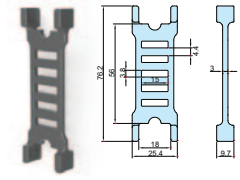
❶ sb-DV060/S



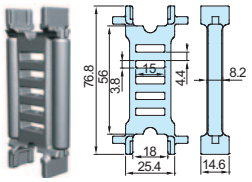
❷ sb-DV060/M



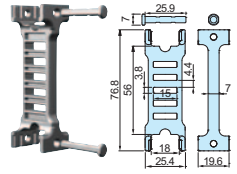
❷ sb-DV060/MS



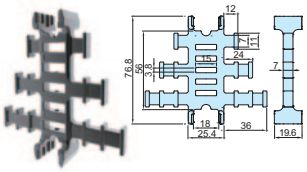
❸ sb-DV060/R



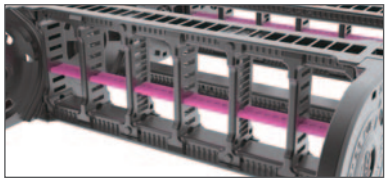
❹ sb-DV060/T



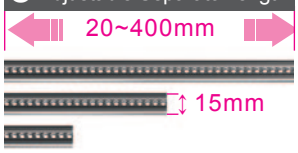
❹ sb-DV060/W



Separators (SP)



❻ Adjustable Separator length

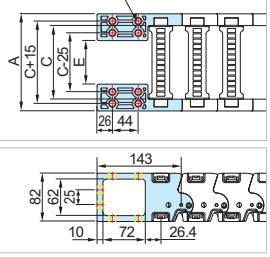


Chain Type	Ordering No.
nsb060CR	sb-SP/400.Frame

Free End Bracket (FEB)

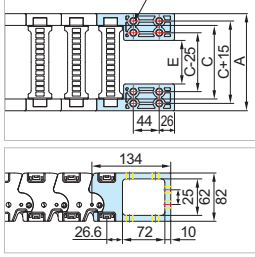
Moving End

8-Ø10(M10 Bolt Holes)



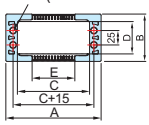
Fixing End

8-Ø10(M10 Bolt Holes)



Front point

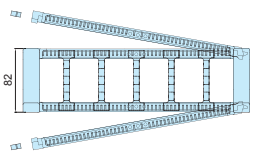
4-Ø10(M10 Bolt Holes)



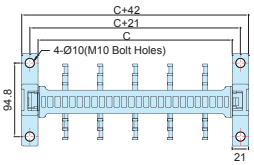
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb060CR	115 140 165 190 215 230 240 270 280 290 340 390 440	82	75 100 125 150 175 190 200 230 240 250 300 350 400	55	24 49 74 99 124 139 149 179 189 199 249 299 349	M10 Bolt Holes

System Tie Wrap (STW)

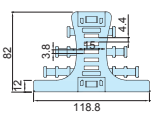
Front View



Top View

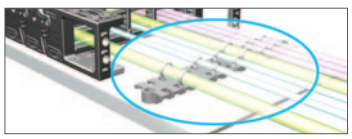


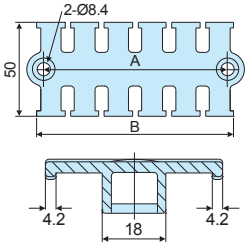
Side View



Chain Type	Ordering No.	C Frame	Hole Type
nsb060CR	S-TW.EB060.75 S-TW.EB060.100 S-TW.EB060.125 S-TW.EB060.150 S-TW.EB060.175 S-TW.EB060.190 S-TW.EB060.200 S-TW.EB060.230 S-TW.EB060.240 S-TW.EB060.250 S-TW.EB060.300 S-TW.EB060.350 S-TW.EB060.400	75 100 125 150 175 190 200 230 240 250 300 350 400	M10 Bolt Holes

