

ST-E Series

Shift Cable Chain - Enclosed type



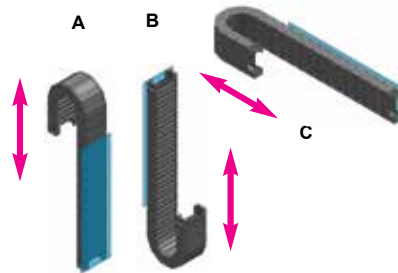
Ordering Information

ST 044 E . 100 . R120
 ① ② ③

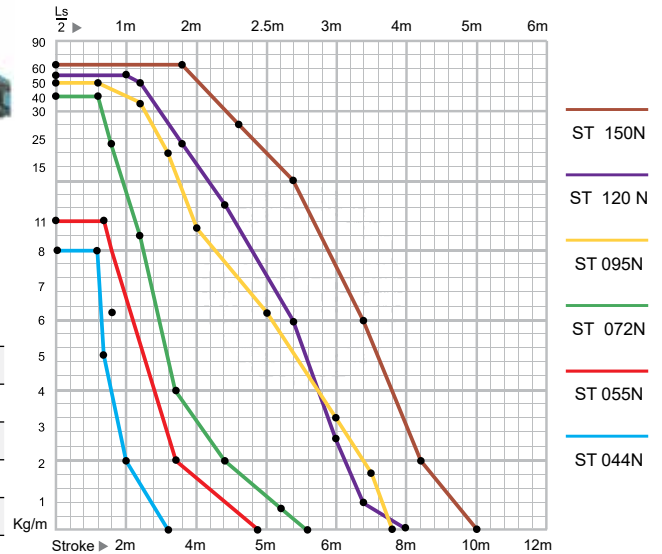
① Pitch (mm)	② Inner Width	③ Bending Radius	 Size (Unit : mm)				Frame type	Weight (kg/m)
			A	B	C	D		
044	35	70	56	38	35	24.5		1.03
	55	90	76		1.21			
	75	120	96		1.37			
	100	150	121		1.58			
	150	200	171		2.21			
055	50	100	71	52	50	38.5		1.36
	75	125	96		1.56			
	100	150	121		1.76			
	125	171	146		1.97			
	150	200	171		2.21			
072	50	120	82	66	50	44		2.37
	75	145	107		2.61			
	100	200	132		2.85			
	125	250	157		3.09			
	150	300	182		3.33			
095	100	150	138	82	100	55		3.55
	125	200	163		3.79			
	150	230	188		4.04			
	175	280	213		4.29			
	200	400	238		4.53			
120	150	200	192	108	150	76		5.79
	200	250	242		6.43			
	250	300	292		7.07			
	290	400	342		7.71			
	300	500	446		11.00			
150	200	305	246	140	200	110		8.16
	250	405	296		8.76			
	300	505	346		10.50			
	350	605	396		12.33			
	400	605	446		14.16			

Other Length Restrictions

Type	Vertical standing (Max) A	Vertical Hanging (Max) B	Side Mounted Unsupported (Max) C
ST 044N	2.0m	40m	1.0m
ST 055N	3.0m	50m	1.0m
ST 072N	6.0m	100m	2.5m
ST 095N	6.0m	100m	3.0m
ST 120N	6.0m	120m	3.0m
ST 150N	7.0m	150m	4.0m



Unsupported Length



Specifications

Material	CPS-Amid(PA6+GF)
Noise Range	40dB
Speed	3m/s
Acceleration	10m/s ²
Temperature	-30°C~+130°C
Special Production	ESD, UV
Certificate	CE, ATEX(Ex), RoHS

