



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

Shift Chain®

Skid Type

ST - S
Skid Type
- ST044S

General Information

Material	CPS-Amide(PA6+G.F)
Speed	6 ^m /s
Acceleration	12 ^m /s ²
Temperature	-30°C ~ +130°C
Special production	ESD, UV
Certificate	CE, ATEX(Ex), RoHs2

Calculation Table

Length of Cable Chair	$L = \frac{1}{2} \times LS + LP$
Bending Radius	Multiply 8~10 of the biggest cable
	Multiply 15~20 of the biggest hose

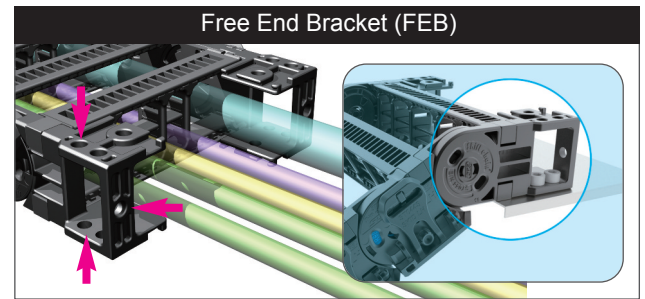
Shift Chain-Skid Type

Dimension Table

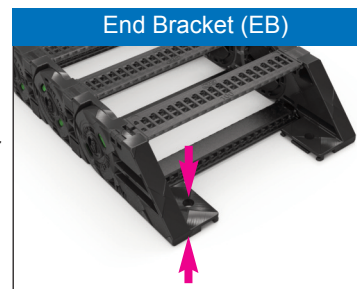
Shift Chain S Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Tempera- ture	Size				Frame type	Section Composition	
						A	B	C	D			
ST044S	44	70, 90, 120, 150	6	-30 ~ +130	74	35	26	26	26	26	26	26
					89	50						
					94	55						
					114	75						
					139	100						
					164	125						
					189	150						
					214	175						
					239	200						

Bracket Type

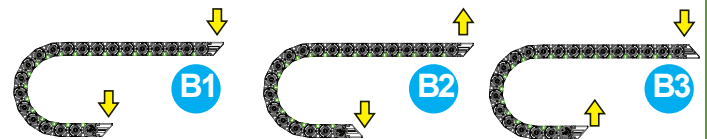
ST044



ST044S

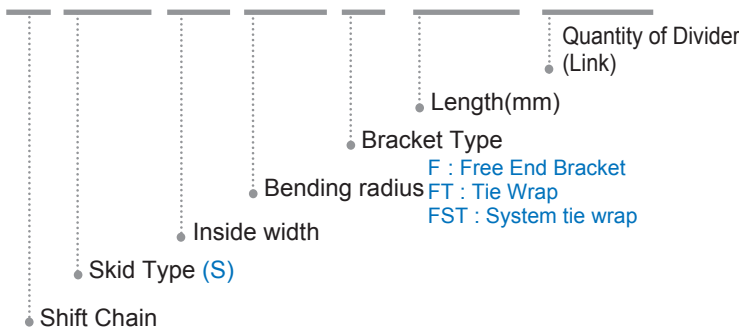


There are 2 different types of bracket that can be applied according to environment.



Ordering

ST 044S. 100. R120 / F - 1500L : (DV:2)



