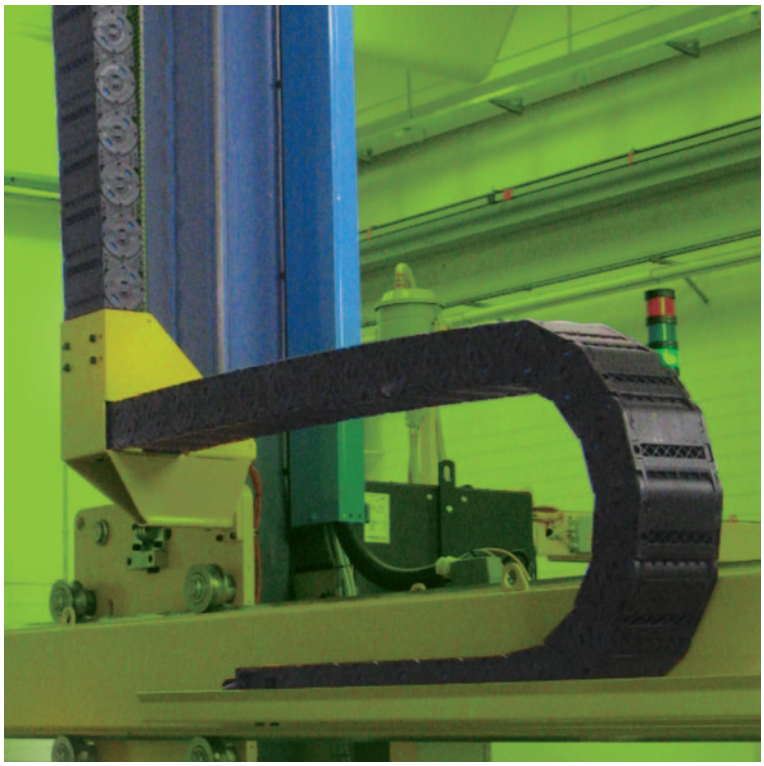
Enclosed Type

Shift Chain®

Shift Chain is a next generation after CPS mini Chain and it applies to overall industrial sectors where cable and hose' protection is required. It has a new concept as Bending Radius value is determined according to each different 'BR' unit.
BR unit helps Shift Chain to perform 30% improved Unsupported Length compared to CPS mini Chain with 6 supporting areas that endure the weight of Cable Chain.



ST044E 066

ST055E 068

ST072E 070

ST095E 072

ST120E 074

ST150E 076

Enclosed Type

Shift Chain®

General Information

Material : CPS-Amide (PA6+G.F)
Speed : 6㎨
Acceleration : 12㎨
Temperature : -30℃ ~ +130℃
Special production : ESD, UV
Certificate : CE, ATEX(Ex), 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

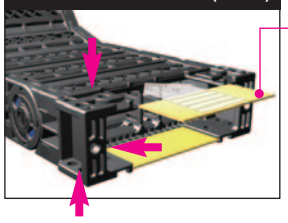
Dimension Table

Shift Chain E Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Temperature ℃	Size A	Size B	Size C	Size D	Frame Type	Section-Composition
ST044E	44	70, 90, 120, 150	1.03 1.21 1.37 1.58	6	-30 ~+130	56 76 96 121	38	35 55 75 100	24.5		
ST055E	55	100, 125, 150, 200	1.36 1.56 1.76 1.97 2.21	6	-30 ~+130	71 96 121 146 171	52	50 75 100 125 150	35.8		
ST072E	72	120, 145, 200, 250, 300	2.37 2.61 2.85 3.09 3.33	6	-30 ~+130	82 107 132 157 182	66	50 75 100 125 150	44		
ST095E	95	150, 200, 230, 280, 400	3.55 3.79 4.04 4.29 4.53	6	-30 ~+130	138 163 188 213 238	82	100 125 150 175 200	55		
ST120E	120	200, 250, 300, 350, 400, 500	5.79 6.43 7.07 7.71	6	-30 ~+130	192 242 292 342	108	150 200 250 300	76		
ST150E	150	305, 405, 505, 605	8.16 8.76 10.50 12.33 14.16	6	-30 ~+130	246 296 346 396 446	141	200 250 300 350 400	110		

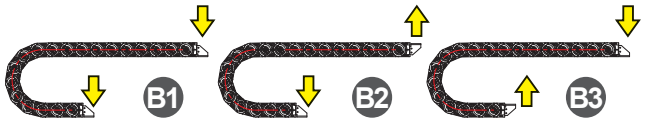
Bracket Type

ST044, ST055, ST072, ST095, ST120

Free End Bracket (FEB)

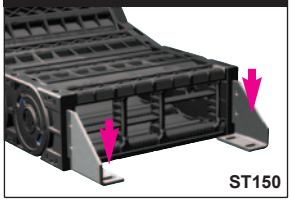


Steel Plate
FEB can be fully enclosed by inserting Steel Plate like in the image.(Steel Plate can be ordered separately)
ST 044, 055, 072, 095, 120E
(Steel Plate should be ordered separately)



ST072, 095, 120, 150

Steel End Bracket (SEB)



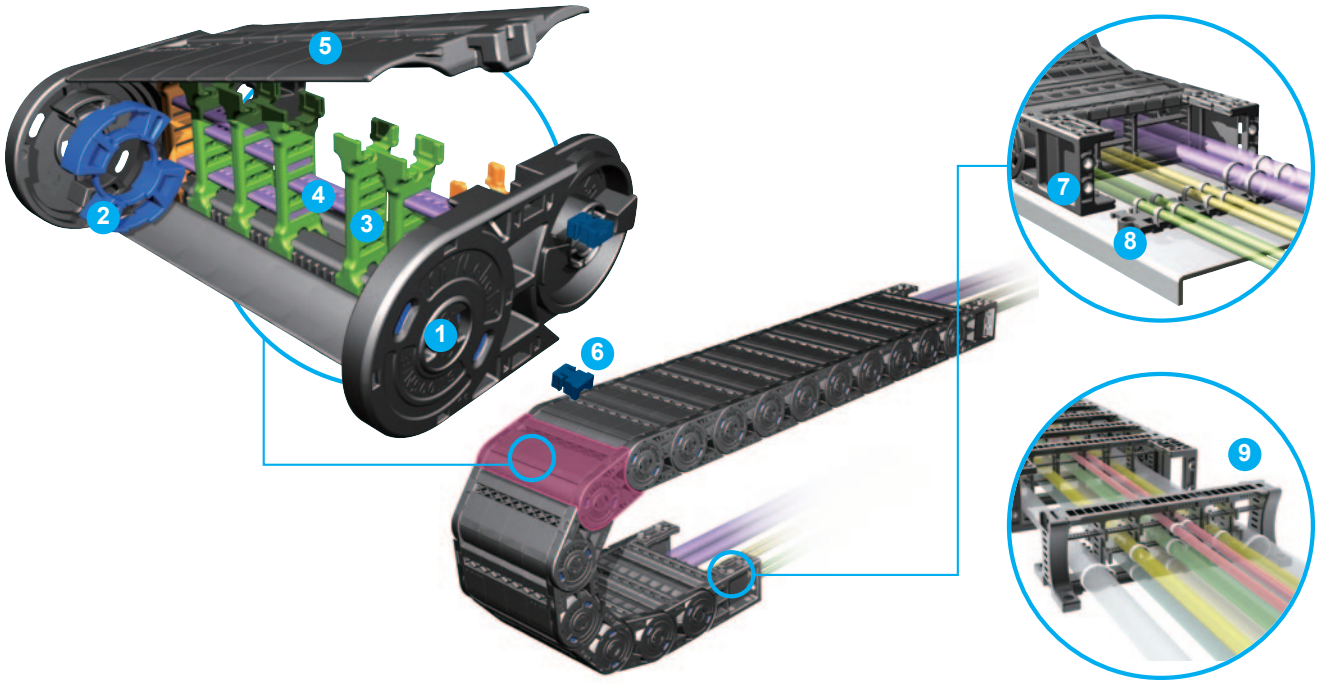
ST072, 095, 120, 150 :
Steel End Bracket(SEB) can be used. There are B1,B2 and B3 type applied according to each different environment.

Ordering

ST **044E.** **100.** **R120** / **F** **1500L** : **(DV:2)**

- ST — Shift Chain
- 044E. — Enclosed Type (E)
- 100. — Inside width
- R120 — Bending radius
- F — Bracket Type : **F** Free End Bracket **FT** Tie Wrap **FST** System Tie Wrap **B1, B2, B3** ST072E, ST095E, ST120E, ST150E
- 1500L — Length(mm)
- (DV:2) — Quantity of Divider(Link)

Enclosed Type



Part of Shift Chain-Enclosed Type

❶ Side Band (SB)

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

❷ Bending Radius Unit (BR)

A part that is inserted into Side Band. It is one of units that helps Shift Chain's excellent Unsupported Length' performance.

❸ Divider (DV-S, M, R, T)

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

❹ Separator (SP)

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

❺ FRU, FRD

Parts that assembled with Side Band and there are bumps are formed to prevent divider's separation in operation.

❻ Frame Pin (FP)

A part that is inserted into a hole formed at one side of Frame. It prevents Frame to not be separated after being assembled with Side Band.

❼ 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.

❽ 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.

❾ 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.

Assemble procedure of Shift Chain Enclosed Type

The assembling process of Shift Chain E-Type is like below and you must use rubber hammer with careful combination of Divider and Separator. Be careful of different assembling process depending on product specification such as ST044E, 055E Type, ST072E, 095E, 120E Type, ST150E Type, etc.



1 Insert BR into Side Band. There are Side Band RH and Side Band LH.



2 Insert all BR into Side Band as much as needed



3 Connect Side Band to Side Band like in the image.



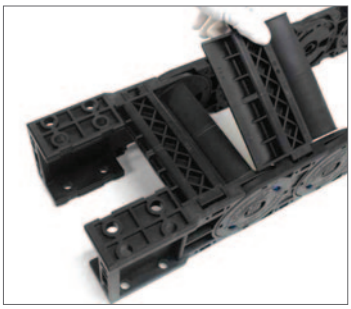
4 Make a long Side Band Connection as much as needed



5 Assemble F.FEB to end of Side Band set by classifying LH, RH.



6 Insert FRD(ⓑ) to RH direction of F.FEB.
Side Band. FRD(ⓐ) – normal type
FRD (ⓑ) – special type that is assembled to FEB.



7 Insert Hinge part of FRD (ⓐ) to RH Side Band.



8 After assembling FRD and Side Band, insert Frame Pin by using Teflon or rubber material hammer to not cause external damage to cable chain.



9 Arrange cable and hose by composing section with divider or separator.



10 Insert Hinge part of FRU(ⓑ) to RH direction of F.FEB.
FRU(ⓐ) – normal type that is assembled to Side Band
FRU(ⓑ) – special type that is assembled to FEB.