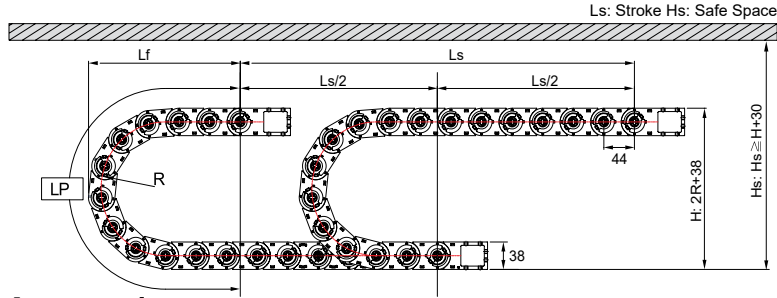
How to Choose Bending Radius

Bending Radius	The biggest Cable inserted	Multiply 8~10 by the OD of the biggest cable
	The biggest Hydraulic Hose inserted	Multiply 15~20 by the OD of the biggest hose

See page 65 - 66 for accessories

ST 044E

Calculation of the chain length



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

(Unit : mm)

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

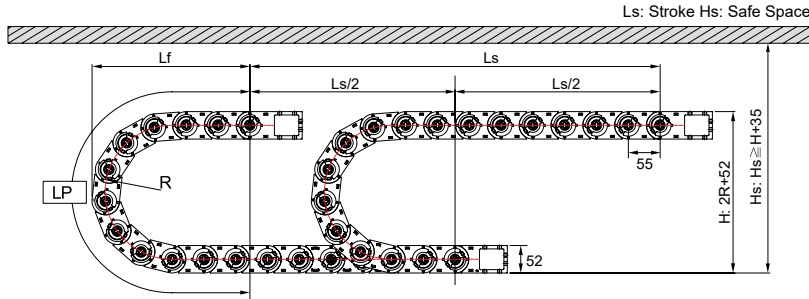
Accessories

Free end bracket						System tie wrap			Tie wrap			
Ordering No.	A Width (Outer)	B Height (Outer)	C Frame	D Height (Inner)	E M.EB Bolt hole width	Ordering No.	C Frame	Hole Type	Ordering No.	A	B	C
ST-FEB044E	60.4 80.4 100.4 125.4	38	35 55 75 100	24.5	0.4 20.4 40.4 65.4	S-TW.EB028.35 S-TW.EB028.55 S-TW.EB028.75 S-TW.EB028.100	35 55 75 100	M6 Bolt Holes	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

Dividers	① sb-DV028/S			② sb-DV028/M1			③ sb-DV028/M2					
	<p>① S divider is used to fix a separator that is the same length as the frame</p> <p>② M1 divider is used to separate individual cables</p> <p>③ M2 divider is used to fasten a separator that is shorter than the frame length</p> <p>④ W (Tie wrap) dividers are used to hold the cables in place at both ends of the cable chain</p>											
	④ sb-DV028/W											
	<p>System Tie Wrap</p>											
Separators	Ordering NO.			Frame								
		S-SP/M.35 S-SP/M.55 S-SP/M.75 S-SP/M.100			35 55 75 100							

ST 055E

Calculation of the chain length



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

(Unit : mm)