Part list of Shift Chain-Skid Type

Composition of Shift Chain Skid Type

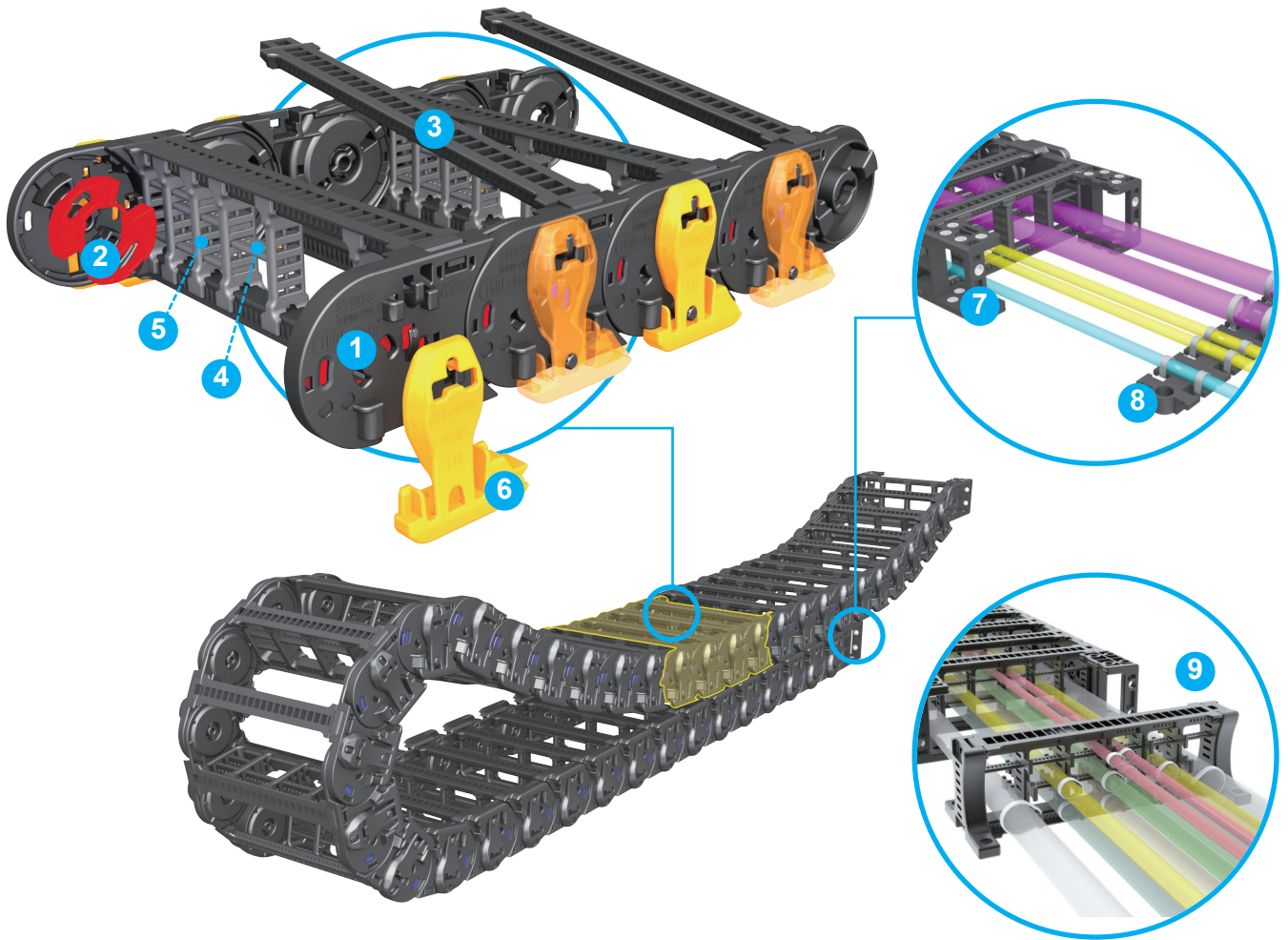
= Side band(RH/LH) + Frame + Bending Radius Unit + Skid + Free end bracket

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
ST044S	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 FRAME(UP)	sb-FR/M.35 sb-FR/M.50 sb-FR/M.55 sb-FR/M.75 sb-FR/M.100 sb-FR/M.125 sb-FR/M.150 sb-FR/M.175 sb-FR/M.200	Frame, 35mm Frame, 50mm Frame, 55mm Frame, 75mm Frame, 100mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 200mm
	FREE END BRACKET	ST-FEB044S	Free End bracket, End bracket(B1, B2, B3) of ST044S
	DIVIDER	sb-DV028/M sb-DV028/S	Normal divider To fix separators at the both side section
	SEPARATOR	S-SP/M.35 S-SP/M.50 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150 S-SP/M.175 S-SP/M.200	Separator, 35mm Separator, 50mm Separator, 75mm Separator, 100mm Separator, 125mm Separator, 150mm Separator, 175mm Separator, 200mm
	TIE WRAP	S-TW036/025CR.35 S-TW036/025CR.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

Shift Chain-Skid Type



Part of Shift Chain-Skid Type

1 Side Band (SB)

A unit that connects each side band and between them BR is inserted to strengthen clamping force.

