Shift Chain - Enclosed skid type

General information

Item	Value
Material	CPS-Amid(PA6+GF), RoHs
Speed	3㎧
Acceleration	10㎧
Temperature	-30℃ ~+130℃
Certificate	CE, ATEX(Ex)

Calculation table

Item	Value
Length of Cable Chain	L = ½ X LS + LP
Bending Radius	
The biggest Cable inserted	Multiply 8~10 and the biggest cable
The biggest Hydraulic Hose inserted	Multiply 15~20 and the biggest hose

Dimension table

Shift Chain ES Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Temperature ℃	Clearance A	Clearance B	Clearance C	Clearance D	Frame style	Divider possible with frame
ST 044ES	44	70, 90, 120, 150	1.18 1.37 1.53 1.74	3	-30 ~ +130	74 94 114 139	38.5	35 55 75 100	26		
ST 072ES	72	120, 145, 200, 250, 300	2.77 3.01 3.25 3.49 3.73	3	-30 ~ +130	105 130 155 180 205	71.8	50 75 100 125 150	44		
ST 095ES	95	150, 200, 230, 280, 400	4.16 4.41 4.65 4.90 5.15	3	-30 ~ +130	162 187 212 237 262	89	100 125 150 175 200	55		
ST 120ES	120	200, 250, 300, 350, 400, 500	6.28 6.92 7.56 8.20	3	-30 ~ +130	218 268 318 368	115	150 200 250 290 300	76		

(Dimensions in mm)

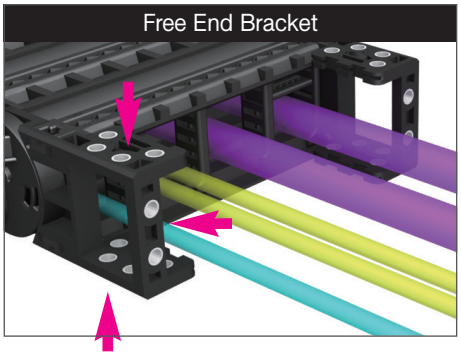
Ordering

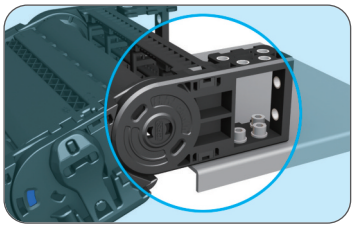
ST 044ES. 100. R120 / F - 1500L : 10ST

- Shift Chain
- Enclosed skid type (ES)
- Inside width
- Bending radius
- Bracket Type
  - F : Free End Bracket
  - FT : Tie Wrap
  - FST : System Tie Wrap
- Length(mm)
- Q'ty(set)

Bracket type

- ST044, ST072, ST095, ST120





▶ BR should not be inserted in the joint of side band and Free End Bracket of moving bracket.
▶ Normal Frame, not FRU/FRD, is inserted into M.FEB.

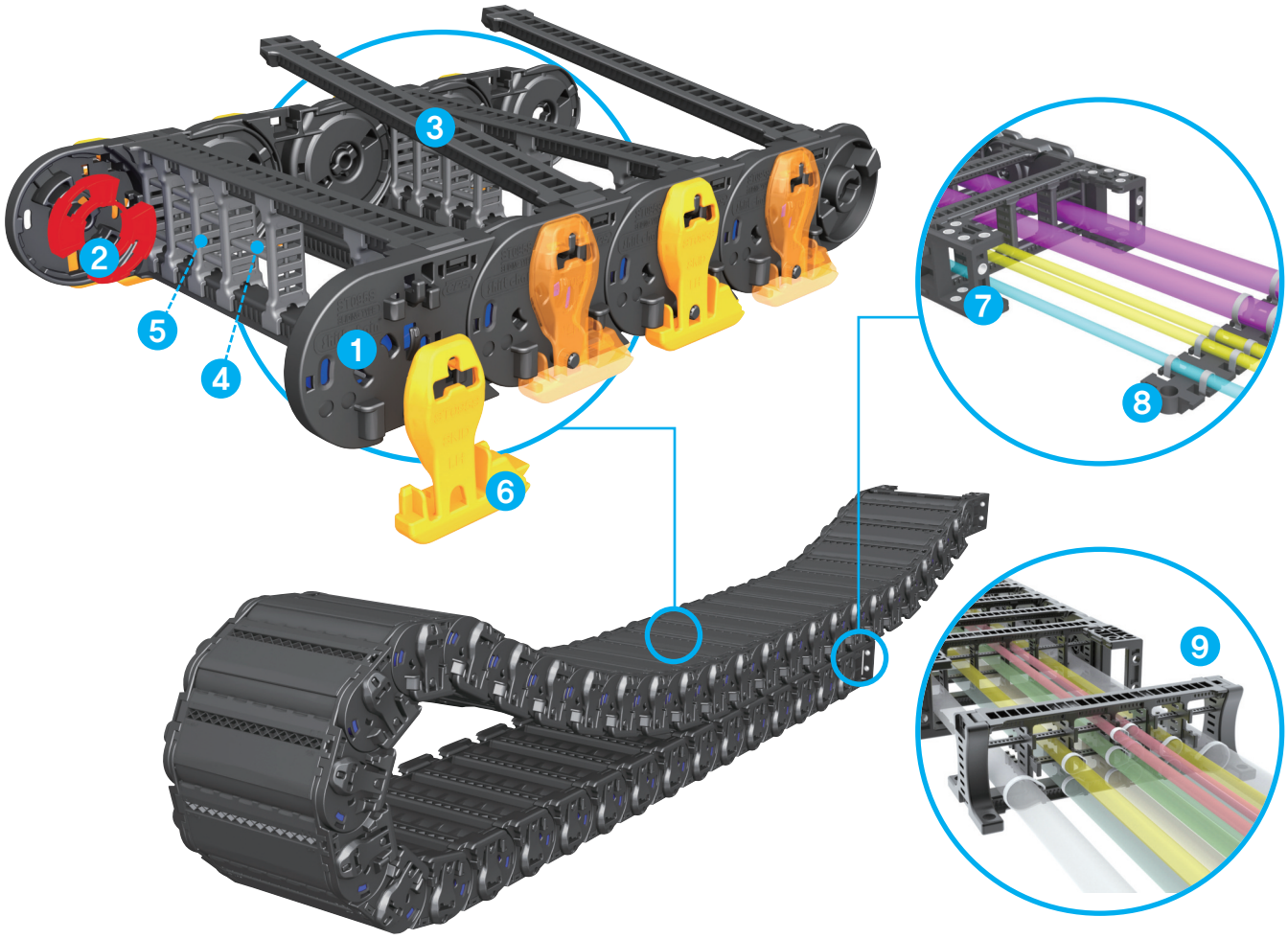
Application of CPS mini Chain

- Shift Chain Enclosed Skid type can be applied to all kinds of machine tools and factory lines.

▶ **ST 095ES**
Application:
Steel manufacturing line
Location:
Korea
Remark:
Stroke : 20meters

Shift Chain - Enclosed skid type

≫ Part of Shift Chain Enclosed skid type



❶ Side Band (SB)
A unit that connects each side band and between them BR is inserted to strengthen clamping force.

❷ Bending Radius Unit (BR)
A unit that inserted between each side band.
There are 6 supporting points to create durability.

❸ FRU, FRD
[FRU(D) Enclosed type applicable]
A unit that connects left and right side band and there are 2 types of frame : FRU, FRD.

❹ Separator (SP)
A unit that divides inserted cables vertically to prevent twisting and breaking problem.

❺ Divider (DV-S, M, R, T)
A unit that divides inserted cables horizontally.

❻ Skid
A unit that minimizes friction between upper and lower cable chain.

❼ Free End Bracket (FEB)
A unit that connects at last side band (left&right).
It can be fixed stronger using steel washers.

❽ Tie Wrap (TW)
A unit that ties cables to maintain straightness of them.
It can be assembled to bracket directly or installed separately from bracket.

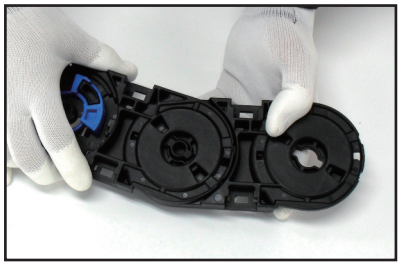
❾ System Tie Wrap (STW)
System-Tie Wrap has to be assembled on fixing and moving point of bracket and can be assembled wthout any tie wrap plate. This tie wrap is used to stay the cables on several floors prevent the cables from being twisted and it can also be assemble without any tools or bolt. This tie wrap has two types, one is to assemble inside bracket the other one is outside.

