

Product Application ST Enclosed Type



Roller Skid Type



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.



ST044RS	104
ST072RS	106
ST095RS	108
ST120RS	110
ST150RS	112

Roller Skid Type

General Information

- Material** : CPS-Amide (PA6+G.F)
- Speed** : 6⁰⁰/₁₀₀
- Acceleration** : 12⁰⁰/₁₀₀₀
- 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

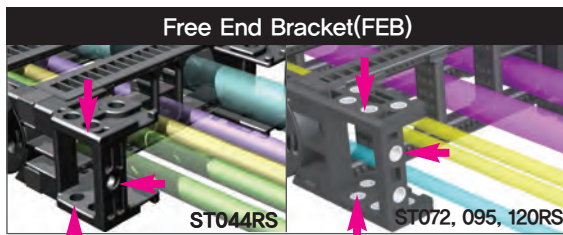
$$: L = \frac{1}{2} \times L_s + L_p$$

Bending Radius

- : Multiply 8~10 of the biggest cable
- : Multiply 15~20 of the biggest hose

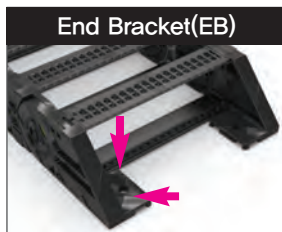
Bracket Type

ST044, ST072, ST095, ST120

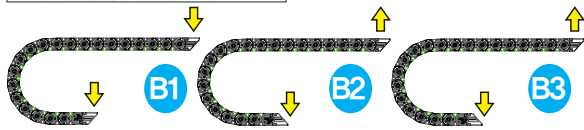


BR should not be inserted in the joint of last side band and Free End Bracket.

ST044



ST044N/ST055N use both FEB and EB type of bracket; there are B1, B2 and B3 like the left image.

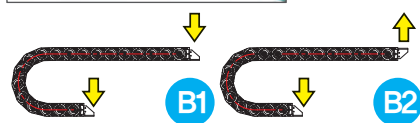


ST072, 095, 120, 150



For ST150RS, its end parts of cable chain being fixed are used with steel bracket, and it is possible to be installed B1, B2 types of brackets.

In case of applying 'RS Type', BR should not be inserted into the side band which is in combination with SEB.



Dimension Table

Shift Chain RS Type	Pitch	Bending Radius (R)	Weight kg/m	Speed m/s	Temperature °C	Size				Frame Type	Section-Composition
						A	B	C	D		
ST044RS	44	70 90 120 150	1.09	6	-30 ~ +130	73	35	26			
			1.15			88	50				
			1.17			93	55				
			1.24			113	75				
			1.33			138	100				
			1.47			163	125				
			1.59			188	150				
			1.88			213	175				
			2.05			238	200				
			ST072ES			72	100 120 145 200 250 300				2.59
2.67	129	75									
2.77	154	100									
2.91	179	125									
3.02	194	140									
3.05	204	150									
3.12	219	165									
3.17	229	175									
3.42	244	190									
3.59	254	200									
3.91	294	240									
3.99	304	250									
4.34	354	300									
ST095ES	95	135 150 200 230 280 400		3.48	6			-30 ~ +130	143	75	56
			3.55	168		100					
			3.73	193		125					
			3.84	218		150					
			3.96	243		175					
			4.07	258		190					
			4.14	268		200					
			4.30	298		230					
			4.36	308		240					
			4.41	318		250					
			4.67	368		300					
			5.03	418		350					
			5.43	468		400					
			ST120ES	120		180 200 250 300 350 400 500	4.75		6	-30 ~ +130	
4.87	168	100									
4.96	183	115									
5.02	193	125									
5.10	218	150									
5.28	243	175									
5.52	268	200									
5.76	308	240									
5.82	318	250									
6.16	358	290									
6.25	368	300									
6.67	418	350									
6.96	468	400									
7.42	518	450									
7.65	568	500									
8.49	618	550									
8.66	668	600									
ST150ES	150	305 405 505 605	7.87	6	-30 ~ +130	162	75	110			
			7.98			187	100				
			8.06			202	115				
			8.11			212	125				
			8.18			237	150				
			8.34			262	175				
			8.55			287	200				
			8.76			327	240				
			8.81			337	250				
			9.11			377	290				
			9.18			387	300				
			9.55			437	350				
			9.98			487	400				
			10.21			537	450				
10.41	587	500									
11.14	637	550									
11.29	687	600									

Roller Skid Type

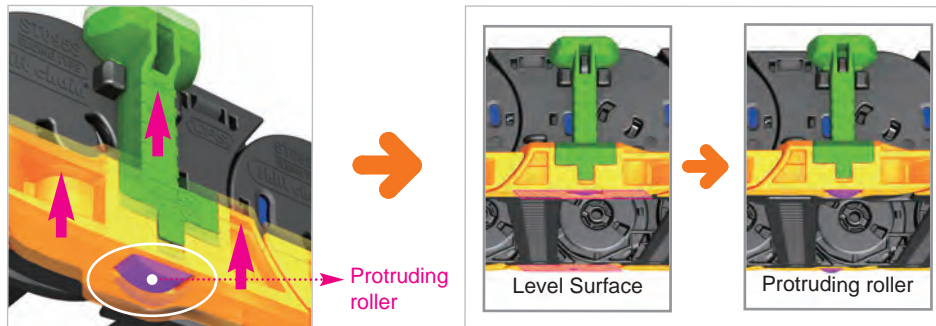
Ordering

ST 044RS. 100. R120 / F 1500L : (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
- Roller Skid Type (RS)
- Shift Chain

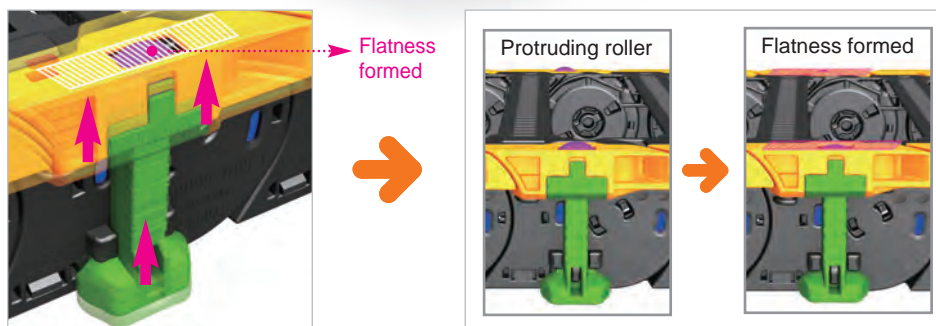
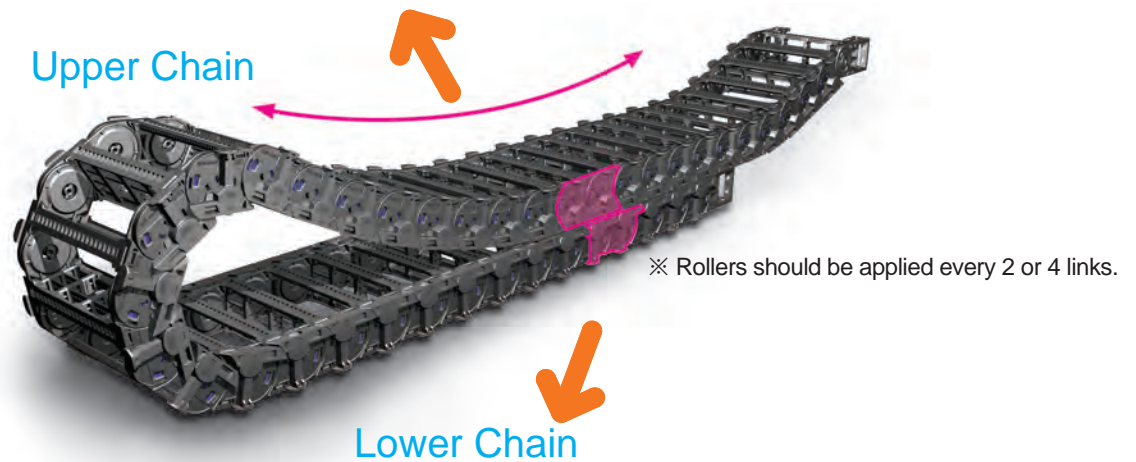
Characteristics of Shift Roller Skid Type