2 Bending Radius Unit (BR)

A unit that inserted between each side band. There are 6 supporting points to create durability.

3 Frame (Hinged Type) (FR)

Hinged-type frame, open one side, supports connection of both side of side band and have tongue and groove system plate to secure the position of the divider on the frame.

4 Separator (SP)

A unit that divides inserted cables vertically to prevent twisting and breaking problem.

5 Divider (DV-S, M, R, T)

A unit that divides inserted cables horizontally.

6 Skid

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

7 Free End Bracket (FEB)

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

8 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.

9 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.

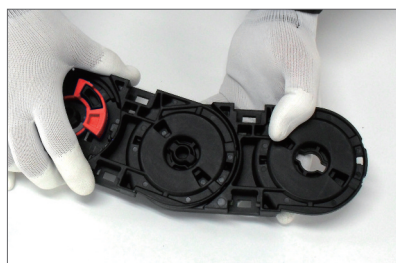
Assembly procedure of Shift Chain Skid-Type

Assembly procedure of Shift chain S-type is as follows. Users must use rubber hammer with careful combination of Divider and Separator. (Disassembly process for repair and replacement are 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.



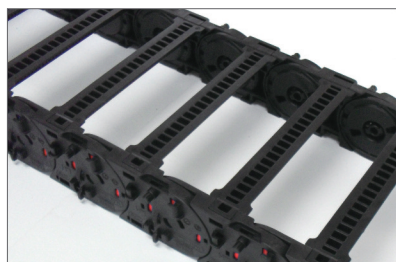
3

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



4

Connect right and left link with specified frame.
(Put Hinge Type frame in the hole of Side Band)



5

Insert frame pin onto connected each Frame and side of Side Band to be made tightly. (To divide inner room, insert divider which is connected with separator.



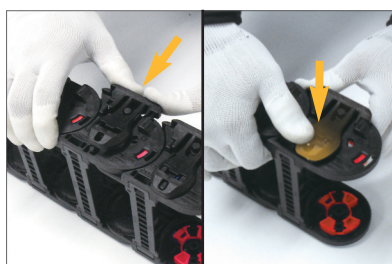
6

Assemble opposite frame as same procedure.



7

Insert Skid to the protruding side of Side Band.



8

When inserting a Skid, push tightly to the home of Side Band until you hear "click"(Skid is divided each direction like right and left.)



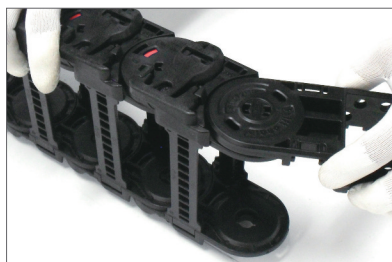
9

Assemble the Skid on the entire connected Side Band as same way.



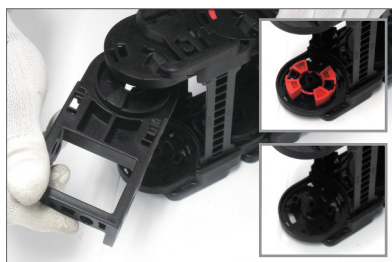
10

Assemble the Skid on the entire connected opposite side as well. Do not insert a BR Unit to M.FEB. (M.FEB will be making a turn to up and down)



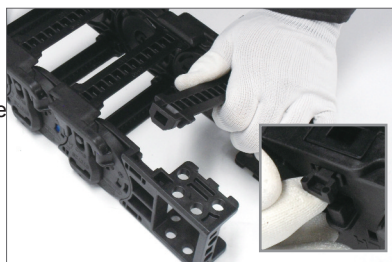
11

Assemble M.FEB to be corrective each direction such as right and left.