≫ Assembly procedure of Shift Chain Enclosed Skid type

Assembly procedure of Shift chain ES-type is as follows. The assembling process of shift Chain ES-type is like below and users must use rubber hammer with careful combination of Divider and Separator. (Disassembly process for repair and replacement is in reverse order)

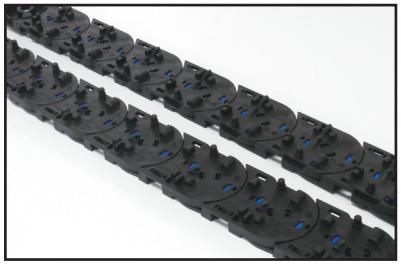
1

Insert BR Unit into each Side Band.
(Side Band is divided into right and left side according to the direction.)



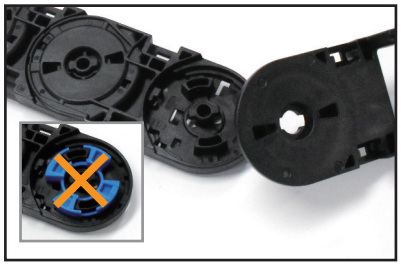
2

Continue to insert BR Unit into Side Band as you want to make it. Assemble Side Band which is inserted BR Unit as above.



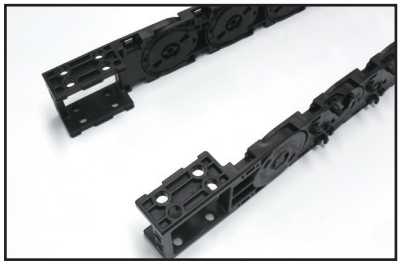
3

Continue to connect each Side Band as long as you want to make it.
Connect the Side Band as many as you need.



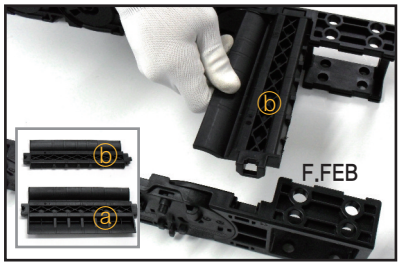
4

Assemble the F.FEB according to the direction of right and left side.
-Do not insert the BR Unit to Side Band connected to F.FEB (Side of F.FEB is not enclosed)



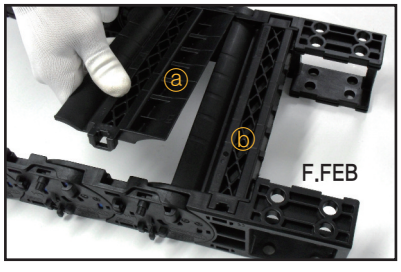
5

Do not insert a BR to M.FEB. (M.FEB will be making a turn to up and down) Assemble the M.FEB according to the direction of right and left side. (Side of M.FEB is not enclosed)



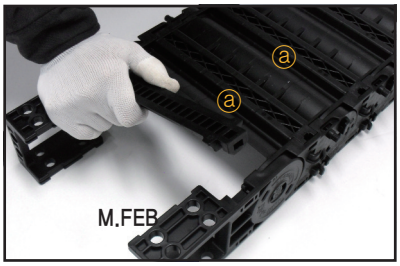
6

Insert one ⓑ Shaped-FRD into F.FEB.
[ⓐ: Normal FRD ⓑ: Built-up only for F.FEB]
-Find one ⓑ shaped-FRD and insert it with the hinge facing RH direction, as above.



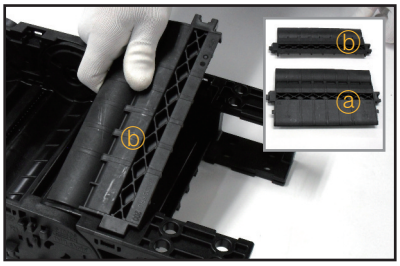
7

Continue to insert the FRD(ⓐ -Normal FRD)with the hinge facing RH direction,
-Assemble the from F.FEB to M.FEB in order.



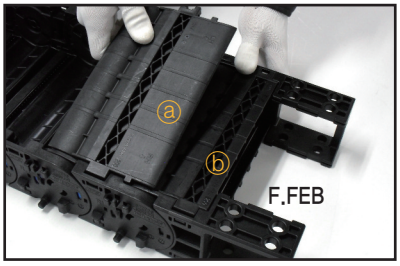
8

Insert the frame as many as you need and insert them one by one with the hinge facing RH direction, as above.
(M.FEB is not turned to up and down when FRD assembling)



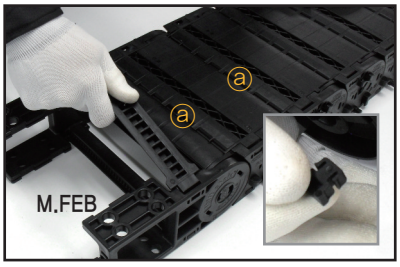
9

Insert the ⓑ shaped-FRD inserted to F.FEB and insert it with the hinge facing RH direction, as above. (ⓐ: Normal FRD ⓑ: Built-up only for F.FEB) Insert the divider with separator to divide the inside of chain.



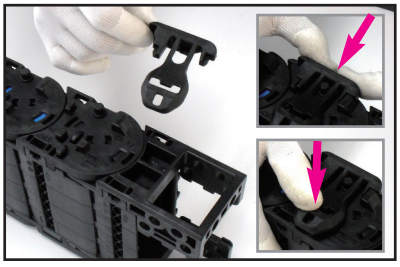
10

Continue to insert the FRU(ⓐ: Normal FRU)with the hinge facing RH direction,
-Assemble the from F.FEB to M.FEB in order.



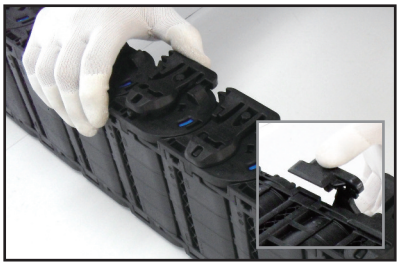
11

Insert ⓐNormal FRU as many as you need and insert them one by one with the hinge facing RH direction, as above. Insert Frame-pin into the hole which is seen where the end of FRU and Side Band meet. (M.FEB is not turning to up and down) when FRU assembling) Check that FRU and FRD are assembled correctly.



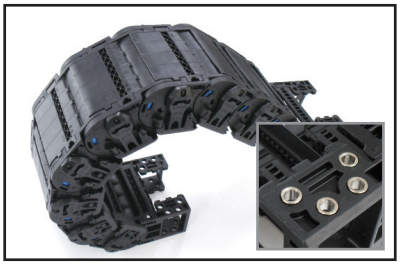
12

Insert Skid into mounted Side Band.
Insert Skid into groove of Side Band until you hear the"click". (Skid is also divided into LH and RH)



13

Insert the Skid to all Side band in same way. Insert the Skid to opposite side of each Side Band in the same way.



14

Insert steel washers into M.FEB and F.FEB.

Shift Chain - Enclosed skid type

≫ Part of Shift Chain Enclosed skid type

- Composition of Cable chain(Standard)
  = Side band(RH) + Frame + Side band(LH) + Bending radius Unit + Free end bracket
- M divider(normal divider) should be applied every second frames to make a section composition.

※ Please refer to below part list and description to understand composition of cable chain.