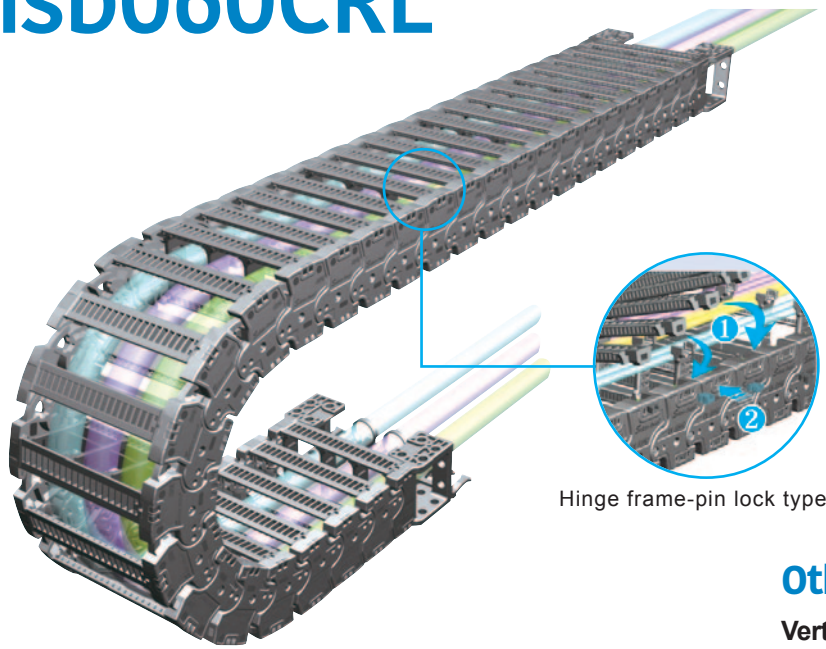
Tie Wrap (TW)



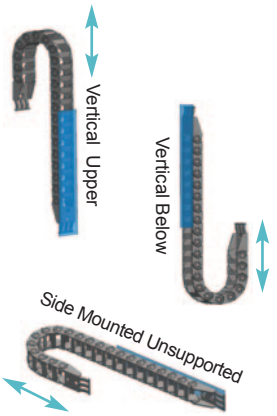


Chain Type	Ordering No.	A	B
nsb060CR	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

nsb060CRL



Hinge frame-pin lock type



Other Length Restrictions

Vertical Upper(Max) = 6.0m
Vertical Below(Max) = 100.0m
Side Mounted Unsupported(Max) = 3.0m

Caculation of the Chain Length

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

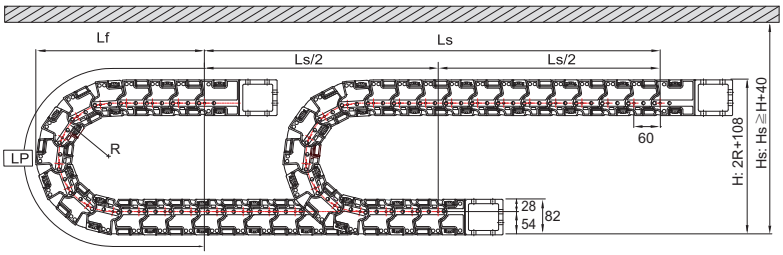
Ordering

nsb 060CRL. 75. R140 / F – 1800L : (DV:2)

- Clean Room Type (CR)
- Bending Radius
- Length (mm)
- Quantity of Divider (Link)
- Inside Width
- Bracket Type
- Sabin Chain

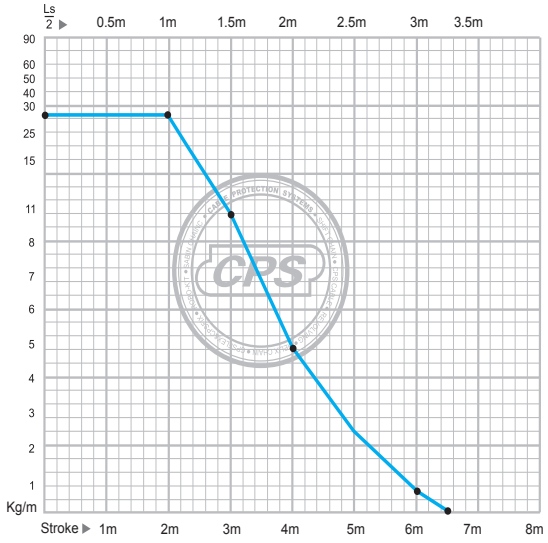
Layout of the Chain

Ls: Stroke Hs: Safe Space

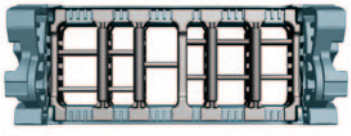


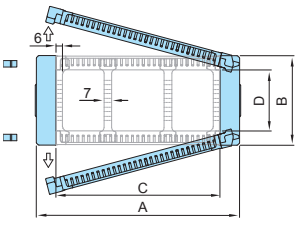
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
125	753	359	358
140	800	374	388