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

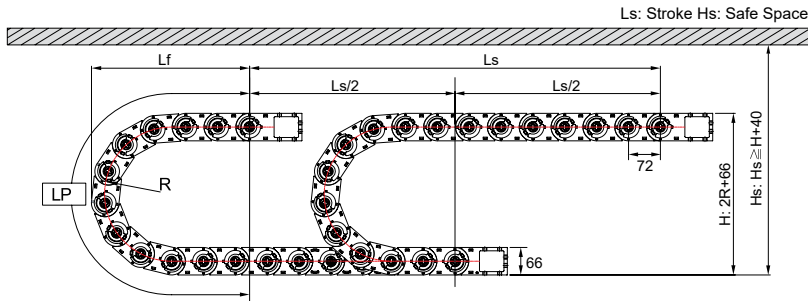
Accessories

Free end bracket						System tie wrap			Tie wrap				
Ordering No.	A Width (Outer)	B Height (Outer)	C Frame	D Height (Inner)	E M.EB Bolt hole width	Ordering No.	C Frame	Hole Type	Ordering No.	A	B	C	D
ST-FEB055E	79 104 129 154 179	52	50 75 100 125 150	38.5	18 43 68 93 118	S-TW.EB035.50 S-TW.EB035.75 S-TW.EB035.100 S-TW.EB035.125 S-TW.EB035.150	50 75 100 125 150	M6 Bolt Holes	S-TW050/035N.50 S-TW050/035N.75 S-TW050/035N.100 S-TW050/035N.125 S-TW050/035N.150	82 107 132 157 182	64.5	12.00 12.13 15.25 14.70 14.35	5 30 55 80 105

Dividers	sb-DV035/S			sb-DV035/M1			sb-DV035/M2		
	<p>① S divider is used to fix a separator that is the same length as the frame</p> <p>② M1 divider is used to separate individual cables</p> <p>③ M2 divider is used to fasten a separator that is shorter than the frame length</p> <p>④ W (Tie wrap) dividers are used to hold the cables in place at both ends of the cable chain</p>								
	sb-DV035/W								
				<p>System Tie Wrap</p>					
Separators	Ordering NO.				Frame				
					<p>S-SP/M.50 S-SP/M.75 S-SP/M.100 S-SP/M.125 S-SP/M.150</p>				

ST 072E

Calculation of the chain length



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

(Unit : mm)

Bending Radius (R)	L _p Loop Length	L _f Loop Projection	H Moving Height
120	665	297	306
145	743	322	356
200	916	377	466
250	1,074	427	566
300	1,230	477	666

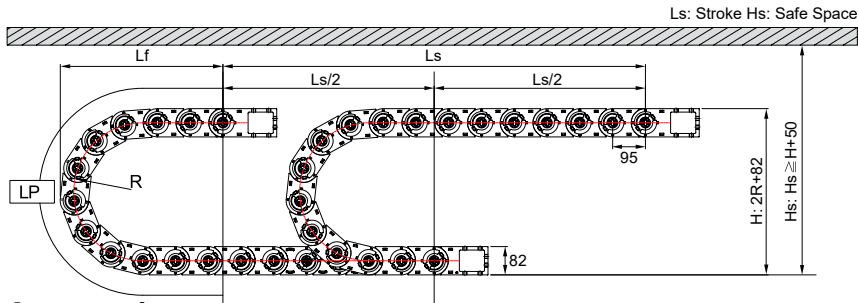
Accessories

Free end bracket						System tie wrap			Tie wrap		
<p style="text-align: center;">Moving Point</p>											
Ordering No.	A Width (Outer)	B Height (Outer)	C Frame	D Height (Inner)	E M.EB hole width	Ordering No.	C Frame	Hole Type	Ordering No.	A	B
ST-FEB072E	82 107 132 157 182	66	50 75 100 125 150	44	10 35 60 85 110	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	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

Dividers	<p>① S divider is used to fix a separator that is the same length as the frame</p> <p>② M divider is used to separate individual cables</p> <p>③ W (Tie wrap) dividers are used to hold the cables in place at both ends of the cable chain</p>	<p>① sb-DV045/S</p>	<p>② sb-DV045/M</p>	
		<p>③ sb-DV045/W</p>	<p style="text-align: center;">System Tie Wrap</p>	<p>Ordering NO.</p>
	<p>④ Separators</p>	<p>sb-SP/400.400 Cut to length (400 mm)</p>		

ST 095E

Calculation of the chain length



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

(Unit : mm)

Bending Radius (R)	L p Loop Length	L f Loop Projection	H Moving Height
150	855	374	382
200	1,010	428	482
230	1,110	459	542
280	1,260	505	642
400	1,640	629	882