12

Assemble F.FEB to be suitable each direction such as right and left. (Do not insert a BR Unit for the Side Band which is connected with F.FEB)



13

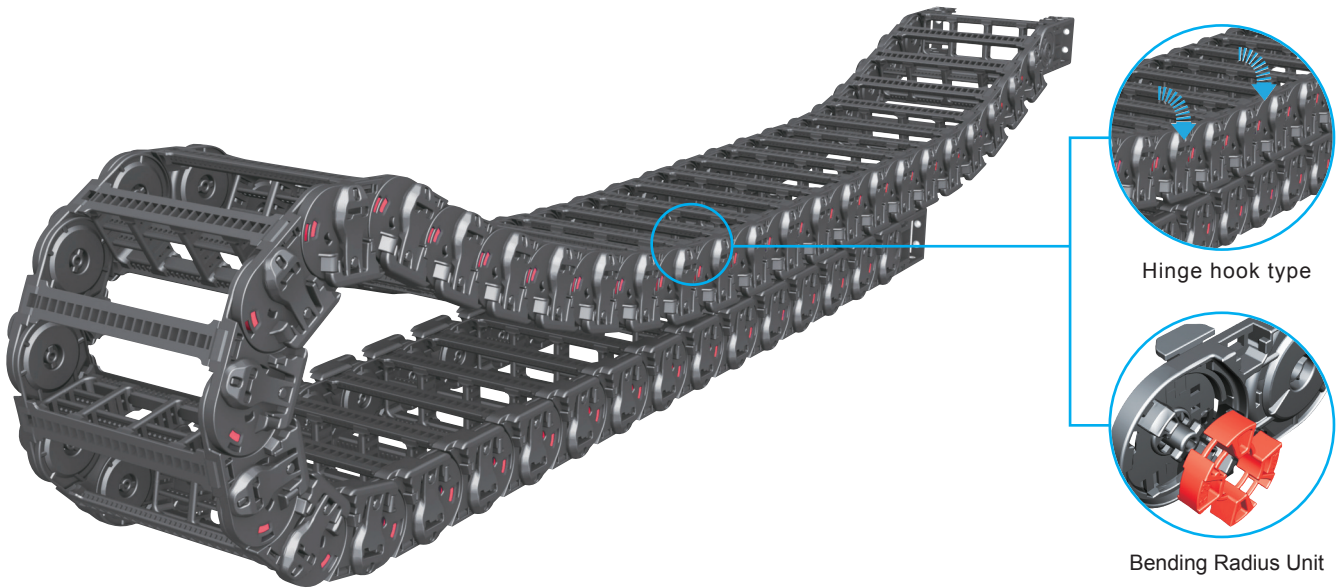
Assemble a specified frame in M.FEB and F.FEB. (Hinge is inserted into RH direction of FEB) Insert Frame pin into connected frame and side of FEB.



14

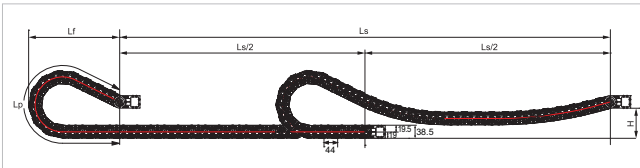
Insert steel washers into FEB according to fixing direction.

ST044S



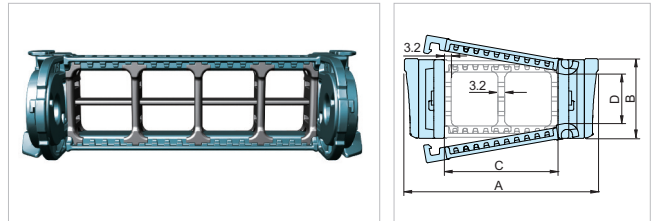
Layout of the Chain

Ls: Stroke



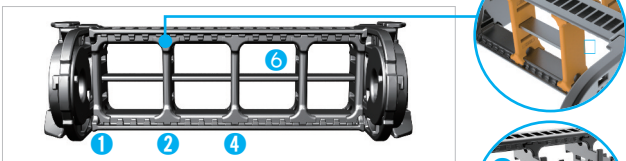
Bending Radius (R)	Lp Loop Length	Lf Loof Projection	H Moving Height
70	544	249	110
90	662	289	
120	926	393	
150	1,190	497	

