

HI-TECH SOLUTIONS FOR CABLE PROTECTION IN MOTION

Controlwell presents a vast range of cable drag chains in glass fibre reinforced polyamide.

CPS chains are available in a wide range of basic designs like:

- Open Type
- Semi Enclosed Type
- Fully Enclosed Type
- Sliding Type

With the introduction of 'SABIN' cable drag chains which offer speeds as high as 15 m/s, noise as low as 30 dB and extremely low mote, Controlwell is one of the few suppliers across India to be able to offer solutions for sensitive environments.

SABIN chains are available in a wide range of basic designs like:

- Open Type
- Fully Enclosed Type
- Sliding Type

We at Controlwell work along with you to design and deploy solutions for all your needs of cable protection in motion.



CABLE DRAG CHAINS

CABLE PROTECTION IN MOTION


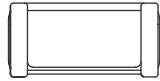

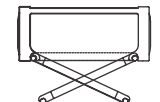

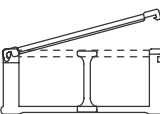

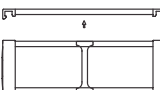
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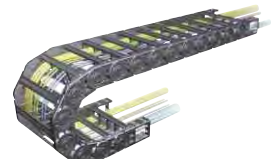
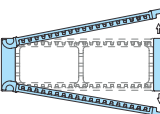
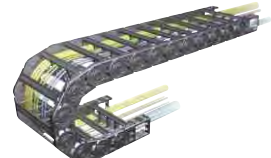
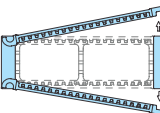
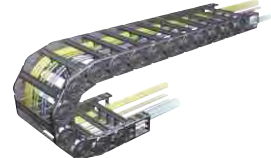
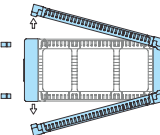
Cable Drag Chains in Glass Fibre Reinforced Polyamide



CPS Chain - N Type (Both Side Open)

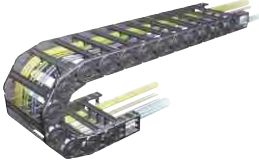
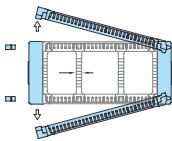
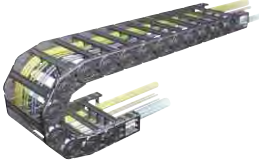
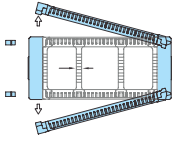
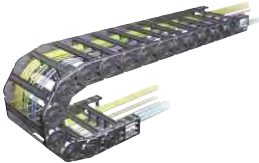
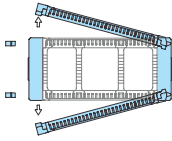
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	CPS015.06	18, 28, 38	12.6	13	6	10	 Attached Side Band
	CPS015.10		16.6	13	10	10	
	CPS015.15		21.6	13	15	10	
	CPS015.20		26.6	13	20	10	
	CPS020.15	28, 38, 48	24	20	15	14.5	 Hinged Side Band
	CPS020.20		29	20	20	14.5	
	CPS020.30		39	20	30	14.5	
	CPS020.40		49	20	40	14.5	
	CPS030.15	38, 48, 75, 100	29	26	15	19	 Hinged Side Band
	CPS030.25		39	26	25	19	
	CPS030.35		49	26	35	19	
	CPS030.50		64	26	50	19	
	CPS033.27	35, 45, 75, 100, 120	45	31	27	23	 Separated Side Band
	CPS033.37		55	31	37	23	
	CPS033.47		65	31	47	23	
	CPS033.67		85	31	67	23	
	CPS033.77		95	31	77	23	

Shift Chain - N Type (Both Side Open)