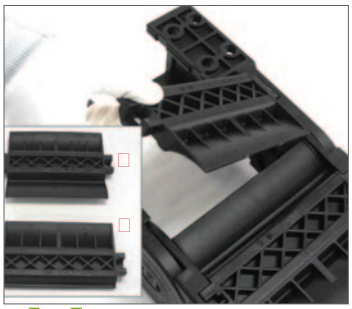
11 Insert Hinge part of FRU(ⓐ) to RH Side Band and then insert Frame Pin



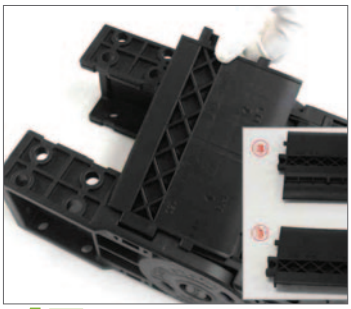
12 Insert BR into FEB



13 Assemble M.FEB to each LH, RH Side Band.



14 Insert Hinge part of FRD (ⓑ) to RH Side Band.
FRD (ⓐ) – normal type that is assembled to Side Band
FRU (ⓑ) – special type that is assembled to FEB.



15 Insert Hinge part of FRU (ⓑ) to RH direction of M.FEB



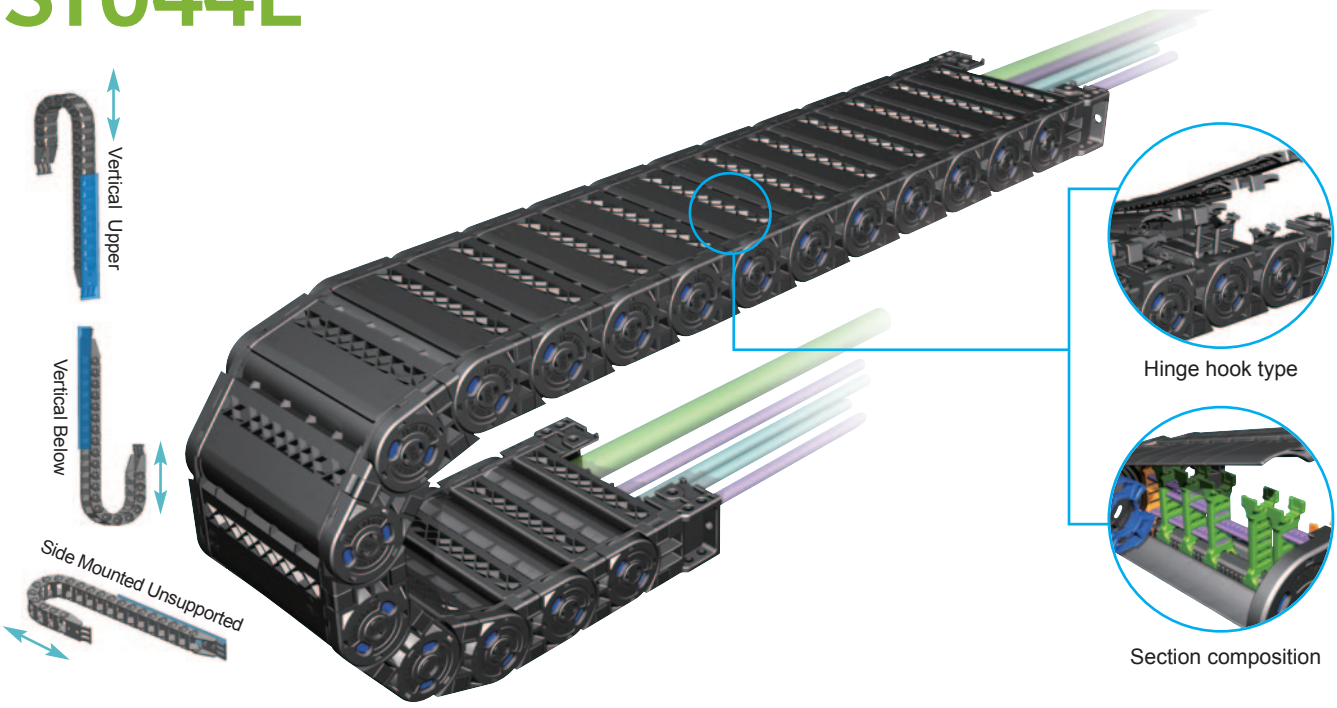
16 Insert steel washers inside of holes of M.FEB and F.FEB for them to be fixed securely at a structure.

Part list of Shift Chain-Enclosed Type

Model	Classification	Part number	Description
ST044E	SIDE BAND	ST-SB044N/E(LH)	Left side band of ST044E
		ST-SB044N/E(RH)	Right side band of ST044E
	BENDING RADIUS	ST-BR044.R70,90,120,150	Bending radius unit for side band
	FRAME(DOWN)	ST-FRD044.35	Inside frame, 35mm
	FRAME(UP)	ST-FRU044.35	Outside frame, 35mm
		ST-FRD044.55	Inside frame, 55mm
		ST-FRU044.55	Outside frame, 55mm
		ST-FRD044.75	Inside frame, 75mm
		ST-FRU044.75	Outside frame, 75mm
		ST-FRD044.100	Inside frame, 100mm
		ST-FRU044.100	Outside frame, 100mm
	FRAME(DOWN-FIXING END)	ST-FRDFE044.35,55,75,100	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE044.35,55,75,100	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME044.35,55,75,100	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME044.35,55,75,100	Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB044E	Free End bracket of ST044E
	DIVIDER	sb-DV028/M	Normal divider
		sb-DV028/S	To fix separstors at the both side section
	SEPARATOR	S-SP/M.35	Separator, 35mm
		S-SP/M.50	Separator, 50mm
		S-SP/M.75	Separator, 75mm
		S-SP/M.100	Separator, 100mm
	TIE WRAP	S-TW036/025CR.35	Tie wrap for end bracket to fix cables, 35mm
		S-TW036/025CR.55	Tie wrap for end bracket to fix cables, 55mm
		S-TW036/025CR.75	Tie wrap for end bracket to fix cables, 75mm
		S-TW036/025CR.100	Tie wrap for end bracket to fix cables, 100mm
		S-TW036/025CR.150	Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV028/W	Divider for fixing cables at end bracket
		S-TW.EB028	System tie wrap to arrange for cables right after moving bracket or fixing bracket
ST055E	SIDE BAND	ST-SB055N/E(LH)	Left side band of ST055E
		ST-SB055N/E(RH)	Right side band of ST055E
	BENDING RADIUS	ST-BR055.R100,125,150,200	Bending radius unit for side band
	FRAME(DOWN)	ST-FRD055.50	Inside frame, 50mm
	FRAME(UP)	ST-FRU055.50	Outside frame, 50mm
		ST-FRD055.75	Inside frame, 75mm
		ST-FRU055.75	Outside frame, 75mm
		ST-FRD055.100	Inside frame, 100mm
		ST-FRU055.100	Outside frame, 100mm
		ST-FRD055.125	Inside frame, 125mm
		ST-FRU055.125	Outside frame, 125mm
		ST-FRD055.150	Inside frame, 150mm
		ST-FRU055.150	Outside frame, 150mm
	FRAME(DOWN-FIXING END)	ST-FRDFE055(50,75,100,125,150)	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE055(50,75,100,125,150)	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME055(50,75,100,125,150)	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME055(50,75,100,125,150)	Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB055E	Free End bracket of ST055E
	DIVIDER	sb-DV035/M	Normal divider
		sb-DV035/S	To fix separstors at the both side section
	SEPARATOR	S-SP/M.50	Separator, 50mm
		S-SP/M.75	Separator, 75mm
		S-SP/M.100	Separator, 100mm
		S-SP/M.125	Separator, 125mm
		S-SP/M.150	Separator, 150mm
	TIE WRAP	S-TW050/035N.50	Tie wrap for end bracket to fix cables, 50mm
		S-TW050/035N.75	Tie wrap for end bracket to fix cables, 75mm
		S-TW050/035N.100	Tie wrap for end bracket to fix cables, 100mm
		S-TW050/035N.125	Tie wrap for end bracket to fix cables, 125mm
		S-TW050/035N.150	Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV035/W	Divider for fixing cables at end bracket
		S-TW.EB035	System tie wrap to arrange for cables right after moving bracket or fixing bracket
ST072E	SIDE BAND	ST-SB072N/E(LH)	Left side band of ST072E
		ST-SB072N/E(RH)	Right side band of ST072E
	BENDING RADIUS	ST-BR072. R120,145,200,250,300	Bending radius unit for side band
	FRAME PIN	S-FP/S1	Frame pin
	FRAME(DOWN)	ST-FRD072.50	Inside frame, 50mm
	FRAME(UP)	ST-FRU072.50	Outside frame, 50mm
		ST-FRD072.75	Inside frame, 75mm
		ST-FRU072.75	Outside frame, 75mm
		ST-FRD072.100	Inside frame, 100mm
		ST-FRU072.100	Outside frame, 100mm
		ST-FRD072.125	Inside frame, 125mm
		ST-FRU072.125	Outside frame, 125mm
		ST-FRD072.150	Inside frame, 150mm
		ST-FRU072.150	Outside frame, 150mm
	FRAME(DOWN-FIXING END)	ST-FRDFE072(50,75,100,125,150)	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE072(50,75,100,125,150)	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME072(50,75,100,125,150)	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME072(50,75,100,125,150)	Outside half-frame for moving end bracket
	END BRACKET	ST-FEB072E	End bracket of ST072E, Steel End bracket(B1, B2, B3)
		sb-FEB/WH045	Steel washer for end bracket
	DIVIDER	sb-DV045/M	Normal divider
		sb-DV045/S	To fix separstors at the both side section
	SEPARATOR	sb-SP/400.Frame	Separator, 400mm
		SP-PIN045	Separator pin to fix
	TIE WRAP	S-TW50	Tie wrap for end bracket to fix cables, 50mm
		S-TW75	Tie wrap for end bracket to fix cables, 75mm
		S-TW100	Tie wrap for end bracket to fix cables, 100mm
		S-TW125	Tie wrap for end bracket to fix cables, 125mm
		S-TW150	Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV045/W	Divider for fixing cables at end bracket
		S-TW.EB045	System tie wrap to arrange for cables right after moving bracket or fixing bracket