Unsupported Length



Chain Cross Section





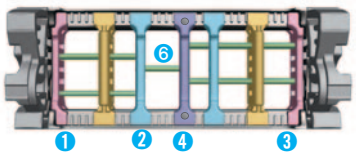
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
nsb060CRL	130 155 180 205 230 245 255 285 295 305 355 455	82	75 100 125 150 175 190 200 230 240 250 300 400	55	5.55 5.75 5.95 6.15 6.33 6.44 6.51 6.73 6.80 6.84 7.22 8.02

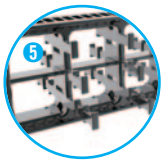
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

Dividers (DV)

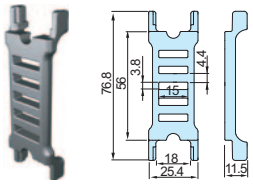
Assemble divider every fourth frame
DV/T Applied at Frame 250~400 Size
(connect upper&below frame)
DV/W
Applicable to System Tie Wrap or FEB



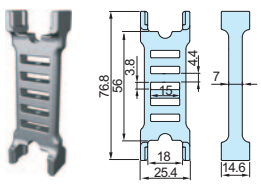


System Tie Wrap

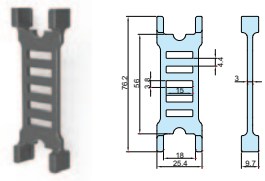
❶ sb-DV060/S



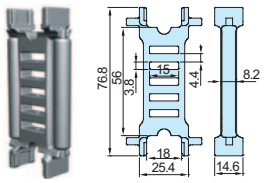
❷ sb-DV060/M



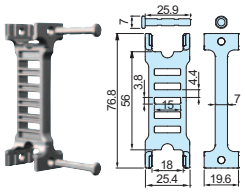
❷ sb-DV060/MS



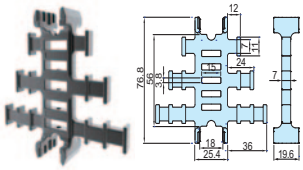
❸ sb-DV060/R



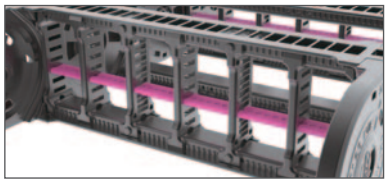
❹ sb-DV060/T



❺ sb-DV060/W



Separators (SP)

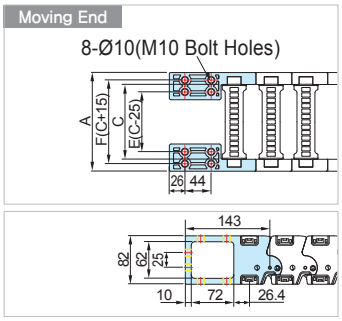


❻ Adjustable Separator length
20~400mm
15mm

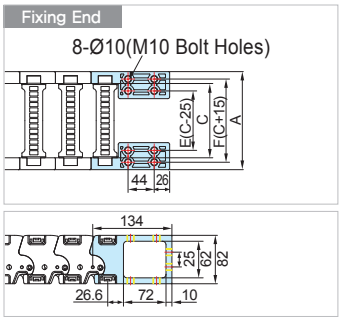
Chain Type	Ordering No.
nsb060CRL	sb-SP/400.75~400

Free End Bracket (FEB)

