

Enclosed Skid 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.



ST044ES	090
ST072ES	092
ST095ES	094
ST120ES	096

Enclosed Skid Type



Shift Chain®

General Information

Material	: CPS-Amide (PA6+G.F)
Speed	: 6m/s
Acceleration	: 12m/s²
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

: $L = \frac{1}{2} \times L_s + L_p$

Bending Radius

: Multiply 8~10 of the biggest cable

: Multiply 15~20 of the biggest hose

Dimension Table

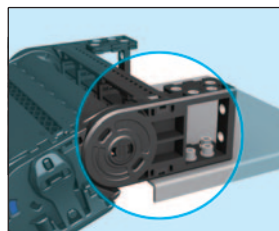
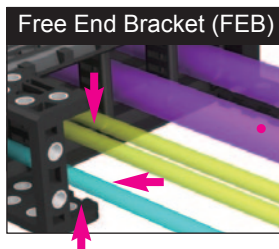
Shift Chain ES Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Temperature ℃	Size				Frame Type	Section- Composition
						A	B	C	D		
ST044ES	44	70, 90, 120, 150	1.18 1.37 1.53 1.74	6	-30 ~ +130	74 94 114 139	38.5	35 55 75 100	26		
ST072ES	72	120, 145, 200, 250, 300	2.77 3.01 3.25 3.49 3.73	6	-30 ~ +130	105 130 155 180 205	71.8	50 75 100 125 150	44		
ST095ES	95	150, 200, 230, 280, 400	4.16 4.41 4.65 4.90 5.15	6	-30 ~ +130	162 187 212 237 262	89	100 125 150 175 200	55		
ST120ES	120	200, 250, 300, 350, 400, 500	6.28 6.92 7.56 8.20	6	-30 ~ +130	218 268 318 368	115	150 200 250 300	76		

Ordering

ST	044ES.	100.	R120	/	F	1540L	:	(DV:2)	
									Quantity of Divider(Link)
									Length(mm)
									Bracket Type : F Free End Bracket FT Tie Wrap FST System Tie Wrap
									Bending radius
									Inside width
									Enclosed Skid Type (ES)
									Shift Chain

Bracket Type

ST044



- ▶ BR should not be inserted in the joint of side band and Free End Bracket of moving bracket.
- ▶ Both Enclosed and normal type of frame can be assembled to M.FEB

Application of Shift Chain Enclosed Skid Type

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



Application: Steel manufacturing line
Location: Korea
Remark: 20 meters of Stroke

Part list of Shift Chain Enclosed Skid Type

Composition of Shift Chain Enclosed Skid Type

= Side band(RH/LH) + Frame(FRU/FRD) + Bending Radius Unit + Free End Bracket

M divider(normal divider) should be applied every second frames to make a section composition.

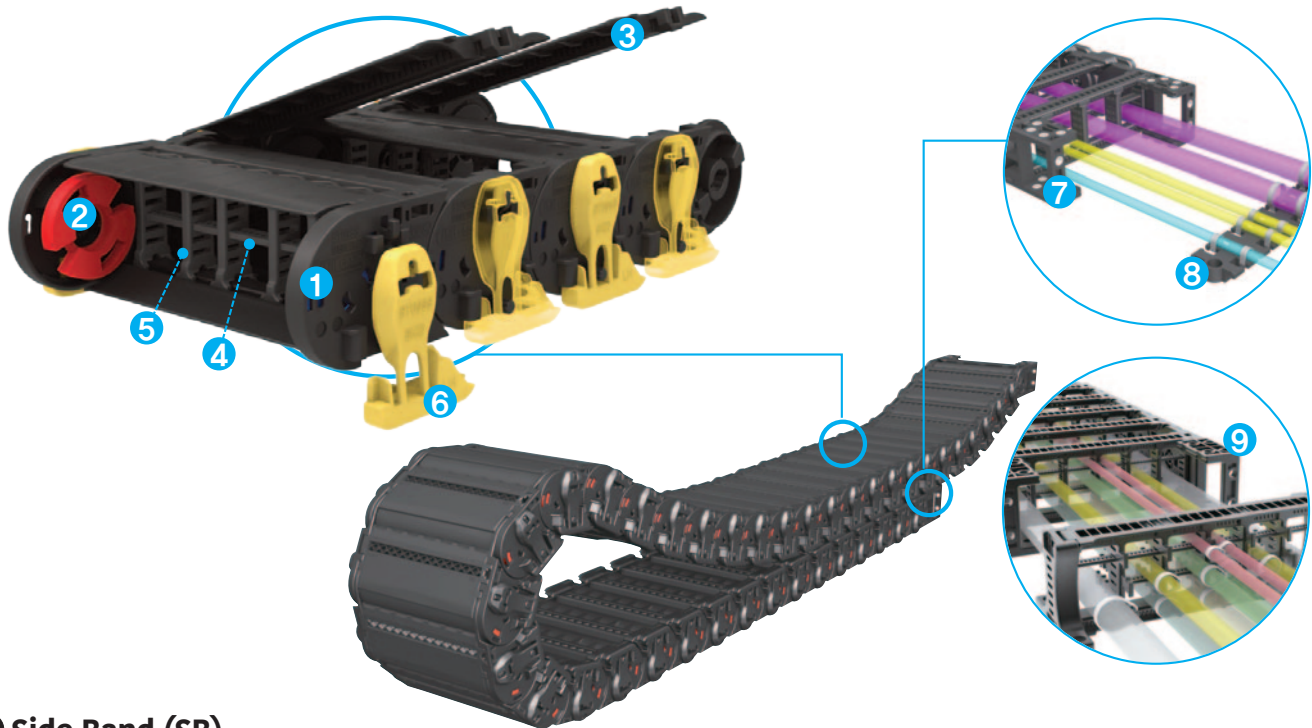
※ Please refer to below part list and description to understand composition of cable chain.

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-FRUFEE044.35,55,75,100 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	Free 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	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
	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
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-FRUFEE072(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	Free 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.Frame SP-PIN045	Separator, 400mm Separator pin to fix
	TIE WRAP	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	Tie wrap for end bracket to fix cables, 50mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
	SYSTEM TIE WRAP	sb-DV045/W S-TW.EB045	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket

Part list of Shift Chain Enclosed Skid Type

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)	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
	FREE END BRACKET	ST-FEB095 sb-FEB/WH060	Free End bracket of ST095E 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.Frame SP-PIN060	Separator, 400mm Separator pin to fix
ST120ES		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 S-TW.EB060	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket
	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)	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
	FREE END BRACKET	ST-FEB120E sb-FEB/WH075	Free 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.Frame SP-PIN075	Separator, 400mm Separator pin to fix
		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 S-TW.EB075	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket

Part of Shift Chain-Enclosed Skid 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 unit that inserted between each side band. There are 6 supporting points to create durability.

❸ FRU, FRD [Applied to Enclosed Type]

FRU, FRD are frames that are assembled to upper and lower of cable chain.