Chain Cross Section



Chain Type	A Width(Outer)	B Height(Outer)	C Frame Width(Inner)	D Height(Inner)	Weight kg/m
ST044S	74	38.5	35	26	1.03
	89		50		1.08
	94		55		1.10
	114		75		1.17
	139		100		1.26
	164		125		1.40
	189		150		1.52
	214		175		1.81
239	200	1.98			

Dividers(DV)



Assemble divider every second frame
 DV/T : Applied to Frame 125~200
 DV/M : Normal Divider
 DV/W : Applicable to System Tie Wrap or FEB

1 sb-DV028/S

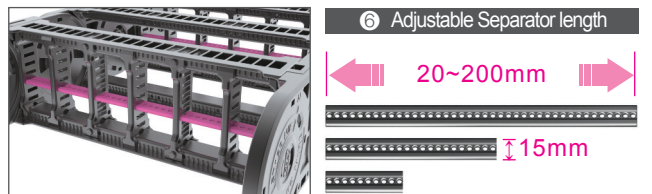
2 sb-DV028/M1

3 sb-DV028/M2

4 sb-DV028/T

5 sb-DV028/W

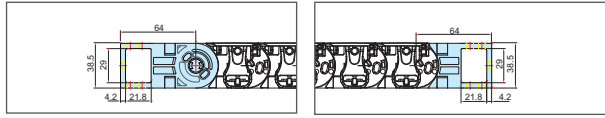
Separators (SP)



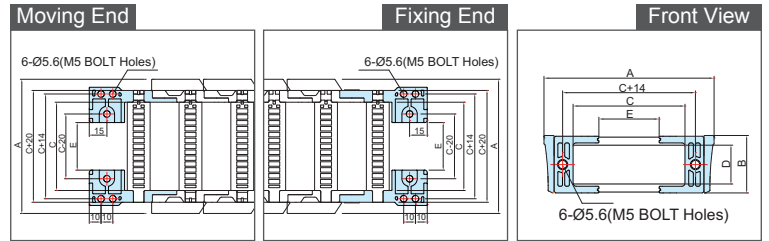
Chain Type	Ordering No.	Frame
ST044S	S-SP/M.35	35
	S-SP/M.50	50
	S-SP/M.55	55
	S-SP/M.75	75
	S-SP/M.100	100
	S-SP/M.125	125
	S-SP/M.150	150
	S-SP/M.175	175
S-SP/M.200	200	

Shift Chain-Skid Type

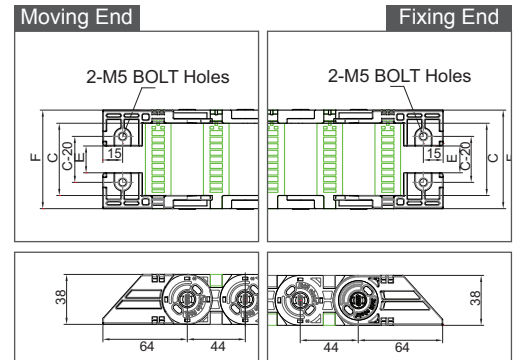
Free End Bracket(FEB)



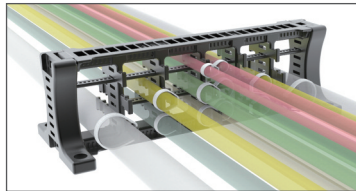
Chain Type	A Width(Outer)	B Height (Outer)	C Frame Width(Inner)	D Height (Inner)	E M.EB Bolt Holes Width	Hole Type
ST044S	74	38.5	35	26	0.4	M5 Bolt Holes
	89		50		15.4	
	94		55		20.4	
	114		75		40.4	
	139		100		65.4	
	164		125		90.4	
	189		150		115.4	
	214		175		140.4	
239	200	165.4				