Roller Skid Performance Property



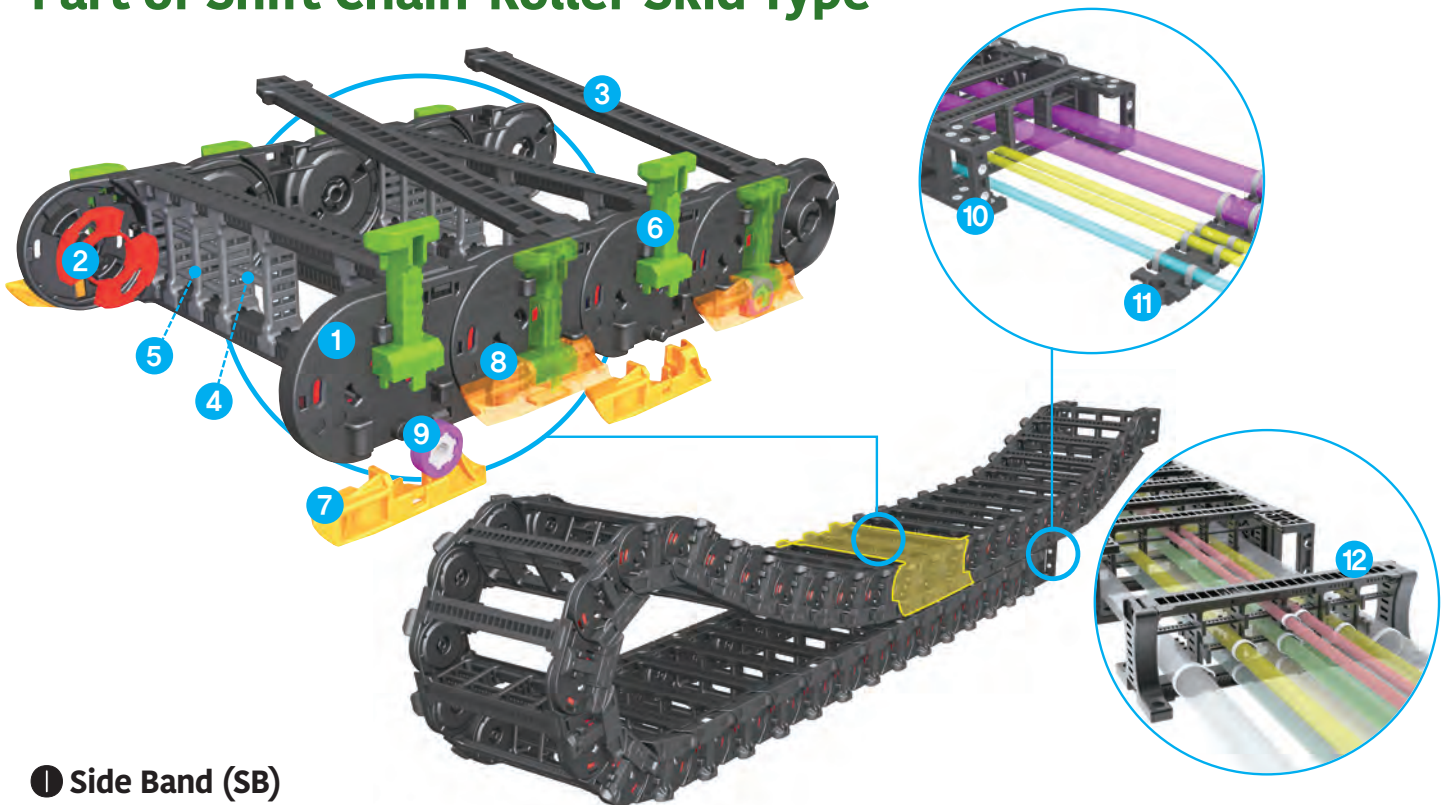
Principle of skid motion

The protruding Roller is performed as a wheel when Roller mounted skid is touched on lower chain. This principle makes it possible to move fast in long-distance travel without friction.



The support lifts Skid(Roller-Skid, Skid) and makes the surface flat, when the cable chain which includes cables is contacted on the surface of bottom of guide channel.

Part of Shift Chain-Roller Skid Type



① Side Band (SB)

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

② 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.

③ FRU, FRD [Applied to Enclosed Type]

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

④ Separator (SP)

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

⑤ Divider (DV-S, M, R, T)

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

⑥ Skid

A unit that supports skid & roller skid which makes skid & roller skid move up and down.

⑦ ⑧ Skid, Roller Skid

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

Roller Skid : A unit that minimizes coefficient of friction between upper and lower cable chain. There is a roller unit that is assembled to Support and Skid.

⑨ Roller

A unit that reduces coefficient of friction between upper and lower cable chain.

⑩ 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.

⑪ 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.

⑫ System Tie Wrap(STW)

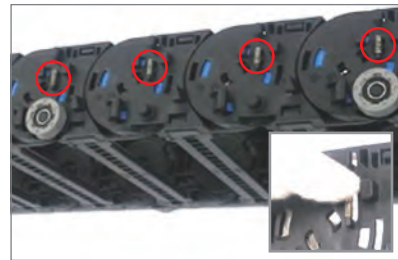
A part that connects to first or end of Cable Chain. Cables and hoses are arranged at System Tie Wrap by several layers and being tightened using Cable Tie. There are 2 types. One is separated from FEB and the other one is assembled to FEB.

Assembly procedure of Shift Chain Roller Skid Type

Assembly procedure of Shift chain RS-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)



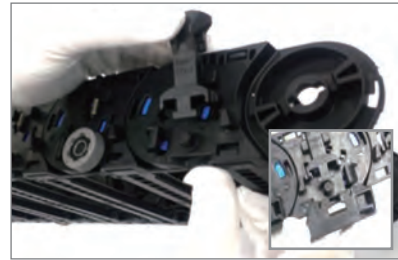
1
Insert BR Unit into each Side Band.
(Side Band is divided into right and left side according to the direction.)



7
When inserting a support, push tightly into groove of Side Band until you hear "click".
(Support is only one direction without right and left side)



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.



8
Insert normal type Skid into the side of Side Band which is not assembled a roller.
Assemble roller type Skid and normal type Skid for the each side of Side Band.



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



9
Assemble skid and support into opposite side of Side Band as same way.
(Check whether assembled skid is working well by pushing your hand)



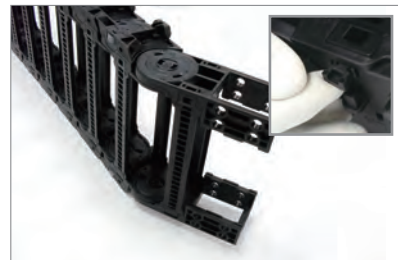
4
Connect right and left link with specified frame.
(Put Hinge Type frame in the hole of Side Band)



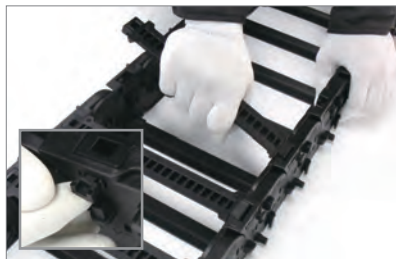
10
Do not insert a BR Unit for M.FEB. (M.FEB will be making a turn to up and down) Assembly M.FEB for being correct direction like right and left.



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. Assemble opposite frame as same procedure.)



11
Assembly specified frame in M.FEB. (Hinge is inserted into RH direction of FEB) Insert Frame pin into connected Frame and side of FEB.



6
Install a Roller in the protruding side of Side Band to be placed one roller per 4 link.



12
Assembly F.FEB for being correct direction like right and left. (Do not insert a BR for the side band which is connected with F.FEB) Insert reinforcement washers into FEB according to fixing direction.



13
Completion

Part list of Shift Chain Roller Skid Type

Composition of Shift Chain Roller 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.

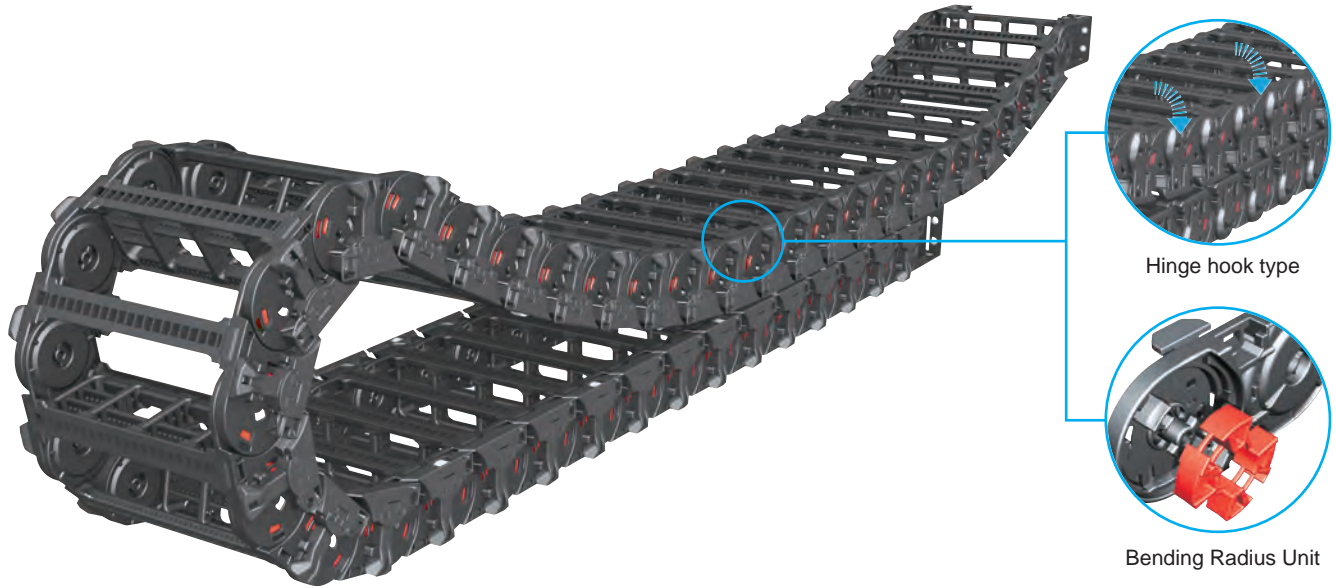
※ Please refer to below part list and description to understand composition of cable chain.