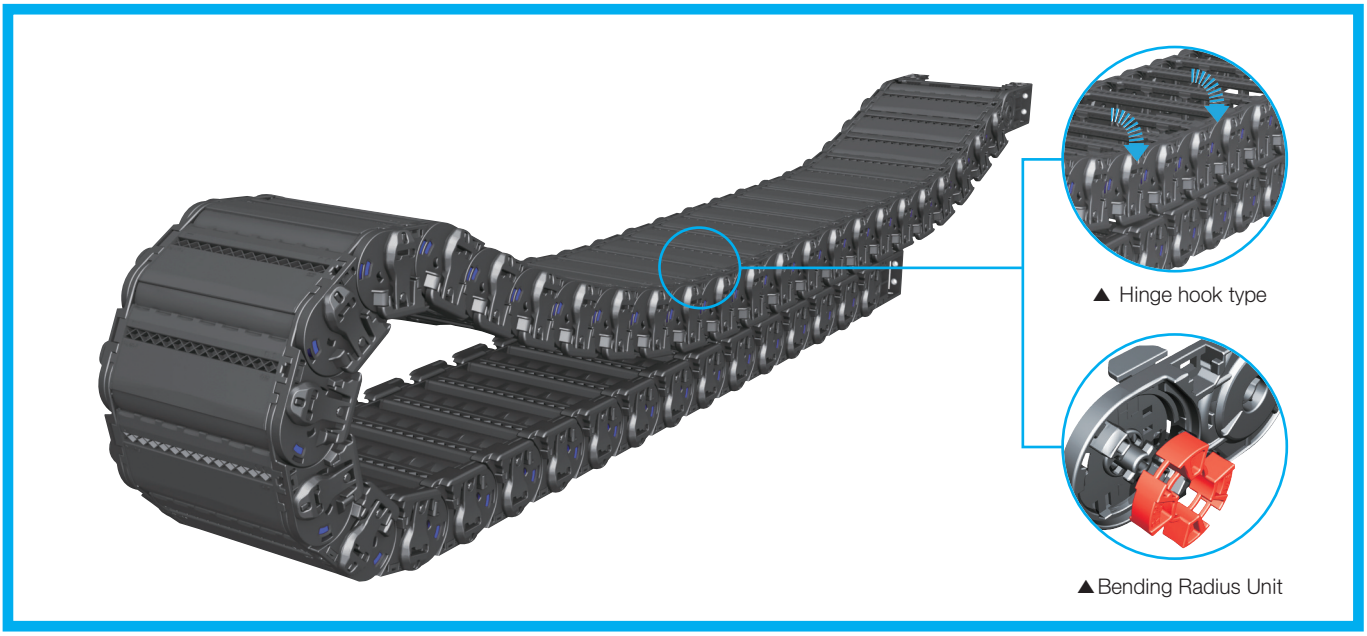
Model	Classification	Part number	Description
ST044ES	SIDE BAND	ST-SB044S(LH) ST-SB044S(RH)	Left side band of ST044S Right side band of ST044S
	BENDING RADIUS	ST-BRS044.R70, 90, 120, 150	Bending radius unit for side band
	SKID	ST-SK044S(LH) ST-SK044S(RH)	Skid for long travel(Applied to side band)
	FRAME(DOWN) FRAME(UP)	ST-FRD044.35 ST-FRU044.35 ST-FRD044.55 ST-FRU044.55 ST-FRD044.75 ST-FRU044.75 ST-FRD044.100 ST-FRU044.100	Inside frame, 35mm Outside frame, 35mm Inside frame, 55mm Outside frame, 55mm Inside frame, 75mm Outside frame, 75mm Inside frame, 100mm Outside frame, 100mm
	FRAME(DOWN-FIXING END) FRAME(UP-FIXING END) FRAME(DOWN-MOVING END) FRAME(UP-MOVING END)	ST-FRDFE044.35,55,75,100 ST-FRUFE044.35,55,75,100 ST-FRDME044.35,55,75,100 ST-FRUME044.35,55,75,100	Inside half-frame for fixing end bracket Outside half-frame for fixing end bracket Inside half-frame for moving end bracket Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB044E	End bracket of ST044E
	DIVIDER	sb-DV028/M sb-DV028/S	Normal divider 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	Separator, 35mm Separator, 50mm Separator, 75mm Separator, 100mm
	TIE WRAP	S-TW036/025CR.35 S-TW036/025CR.55 S-TW036/025CR.75 S-TW036/025CR.100 S-TW036/025CR.125	Tie wrap for end bracket to fix cables, 35mm 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
	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

Model	Classification	Part number	Description
ST072ES	SIDE BAND	ST-SB072S(LH) ST-SB072S(RH)	Left side band of ST072S Right side band of ST072S
	BENDING RADIUS	ST-BRS072. R120,145,200,250,300	Bending radius unit for side band
	SKID	ST-SK072S(LH) ST-SK072S(RH)	Skid for long travel(Applied to side band)
	FRAME PIN	S-FP/S1	Frame pin
	FRAME(DOWN) FRAME(UP)	ST-FRD072.50 ST-FRU072.50 ST-FRD072.75 ST-FRU072.75 ST-FRD072.100 ST-FRU072.100 ST-FRD072.125 ST-FRU072.125 ST-FRD072.150 ST-FRU072.150	Inside frame, 50mm Outside frame, 50mm Inside frame, 75mm Outside frame, 75mm Inside frame, 100mm Outside frame, 100mm Inside frame, 125mm Outside frame, 125mm Inside frame, 150mm Outside frame, 150mm
	FRAME(DOWN-FIXING END) FRAME(UP-FIXING END) FRAME(DOWN-MOVING END) FRAME(UP-MOVING END)	ST-FRDFE072.50,75,100,125,150 ST-FRUFE072.50,75,100,125,150 ST-FRDME072.50,75,100,125,150 ST-FRUME072.50,75,100,125,150	Inside half-frame for fixing end bracket Outside half-frame for fixing end bracket Inside half-frame for moving end bracket Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB072 sb-FEB/WH045	End bracket of ST072E Steel washer for end bracket
	DIVIDER	sb-DV045/M sb-DV045/S	Normal divider To fix separstors at the both side section
	SEPARATOR	sb-SP/400.400 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

Model	Classification	Part number	Description
ST095ES	SIDE BAND	ST-SB095S(LH) ST-SB095S(RH)	Left side band of ST095S Right side band of ST095S
	BENDING RADIUS	ST-BR095.R150,200,230,280,400	Bending radius unit for side band
	SKID	ST-SK095S(LH) ST-SK095S(RH)	Skid for long travel(Applied to side band)
	FRAME PIN	S-FP/S1	Frame pin
	FRAME(DOWN) FRAME(UP) FRAME(DOWN-FIXING END) FRAME(UP-FIXING END) FRAME(DOWN-MOVING END) FRAME(UP-MOVING END)	ST-FRD095.100 ST-FRU095.100 ST-FRD095.125 ST-FRU095.125 ST-FRD095.150 ST-FRU095.150 ST-FRD095.175 ST-FRU095.175 ST-FRD095.200 ST-FRU095.200 ST-FRDFE095.100,125,150,175,200 ST-FRUFE095.100,125,150,175,200 ST-FRDME095.100,125,150,175,200 ST-FRUME095.100,125,150,175,200	Inside frame, 100mm Outside frame, 100mm Inside frame, 125mm Outside frame, 125mm Inside frame, 150mm Outside frame, 150mm Inside frame, 175mm Outside frame, 175mm Inside frame, 200mm Outside frame, 200mm Inside half-frame for fixing end bracket Outside half-frame for fixing end bracket Inside half-frame for moving end bracket Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB095 sb-FEB/WH060	End bracket of ST072E Steel washer for end bracket
	DIVIDER	sb-DV060/M sb-DV060/S	Normal divider To fix separstors at the both side section
	SEPARATOR	sb-SP/400.400 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

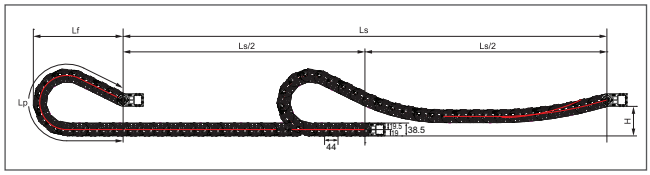
Model	Classification	Part number	Description
ST120ES	SIDE BAND	ST-SB120S(LH) ST-SB120S(RH)	Left side band of ST120E Right side band of ST120E
	BENDING RADIUS	ST-BR120,R180,200,250,300,350,400,500	Bending radius unit for side band
	SKID	ST-SK120S(LH) ST-SK120S(RH)	Skid for long travel(Applied to side band)
	FRAME PIN	S-FP/S2	Frame pin
	FRAME(DOWN) FRAME(UP) FRAME(DOWN-FIXING END) FRAME(UP-FIXING END) FRAME(DOWN-MOVING END) FRAME(UP-MOVING END)	ST-FRD120.150 ST-FRU120.150 ST-FRD120.200 ST-FRU120.200 ST-FRD120.250 ST-FRU120.250 ST-FRD120.300 ST-FRU120.300 ST-FRDFE120.150,200,250,300 ST-FRUFE120.150,200,250,300 ST-FRDME120.150,200,250,300 ST-FRUME120.150,200,250,300	Inside frame, 150mm Outside frame, 150mm Inside frame, 200mm Outside frame, 200mm Inside frame, 250mm Outside frame, 250mm Inside frame, 300mm Outside frame, 300mm Inside half-frame for fixing end bracket Outside half-frame for fixing end bracket Inside half-frame for moving end bracket Outside half-frame for moving end bracket
	FREE END BRACKET	ST-FEB120E sb-FEB/WH075	End bracket of ST120E Steel washer for end bracket
	DIVIDER	sb-DV075/M sb-DV075/S	Normal divider To fix separstors at the both side section
	SEPARATOR	sb-SP/400.400 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