Model	Classification	Part number	Description
ST095E	SIDE BAND	ST-SB095N/E(LH)	Left side band of ST095N
		ST-SB095N/E(RH)	Right side band of ST095N
	BENDING RADIUS	ST-BR095.R150,200,230,280,400	Bending radius unit for side band
	FRAME PIN	S-FP/S1	FRAME PIN
	FRAME(DOWN)	ST-FRD095.100	Inside frame, 100mm
	FRAME(UP)	ST-FRU095.100	Outside frame, 100mm
		ST-FRD095.125	Inside frame, 125mm
		ST-FRU095.125	Outside frame, 125mm
		ST-FRD095.150	Inside frame, 150mm
		ST-FRU095.150	Outside frame, 150mm
		ST-FRD095.175	Inside frame, 175mm
		ST-FRU095.175	Outside frame, 175mm
		ST-FRD095.200	Inside frame, 200mm
		ST-FRU095.200	Outside frame, 200mm
	FRAME(DOWN-FIXING END)	ST-FRDFE095(100,125,150,175,200)	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE095(100,125,150,175,200)	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME095(100,125,150,175,200)	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME095(100,125,150,175,200)	Outside half-frame for moving end bracket
	END BRACKET	ST-FEB095E	Free End bracket of ST095E, Steel End bracket(B1, B2, B3)
		sb-FEB/WH060	Steel washer for end bracket
	DIVIDER	sb-DV060/M	Normal divider
		sb-DV060/S	To fix separstors at the both side section
	SEPARATOR	sb-SP/400.Frame	Separator, 400mm
		SP-PIN060	Separator pin to fix
	TIE WRAP	S-TW50	Tie wrap for end bracket to fix cables, 50mm
		S-TW75	Tie wrap for end bracket to fix cables, 75mm
		S-TW100	Tie wrap for end bracket to fix cables, 100mm
		S-TW125	Tie wrap for end bracket to fix cables, 125mm
		S-TW150	Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV060/W	Divider for fixing cables at end bracket
		S-TW.EB060	System tie wrap to arrange for cables right after moving bracket or fixing bracket
ST120E	SIDE BAND	ST-SB120N/E(LH)	Left side band of ST120N
		ST-SB120N/E(RH)	Right side band of ST120N
	BENDING RADIUS	ST-BR120.R200,250,300,350,400,500	Bending radius unit for side band
	FRAME PIN	S-FP/S2	FRAME PIN
	FRAME(DOWN)	ST-FRD120.150	Inside frame, 150mm
	FRAME(UP)	ST-FRU120.150	Outside frame, 150mm
		ST-FRD120.200	Inside frame, 200mm
		ST-FRU120.200	Outside frame, 200mm
		ST-FRD120.250	Inside frame, 250mm
		ST-FRU120.250	Outside frame, 250mm
		ST-FRD120.300	Inside frame, 300mm
		ST-FRU120.300	Outside frame, 300mm
	FRAME(DOWN-FIXING END)	ST-FRDFE120(150,200,250,300)	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE120(150,200,250,300)	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME120(150,200,250,300)	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME120(150,200,250,300)	Outside half-frame for moving end bracket
	END BRACKET	ST-FEB120E	Free End bracket of ST120E, Steel End bracket(B1, B2, B3)
		sb-FEB/WH075	Steel washer for end bracket
	DIVIDER	sb-DV075/M	Normal divider
		sb-DV075/S	To fix separstors at the both side section
	SEPARATOR	sb-SP/400.Frame	Separator, 400mm
		SP-PIN075	Separator pin to fix
	TIE WRAP	S-TW50	Tie wrap for end bracket to fix cables, 50mm
		S-TW75	Tie wrap for end bracket to fix cables, 75mm
		S-TW100	Tie wrap for end bracket to fix cables, 100mm
		S-TW125	Tie wrap for end bracket to fix cables, 125mm
		S-TW150	Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV075/W	Divider for fixing cables at end bracket
		S-TW.EB075	System tie wrap to arrange for cables right after moving bracket or fixing bracket
ST150E	SIDE BAND	ST-SB150N/E(LH)	Left side band of ST120N
		ST-SB150N/E(RH)	Right side band of ST12
	BENDING RADIUS	ST-BR150.R305,405,505,605	Bending radius unit for side band
	FRAME PIN	S-FP/S2	FRAME PIN
	FRAME(DOWN)	ST-FRD150.200	Inside frame, 200mm
	FRAME(UP)	ST-FRU150.200	Outside frame, 200mm
		ST-FRD150.250	Inside frame, 250mm
		ST-FRU150.250	Outside frame, 250mm
		ST-FRD150.300	Inside frame, 300mm
		ST-FRU150.300	Outside frame, 300mm
		ST-FRD150.350	Inside frame, 350mm
		ST-FRU150.350	Outside frame, 350mm
		ST-FRD150.400	Inside frame, 400mm
		ST-FRU150.400	Outside frame, 400mm
	FRAME(DOWN-FIXING END)	ST-FRDFE150(200,250,300,350,400)	Inside half-frame for fixing end bracket
	FRAME(UP-FIXING END)	ST-FRUFE150(200,250,300,350,400)	Outside half-frame for fixing end bracket
	FRAME(DOWN-MOVING END)	ST-FRDME150(200,250,300,350,400)	Inside half-frame for moving end bracket
	FRAME(UP-MOVING END)	ST-FRUME150(200,250,300,350,400)	Outside half-frame for moving end bracket
	STEEL END BRACKET	ST-SEB150E/B1~B2~B3	Steel end bracket of ST150E (B1, B2, B3)
	DIVIDER	sb-DV100/M	Normal divider
		sb-DV100/S	To fix separstors at the both side section
	SEPARATOR	sb-SP/600.Frame	Separator, 600mm
		SP-PIN100	Separator pin to fix
	TIE WRAP	S-TW50	Tie wrap for end bracket to fix cables, 50mm
		S-TW75	Tie wrap for end bracket to fix cables, 75mm
		S-TW100	Tie wrap for end bracket to fix cables, 100mm
		S-TW125	Tie wrap for end bracket to fix cables, 125mm
		S-TW150	Tie wrap for end bracket to fix cables, 150mm

ST044E



Ordering

ST044E. 100. R120/F – 1540L : (DV:2)

- ST044E: Shift Chain
- 100: Inside Width
- R120/F: Bending Radius, Bracket Type
- 1540L: Length (mm)
- (DV:2): Quantity of Divider (Link)

Caculation of the Chain Length

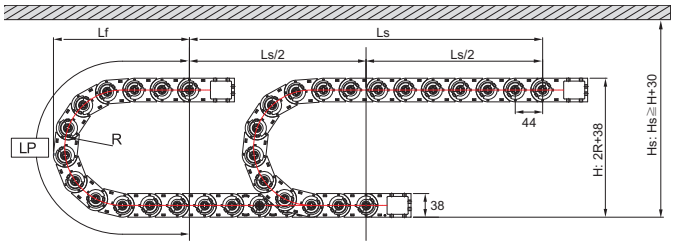
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 2.0m
Vertical Hanging(Max) = 40.0m
Side Mounted Unsupported(Max) = 1.0m

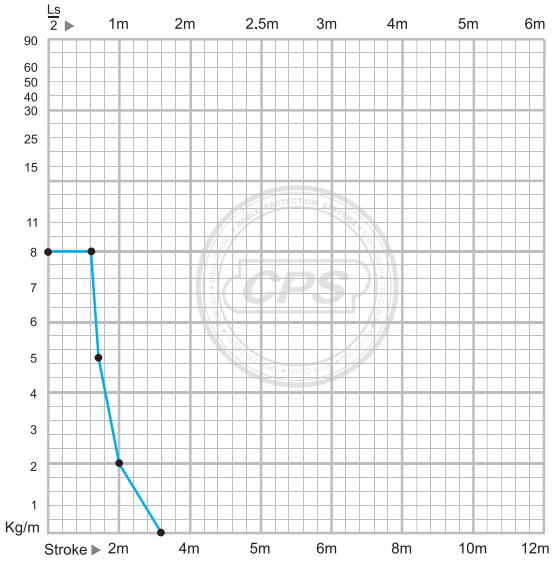
Layout of the Chain

Ls: Stroke Hs: Safe Space



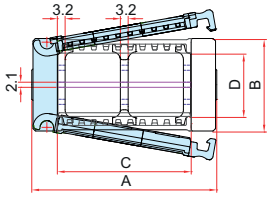
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
70	396	177	178
90	459	197	218
120	553	227	278
150	648	257	338

Unsupported Length



Chain Cross Section



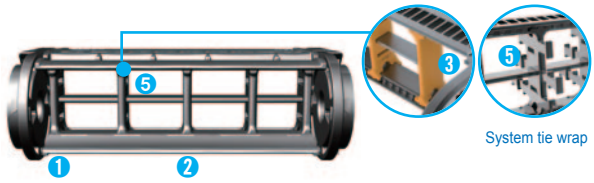


Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST044E	56 76 96 121	38	35 55 75 100	24.5	1.03 1.21 1.37 1.58

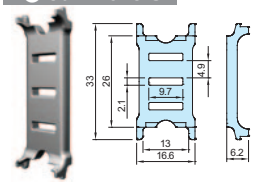
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Dividers (DV)

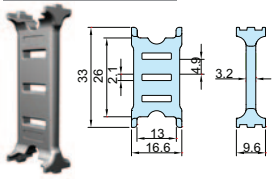
Assemble divider every second frame
DV/M Normal Divider
DV/W
Tie wrap divider for free end bracket(FEB)



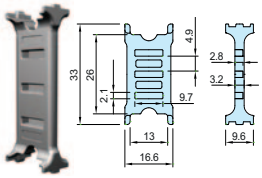
❶ sb-DV028/S



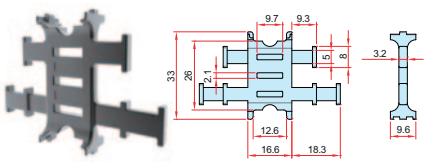
❷ sb-DV028/M1



❸ sb-DV028/M2

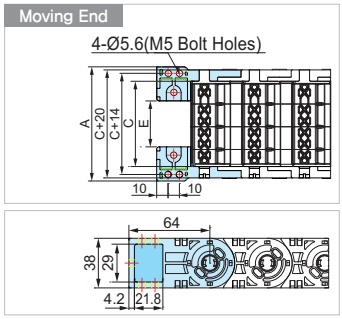


❹ sb-DV028/W

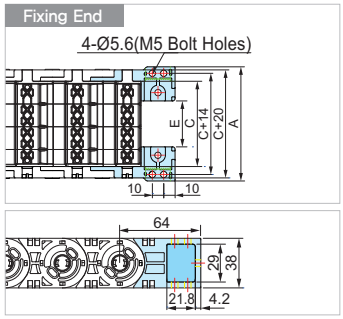


Free End Bracket (FEB)

Moving End

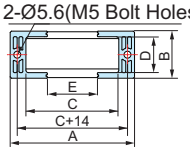


Fixing End

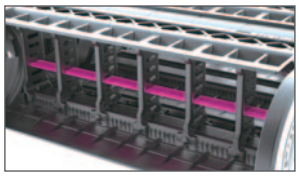


Chain Type	F Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST044E	60.4 80.4 100.4 125.4	38	35 55 75 100	24.5	0.4 20.4 40.4 65.4	M5 Bolt Holes