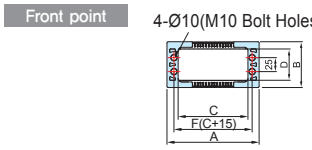
Moving End



Fixing End



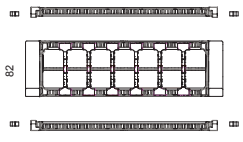
Front point



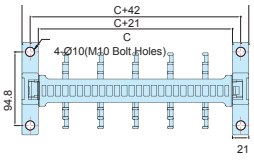
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb060CRL	130 155 180 205 230 245 255 285 295 305 355 455	82	75 100 125 150 175 190 200 230 240 250 300 400	55	50 75 100 125 150 165 175 205 215 225 275 375	M10 Bolt Holes

System Tie Wrap (STW)

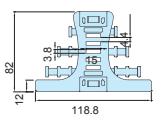
Front View



Top View

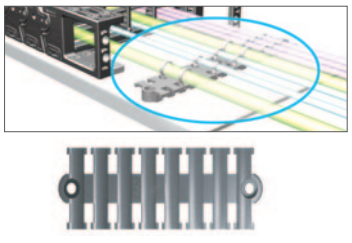


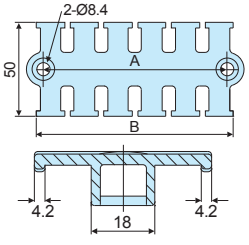
Side View



Chain Type	Ordering No.	C Frame	Hole Type
nsb060CRL	S-TW.EB060.75 S-TW.EB060.100 S-TW.EB060.125 S-TW.EB060.150 S-TW.EB060.175 S-TW.EB060.200 S-TW.EB060.250 S-TW.EB060.300 S-TW.EB060.350 S-TW.EB060.400	75 100 125 150 175 200 250 300 350 400	M10 Bolt Holes

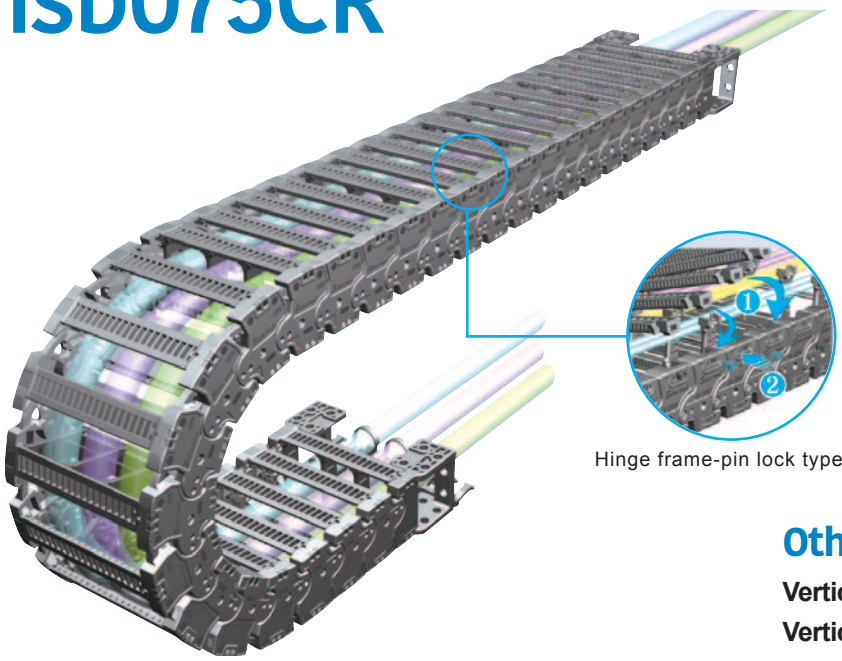
Tie Wrap (TW)



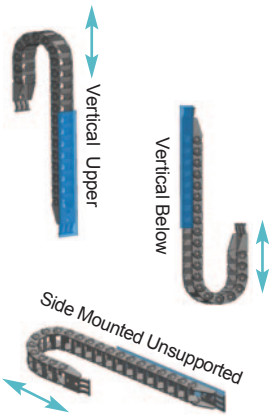


Chain Type	Ordering No.	A	B
nsb060CRL	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

nsb075CR



Hinge frame-pin lock type



Other Length Restrictions

Vertical Upper(Max)	= 6.0m
Vertical Below(Max)	= 100.0m
Side Mounted Unsupported(Max)	= 3.0m