ST 044ES



Layout of the chain

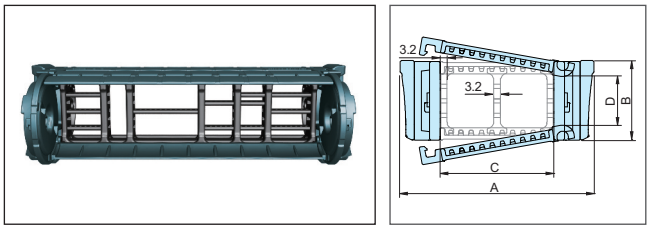
Ls: Stroke



Bending Radius (R)	Lp Loop Length	Lf Loof Projection	H Moving Height
70 90 120 150	544 662 926 1,190	249 289 393 497	110

(Dimensions in mm)

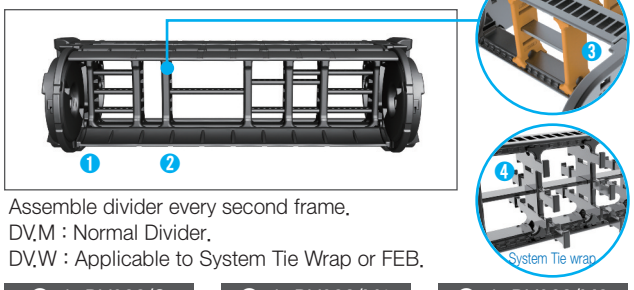
Chain cross section



Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	Weight kg/m
ST 044ES	74 94 114 139	38.5	35 55 75 100	26	1.18 1.37 1.53 1.74

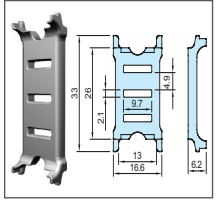
(Dimensions in mm)

Dividers(DV)

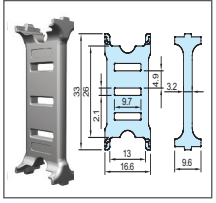


Assemble divider every second frame.
DV.M : Normal Divider.
DV.W : Applicable to System Tie Wrap or FEB.

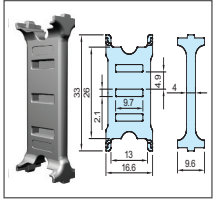
❶ sb-DV028/S



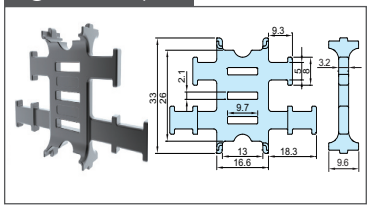
❷ sb-DV028/M1



❸ sb-DV028/M2

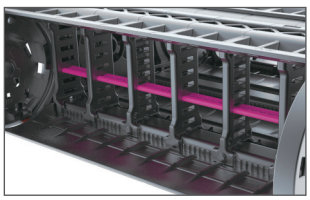


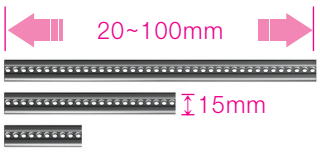
❹ sb-DV028/W



(Dimensions in mm)

Separators(SP)



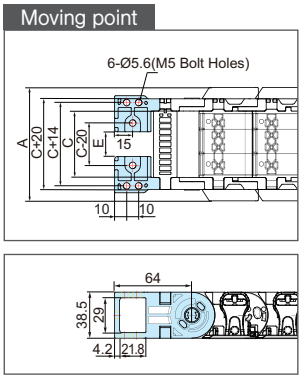


Chain Type	Ordering NO.	Frame
ST 044ES	S-SP/M.35 S-SP/M.55 S-SP/M.75 S-SP/M.100	35 55 75 100

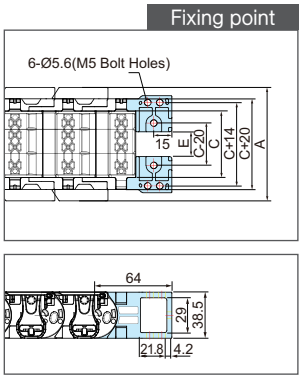
(Dimensions in mm)

Free end bracket

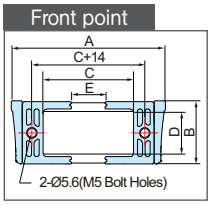
Moving point



Fixing point



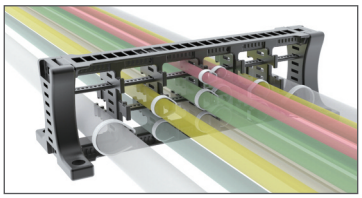
Front point



Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	E M,EB Bolt hole width	Hole Type
ST 044ES	74 94 114 139	38.5	35 55 75 100	26	0.4 20.4 40.4 65.4	M5 Bolt Holes

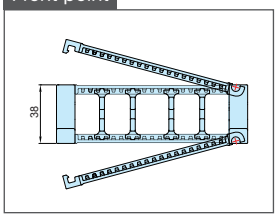
(Dimensions in mm)

System tie wrap (STW)

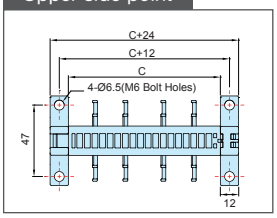


It is a unit to classify each cable for preventing entanglement of cables. It can either be installed to free end bracket or installed separately according its application environment.

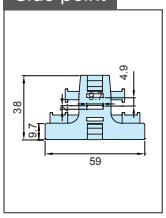
Front point



Upper side point



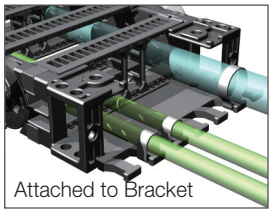
Side point

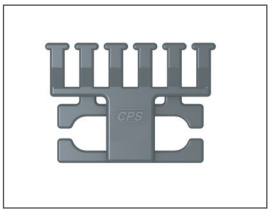


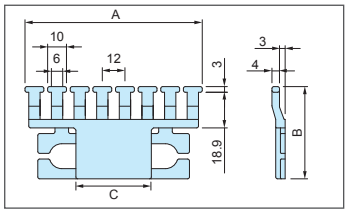
Chain Type	Ordering No.	C Frame	Hole Type
ST 044ES	S-TW.EB028.35 S-TW.EB028.55 S-TW.EB028.75 S-TW.EB028.100	35 55 75 100	M6 Bolt Holes

(Dimensions in mm)

Tie wrap (TW)





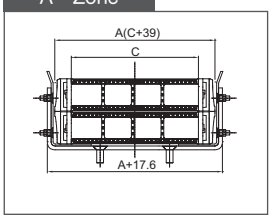


Chain Type	Ordering No.	A	B	C
ST 044ES	S-TW036/025CR.35 S-TW036/025CR.55 S-TW036/025CR.75 S-TW036/025CR.100	46 70 94 118	35.4 48.9 48.9 48.9	- 20 40 65

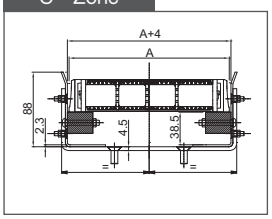
(Dimensions in mm)