Model	Classification	Part number	Description
ST044RS	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-SK044RS(LH-N) ST-SK044RS(LH-R) ST-SK044RS(RH-N) ST-SK044RS(RH-R)	Skid for long travel(Applied to side band)
	SPRING	ST-SPR044	Spring with roller
	SUPPORT	ST-SUP044	Supporter to fix skid unit
	ROLLER	ST-RL044	Roller for long travel(Applied to side band)
	FRAME	sb-FR/M.35	Frame, 35mm
		sb-FR/M.50	Frame, 50mm
		sb-FR/M.55	Frame, 55mm
		sb-FR/M.75	Frame, 55mm
		sb-FR/M.100	Frame, 75mm
		sb-FR/M.125	Frame, 100mm
		sb-FR/M.150	Frame, 125mm
	END BRACKET	sb-FR/M.175	Frame, 150mm
		sb-FR/M.200	Frame, 175mm
		ST-FEB044N/S	Frame, 200mm
	DIVIDER	sb-DV028/M sb-DV028/S	Free End bracket of ST044S , End bracke(B1, B2, B3) Normal divider
SEPARATOR	S-SP/M.35	To fix separstors at the both side sectionEnd bracket of ST044S	
	S-SP/M.50	Separator, 35mm	
	S-SP/M.55	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	
	S-SP/M.175	Separator, 175mm	
S-SP/M.200	Separator, 200mm		
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	
SYSTEM TIE WRAP	S-TW036/025CR.125	Tie wrap for end bracket to fix cables, 125mm	
	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	
ST072RS	SIDE BAND	ST-SB072S(LH) ST-SB072S(RH)	Left side band of ST072S Right side band of ST072S
	BENDING RADIUS	ST-BRS072.R100,120,145,200,250,300	Bending radius unit for side band
	SKID	ST-SK072RS(LH-N) ST-SK072RS(LH-R) ST-SK072RS(RH-N) ST-SK072RS(RH-R)	Skid for long travel(Applied to side band)
	SPRING	ST-SPR072	Spring with roller
	SUPPORT	ST-SUP072	Supporter to fix skid unit
	ROLLER BEARING	ST-RL072/95	Roller for long travel(Applied to side band)
	FRAME PIN	S-FP/S1	Frame pin
	FRAME	sb-FR045.50	Frame, 50mm
		sb-FR045.75	Frame, 75mm
		sb-FR045.100	Frame, 100mm
		sb-FR045.125	Frame, 125mm
		sb-FR045.140	Frame, 140mm
		sb-FR045.150	Frame, 150mm
		sb-FR045.165	Frame, 165mm
		sb-FR045.175	Frame, 175mm
		sb-FR045.190	Frame, 190mm
		sb-FR045.200	Frame, 200mm
sb-FR045.240		Frame, 240mm	
END BRACKET	sb-FR045.250	Frame, 250mm	
	sb-FR045.300	Frame, 300mm	
	ST-FEB072N/S	Free End bracket of ST072S, Steel End bracket(B1, B2, B3)	
DIVIDER	sb-DV045/M	Normal divider	
	sb-DV045/S	To fix separstors at the both side section	
	sb-DV045/T	T divider	
	sb-DV045/TP	T divider pin	
SEPARATOR	sb-SP/400.Frame	Separator, 400mm (Separator can be ordered according to inner width of cable chain)	
	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	

Part list of Shift Chain Roller 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-BRS095.R135,150,200,230,280,400	Bending radius unit for side band			
	SKID	ST-SK095RS(LH-N) ST-SK095RS(LH-R) ST-SK095RS(RH-N) ST-SK095RS(RH-R)	Skid for long travel(Applied to side band)			
	SPRING	ST-SPR095	Spring with roller			
	SUPPORT	ST-SUP095	Supporter to fix skid unit			
	ROLLER	ST-RL072/095	Roller for long travel(Applied to side band)			
	FRAME PIN	S-FP/S1	Frame pin			
	FRAME		sb-FR060.75 sb-FR060.100 sb-FR060.125 sb-FR060.150 sb-FR060.175 sb-FR060.190 sb-FR060.200 sb-FR060.230 sb-FR060.250 sb-FR060.300 sb-FR060.350 sb-FR060.400	Frame, 75mm Frame, 100mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 190mm Frame, 200mm Frame, 230mm Frame, 250mm Frame, 300mm Frame, 350mm Frame, 400mm		
		END BRACKET	ST-FEB095N/S sb-FEB/WH060	Free End bracket of ST095S, Steel End bracket(B1, B2, B3) Steel washer for end bracket		
		DIVIDER		sb-DV060/M sb-DV060/S sb-DV060/T sb-DV060/TP	Normal divider To fix separstors at the both side section T divider T divider pin	
			SEPARATOR	sb-SP/400.Frame SP-PIN060	Separator, 400mm Separator pin to fix	
			TIE WRAP		S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	Tie wrap for end bracket to fix cables, 50mm Tie wrap for end bracket to fix cables, 75mm Tie wrap for end bracket to fix cables, 100mm Tie wrap for end bracket to fix cables, 125mm Tie wrap for end bracket to fix cables, 150mm
				SYSTEM TIE WRAP	sb-DV060/W S-TW.EB060	Divider for fixing cables at end bracket System tie wrap to arrange for cables right after moving bracket or fixing bracket
		ST150RS		SIDE BAND	ST-SB150S(LH) ST-SB150S(RH)	Left side band of ST150S Right side band of ST150S
				BENDING RADIUS	ST-BRS150.R305,405,505,605	Bending radius unit for side band
				SKID	ST-SK150RS(LH-N) ST-SK150RS(LH-R) ST-SK150RS(RH-N) ST-SK150RS(RH-R)	Skid for long travel(Applied to side band)
			SPRING	ST-SUP150RS	Spring with roller	
	SUPPORT		ST-SUP150	Supporter to fix skid unit		
	ROLLER		ST-RL150	Roller for long travel(Applied to side band)		
	FRAME PIN		S-FP/S2	Frame pin		
FRAME			sb-FR075/100.75 sb-FR075/100.100 sb-FR075/100.115 sb-FR075/100.125 sb-FR075/100.150 sb-FR075/100.175 sb-FR075/100.200 sb-FR075/100.240 sb-FR075/100.250 sb-FR075/100.290 sb-FR075/100.300 sb-FR075/100.350 sb-FR075/100.400 sb-FR075/100.450 sb-FR075/100.500 sb-FR075/100.550 sb-FR075/100.600	Frame, 75mm Frame, 100mm Frame, 115mm Frame, 125mm Frame, 150mm Frame, 175mm Frame, 200mm Frame, 230mm Frame, 240mm Frame, 250mm Frame, 290mm Frame, 300mm Frame, 350mm Frame, 400mm Frame, 500mm Frame, 550mm Frame, 600mm		
	STEEL END BRACKET		ST-SEB150S/B1-B2-B3	Steel End bracket of ST150S		
	DIVIDER			sb-DV100/M sb-DV100/S sb-DV100/T sb-DV100/TP	Normal divider To fix separstors at the both side section T divider T divider pin	
			SEPARATOR	sb-SP/600.프레임 SP-PIN100	Separator, 600mm 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

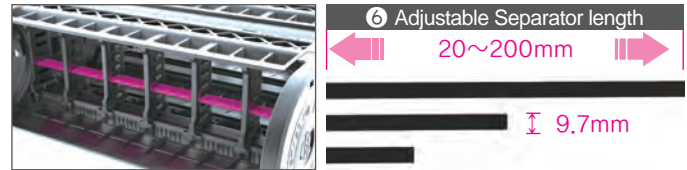
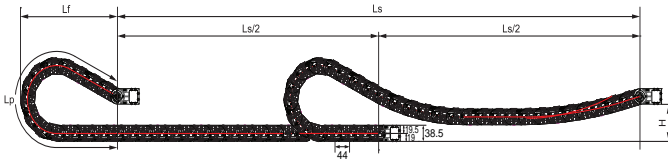
ST044RS



Layout of the Chain

Ls: Stroke Hs: Safe Space

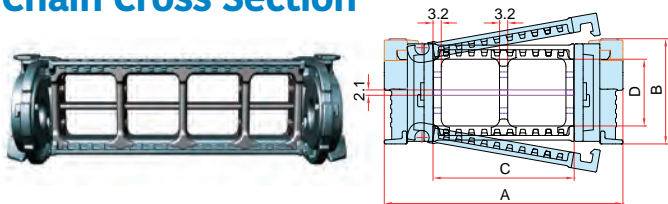
Separators (SP)