Caculation of the Chain Length

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

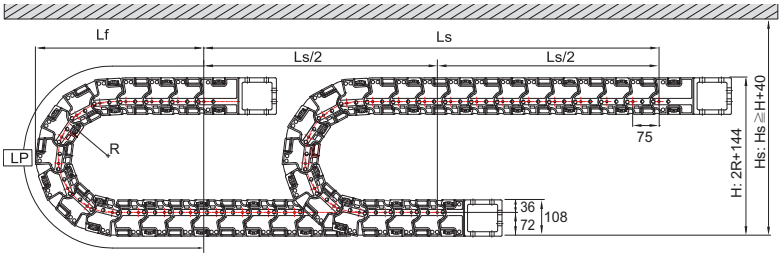
Ordering

nsb075CR.75.R180/F−2250L:(DV:2)

- nsb075CR: Sabin Chain
- 75: Clean Room Type (CR)
- R180: Bending Radius
- F: Inside Width
- 2250L: Length (mm)
- (DV:2): Quantity of Divider (Link)
- Bracket Type

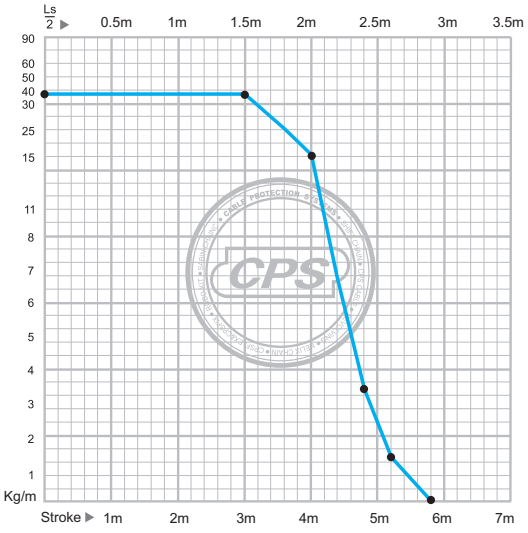
Layout of the Chain

Ls: Stroke Hs: Safe Space

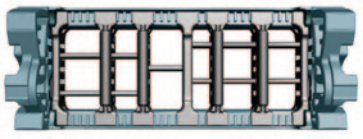


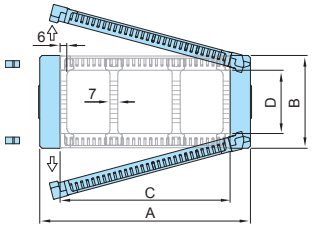
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
180	1016	477	504
200	1078	497	544
250	1235	547	644
300	1392	597	744
350	1549	647	844
400	1706	697	944
500	2020	797	1,144

Unsupported Length



Chain Cross Section





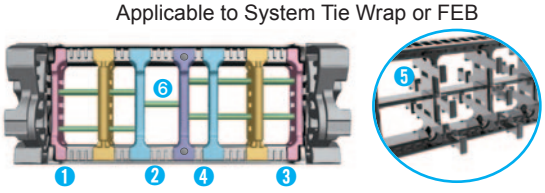
Chain Type	A Width (Outer)	B eight(Outer)	C Frame Width(Inner)	D Height (Inner)	Weight kg/m
nsb075CR	115	108	75	78	5.37
	140		100		5.57
	155		115		5.72
	165		125		5.82
	190		150		6.01
	215		175		6.26
	240		200		6.68
	280		240		7.11
	290		250		7.22
	330		290		7.80
	340		300		7.94
	390		350		8.67
	440		400		9.43
	490		450		10.01
	540		500		10.41
	590		550		11.88
	640		600		12.17

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

nsb Chain-Clean Room Type

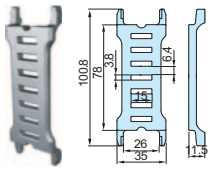
Dividers (DV)

Assemble divider every fourth frame
DV/T Applied at Frame 250~400 Size
(connect upper&below frame)
DV/W
Applicable to System Tie Wrap or FEB