Guide channel

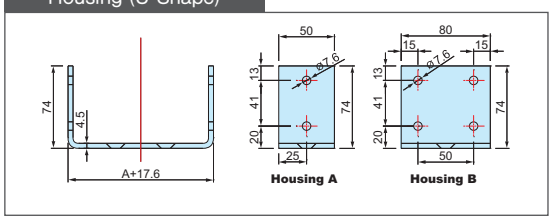
A - Zone



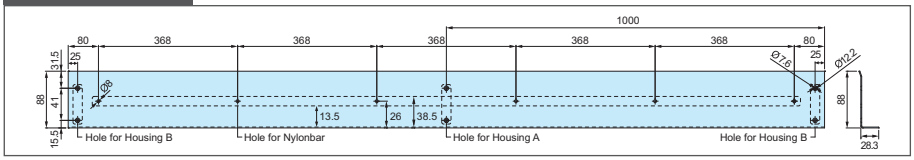
C - Zone



Housing (U-Shape)

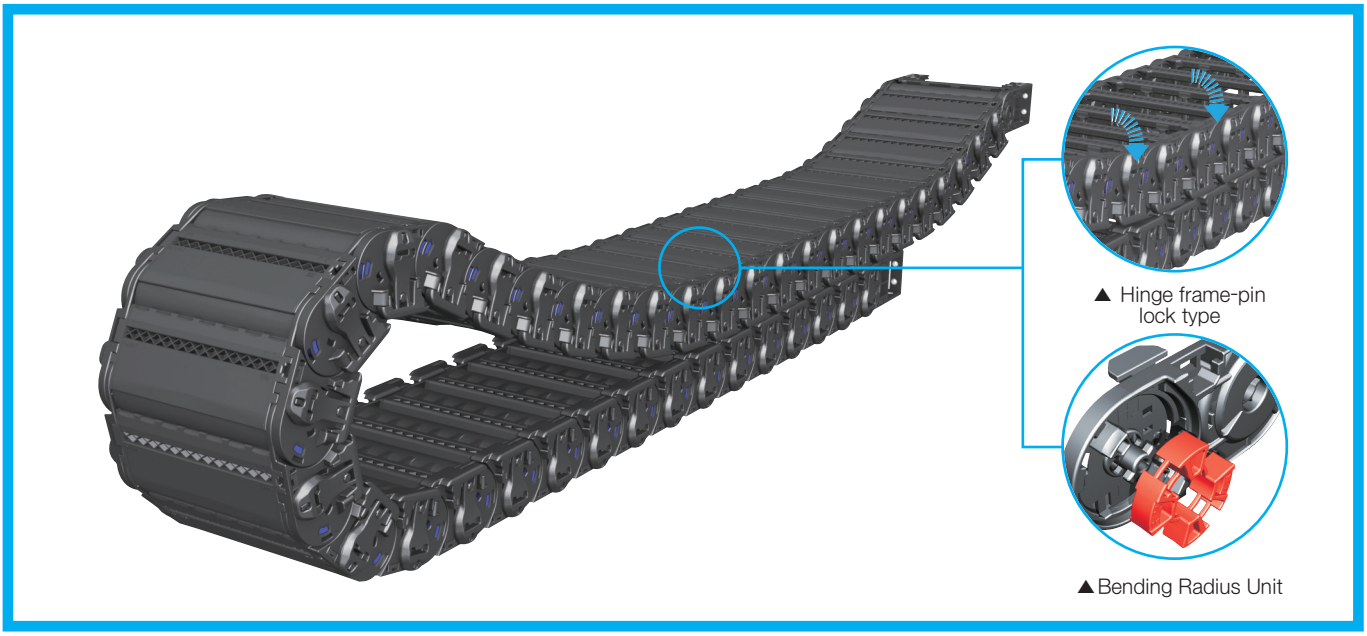


Side Panel



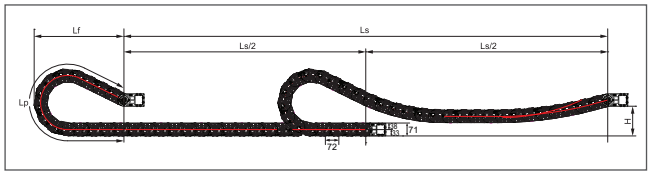
(Dimensions in mm)

ST 072ES



Layout of the chain

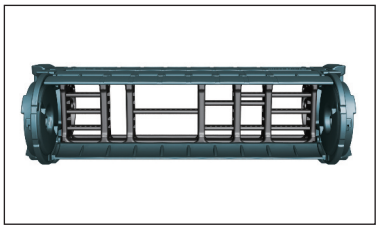
Ls: Stroke

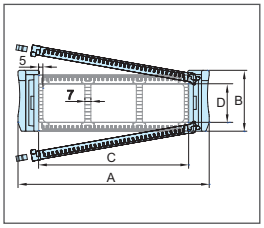


Bending Radius (R)	Lp Loop Length	Lf Loof Projection	H Moving Height
120	917	420	180
145	1,063	470	
200	1,400	580	
250	1,840	752	
300	2,280	924	

(Dimensions in mm)

Chain cross section

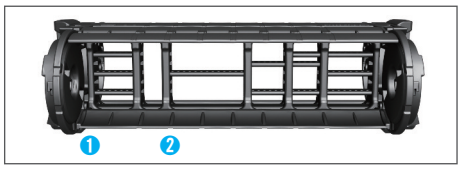


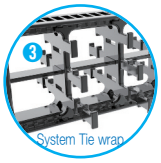


Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	Weight kg/m
ST 072ES	105	71.8	50	44	2.77
	130		75		3.01
	155		100		3.25
	180		125		3.49
	205		150		3.73

(Dimensions in mm)

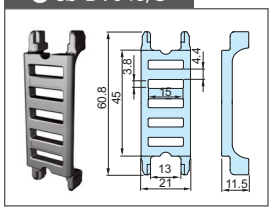
Dividers(DV)



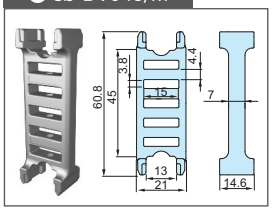


Assemble divider every second frame.
DV.M : Normal Divider.
DV.W : Applicable to System Tie Wrap or FEB.

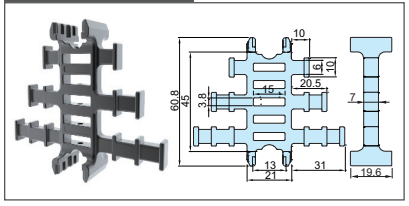
❶ sb-DV045/S



❷ sb-DV045/M

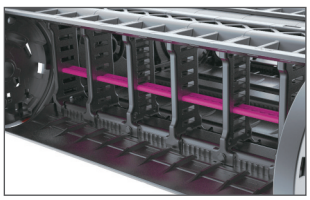


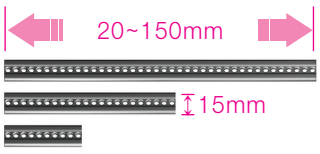
❸ sb-DV045/W



(Dimensions in mm)

Separators(SP)

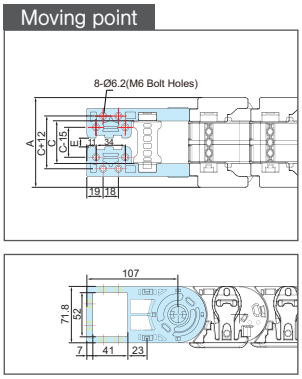




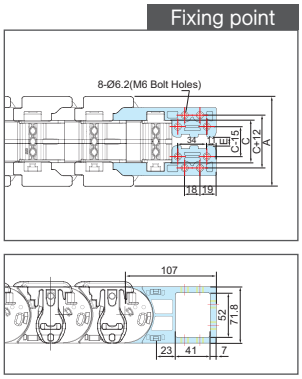
Chain Type	Ordering NO.
ST 072ES	sb-SP/400.400

Free end bracket

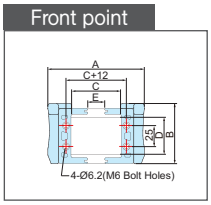
Moving point



Fixing point



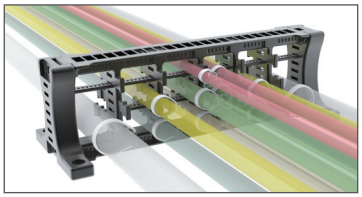
Front point



Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	E M,EB Bolt hole width	Hole Type
ST 072ES	105 130 155 180 205	71.8	50 75 100 125 150	44	10 35 60 85 110	M6 Bolt Holes

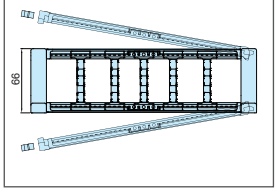
(Dimensions in mm)

System tie wrap (STW)

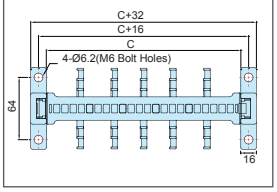


It is a unit to classify each cable for preventing entanglement of cables. It can either be installed to free end bracket or installed separately according its application environment.