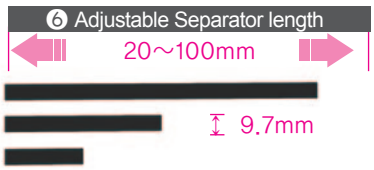
Front point



Separators (SP)



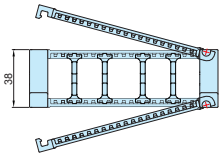
❻ Adjustable Separator length



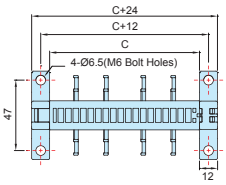
Chain Type	Ordering No.	Frame
ST044E	S-SP/M.35 S-SP/M.55 S-SP/M.75 S-SP/M.100	35 55 75 100

System Tie Wrap (STW)

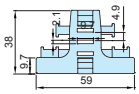
Front View



Top View

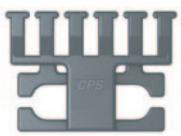


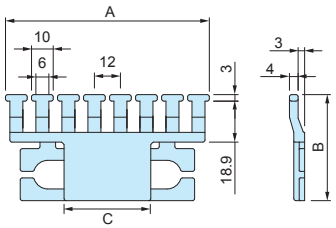
Side View



Chain Type	Ordering No.	C Frame	Hole Type
ST044E	S-TW.EB028.35 S-TW.EB028.55 S-TW.EB028.75 S-TW.EB028.100	35 55 75 100	M6 Bolt Holes

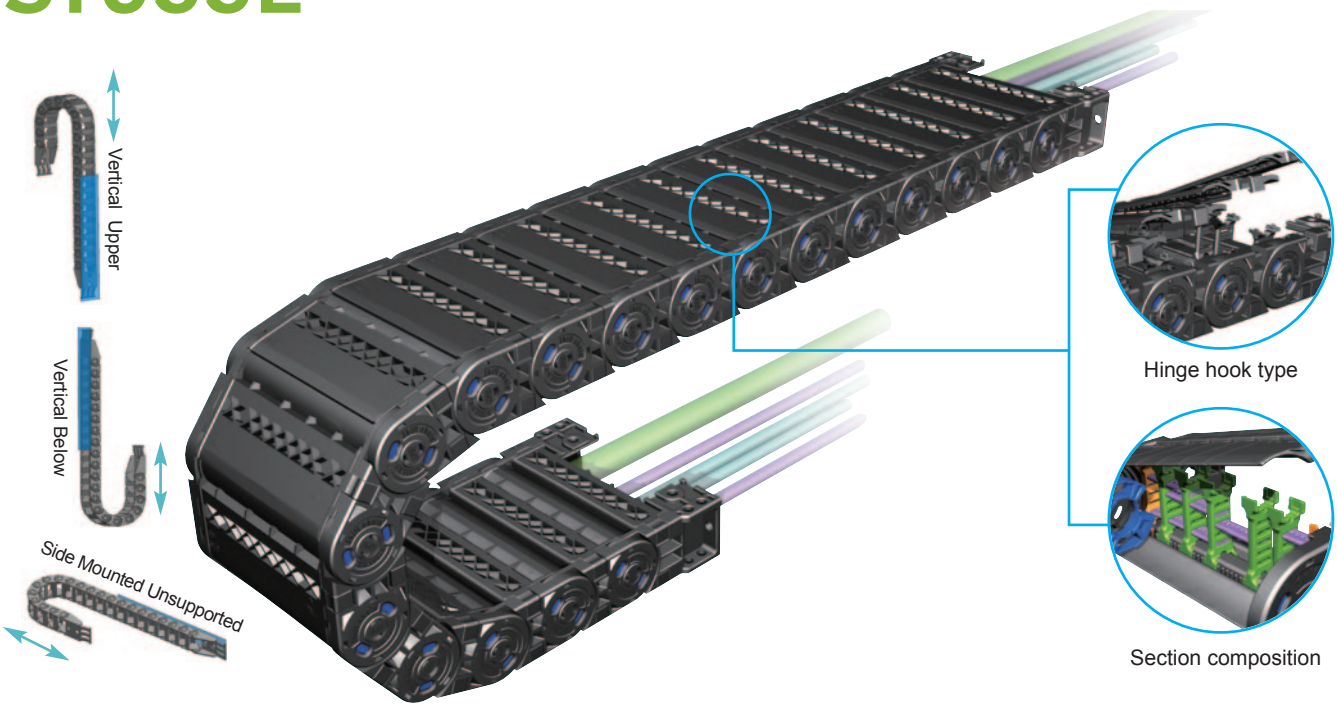
Tie Wrap (TW)





Chain Type	Ordering No.	A	B	C
ST044E	S-TW036/025CR.35 S-TW036/025CR.55 S-TW036/025CR.75 S-TW036/025CR.100	46 70 94 118	35.4 48.9 48.9 48.9	- 20 40 65

ST055E



Ordering

ST 055E. 100. R125/F – 1650L : (DV:2)

- ST: Shift Chain
- 055E: Enclosed–Type(E)
- 100: Inside Width
- R125/F: Bending Radius, Bracket Type
- 1650L: Length (mm)
- (DV:2): Quantity of Divider (Link)

Caculation of the Chain Length

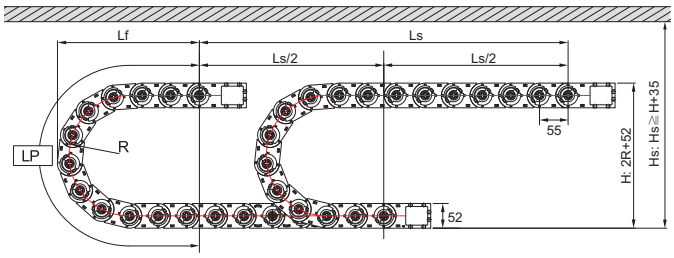
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 3.0m
Vertical Hanging(Max) = 50.0m
Side Mounted Unsupported(Max) = 1.0m

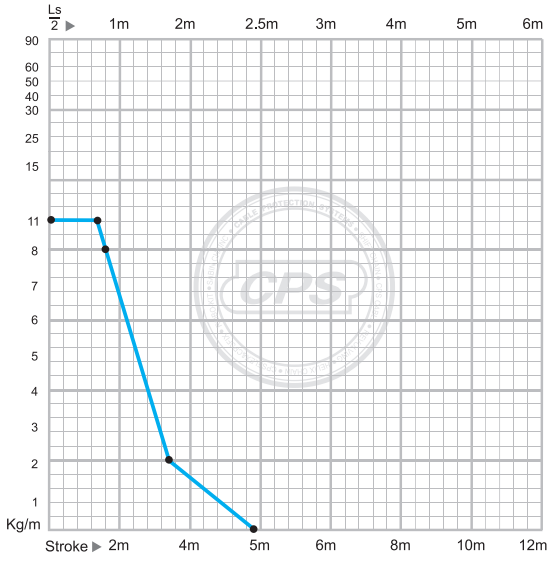
Layout of the Chain

Ls: Stroke Hs: Safe Space



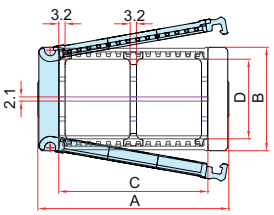
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
100	535	236	252
125	613	261	302
150	692	286	352
200	849	336	452

Unsupported Length



Chain Cross Section



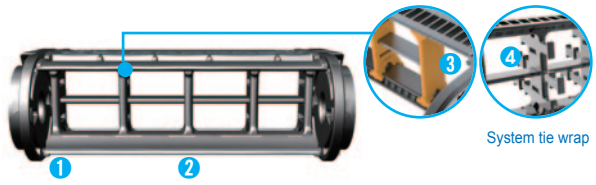


Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST055E	71 96 121 146 171	52	50 75 100 125 150	38.5	1.36 1.56 1.76 1.97 2.21

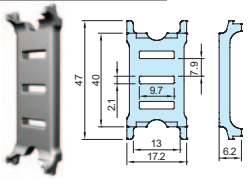
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Dividers (DV)

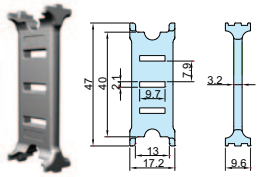
Assemble divider every second frame
DV/M Normal Divider
DV/W
Tie wrap divider for free end bracket(FEB)



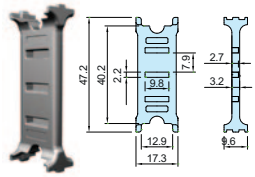
❶ sb-DV035/S



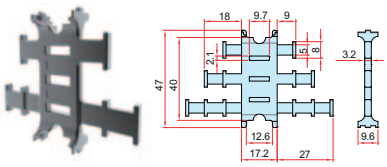
❷ sb-DV035/M1



❸ sb-DV035/M2

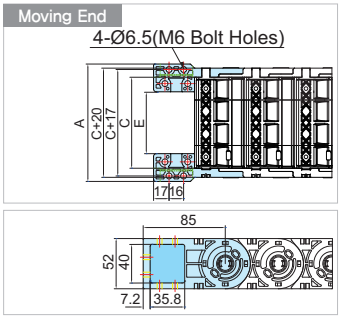


❹ sb-DV035/W

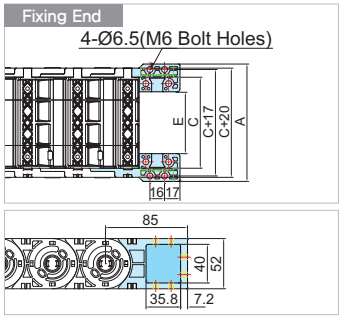


Free End Bracket (FEB)

Moving End

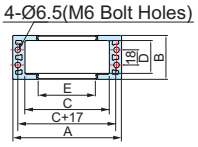


Fixing End

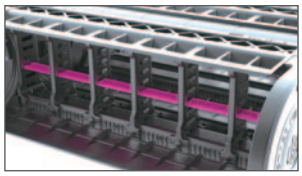


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST055E	79 104 129 154 179	52	50 75 100 125 150	38.5	18 43 68 93 118	M6 Bolt Holes

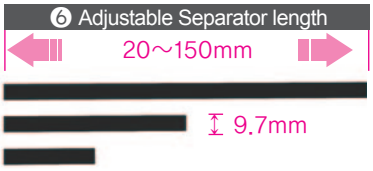
Front point



Separators (SP)