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	

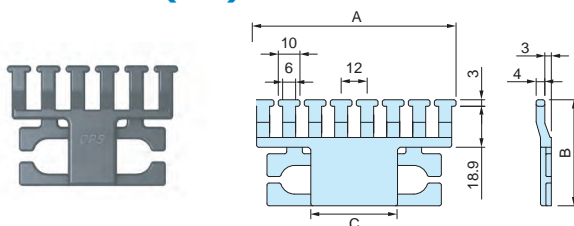
Chain Type	Ordering No.	Frame
ST044RS	S-SP/M.35	35
	S-SP/M.50	50
	S-SP/M.55	55
	S-SP/M.75	75
	S-SP/M.100	100
	S-SP/M.125	125
	S-SP/M.150	150
	S-SP/M.175	175
S-SP/M.200	200	

Chain Cross Section



Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST044RS	73	40.5	35	26	1.09
	88		50		1.15
	93		55		1.17
	113		75		1.24
	138		100		1.33
	163		125		1.47
	188		150		1.59
	213		175		1.88
238	200	2.05			

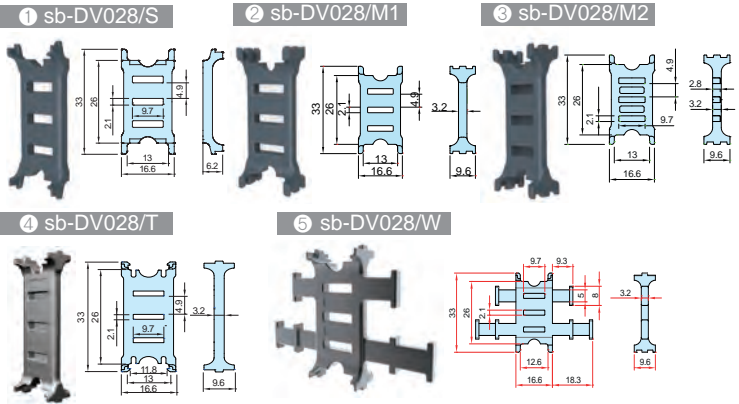
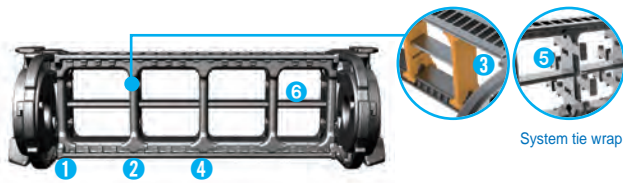
Tie Wrap (TW)



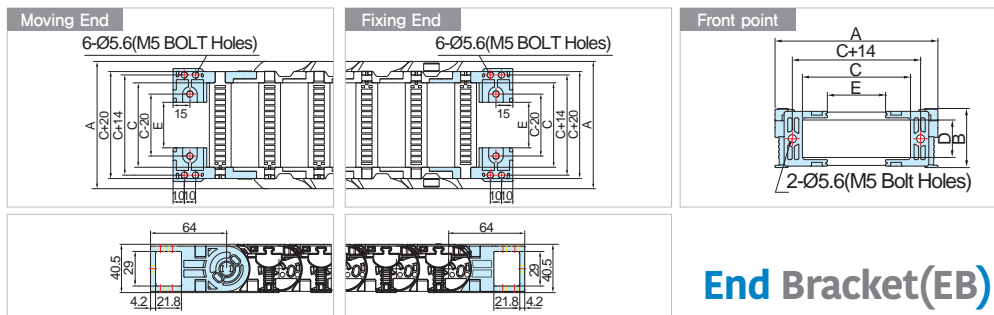
Chain Type	Ordering No.	A	B	C
ST044RS	S-TW036/025CR.35	46	35.4	-
	S-TW036/025CR.50	69	48.9	15
	S-TW036/025CR.55	70	48.9	20
	S-TW036/025CR.75	94	48.9	40
	S-TW036/025CR.100	118	48.9	65
	S-TW036/025CR.125	142	48.9	90

Roller Skid Type

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

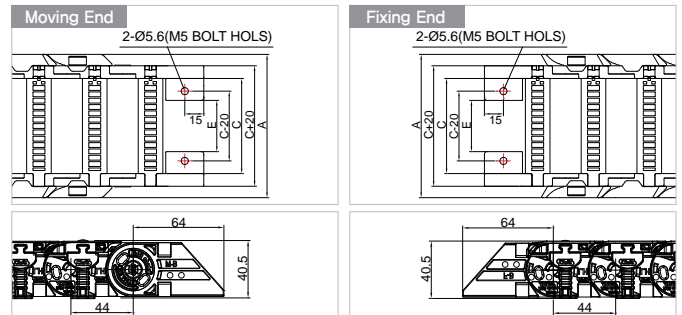


Free End Bracket (FEB)

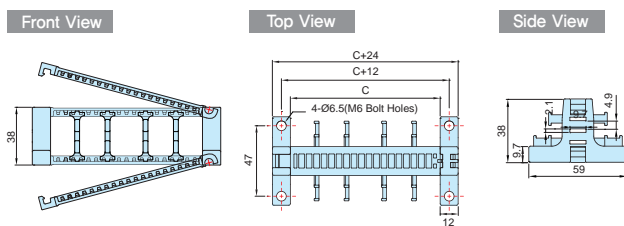


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST044RS	73	38.5	35	26	0.4	M5 Bolt Holes
	88		50		15.4	
	93		55		20.4	
	113		75		40.4	
	138		100		65.4	
	163		125		90.4	
	188		150		115.4	
	213		175		140.4	
238	200	165.4				

End Bracket (EB)

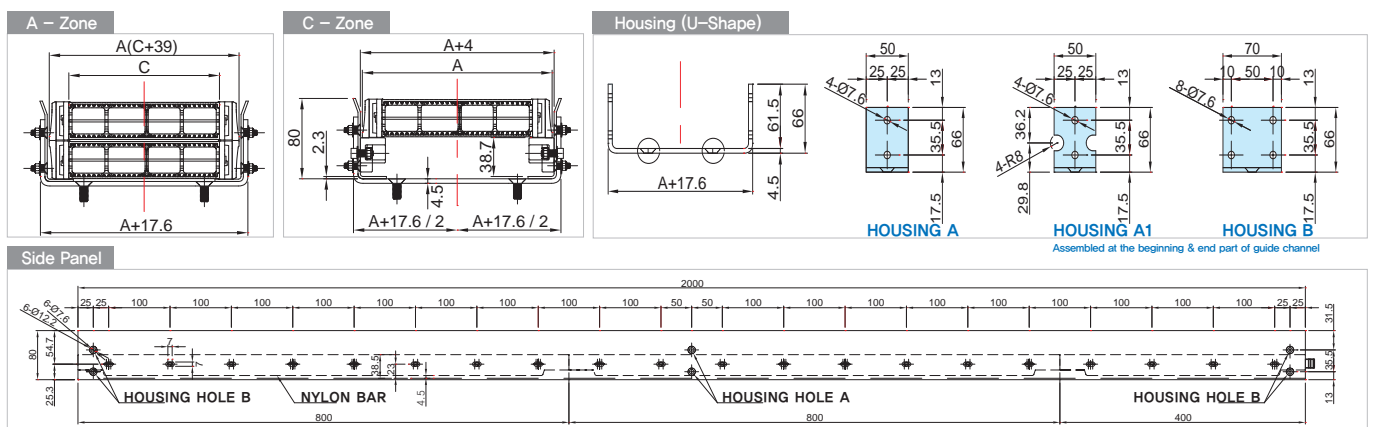


System Tie Wrap (STW)