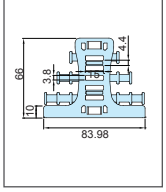
Front point



Upper side point



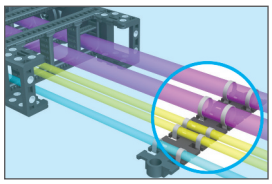
Side point

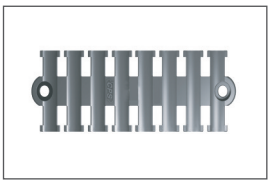


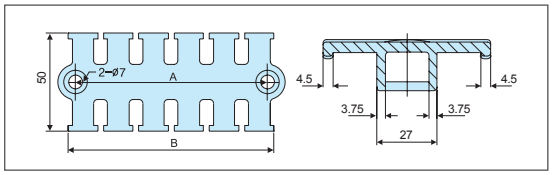
Chain Type	Ordering No.	C Frame	Hole Type
ST 072ES	S-TW.EB045.50 S-TW.EB045.75 S-TW.EB045.100 S-TW.EB045.125 S-TW.EB045.150	50 75 100 125 150	M6 Bolt Holes

(Dimensions in mm)

Tie wrap (TW)





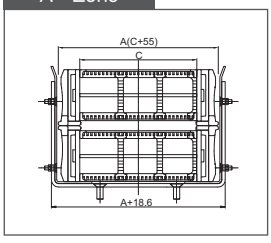


Chain Type	Ordering No.	A	B
ST 072ES	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

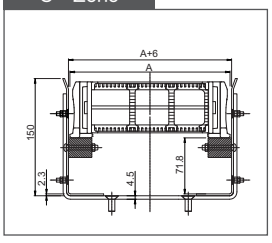
(Dimensions in mm)

Guide channel

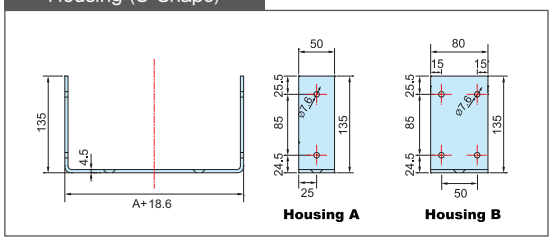
A - Zone



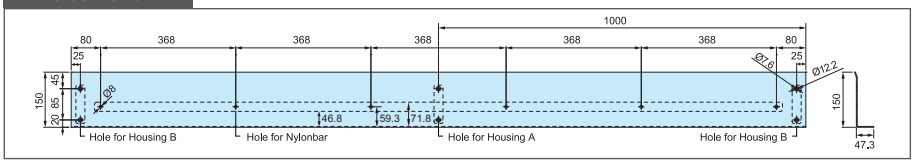
C - Zone



Housing (U-Shape)

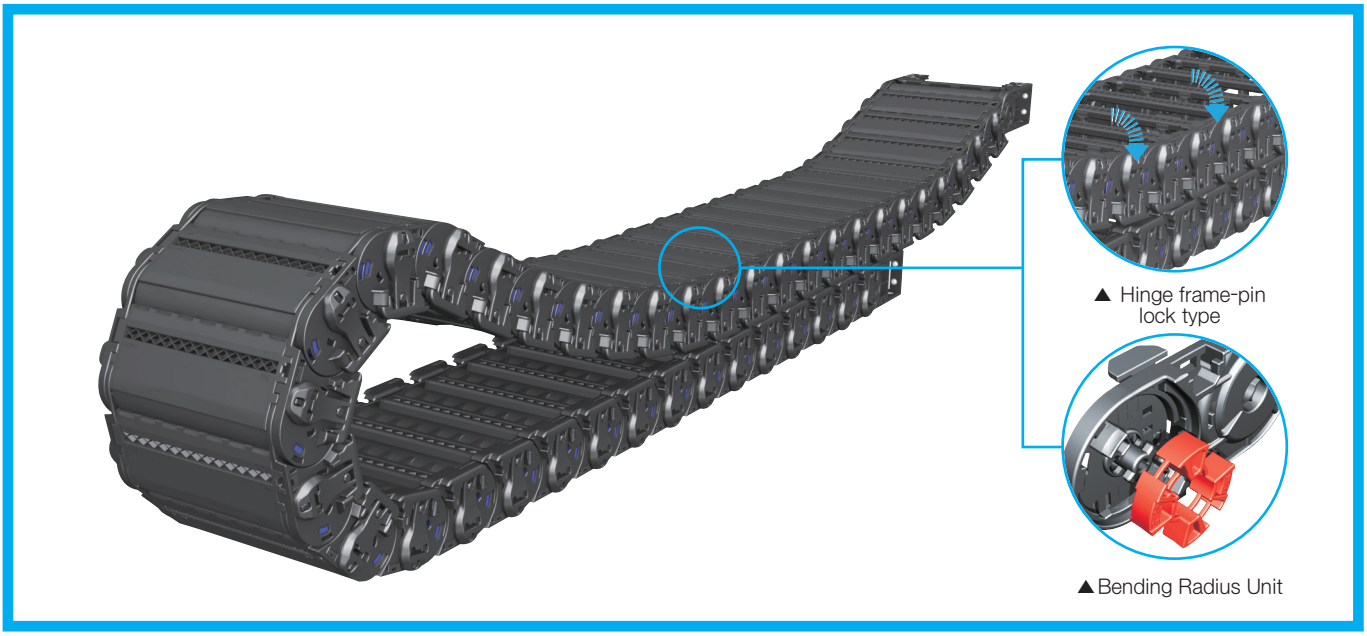


Side Panel



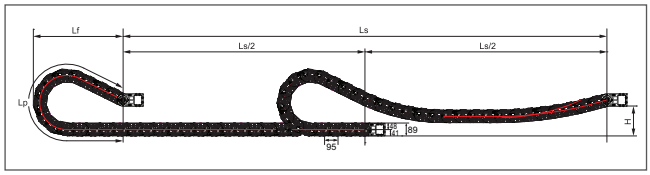
(Dimensions in mm)

ST 095ES



Layout of the chain

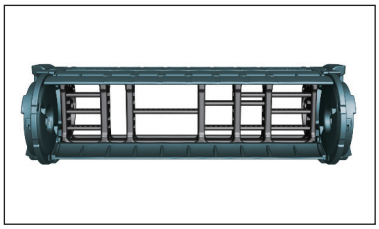
Ls: Stroke

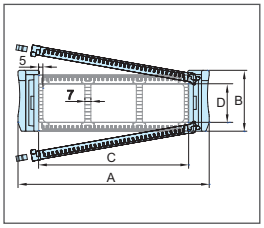


Bending Radius (R)	Lp Loop Length	Lf Loof Projection	H Moving Height
150	1,178	534	210
200	1,479	634	
230	1,666	694	
280	2,146	889	
400	3,232	1,319	

(Dimensions in mm)

Chain cross section

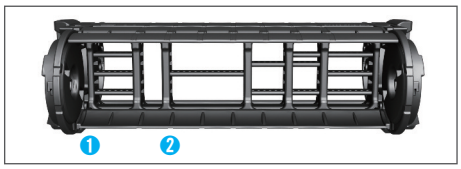


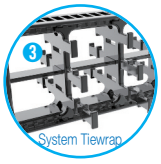


Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	Weight kg/m
ST 095ES	162	89	100	55	4.16
	187		125		4.41
	212		150		4.65
	237		175		4.90
	262		200		5.15

(Dimensions in mm)

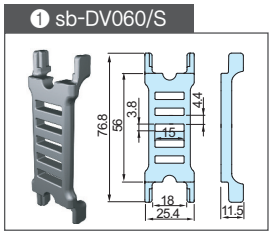
Dividers(DV)



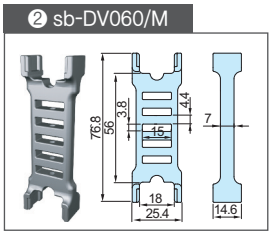


Assemble divider every second frame.
DV.M : Normal Divider.
DV.W : Applicable to System Tie Wrap or FEB.