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)

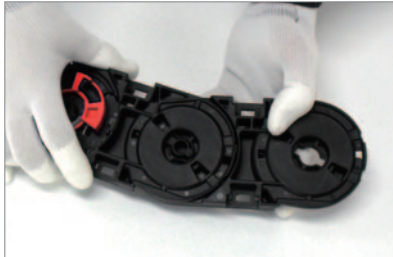
System-Tie Wrap has to be assembled on fixing and moving point of bracket and can be assembled without any tie wrap plate. This tie wrap is used to stay the cables on several floors prevent the cables from being twisted and it can also be assemble without any tools or bolt. This tie wrap has two types, 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. Users must use rubber hammer with careful combination of Divider and Separator. (Disassembly process for repair and replacement is in reverse order)



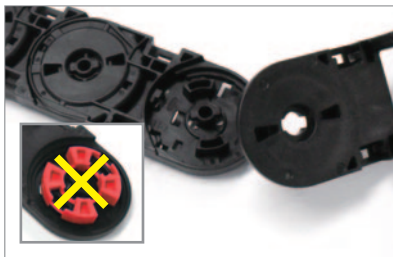
1
Insert BR Unit into each Side Band.
(Side Band is divided into right and left side according to the direction.)



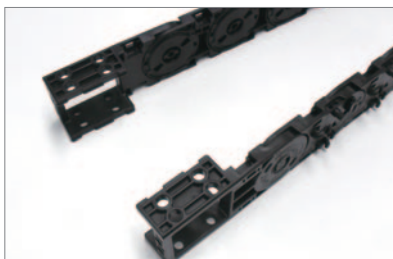
2
Continue to insert BR Unit into Side Band as you want to make it. Assemble Side Band which is inserted BR Unit as above.



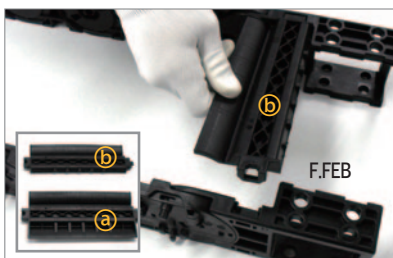
3
Continue to connect each Side Band as long as you want to make it. Connect the Side Band as many as you need.



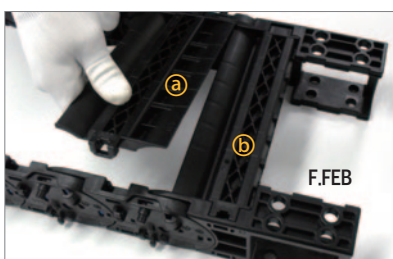
4
Assemble the F.FEB according to the direction of right and left side.
-Do not insert the BR Unit to Side Band connected to F.FEB (Side of F.FEB is not enclosed)



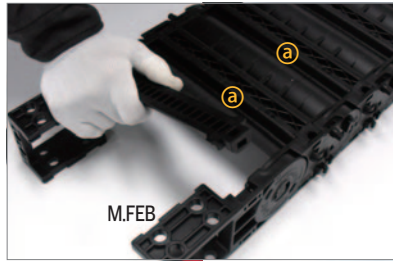
5
Do not insert a BR to M.FEB. (M.FEB will be making a turn to up and down) Assemble the M.FEB according to the direction of right and left side. (Side of M.FEB is not enclosed)



6
Insert one ⑥ Shaped-FRD into F.FEB.
[⑥: Normal FRD ⑦: Built-up only for F.FEB]
-Find one ⑦ shaped-FRD and insert it with the hinge facing RH direction, as above.



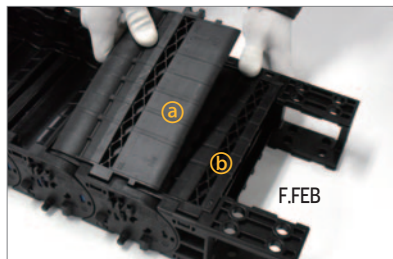
7
Continue to insert the FRD(⑦ -Normal FRD) with the hinge facing RH direction,
-Assemble the from F.FEB to M.FEB in order.



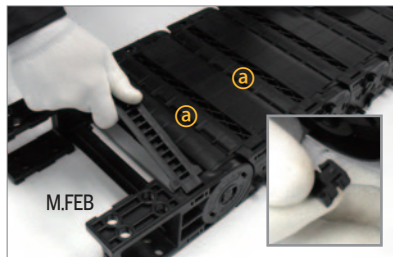
8
Insert the frame as many as you need and insert them one by one with the hinge facing RH direction, as above.
(M.FEB is not turned to up and down when FRD assembling)



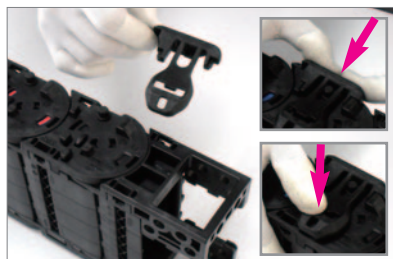
9
Insert the ⑦ shaped-FRD inserted to F.FEB and insert it with the hinge facing RH direction, as above. (⑦: Normal FRD ⑧: Built-up only for F.FEB) Insert the divider with separator to divide the inside of chain.



10
Continue to insert the FRU (⑧: Normal FRU) with the hinge facing RH direction,
-Assemble the from F.FEB to M.FEB in order.



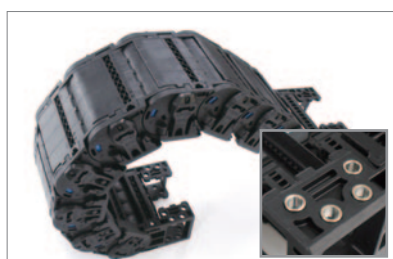
11
Insert ⑧ Normal FRU as many as you need and insert them one by one with the hinge facing RH direction, as above. Insert Frame-pin into the hole which is seen where the end of FRU and Side Band meet. (M.FEB is not turning to up and down) when FRU assembling) Check that FRU and FRD are assembled correctly.



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)