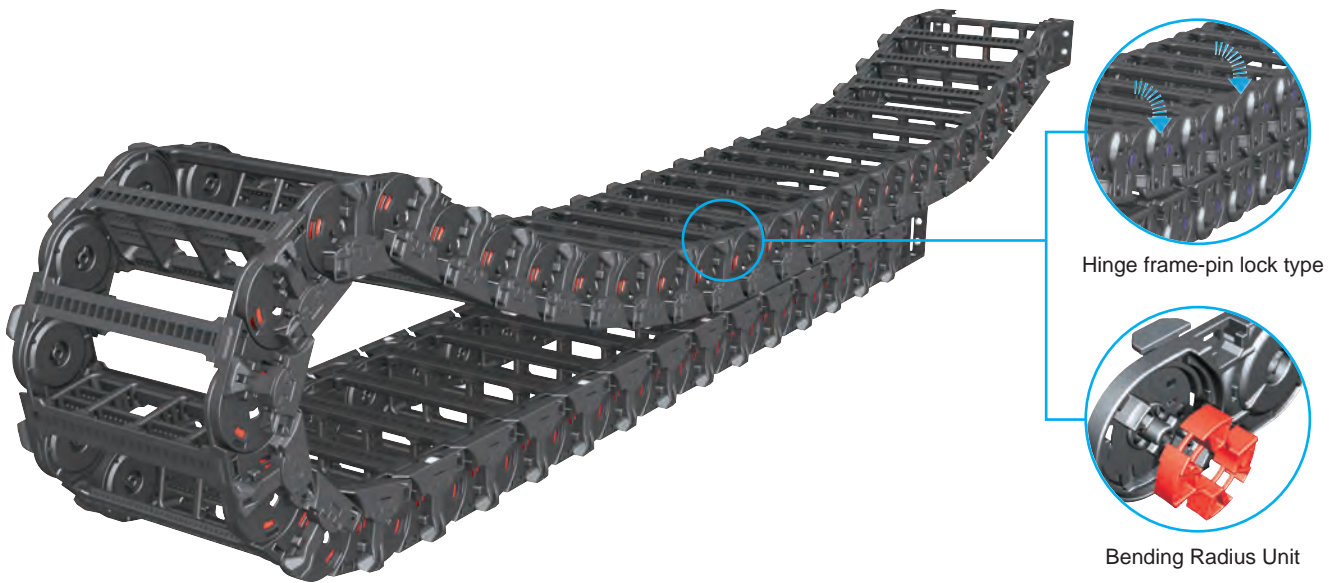


Chain Type	Ordering No.	C Frame	Hole Type
ST044RS	S-TW.EB028.35	35	M6 Bolt Holes
	S-TW.EB028.50	50	
	S-TW.EB028.55	55	
	S-TW.EB028.75	75	
	S-TW.EB028.100	100	
	S-TW.EB028.125	125	
	S-TW.EB028.150	150	
	S-TW.EB028.175	175	
	S-TW.EB028.200	200	

Guide Channel

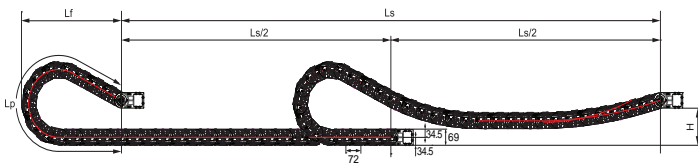


ST072RS



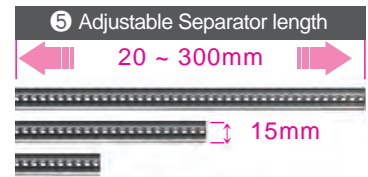
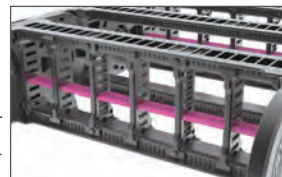
Layout of the Chain

Ls: Stroke Hs: Safe Space



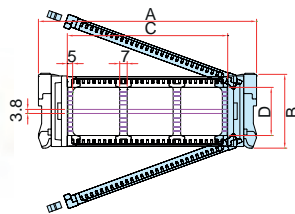
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
100	806	380	180
120	917	420	
145	1,063	470	
200	1,400	580	
250	1,840	752	
300	2,280	924	

Separators (SP)



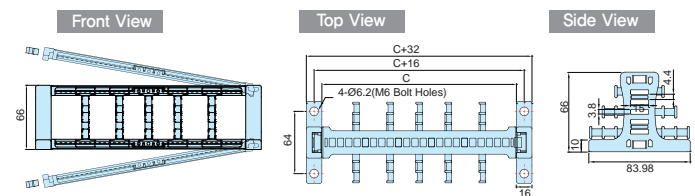
Chain Type	Ordering No.
ST072RS	sb-SP/400.Frame

Chain Cross Section



Chain Type	A Width (Outer)	B Height(Outer)	C Frame / Width(Inner)	D Height (Inner)	Weight kg/m
ST072RS	104	69	50	45	2.59
	129		75		2.67
	154		100		2.77
	179		125		2.91
	194		140		3.02
	204		150		3.05
	219		165		3.12
	229		175		3.17
	244		190		3.42
	254		200		3.59
	294		240		3.91
	304		250		3.99
	354		300		4.34

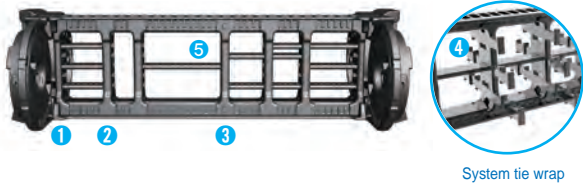
System Tie Wrap (STW)



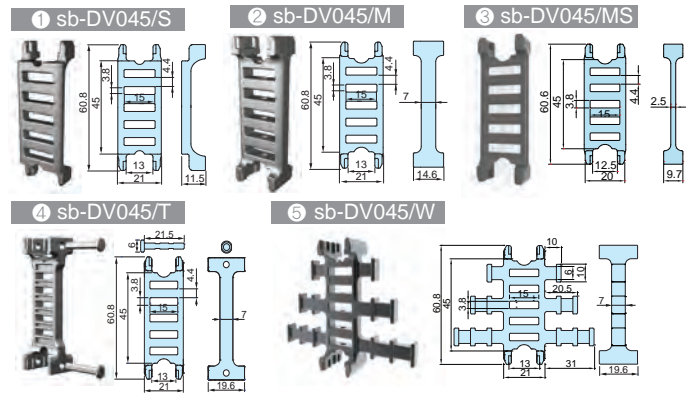
Chain Type	Ordering No.	C Frame	Hole Type
ST072RS	S-TW.EB045.50	50	M6 Bolt Holes
	S-TW.EB045.75	75	
	S-TW.EB045.100	100	
	S-TW.EB045.125	125	
	S-TW.EB045.140	140	
	S-TW.EB045.150	150	
	S-TW.EB045.165	165	
	S-TW.EB045.175	175	
	S-TW.EB045.190	190	
	S-TW.EB045.200	200	
	S-TW.EB045.240	240	
	S-TW.EB045.250	250	
	S-TW.EB045.300	300	

Roller Skid Type

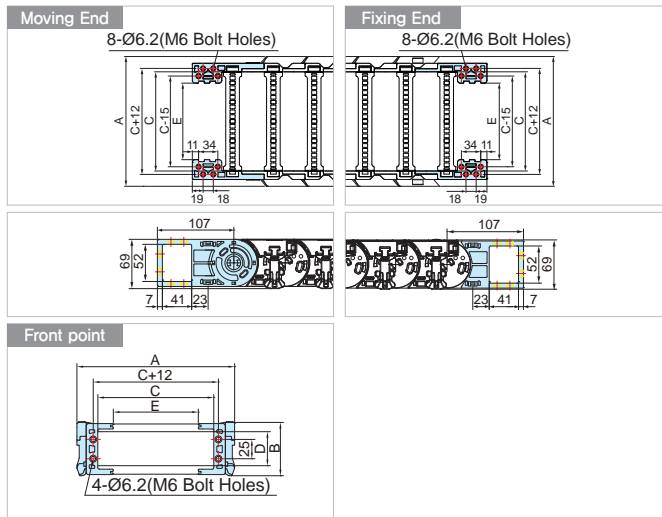
Dividers (DV) Assemble divider every second frame
DV/T Applied to Frame 200~300
DV/M Normal Divider
DV/W Tie wrap divider for free end bracket(FEB)



System tie wrap

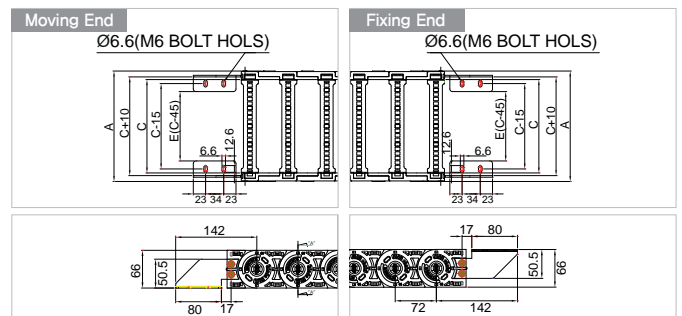


Free End Bracket (FEB)

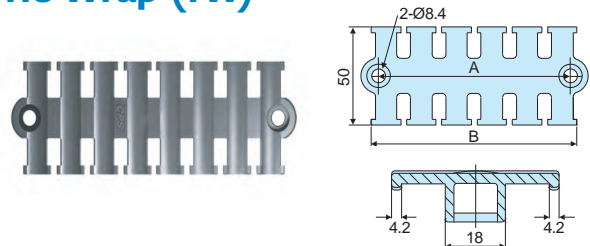


Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST072RS	104	69	50	45	10	M6 Bolt Holes
	129		75		35	
	154		100		60	
	179		125		85	
	194		140		100	
	204		150		110	
	219		165		125	
	229		175		135	
	244		190		150	
	254		200		160	
	294		240		200	
304	250	210				
354	300	260				

Steel End Bracket (SEB)