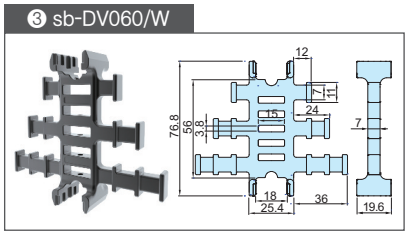
❶ sb-DV060/S



❷ sb-DV060/M

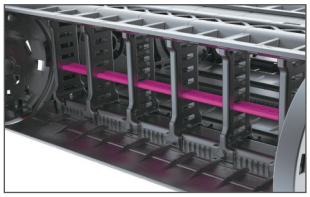


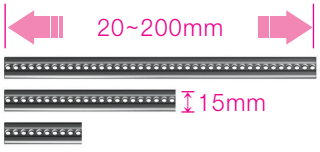
❸ sb-DV060/W



(Dimensions in mm)

Separators(SP)



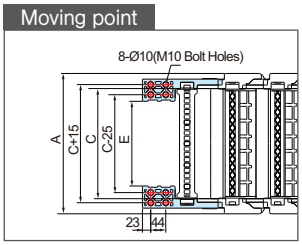


Chain Type	Ordering NO.
ST 095ES	sb-SP/400.400

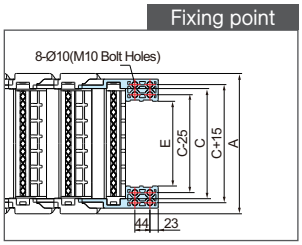
(Dimensions in mm)

Free end bracket

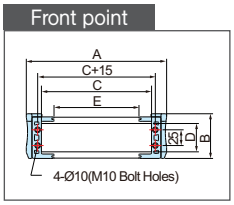
Moving point



Fixing point



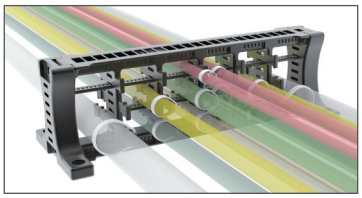
Front point



Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	E M,EB Bolt hole width	Hole Type
ST 095ES	162 187 212 237 262	89	100 125 150 175 200	55	49 74 99 124 149	M10 Bolt Holes

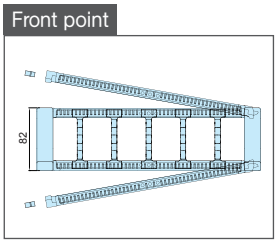
(Dimensions in mm)

System tie wrap (STW)

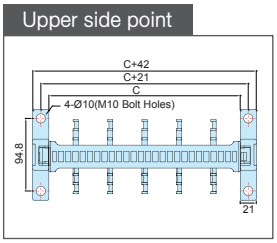


It is a unit to classify each cable for preventing entanglement of cables. It can either be installed to free end bracket or installed separately according its application environment.

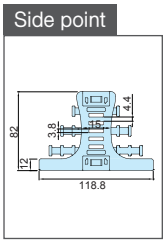
Front point



Upper side point



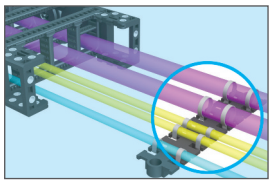
Side point

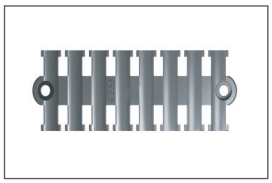


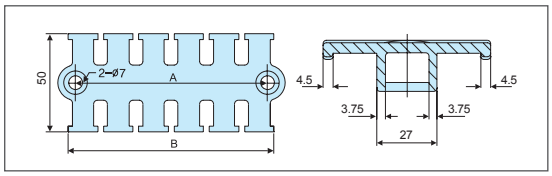
Chain Type	Ordering No.	C Frame	Hole Type
ST 095ES	S-TW,EB060,100 S-TW,EB060,125 S-TW,EB060,150 S-TW,EB060,175 S-TW,EB060,200	100 125 150 175 200	M10 Bolt Holes

(Dimensions in mm)

Tie wrap (TW)





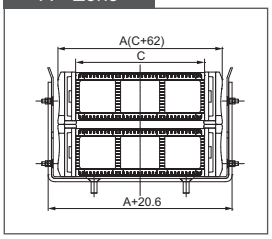


Chain Type	Ordering No.	A	B
ST 095ES	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

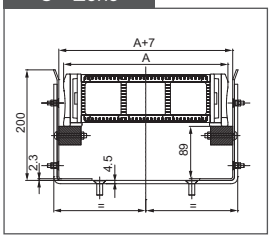
(Dimensions in mm)

Guide channel

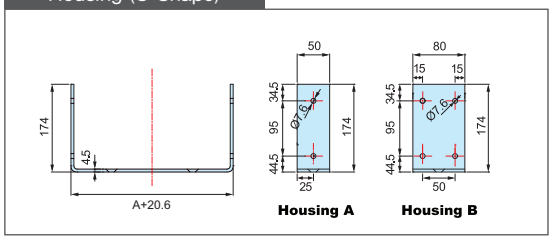
A - Zone



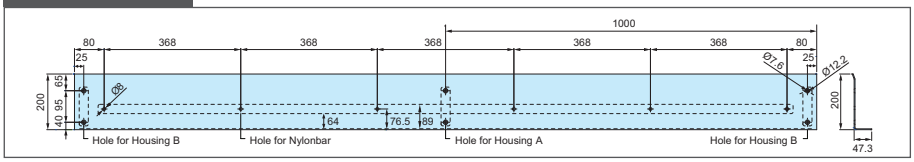
C - Zone



Housing (U-Shape)

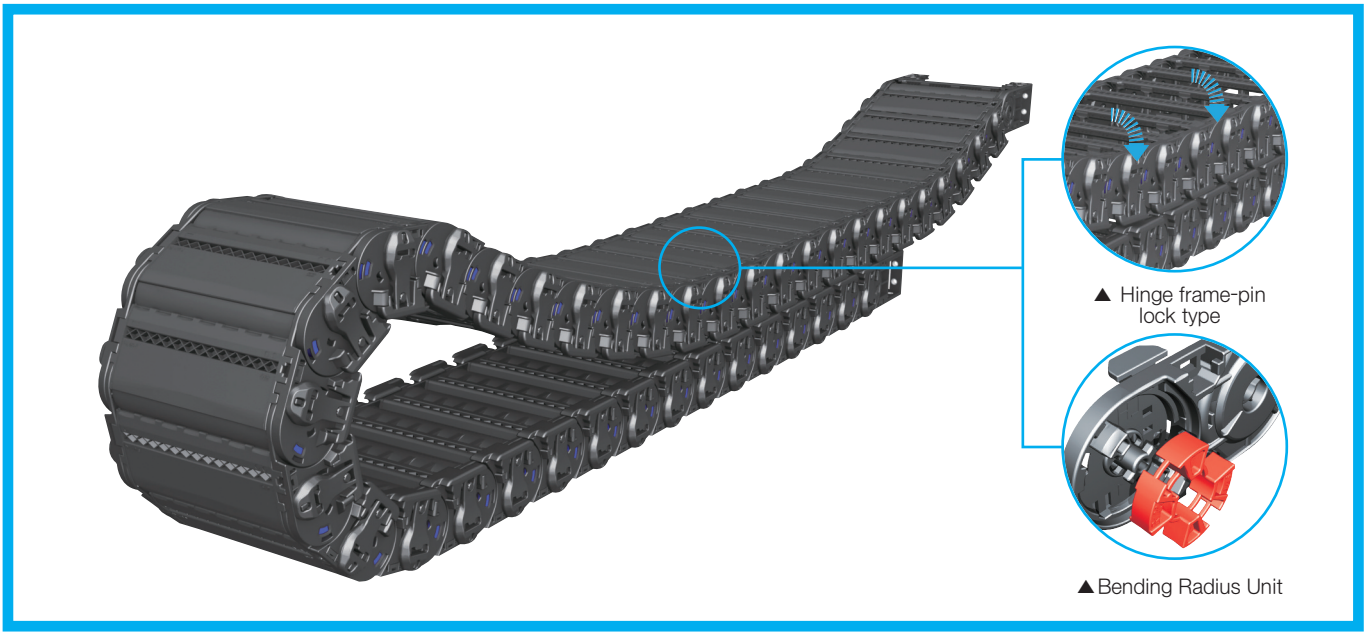


Side Panel



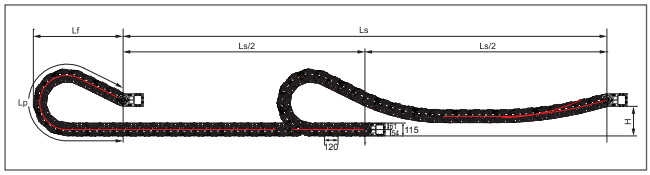
(Dimensions in mm)