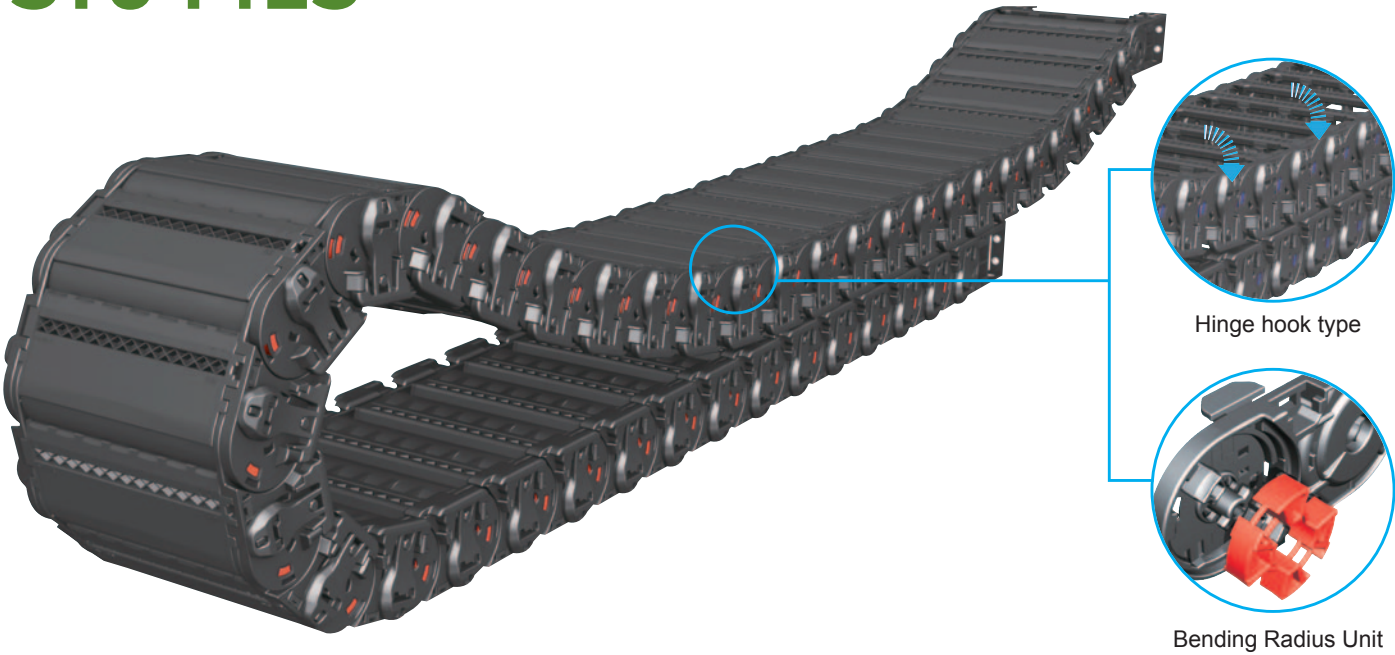


13
Insert the Skid to all Side band in same way. Insert the Skid to opposite side of each Side Band in the same way.



14
Insert steel washers into M.FEB and F.FEB

ST044ES



Caculation of the Chain Length

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

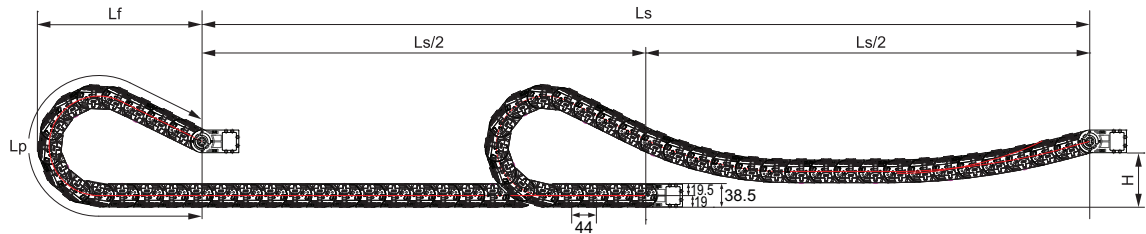
Ordering

ST 044ES. 100. R120/F – 1500L : (DV:2)

Shift Chain	Enclosed Skid Type(ES)	Inside Width	Bending Radius	Bracket Type	Length (mm)	Quantity of Divider (Link)
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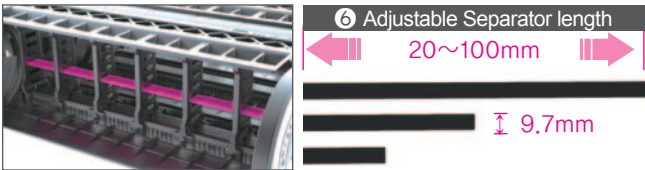
Layout of the Chain

Ls: Stroke Hs: Safe Space

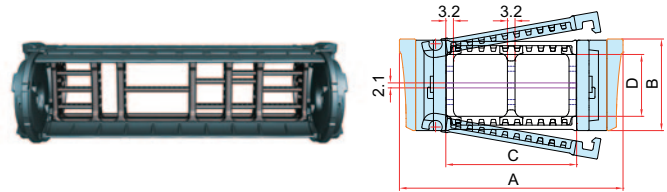


Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
70	544	249	110
90	662	289	
120	926	393	
150	1,190	497	

Separators (SP)



Chain Cross Section

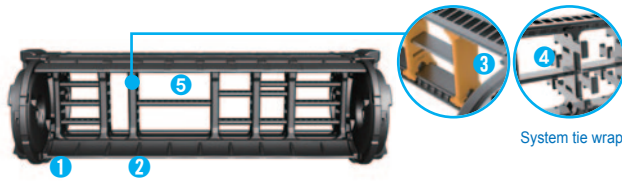


Chain Type	Ordering No.	Frame
ST044ES	S-SP/M.35	35
	S-SP/M.55	55
	S-SP/M.75	75
	S-SP/M.100	100

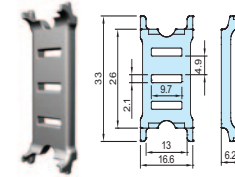
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST044ES	74	38.5	35	26	1.18
	94		55		1.37
	114		75		1.53
	139		100		1.74

Dividers (DV)

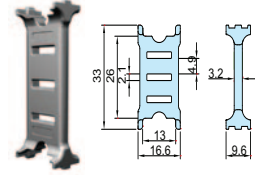
Assemble divider every second frame
DV/M Normal Divider
DV/W
Tie wrap divider for free end bracket(FEB)



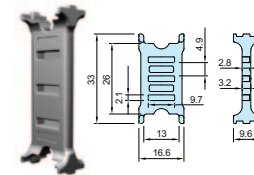
① sb-DV028/S



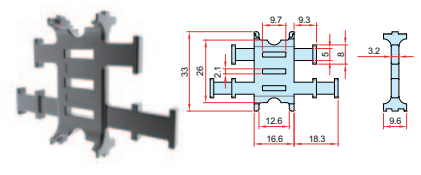
② sb-DV028/M1



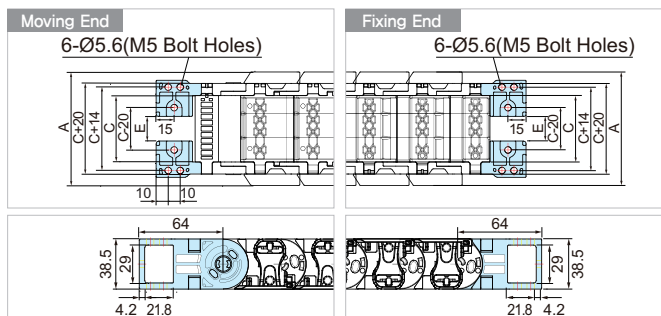
③ sb-DV028/M2



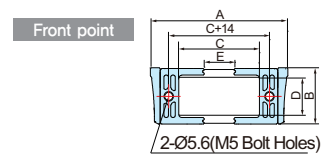
4 sb-DV028/W



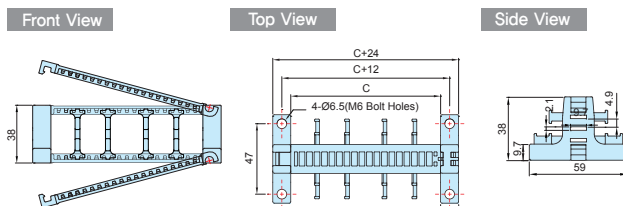
Free End Bracket (FEB)



Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST044ES	74	38.5	35	26	0.4	M5 Bolt Holes
	94		55		20.4	
	114		75		40.4	
	139		100		65.4	

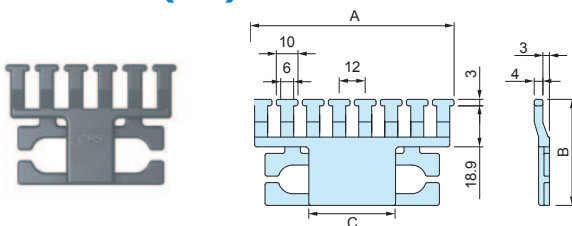


System Tie Wrap (STW)



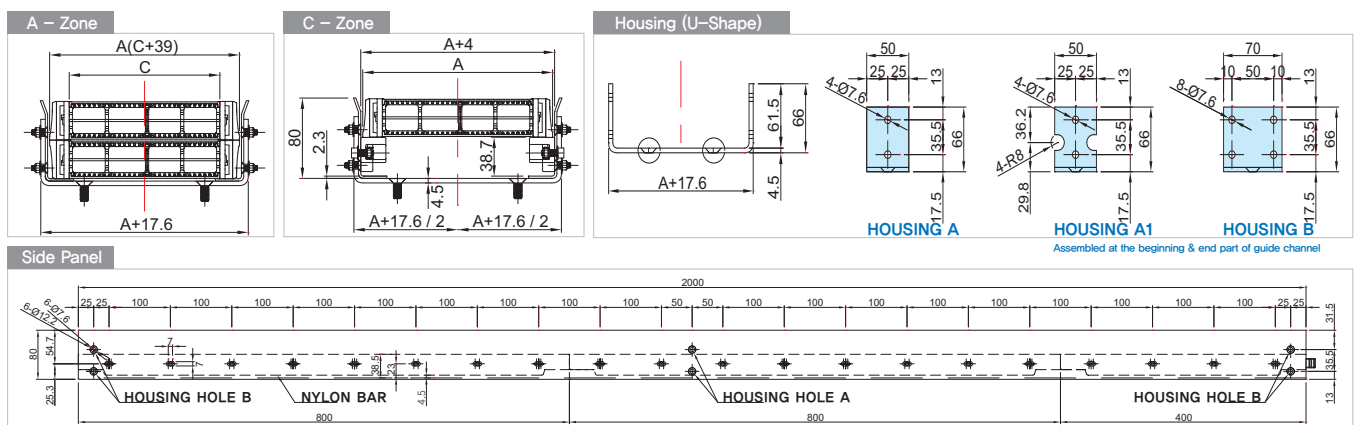
Chain Type	Ordering No.	C Frame	Hole Type
ST044ES	S-TW.EB028.35	35	M6 Bolt Holes
	S-TW.EB028.55	55	
	S-TW.EB028.75	75	
	S-TW.EB028.100	100	

Tie Wrap (TW)

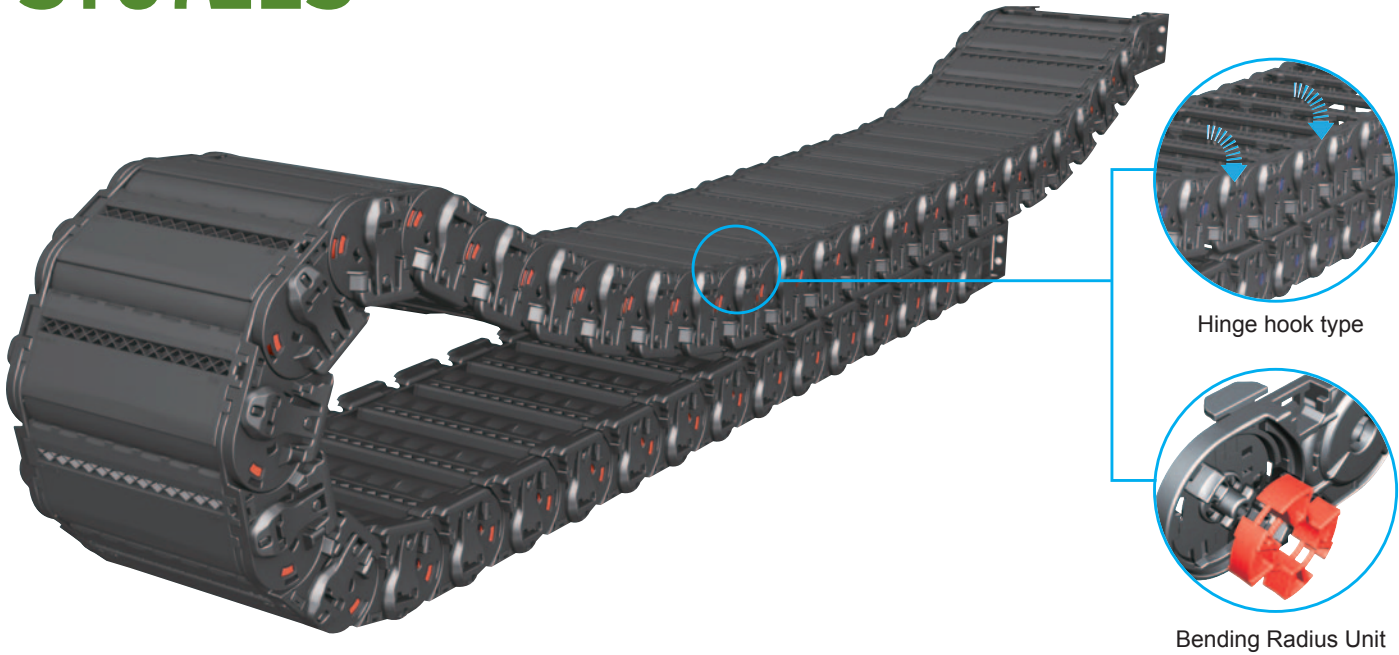


Chain Type	Ordering No.	A	B	C
ST044ES	S-TW036/025CR.35	46	35.4	-
	S-TW036/025CR.55	70	48.9	20
	S-TW036/025CR.75	94	48.9	40
	S-TW036/025CR.100	118	48.9	65