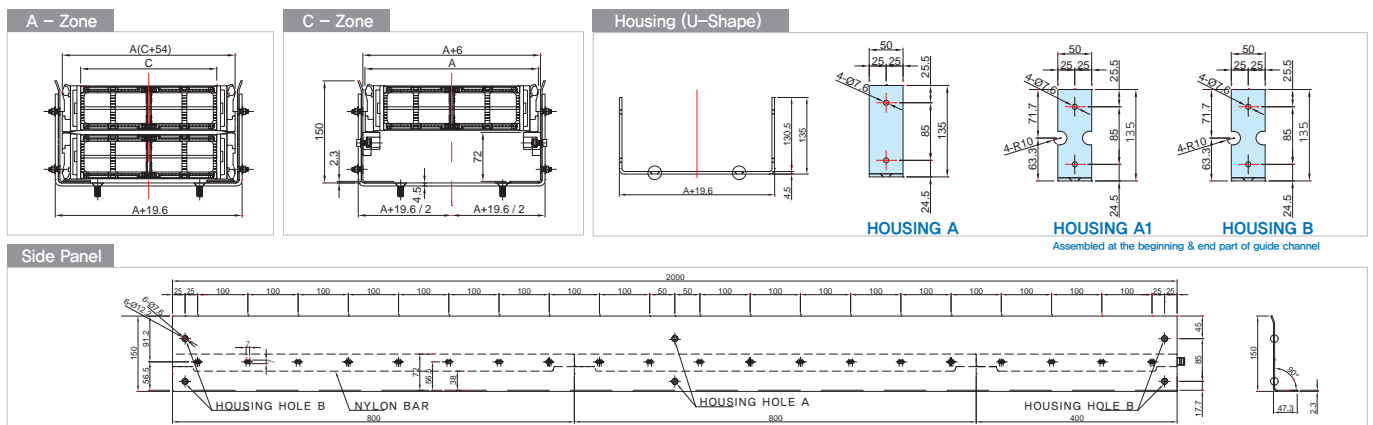


Tie Wrap (TW)

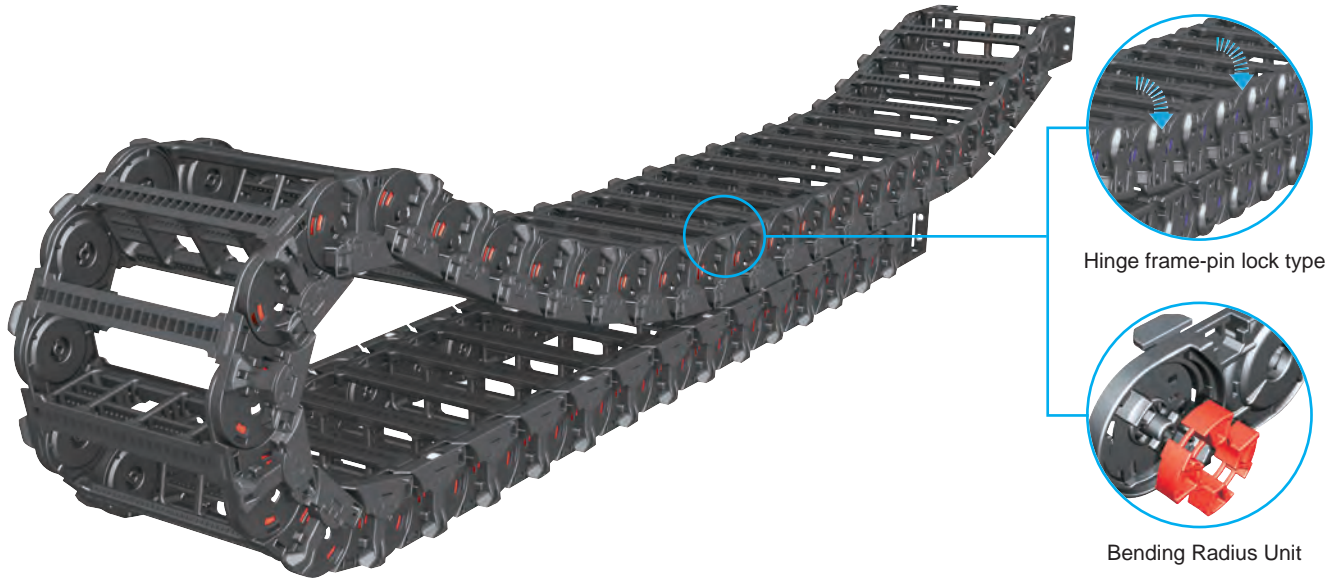


Chain Type	Ordering No.	A	B
ST072RS	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Guide Channel

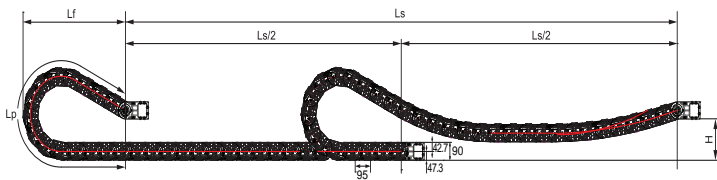


ST095RS



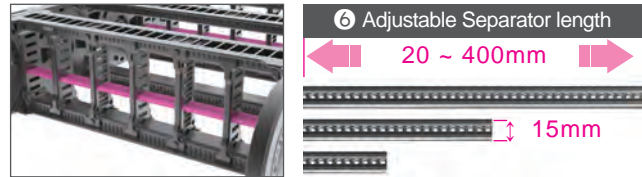
Layout of the Chain

Ls: Stroke Hs: Safe Space



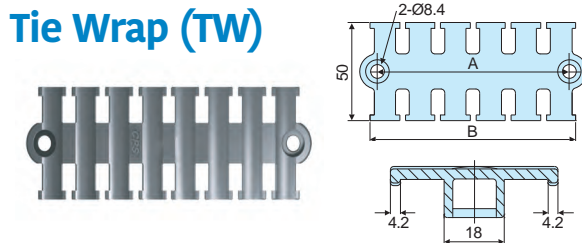
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
135	1,091	504	210
150	1,178	534	
200	1,479	634	
230	1,666	694	
280	2,146	889	
400	3,232	1,319	

Separators (SP)



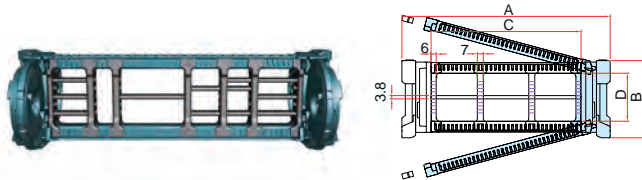
Chain Type	Ordering No.
ST095RS	sb-SP/400.Frame

Tie Wrap (TW)



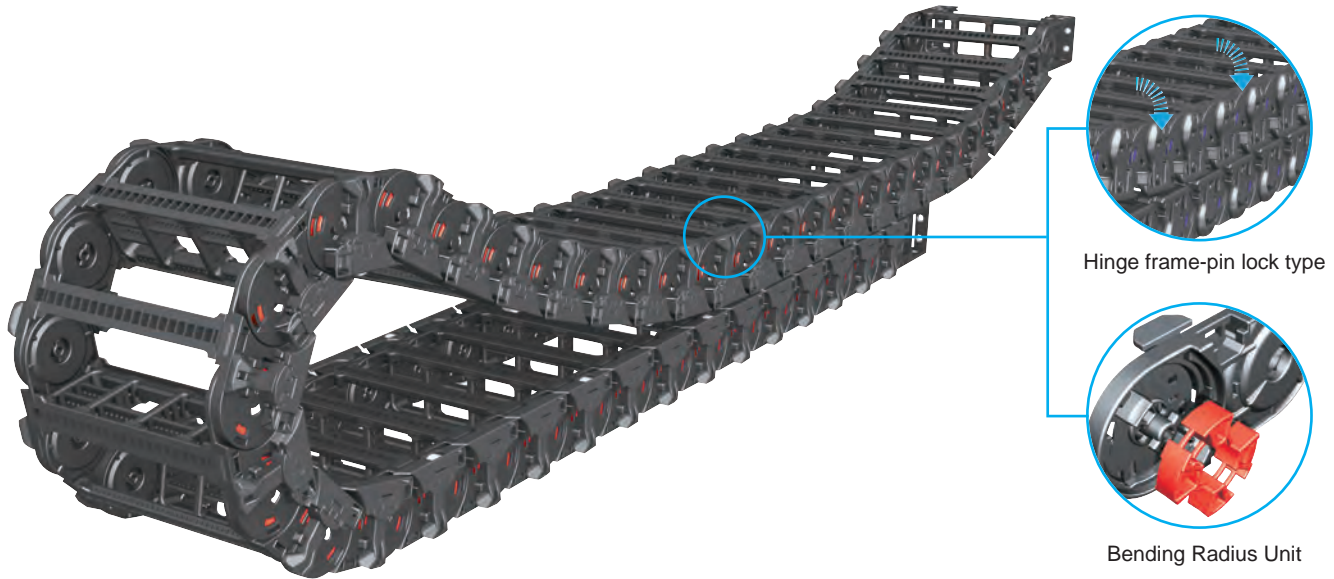
Chain Type	Ordering No.	A	B
ST095RS	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Chain Cross Section