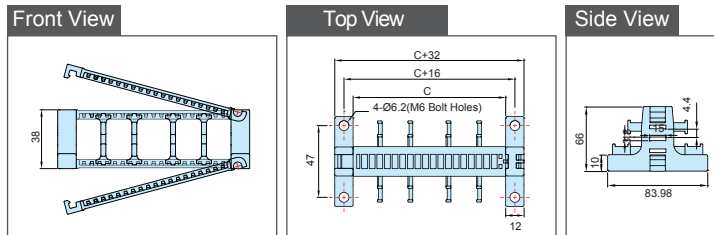
End Bracket(EB)



System Tie Wrap (STW)

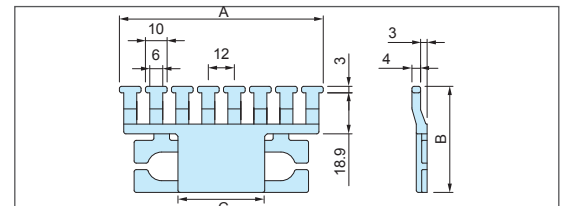
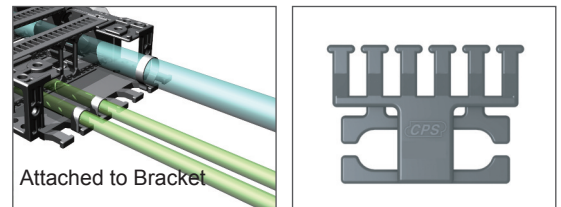


It is a unit to classify each cable for preventing entanglement of cables. It can either be installed to free end bracket or installed separately according to its application environment.



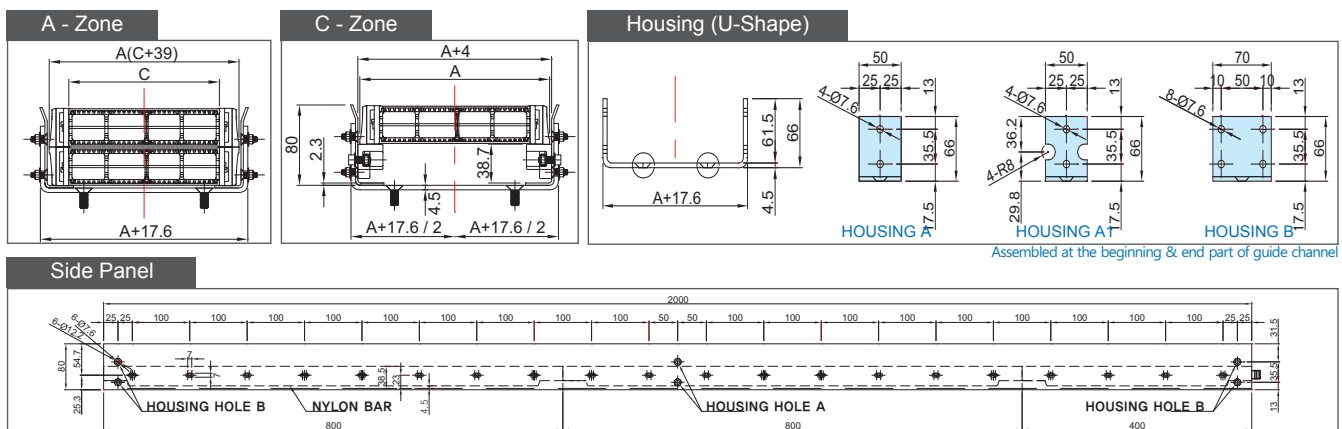
Chain Type	Ordering No.	C Frame	Hole Type
ST044S	S-TW.EB028.35	35	M6 Bolt Holes
	S-TW.EB028.50	50	
	S-TW.EB028.55	55	
	S-TW.EB028.75	75	
	S-TW.EB028.100	100	
	S-TW.EB028.125	125	
	S-TW.EB028.150	150	
	S-TW.EB028.175	175	
S-TW.EB028.200	200		

Tie Wrap (TW)



Chain Type	Ordering No.	A	B	C
ST044S	S-TW036/025CR.35	46	35.4	-
	S-TW036/025CR.50	69	48.9	15
	S-TW036/025CR.55	70	48.9	20
	S-TW036/025CR.75	94	48.9	40
	S-TW036/025CR.100	118	48.9	65
	S-TW036/025CR.125	142	48.9	90

Guide Channel



* Dimensions in mm