Guide Channel



ST072ES



Caculation of the Chain Length

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

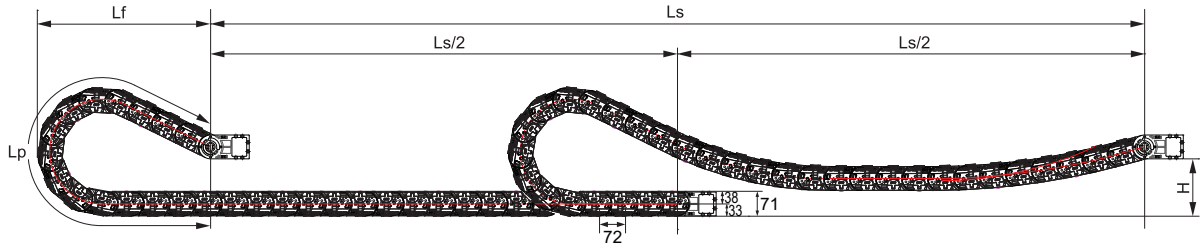
Ordering

ST 072ES. 100. R200/F – 1650L : (DV:2)

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

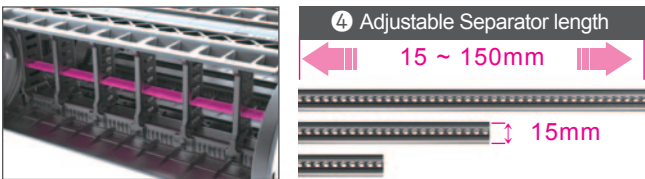
Layout of the Chain

Ls: Stroke Hs: Safe Space

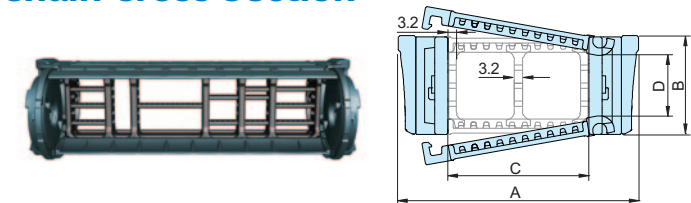


Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
120	917	420	180
145	1,063	470	
200	1,400	580	
250	1,840	752	
300	2,280	924	

Separators (SP)



Chain Cross Section

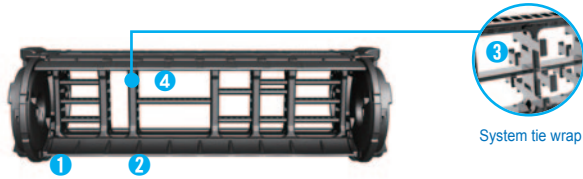


Chain Type	Ordering No.
ST072ES	sb-SP/400.Frame

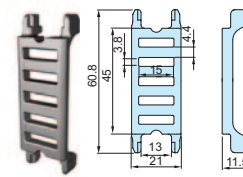
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST072ES	105	71.8	50	44	2.77
	130		75		3.01
	155		100		3.25
	180		125		3.49
	205		150		3.73

Dividers (DV)

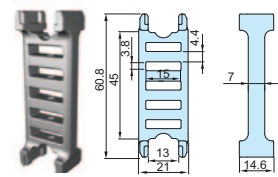
Assemble divider every second frame
 DV/M Normal Divider
 DV/W Tie wrap divider for free end bracket(FEB)



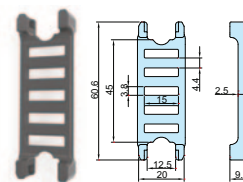
① sb-DV045/S



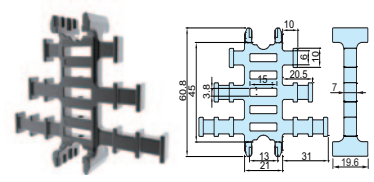
② sb-DV045/M



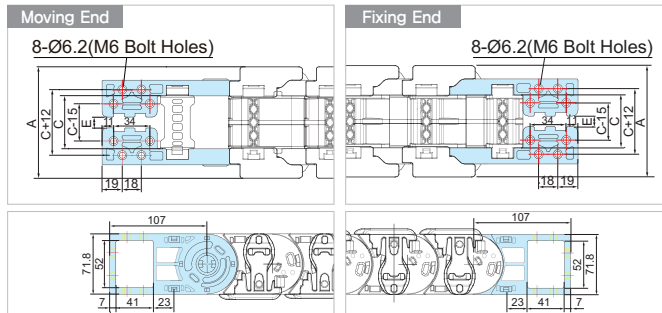
③ sb-DV045/MS



④ sb-DV045/W

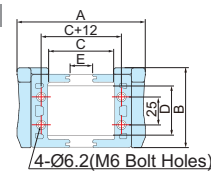


Free End Bracket (FEB)

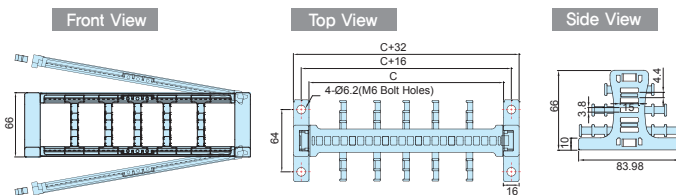


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST072ES	105	71.8	50	44	10	M6 Bolt Holes
	130		75		35	
	155		100		60	
	180		125		85	
	205		150		110	

Front point

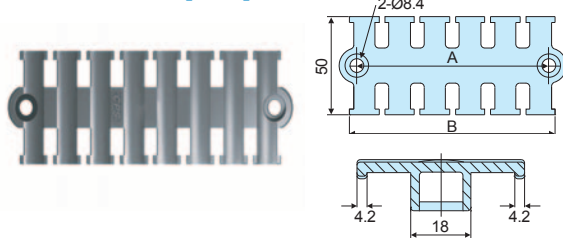


System Tie Wrap (STW)



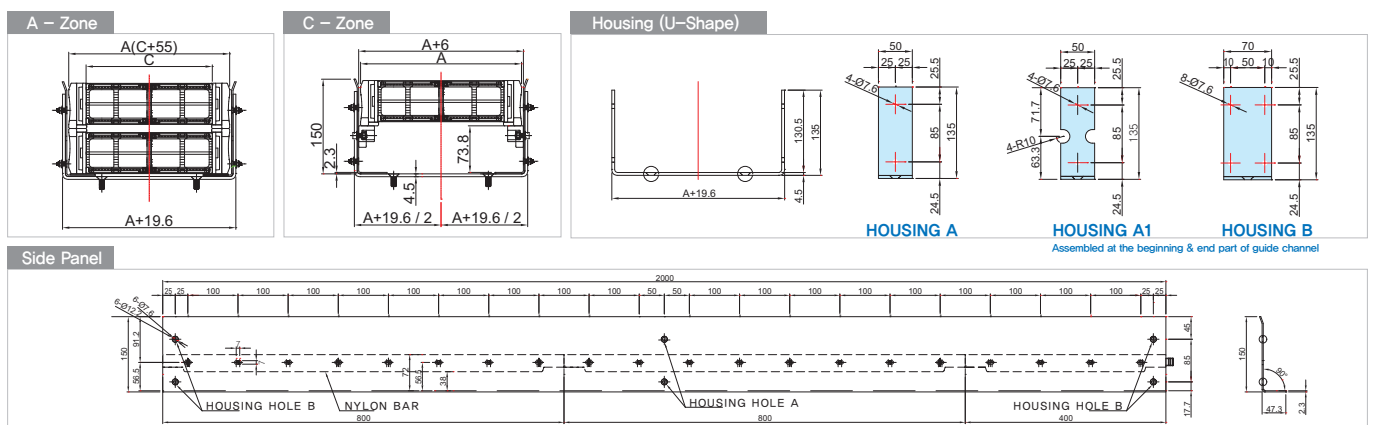
Chain Type	Ordering No.	C Frame	Hole Type
ST072ES	S-TW.EB045.50	50	M6 Bolt Holes
	S-TW.EB045.75	75	
	S-TW.EB045.100	100	
	S-TW.EB045.125	125	
	S-TW.EB045.150	150	