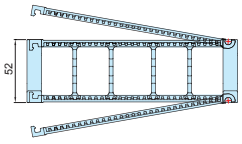
❻ Adjustable Separator length



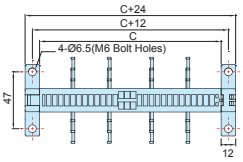
Chain Type	Ordering No.	Frame
ST055E	S-SP/M.50 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150	50 75 100 125 150

System Tie Wrap (STW)

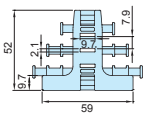
Front View



Top View

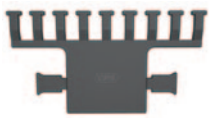


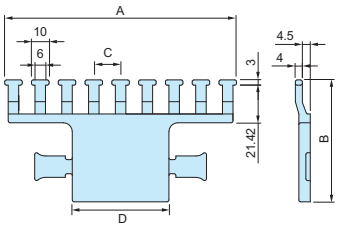
Side View



Chain Type	Ordering No.	C Frame	Hole Type
ST055E	S-TW.EB035.50 S-TW.EB035.75 S-TW.EB035.100 S-TW.EB035.125 S-TW.EB035.150	50 75 100 125 150	M6 Bolt Holes

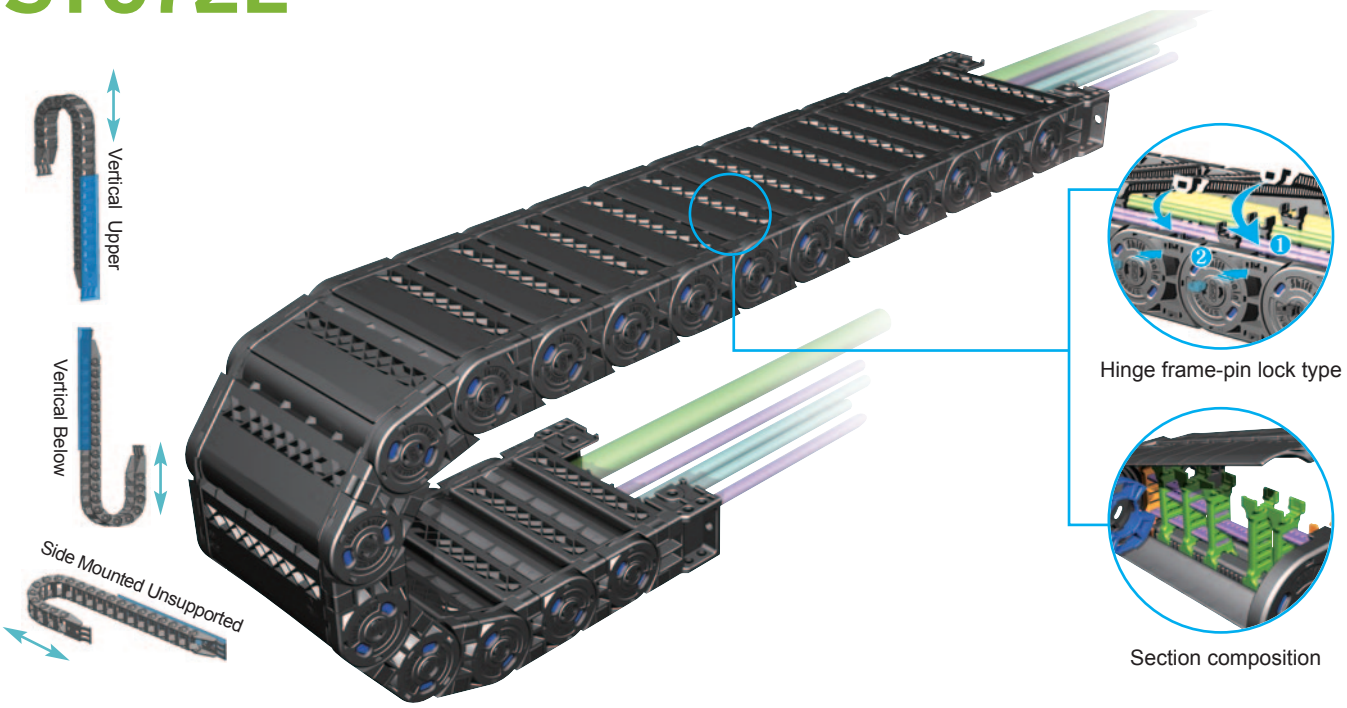
Tie Wrap (TW)





Chain Type	Ordering No.	A	B	C	D
ST055E	S-TW050/035N.50 S-TW050/035N.75 S-TW050/035N.100 S-TW050/035N.125 S-TW050/035N.150	82 107 132 157 182	64.5	12.00 12.13 15.25 14.70 14.35	5 30 55 80 105

ST072E



Ordering

ST072E. 150. R200/F – 2520L : (DV:2)

- ST: Shift Chain
- 072E: Enclosed–Type(E)
- 150: Inside Width
- R200/F: Bending Radius, Bracket Type
- 2520L: Length (mm)
- (DV:2): Quantity of Divider (Link)

Caculation of the Chain Length

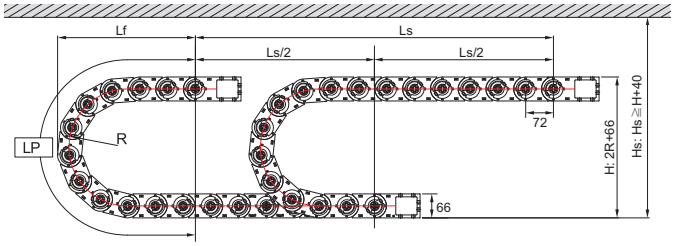
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 6.0m
Vertical Hanging(Max) = 100.0m
Side Mounted Unsupported(Max) = 2.5m

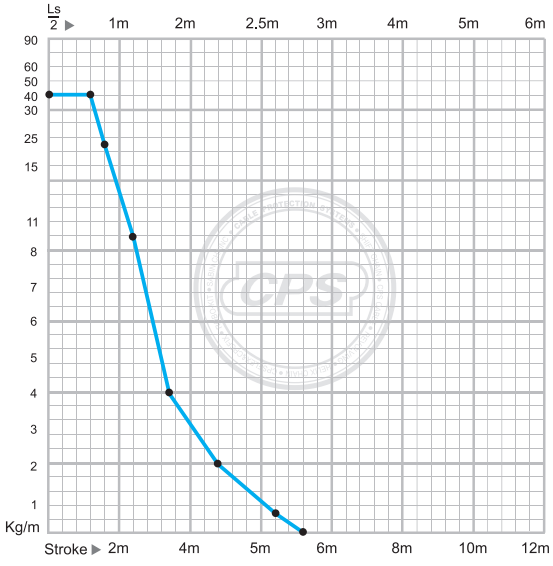
Layout of the Chain

Ls: Stroke Hs: Safe Space



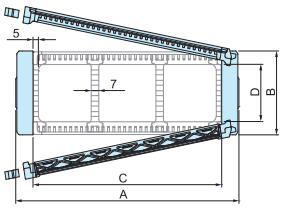
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
120	665	297	306
145	744	322	356
200	917	377	466
250	1,074	427	566
300	1,231	477	666

Unsupported Length



Chain Cross Section



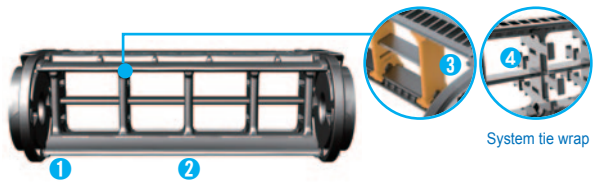


Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST072E	82 107 132 157 182	66	50 75 100 125 150	44	2.37 2.61 2.85 3.09 3.33

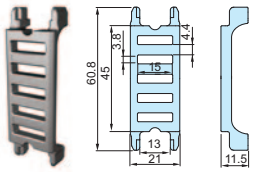
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Dividers (DV)

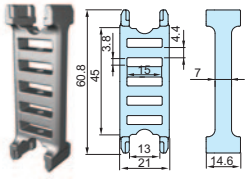
Assemble divider every second frame
DV/M Normal Divider
DV/W
Tie wrap divider for free end bracket(FEB)



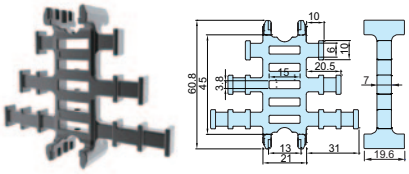
❶ sb-DV045/S



❷ sb-DV045/M

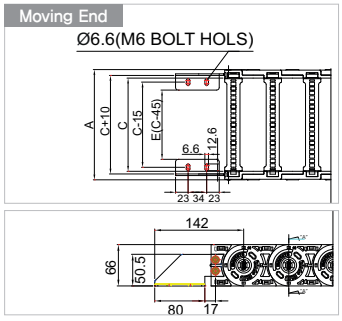


❸ sb-DV045/W

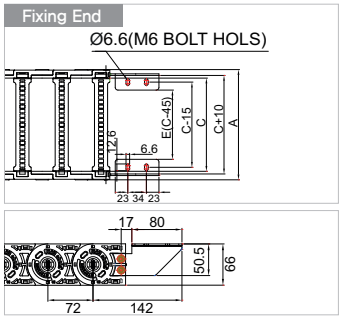


Steel End Bracket (SEB)

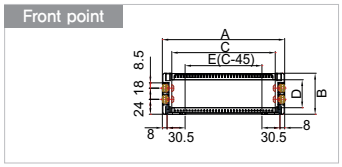
Moving End



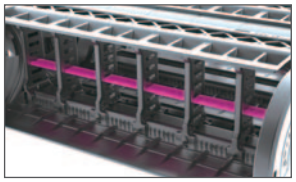
Fixing End



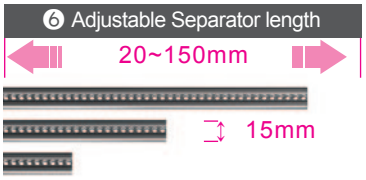
Front point



Separators (SP)



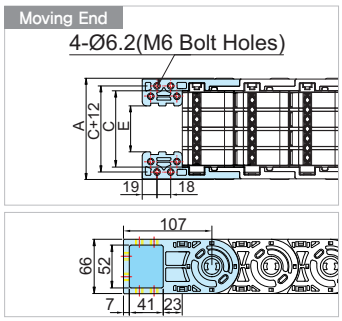
❻ Adjustable Separator length



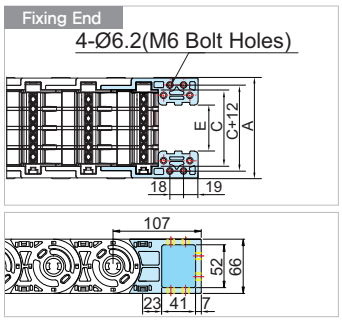
Chain Type	Ordering No.
ST072E	sb-SP/400.Frame