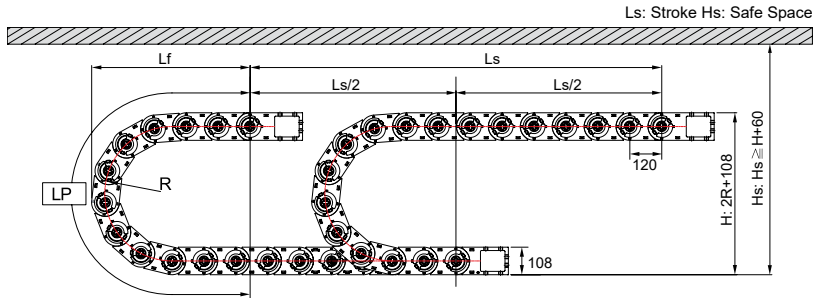
Accessories

Free end bracket						System tie wrap			Tie wrap		
Ordering No.	A Width (Outer)	B Height (Outer)	C Frame	D Height (Inner)	E M.EB Bolt hole width	Ordering No.	C Frame	Hole Type	Ordering No.	A	B
ST-FEB095E sb-FEB/WH060	138 163 188 213 238	82	100 125 150 175 200	56	49 74 99 124 149	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	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

Dividers	① sb-DV060/S 		② sb-DV060/M 		
	③ sb-DV060/W 	System Tie Wrap 			
Separators	Ordering NO. sb-SP/400.400 Cut to length (400 mm)				

ST 120E

Calculation of the chain length



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

(Unit : mm)

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

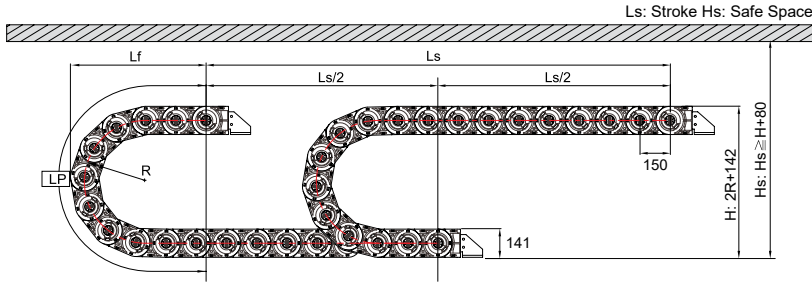
Accessories

Free end bracket						System tie wrap			Tie wrap		
Ordering No.	A Width (Outer)	B Height (Outer)	C Frame	D Height (Inner)	E M.EB Bolt hole width	Ordering No.	C Frame	Hole Type	Ordering No.	A	B
ST-FEB120E sb-FEB/WH075	200 250 300 350	108	150 200 250 300	76	90 140 190 240	S-TW.EB075.150 S-TW.EB075.200 S-TW.EB075.250 S-TW.EB075.300	150 200 250 300	M10 Bolt Holes	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

Dividers	① sb-DV075/S		② sb-DV075/M	
③ sb-DV075/W				
Separators	Ordering NO.			
sb-SP/400.400 Cut to length (400 mm)				

ST 150E

Calculation of the chain length



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

(Unit : mm)

Bending Radius (R)	L p Loop Length	L f Loop Projection	H Moving Height
305	1,510	651	752
405	1,807	743	952
505	2,106	835	1,152
605	2,405	928	1,352

Accessories

Steel end bracket				Tie wrap (TW)		
Ordering No.	B Height (Outer)	C Frame	D Height (Inner)	Ordering No.	A	B
ST-SEB150E/B(Steel)	141	200 250 300 350 400	110	S-TW50 S-TW75 S-TW100 S-TW125 S-TW150	58 75 98 122 141	65 82 105 129 148

Dividers	① S divider is used to fix a separator that is the same length as the frame	② M divider is used to separate individual cables	① sb-DV/S100/S	② sb-DV100/M	
				Ordering NO.	
③ Separators			sb-SP/600.600 Cut to length (600 mm)		