Tie Wrap (TW)

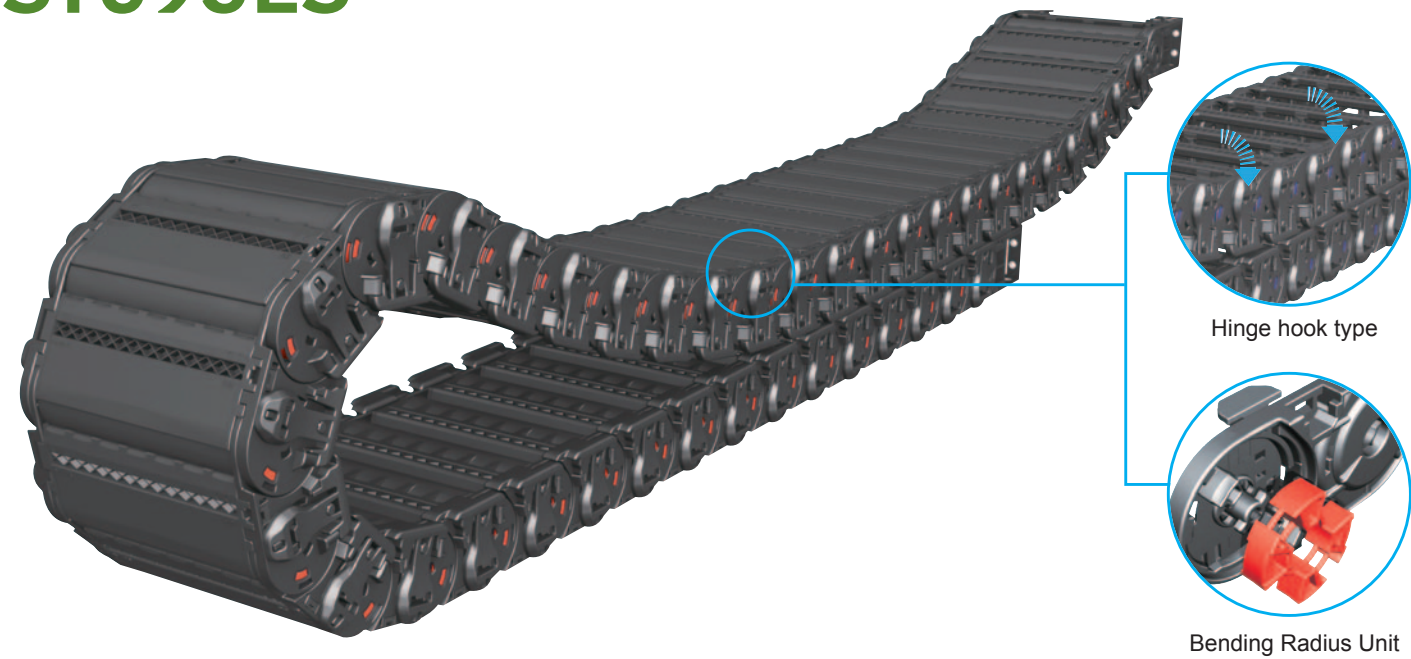


Chain Type	Ordering No.	A	B
ST072ES	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Guide Channel



ST095ES



Caculation of the Chain Length

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

Ordering

ST 095ES. 100. R150/F – 3040L : (DV:2)

Enclosed Skid Type(ES)

Bending Radius

Length (mm)

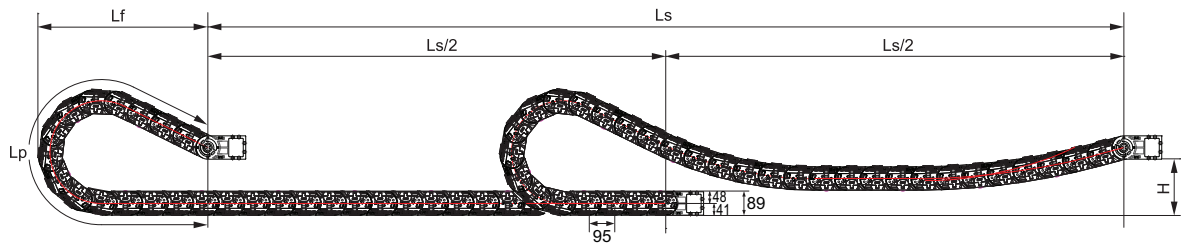
Quantity of Divider (Link)

Shift Chain

Inside Width

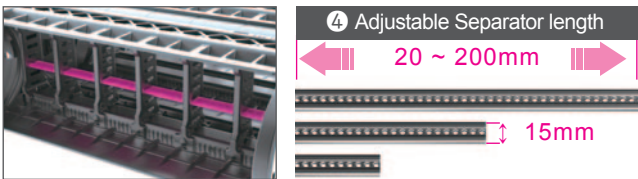
Bracket Type

Layout of the Chain

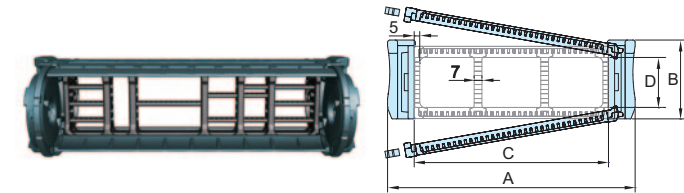


Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
150	1,178	534	210
200	1,479	634	
230	1,666	694	
280	2,146	889	
400	3,232	1,319	

Separators (SP)



Chain Cross Section

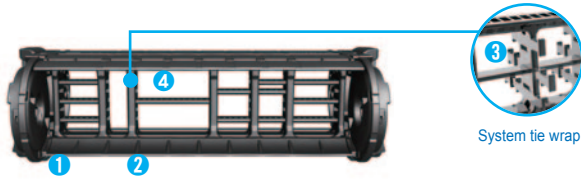


Chain Type	Ordering No.
ST095ES	sb-SP/400.Frame

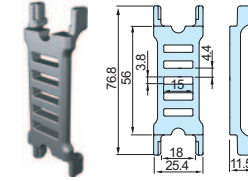
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST095ES	162	89	100	55	4.16
	187		125		4.41
	212		150		4.65
	237		175		4.90
	262		200		5.15

Dividers (DV)