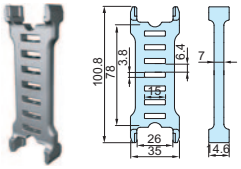


System Tie Wrap

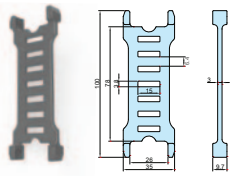
❶ sb-DV075/S



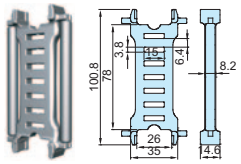
❷ sb-DV075/M



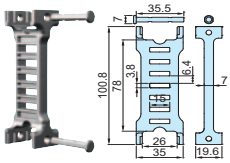
❷ sb-DV075/MS



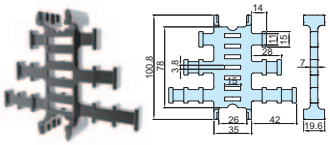
❸ sb-DV075/R



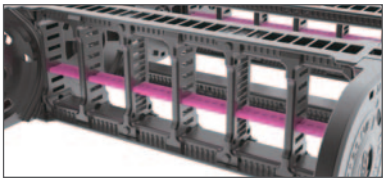
❹ sb-DV075/T



❹ sb-DV075/W



Separators (SP)



❻ Adjustable Separator length

20~600mm

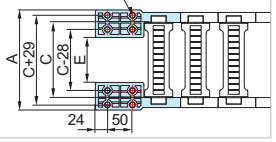
15mm

Chain Type	Ordering No.
nsb075CR	sb-SP/400.Frame

Free End Bracket (FEB)

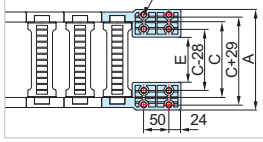
Moving End

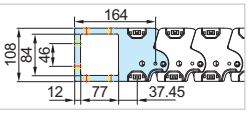
8-Ø10(M10 Bolt Holes)

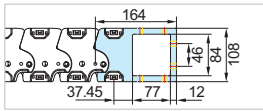


Fixing End

8-Ø10(M10 Bolt Holes)

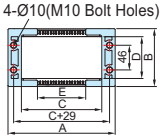






Front point

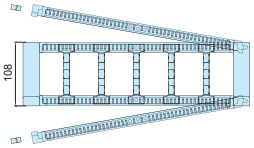
4-Ø10(M10 Bolt Holes)



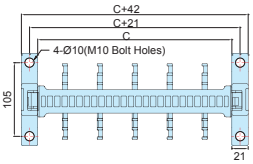
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
nsb075CR	125 150 165 175 200 225 250 290 300 340 350 400 450 500 550 600 650	108	75 100 115 125 150 175 200 240 250 290 300 350 400 450 500 550 600	78	15 40 55 65 90 115 140 180 190 230 240 290 340 390 440 490 540	M10 Bolt Holes

System Tie Wrap (STW)

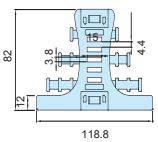
Front View



Top View

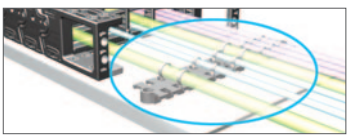


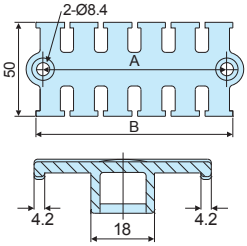
Side View



Chain Type	Ordering No.	C Frame	Hole Type
nsb075CR	S-TW.EB075.75 S-TW.EB075.100 S-TW.EB075.115 S-TW.EB075.125 S-TW.EB075.150 S-TW.EB075.175 S-TW.EB075.200 S-TW.EB075.240 S-TW.EB075.250 S-TW.EB075.290 S-TW.EB075.300 S-TW.EB075.350 S-TW.EB075.400 S-TW.EB075.450 S-TW.EB075.500 S-TW.EB075.550 S-TW.EB075.600	75 100 115 125 150 175 200 240 250 290 300 350 400 450 500 550 600	M10 Bolt Holes

Tie Wrap (TW)





Chain Type	Ordering No.	A	B
nsb075CR	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148