Free End Bracket (FEB)

Moving End

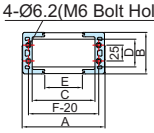


Fixing End



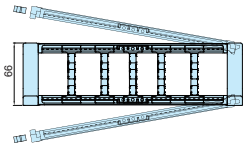
Chain Type	F Width (Outer)	B Height(Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST072E	82 107 132 157 182	66	50 75 100 125 150	44	10 35 60 85 110	M6 Bolt Holes

Front point 4-Ø6.2(M6 Bolt Holes)

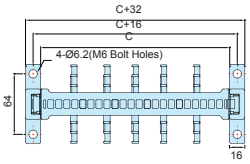


System Tie Wrap (STW)

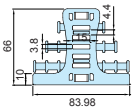
Front View



Top View

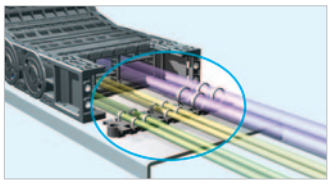


Side View

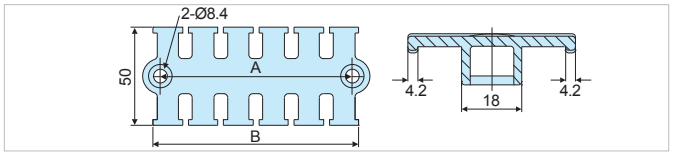


Chain Type	Ordering No.	C Frame	Hole Type
ST072E	S-TW.EB045.50 S-TW.EB045.75 S-TW.EB045.100 S-TW.EB045.125 S-TW.EB045.150	50 75 100 125 150	M6 Bolt Holes

Tie Wrap (TW)

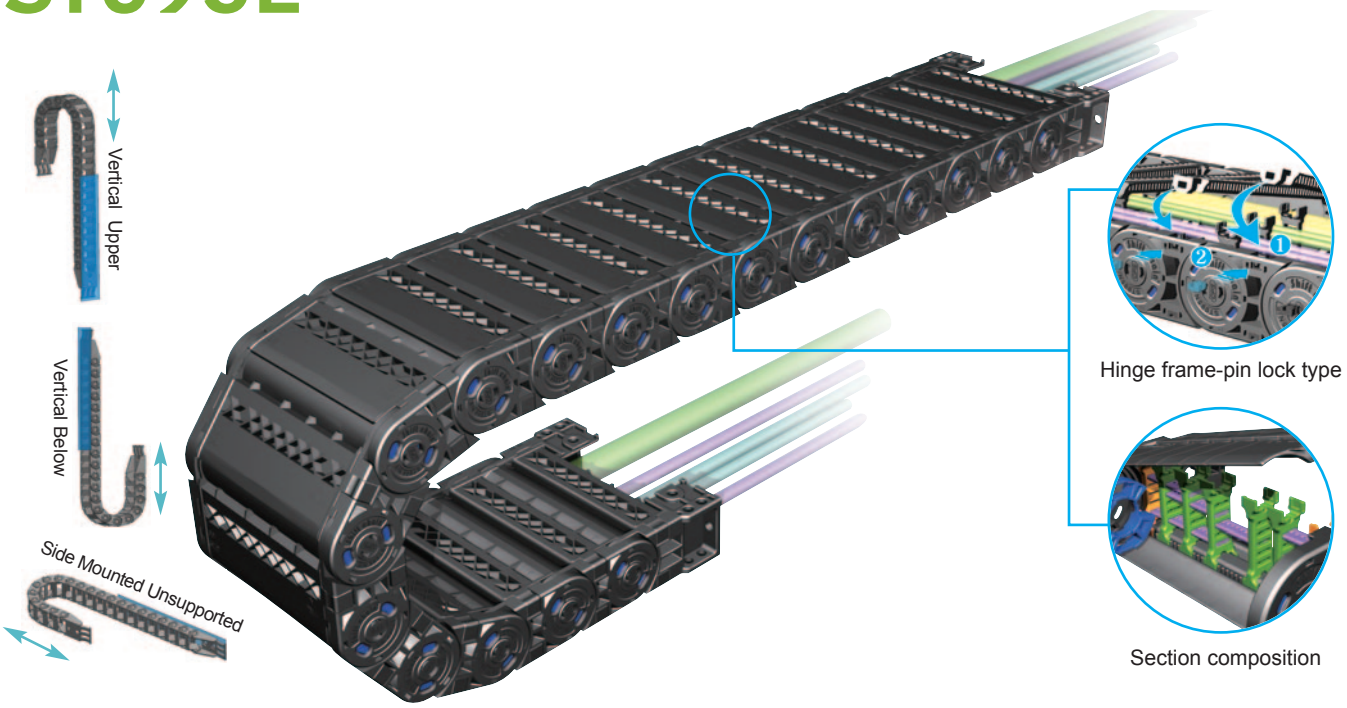






Chain Type	Ordering No.	A	B
ST072E	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

ST095E



Ordering

ST095E. 100. R150/F – 3040L : (DV:2)

Shift Chain	Enclosed–Type(E)	Inside Width	Bending Radius	Bracket Type	Length (mm)	Quantity of Divider (Link)

Caculation of the Chain Length

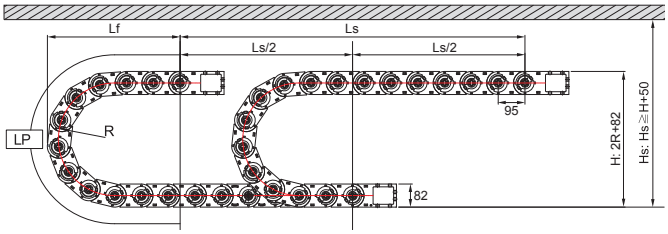
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 6.0m
Vertical Hanging(Max) = 100.0m
Side Mounted Unsupported(Max) = 3.0m

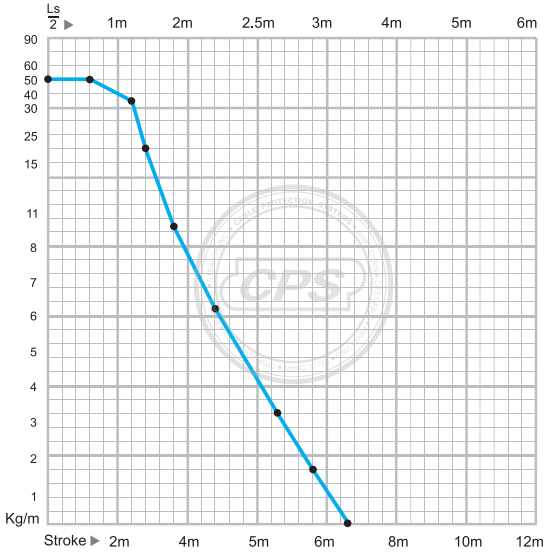
Layout of the Chain

Ls: Stroke Hs: Safe Space



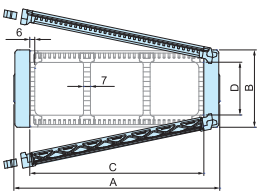
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
150	852	381	382
200	1,009	431	482
230	1,103	461	542
280	1,260	511	642
400	1,637	631	882

Unsupported Length



Chain Cross Section



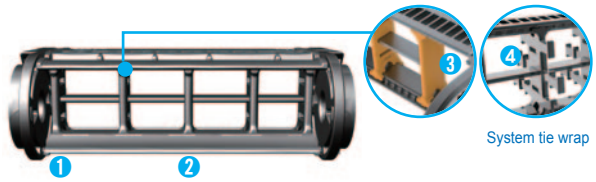


Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST095E	138	82	100	55	3.55
	163		125		3.79
	188		150		4.04
	213		175		4.29
	238		200		4.53

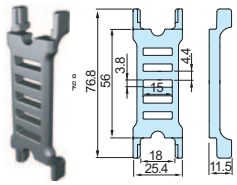
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Dividers (DV)

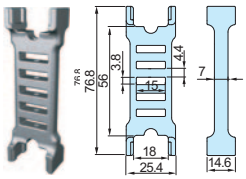
Assemble divider every second frame
DV/M Normal Divider
DV/W
Tie wrap divider for free end bracket(FEB)



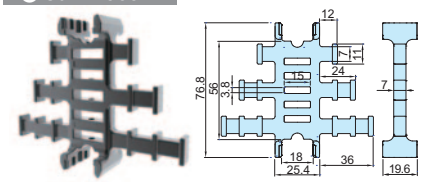
❶ sb-DV060/S



❷ sb-DV060/M

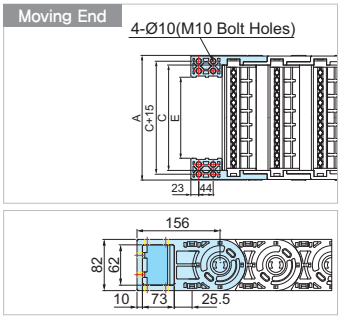


❸ sb-DV060/W

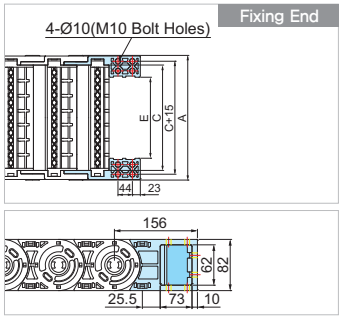


Free End Bracket (FEB)

Moving End

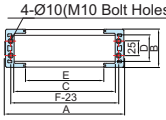


Fixing End



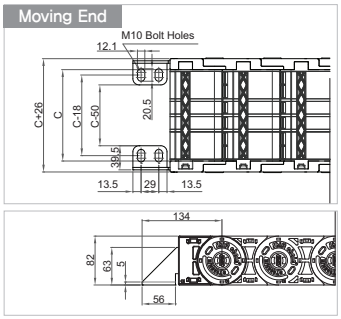
Chain Type	A Width (Outer)	B Height(Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST095E	138 163 188 213 238	82	100 125 150 175 200	55	49 74 99 124 149	M10 Bolt Holes

Front point

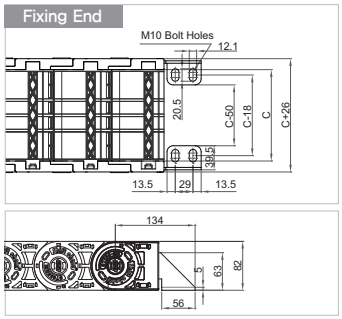


Steel End Bracket (SEB)