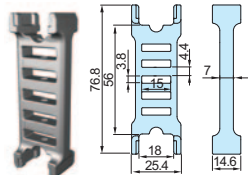
Assemble divider every second frame
 DV/M Normal Divider
 DV/W Tie wrap divider for free end bracket(FEB)



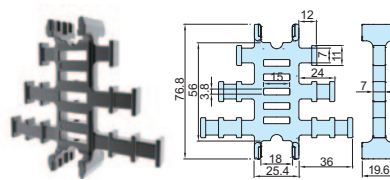
① sb-DV060/S



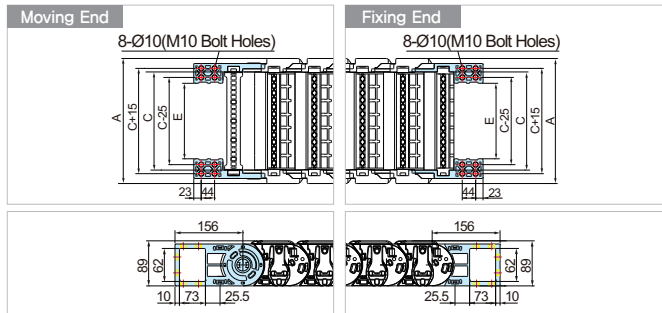
② sb-DV060/M



③ sb-DV060/W

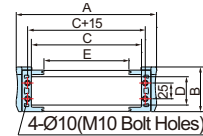


Free End Bracket (FEB)

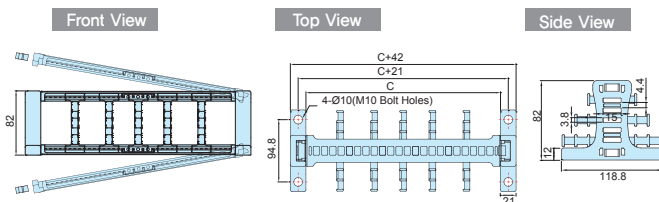


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST095ES	162	89	100	55	49	M10 Bolt Holes
	187		125		74	
	212		150		99	
	237		175		124	
	262		200		149	

Front point

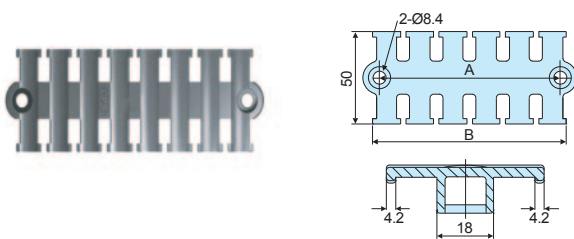


System Tie Wrap (STW)



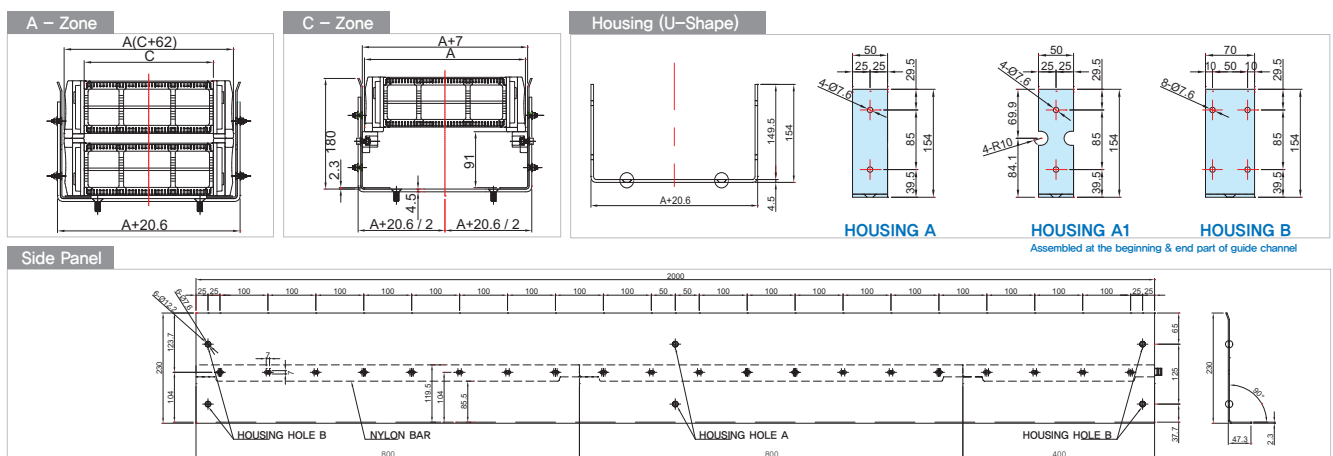
Chain Type	Ordering No.	C Frame	Hole Type
ST095ES	S-TW.EB060.100	100	M10 Bolt Holes
	S-TW.EB060.125	125	
	S-TW.EB060.150	150	
	S-TW.EB060.175	175	
	S-TW.EB060.200	200	

Tie Wrap (TW)

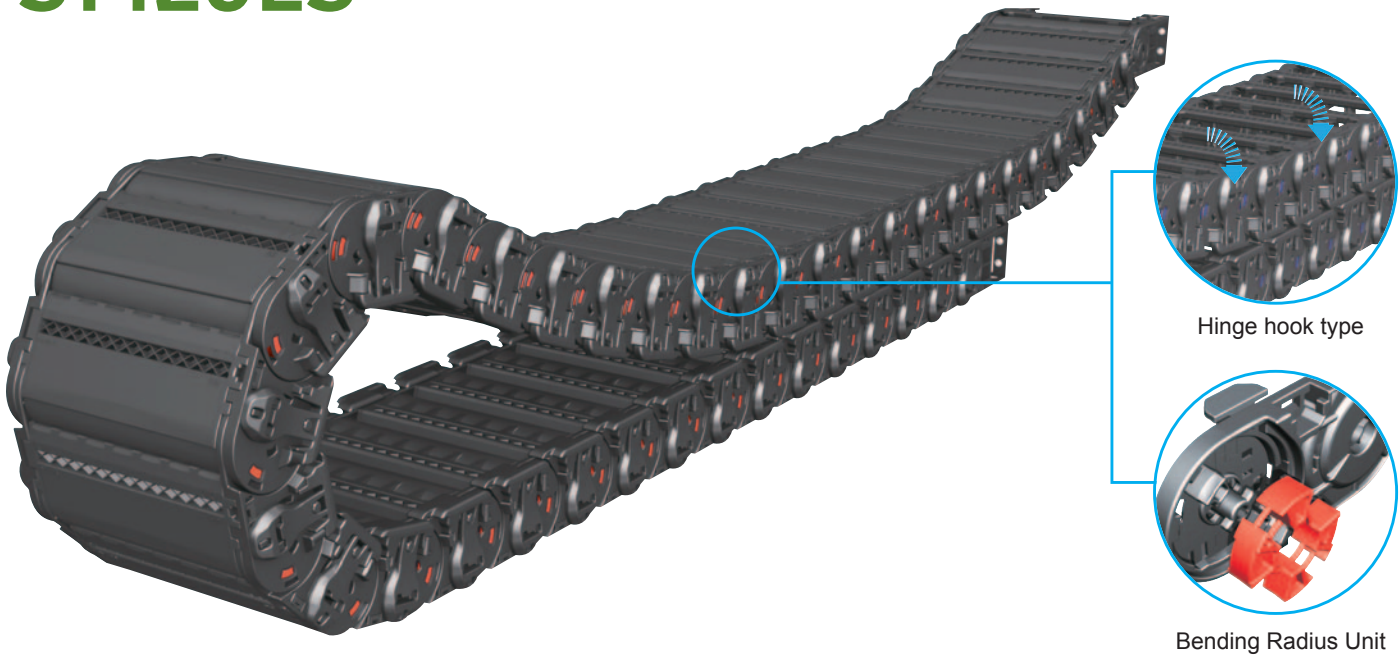


Chain Type	Ordering No.	A	B
ST095ES	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Guide Channel