ST 120ES



Layout of the chain

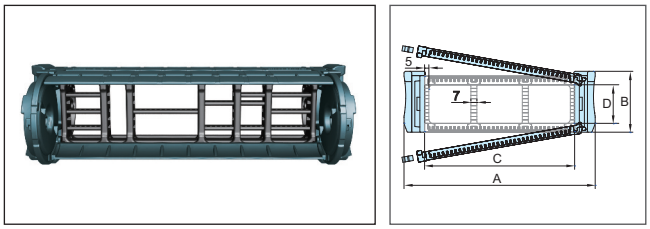
Ls: Stroke



Bending Radius (R)	Lp Loop Length	Lf Loof Projection	H Moving Height
200	1,559	694	260
250	1,864	794	
300	2,178	894	
350	2,701	1,114	
400	3,225	1,334	
500	4,062	1,654	

(Dimensions in mm)

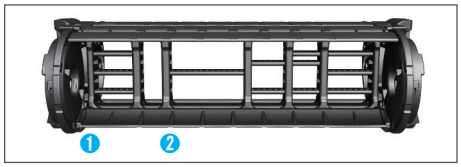
Chain cross section

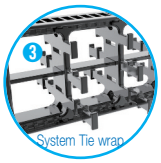


Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	Weight kg/m
ST 120ES	218	115	150	76	6.28
	268		200		6.92
	318		250		7.56
	368		300		8.20

(Dimensions in mm)

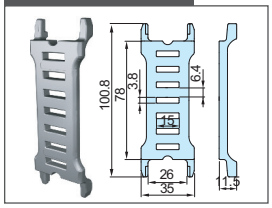
Dividers(DV)



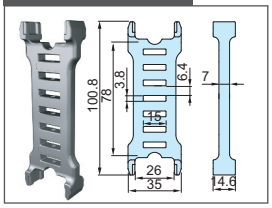


Assemble divider every second frame.
DV.M : Normal Divider.
DV.W : Applicable to System Tie Wrap or FEB.

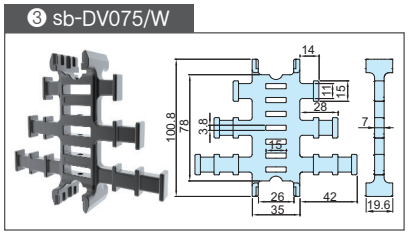
❶ sb-DV075/S



❷ sb-DV075/M

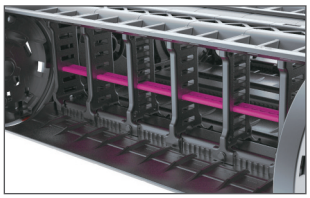


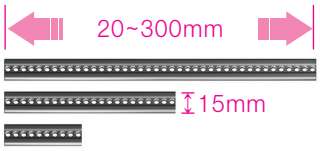
❸ sb-DV075/W



(Dimensions in mm)

Separators(SP)



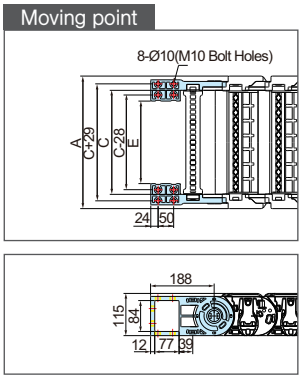


Chain Type	Ordering NO.
ST 120ES	sb-SP/400.400

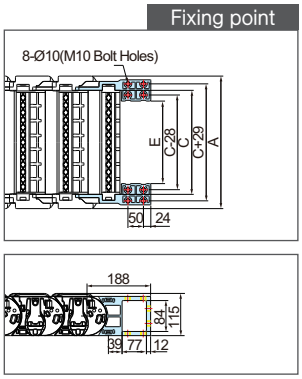
(Dimensions in mm)

Free end bracket

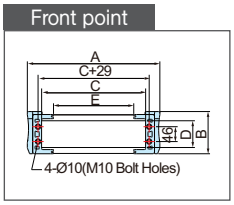
Moving point



Fixing point



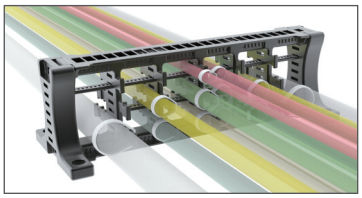
Front point



Chain Type	A Width(Outer)	B Height(Outer)	C Frame	D Height(Inner)	E M,EB Bolt hole width	Hole Type
ST 120ES	218 268 318 368	115	150 200 250 300	76	90 140 190 240	M10 Bolt Holes

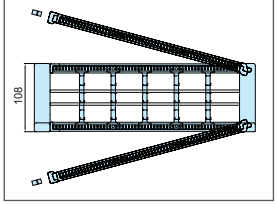
(Dimensions in mm)

System tie wrap (STW)

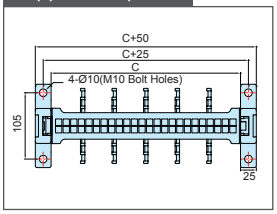


It is a unit to classify each cable for preventing entanglement of cables. It can either be installed to free end bracket or installed separately according its application environment.

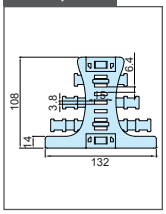
Front point



Upper side point



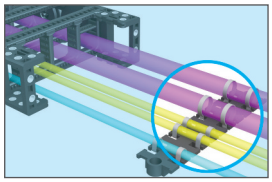
Side point

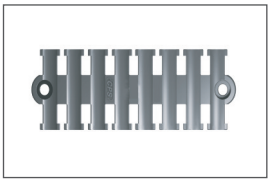


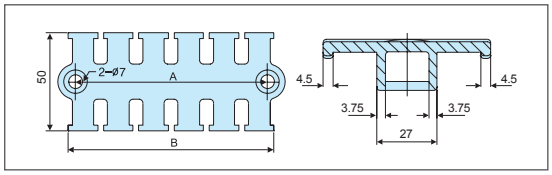
Chain Type	Ordering No.	C Frame	Hole Type
ST 120ES	S-TW,EB075,150 S-TW,EB075,200 S-TW,EB075,250 S-TW,EB075,300	150 200 250 300	M10 Bolt Holes

(Dimensions in mm)

Tie wrap (TW)





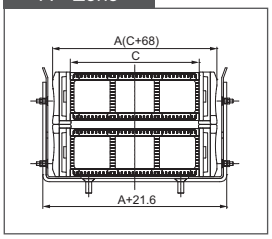


Chain Type	Ordering No.	A	B
ST 120ES	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

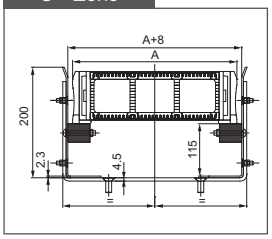
(Dimensions in mm)

Guide channel

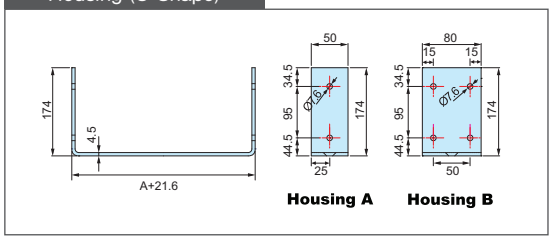
A - Zone



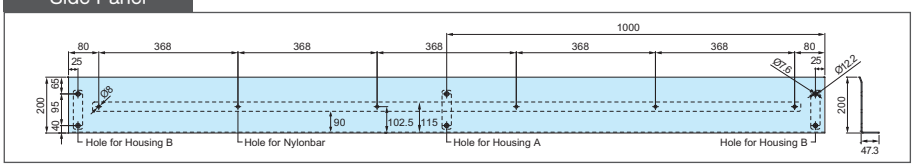
C - Zone



Housing (U-Shape)



Side Panel



(Dimensions in mm)