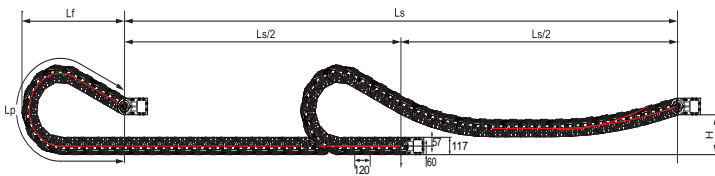
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST095RS	143	90	75	56	3.48
	168		100		3.55
	193		125		3.73
	218		150		3.84
	243		175		3.96
	258		190		4.07
	268		200		4.14
	298		230		4.30
	308		240		4.36
	318		250		4.41
	368		300		4.67
	418		350		5.03
	468		400		5.43

ST120RS



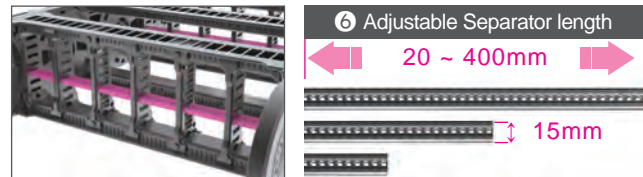
Layout of the Chain

Ls: Stroke Hs: Safe Space



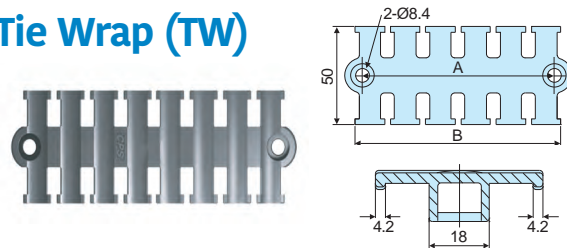
Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
180	1,441	654	260
200	1,559	694	
250	1,864	794	
300	2,178	894	
350	2,701	1,114	
400	3,225	1,334	
500	4,062	1,654	

Separators (SP)



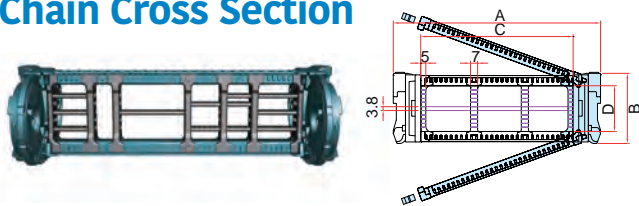
Chain Type	Ordering No.
ST120RS	sb-SP/400.Frame

Tie Wrap (TW)



Chain Type	Ordering No.	A	B
ST120RS	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

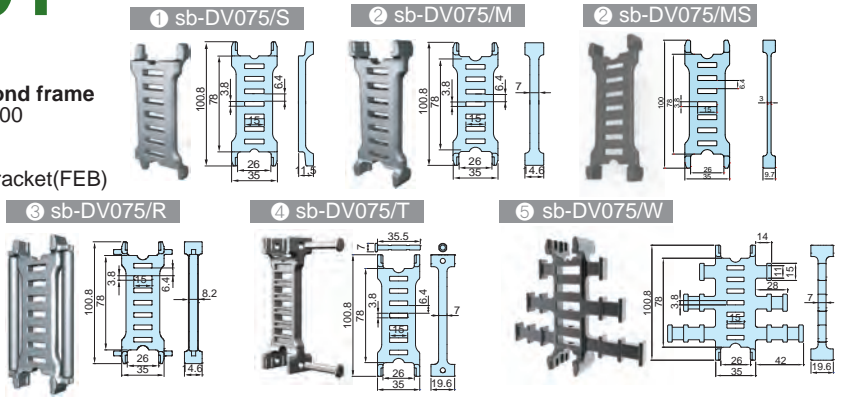
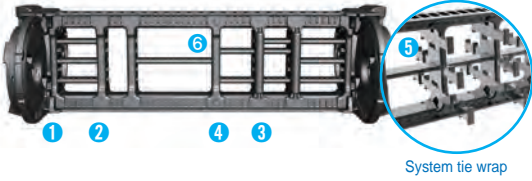
Chain Cross Section



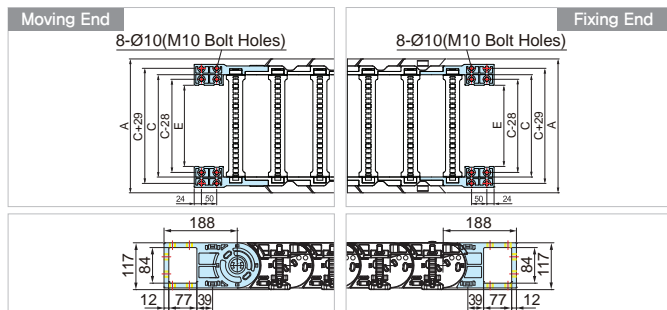
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST120RS	143	117	75	56	4.75
	168		100		4.87
	183		115		4.96
	193		125		5.02
	218		150		5.10
	243		175		5.28
	268		200		5.52
	308		240		5.76
	318		250		5.82
	358		290		6.16
	368		300		6.25
	418		350		6.67
	468		400		6.96
	518		450		7.42
	568		500		7.65
618	550	8.49			
668	600	8.66			

Roller Skid Type

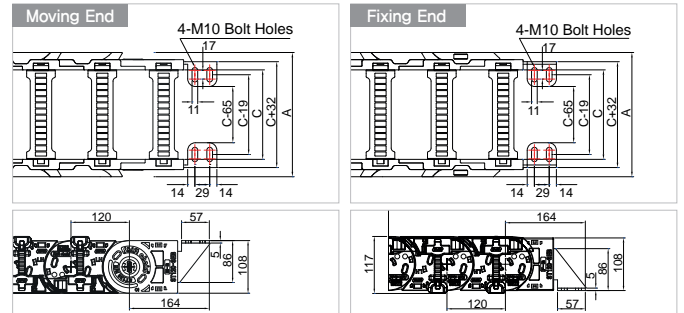
Dividers (DV) Assemble divider every second frame
 DV/T Applied to Frame 300~600
 DV/M Normal Divider
 DV/W Tie wrap divider for free end bracket(FEB)



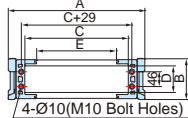
Free End Bracket (FEB)



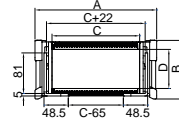
Steel End Bracket (SEB)



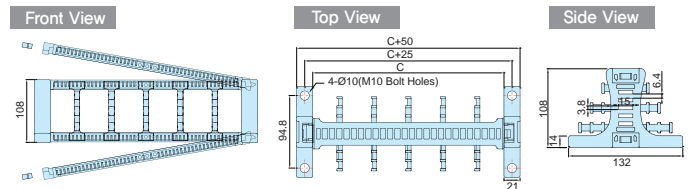
Free End Bracket (FEB) Front point



Steel End Bracket (SEB) Front point



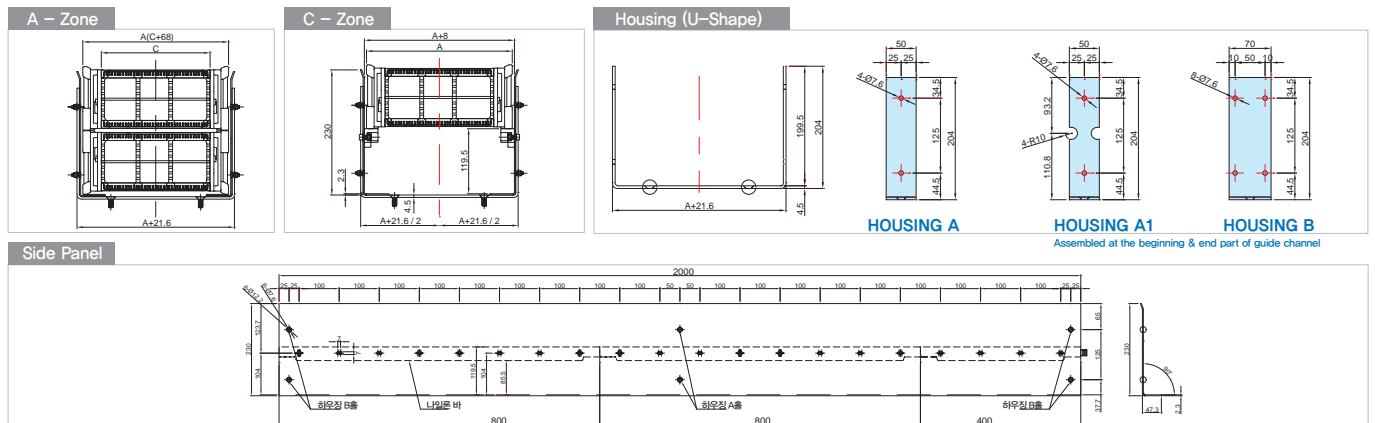
System Tie Wrap (STW)