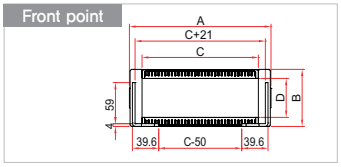
Moving End



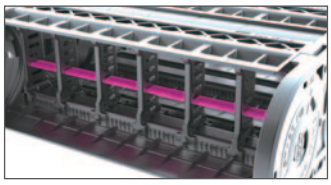
Fixing End



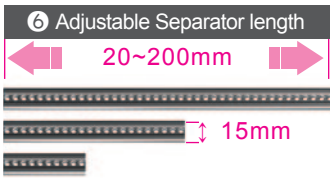
Front point



Separators (SP)

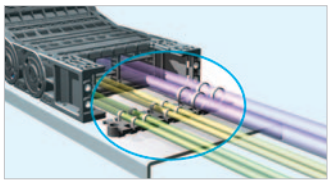


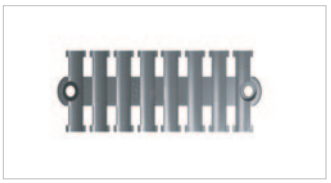
❻ Adjustable Separator length

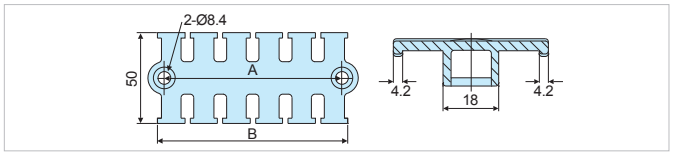


Chain Type	Ordering No.
ST095E	sb-SP/400.Frame

Tie Wrap (TW)



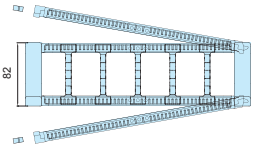




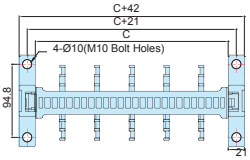
Chain Type	Ordering No.	A	B
ST095E	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

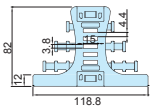
System Tie Wrap (STW)

Front View



Top View

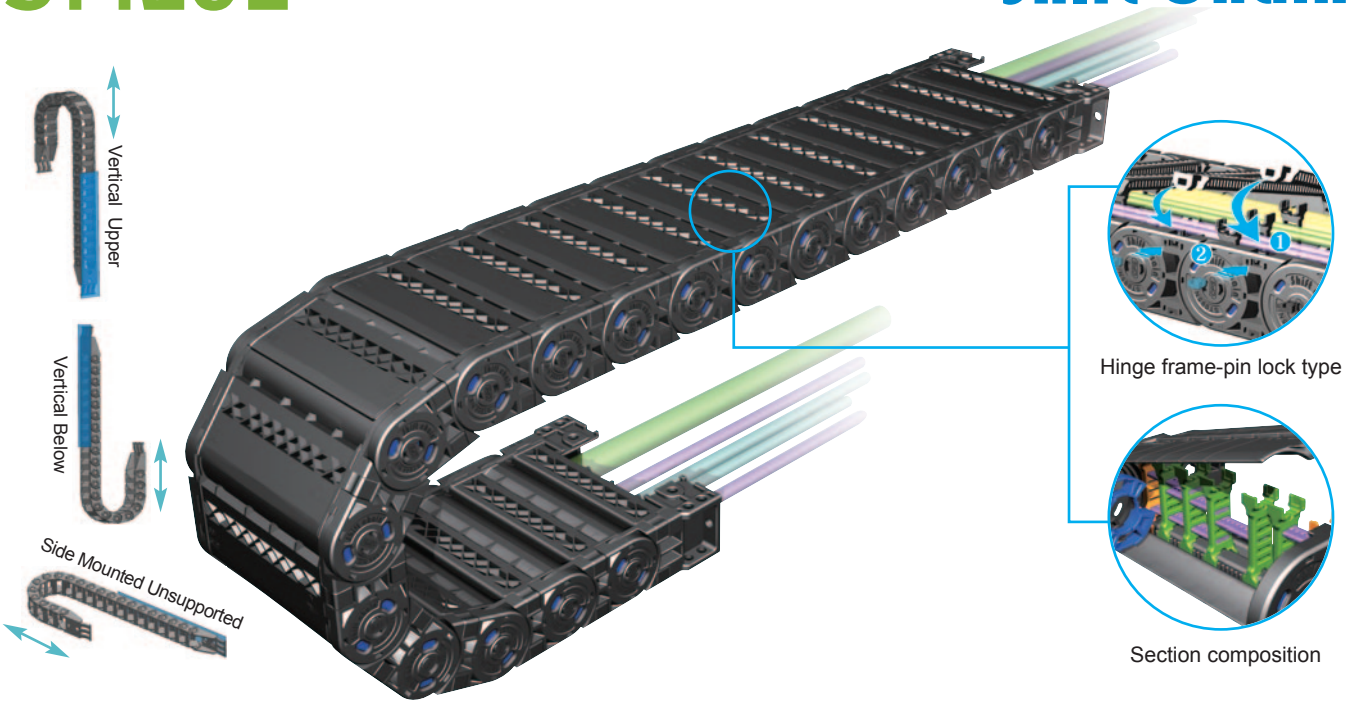




Chain Type	Ordering No.	C Frame	Hole Type
ST095E	S-TW.EB060.100 S-TW.EB060.125 S-TW.EB060.150 S-TW.EB060.175 S-TW.EB060.200	100 125 150 175 200	M10 Bolt Holes

ST120E

Shift Chain®



Ordering

ST120E. 100. R180/F – 3840L : (DV:2)

- ST120E. — Shift Chain
- 100. — Inside Width
- R180/F — Bracket Type (Bending Radius)
- 3840L — Length (mm)
- (DV:2) — Quantity of Divider (Link)
- Enclosed–Type(E)

Caculation of the Chain Length

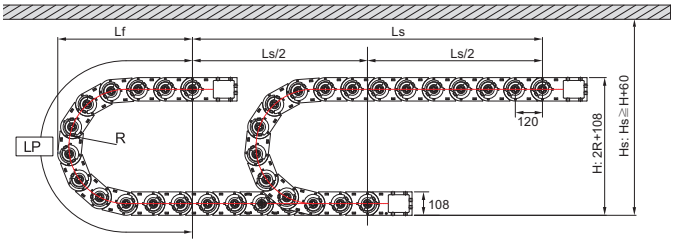
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 6.0m
Vertical Hanging(Max) = 120.0m
Side Mounted Unsupported(Max) = 3.0m

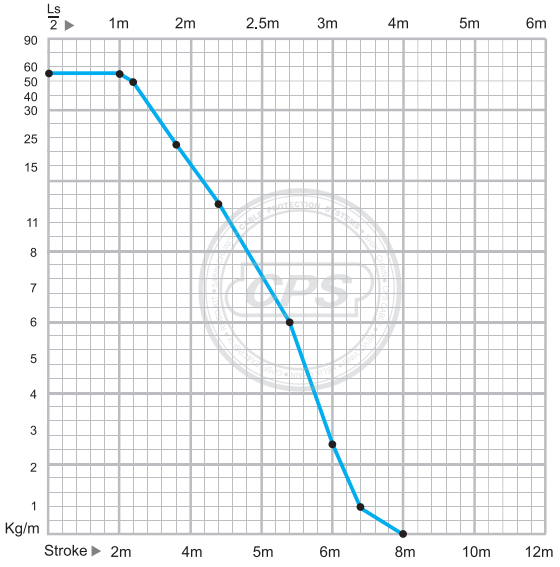
Layout of the Chain

Ls: Stroke Hs: Safe Space

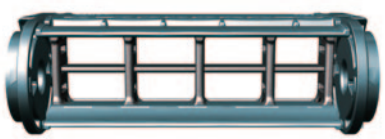


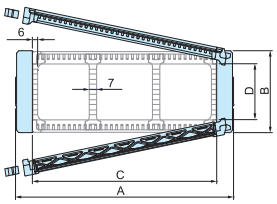
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
200	1,109	494	508
250	1,266	544	608
300	1,423	594	708
350	1,580	644	808
400	1,737	694	908
500	2,051	794	1,108

Unsupported Length



Chain Cross Section





Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST120E	192 242 292 342	108	150 200 250 300	76	5.79 6.43 7.07 7.71

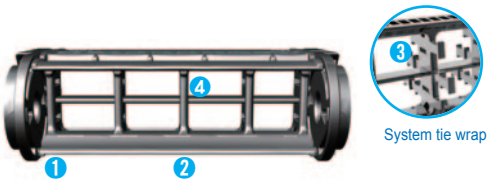
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

ST120E

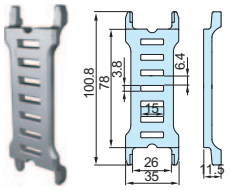
Shift Chain®

Dividers (DV)

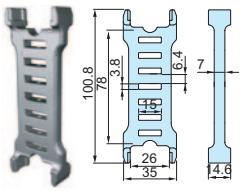
Assemble divider every second frame
DV/M Normal Divider
DV/W
Applicable to System Tie Wrap or FEB



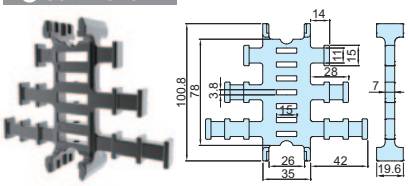
❶ sb-DV075/S



❷ sb-DV075/M

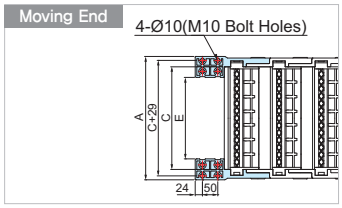


❸ sb-DV075/W

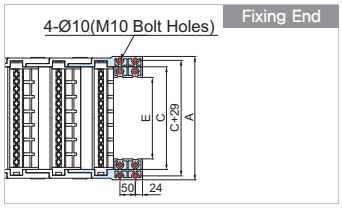


Free End Bracket (FEB)

Moving End

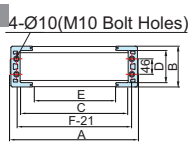


Fixing End



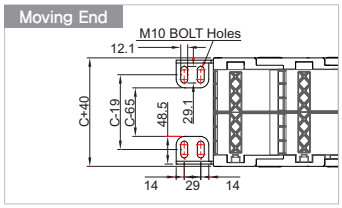
Chain Type	A Width (Outer)	B Height(Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST120E	200 250 300 350	108	150 200 250 300	76	90 140 190 240	M10 Bolt Holes

Front point

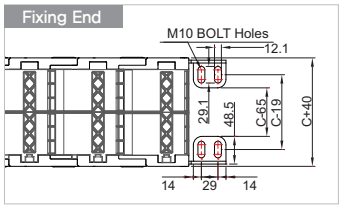


Steel End Bracket (SEB)