ST120ES



Caculation of the Chain Length

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

Ordering

ST 120ES. 100. R200/F – 3840L : (DV:2)

Enclosed Skid Type(ES)

Shift Chain

Bending Radius

Inside Width

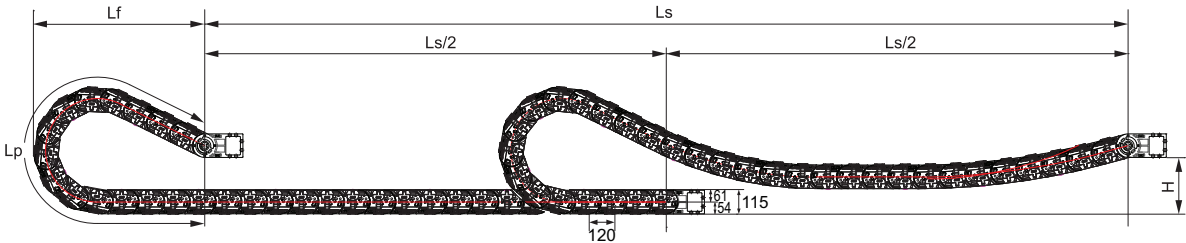
Bracket Type

Length (mm)

Quantity of Divider (Link)

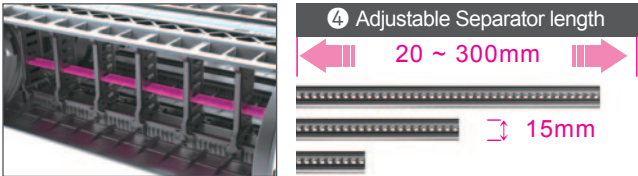
Layout of the Chain

Ls: Stroke Hs: Safe Space

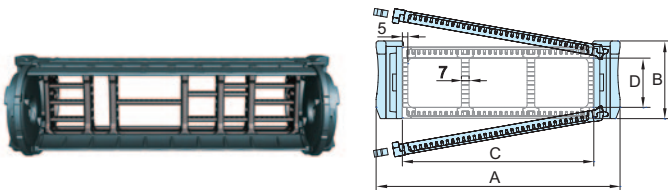


Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
200	1,559	694	260
250	1,864	794	
300	2,178	894	
350	2,701	1,114	
400	3,225	1,334	
500	4,062	1,654	

Separators (SP)



Chain Cross Section

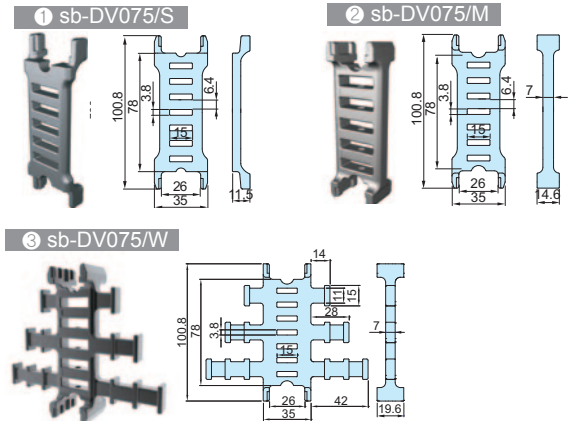
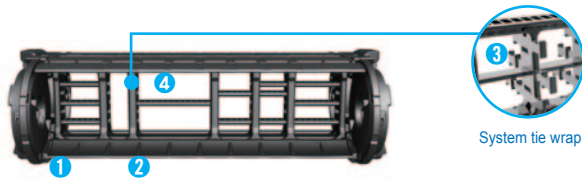


Chain Type	Ordering No.
ST120ES	sb-SP/400.Frame

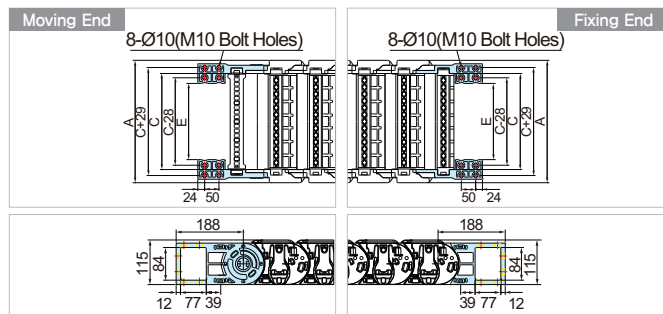
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST120ES	218	115	150	76	6.28
	268		200		6.92
	318		250		7.56
	368		300		8.20

Dividers (DV)

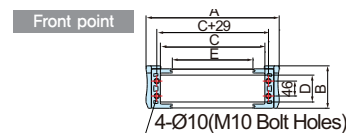
Assemble divider every second frame
DV/M Normal Divider
DV/W
 Tie wrap divider for free end bracket(FEB)



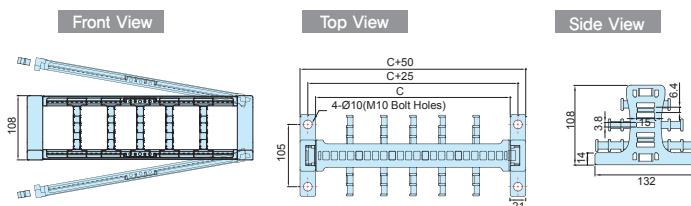
Free End Bracket (FEB)



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

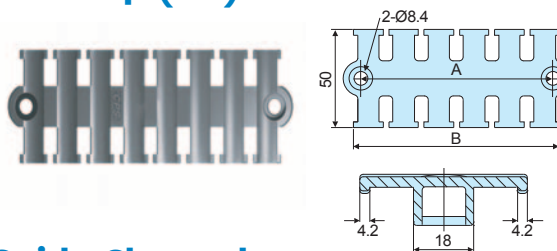


System Tie Wrap (STW)



Chain Type	Ordering No.	C Frame	Hole Type
ST120ES	S-TW.EB075.150	150	M10 Bolt Holes
	S-TW.EB075.200	200	
	S-TW.EB075.250	250	
	S-TW.EB075.300	300	

Tie Wrap (TW)



Chain Type	Ordering No.	A	B
ST120ES	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Guide Channel