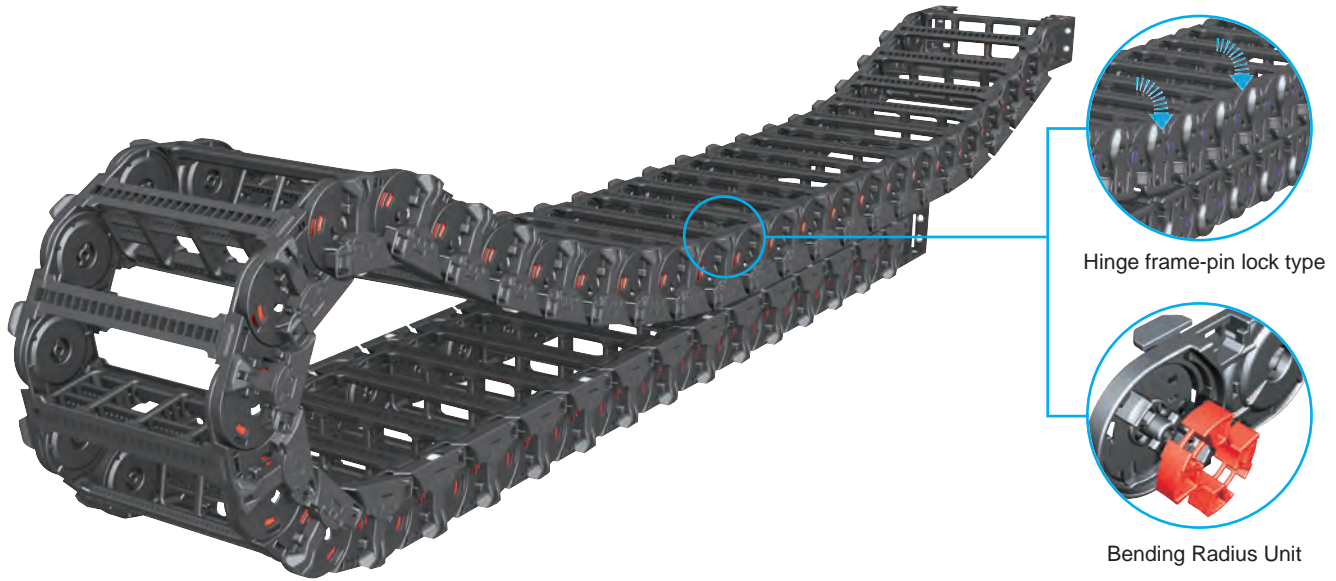
Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST120RS	143	90	75	56	15	M10 Bolt Holes
	168		100		40	
	183		115		55	
	193		125		65	
	218		150		90	
	243		175		115	
	268		200		140	
	308		240		180	
	318		250		190	
	358		290		230	
	368		300		240	
	418		350		290	
	468		400		340	
	518		450		390	
568	500	440				
618	550	490				
668	600	540				

Chain Type	Ordering No.	C Frame	Hole Type
ST120RS	S-TW.EB075.75	75	M10 Bolt Holes
	S-TW.EB075.100	100	
	S-TW.EB075.115	115	
	S-TW.EB075.125	125	
	S-TW.EB075.150	150	
	S-TW.EB075.175	175	
	S-TW.EB075.200	200	
	S-TW.EB075.240	240	
	S-TW.EB075.250	250	
	S-TW.EB075.290	290	
	S-TW.EB075.300	300	
	S-TW.EB075.350	350	
	S-TW.EB075.400	400	
	S-TW.EB075.450	450	
S-TW.EB075.500	500		
S-TW.EB075.550	550		
S-TW.EB075.600	600		

Guide Channel



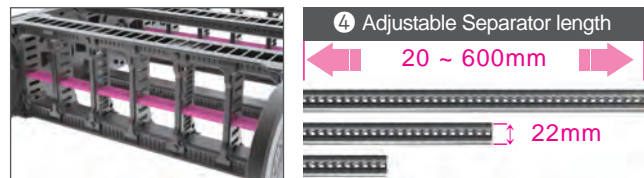
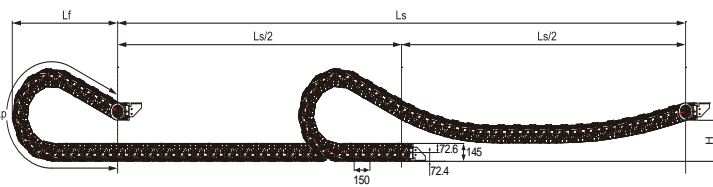
ST150RS



Layout of the Chain

Ls: Stroke Hs: Safe Space

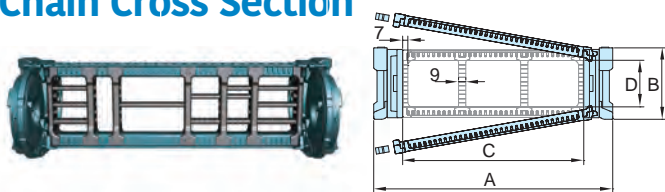
Separators (SP)



Bending Radius(R)	Lp(Loop Length)	LF(Loof Projection)	H(Moving Height)
305	2,272	985	400
405	3,161	1,335	
505	4,050	1,685	
605	4,940	2,035	

Chain Type	Ordering No.
ST150RS	sb-SP/600.Frame

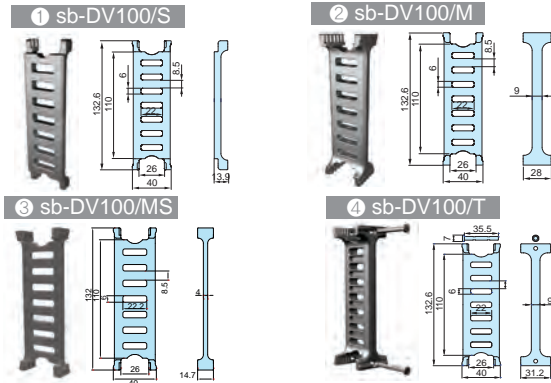
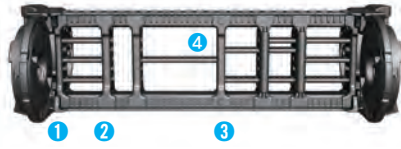
Chain Cross Section



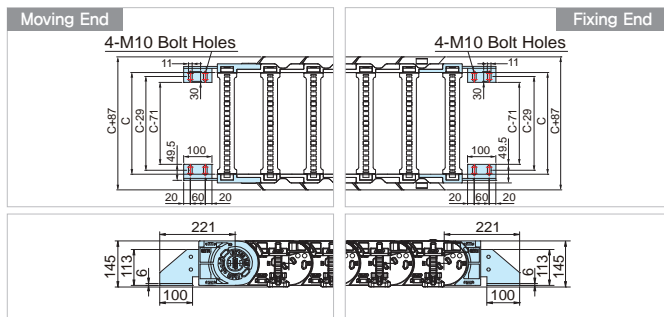
Chain Type	A Width (Outer)	B Height(Outer)	C Frame/Width(Inner)	D Height (Inner)	Weight kg/m
ST150RS	162	145	75	110	7.87
	187		100		7.98
	202		115		8.06
	212		125		8.11
	237		150		8.18
	262		175		8.34
	287		200		8.55
	327		240		8.76
	337		250		8.81
	377		290		9.11
	387		300		9.18
	437		350		9.55
	487		400		9.98
	537		450		10.21
	587		500		10.41
637	550	11.14			
687	600	11.29			

Roller Skid Type

Dividers (DV) Assemble divider every second frame
 DV/T Applied to Frame 300~600
 DV/M Normal Divider

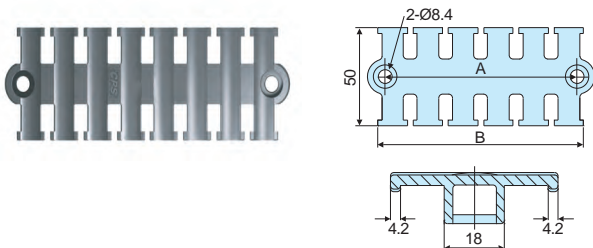


Steel End Bracket (SEB)



Chain Type	A Width (Outer)	B Height (Outer)	C Frame Width	D Height (Inner)	E EB internal width	Hole Type
ST150RS	162	145	75	110	4	M10 Bolt Holes
	187		100		29	
	202		115		44	
	212		125		54	
	237		150		79	
	262		175		104	
	287		200		129	
	327		240		169	
	337		250		179	
	377		290		219	
	387		300		229	
	437		350		279	
	487		400		329	
	537		450		379	
587	500	429				
637	550	479				
687	600	529				

Tie Wrap (TW)



Chain Type	Ordering No.	A	B
ST120RS	S-TW50	58	65
	S-TW75	75	82
	S-TW100	98	105
	S-TW125	122	129
	S-TW150	141	148

Guide Channel