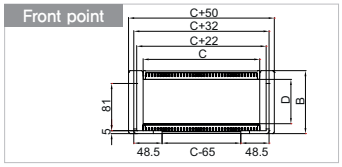
Moving End



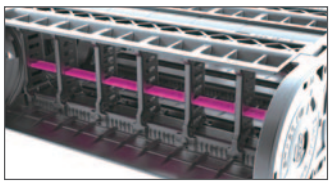
Fixing End



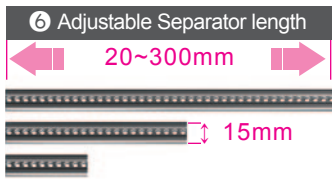
Front point



Separators (SP)

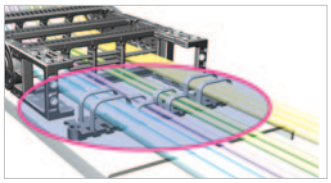


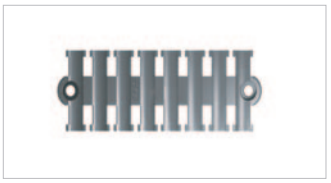
❻ Adjustable Separator length

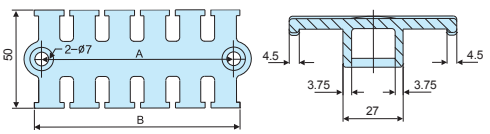


Chain Type	Ordering No.
ST120E	sb-SP/400.Frame

Tie Wrap (TW)



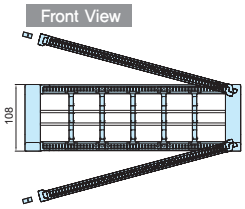




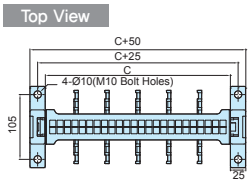
Chain Type	Ordering No.	A	B
ST120E	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

System Tie Wrap (STW)

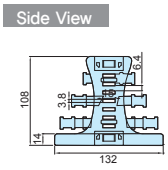
Front View



Top View

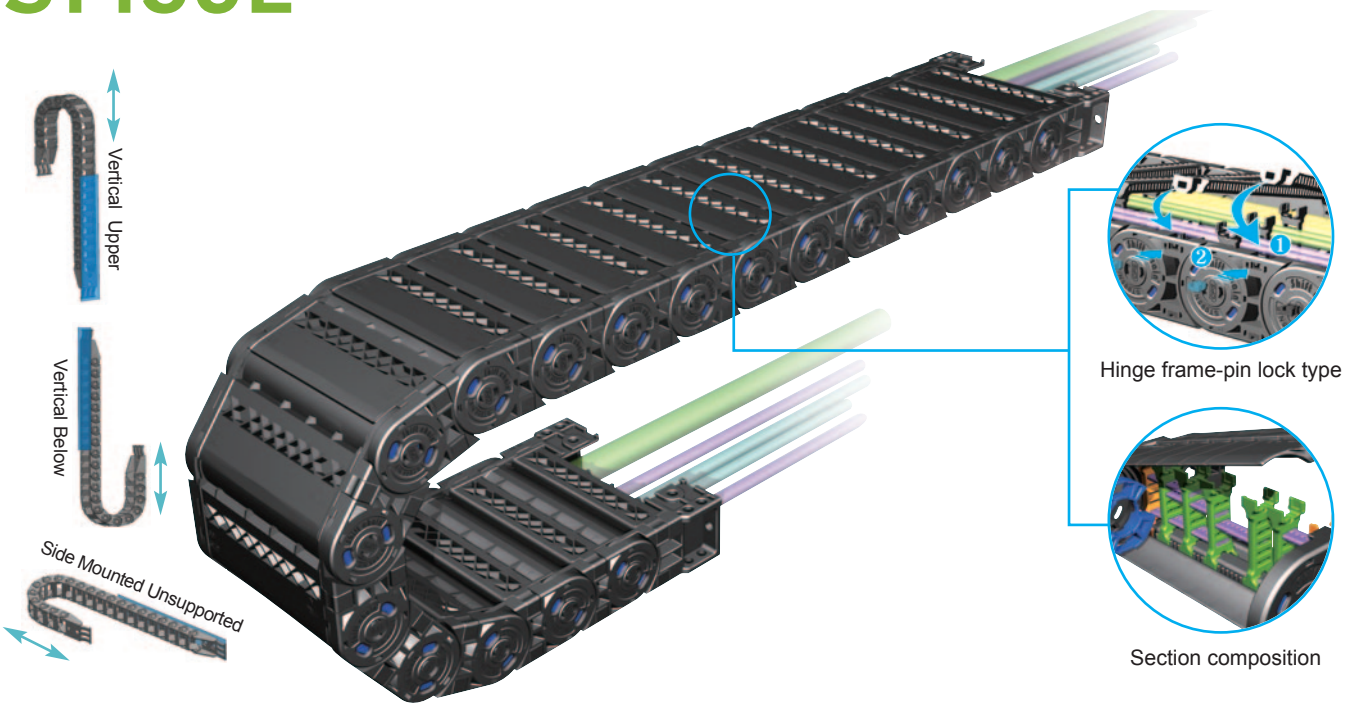


Side View



Chain Type	Ordering No.	C Frame	Hole Type
ST120E	S-TW.EB075.150 S-TW.EB075.200 S-TW.EB075.250 S-TW.EB075.300	150 200 250 300	M10 Bolt Holes

ST150E



Ordering

ST150E. 100. R305/F – 4800L : (DV:2)

- ST150E. — Shift Chain
- 100 — Enclosed–Type(E)
- R305/F — Bending Radius
- 4800L — Length (mm)
- (DV:2) — Quantity of Divider (Link)
- F — Inside Width
- R305 — Bracket Type

Caculation of the Chain Length

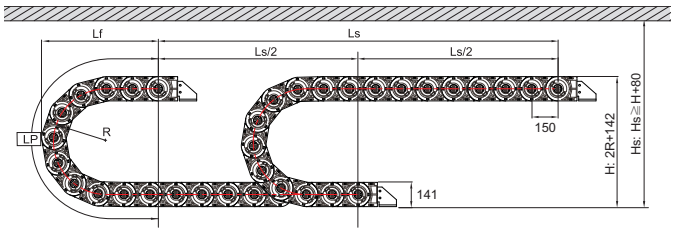
$$[\quad L = \frac{Ls}{2} + Lp \quad]$$

Other Length Restrictions

Vertical Standing(Max) = 7.0m
Vertical Hanging(Max) = 150.0m
Side Mounted Unsupported(Max) = 4.0m

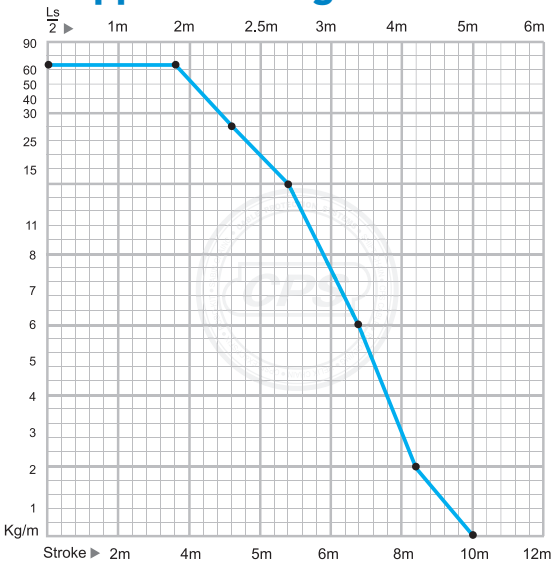
Layout of the Chain

Ls: Stroke Hs: Safe Space



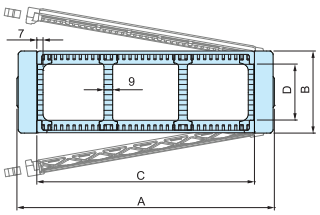
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
305	1559	676	752
405	1873	776	952
505	2187	876	1,152
605	2501	976	1,352

Unsupported Length



Chain Cross Section





Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST150E	246 296 346 396 446	141	200 250 300 350 400	110	8.16 8.76 10.50 12.33 14.16

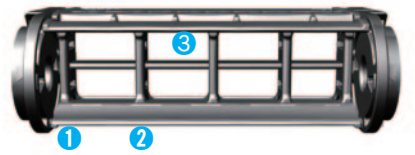
(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

ST150E

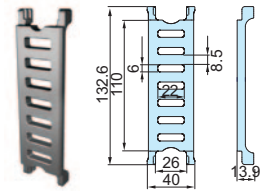
Shift Chain®

Dividers (DV)

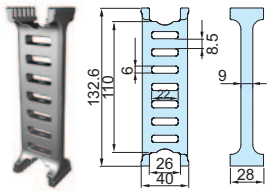
Assemble divider every second frame
DV/M Normal Divider



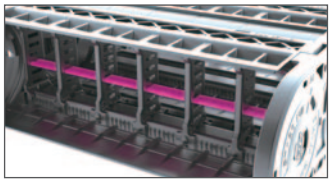
❶ sb-DV100/S

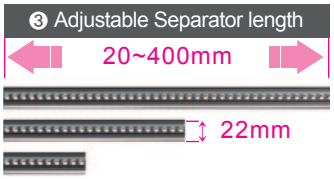


❷ sb-DV100/M



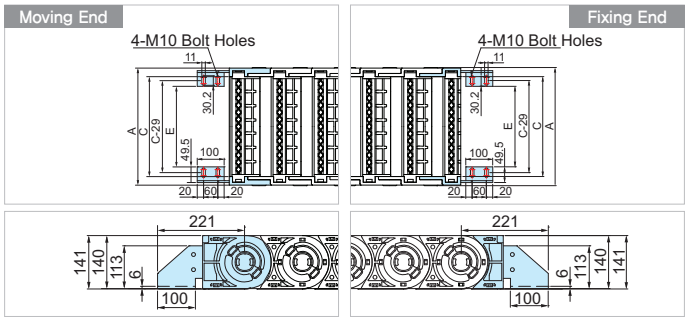
Separators (SP)





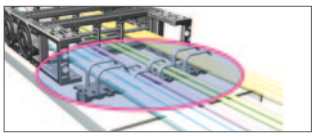
Chain Type	Ordering No.
ST150E	sb-SP/600.Frame

Free End Bracket (FEB)

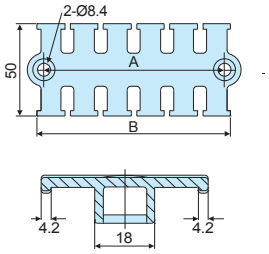


Chain Type	A Width (Outer)	B Height(Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST150E	246 296 346 396 446	141	200 250 300 350 400	110	129 179 229 279 329	M10 Bolt Holes

Tie Wrap (TW)







Chain Type	Ordering No.	A	B
ST150E	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148