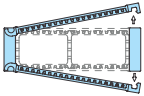
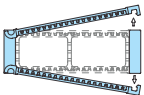
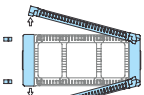
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST044N.035	50, 70, 90, 120, 150	56	38	35	26	
	ST044N.050		71	38	50	26	
	ST044N.055		76	38	55	26	
	ST044N.075		96	38	75	26	
	ST044N.100		121	38	100	26	
	ST044N.125		146	38	125	26	
	ST044N.150		171	38	150	26	
	ST044N.200		221	38	200	26	
	ST055N.035	65, 75, 100, 125, 150, 200	56	52	35	40	
	ST055N.050		71	52	50	40	
	ST055N.055		76	52	55	40	
	ST055N.075		96	52	75	40	
	ST055N.100		121	52	100	40	
	ST055N.125		146	52	125	40	
	ST055N.150		171	52	150	40	
	ST055N.200		221	52	200	40	
	ST072N.050	100, 120, 145, 200, 250, 300	82	66	50	45	
	ST072N.075		107	66	75	45	
	ST072N.100		132	66	100	45	
	ST072N.125		157	66	125	45	
	ST072N.150		182	66	150	45	
	ST072N.175		207	66	175	45	
	ST072N.200		232	66	200	45	
	ST072N.250		282	66	250	45	
ST072N.300	332	66	300	45			

Cable Drag Chains in Glass Fibre Reinforced Polyamide

Shift Chain - N Type (Both Side Open)


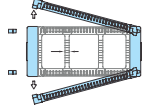
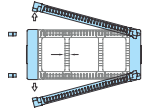
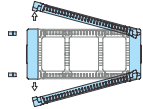
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST095N.075	135,150,200,230,280,400	113	82	75	56	
	ST095N.100		138	82	100	56	
	ST095N.125		163	82	125	56	
	ST095N.150		188	82	150	56	
	ST095N.175		213	82	175	56	
	ST095N.200		238	82	200	56	
	ST095N.250		288	82	250	56	
	ST095N.300		338	82	300	56	
	ST095N.350		388	82	350	56	
	ST095N.400		438	82	400	56	
	ST120N.075	180,200,250,300,350,400,500	117	108	75	78	
	ST120N.100		142	108	100	78	
	ST120N.125		167	108	125	78	
	ST120N.150		192	108	150	78	
	ST120N.175		217	108	175	78	
	ST120N.200		242	108	200	78	
	ST120N.250		292	108	250	78	
	ST120N.300		342	108	300	78	
	ST120N.350		392	108	350	78	
	ST120N.400		442	108	400	78	
	ST120N.450		492	108	450	78	
	ST120N.500		542	108	500	78	
	ST120N.550		592	108	550	78	
	ST120N.600		642	108	600	78	
	ST150N.075	205,305,405,505,605	121	140	75	110	
	ST150N.100		146	140	100	110	
	ST150N.125		171	140	125	110	
	ST150N.150		196	140	150	110	
	ST150N.175		221	140	175	110	
	ST150N.200		246	140	200	110	
	ST150N.250		296	140	250	110	
	ST150N.300		346	140	300	110	
	ST150N.350		396	140	350	110	
	ST150N.400		446	140	400	110	
	ST150N.450		496	140	450	110	
	ST150N.500		546	140	500	110	
	ST150N.550		596	140	550	110	
	ST150N.600		646	140	600	110	

Shift Chain - Semi Enclosed Type (One Side Enclosed)


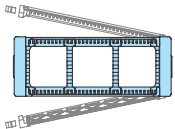
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST044.035	70, 90, 120, 150	56	38	35	26	
	ST044.055		76	38	55	26	
	ST044.075		96	38	75	26	
	ST044.100		121	38	100	26	
	ST055.050	100,125,150,200	71	52	50	40	
	ST055.075		96	52	75	40	
	ST055.100		121	52	100	40	
	ST055.125		146	52	125	40	
	ST055.150	171	52	150	40		
	ST072.050	120,145,200,250,300	82	66	50	45	
	ST072.075		107	66	75	45	
	ST072.100		132	66	100	45	
	ST072.125		157	66	125	45	
	ST072.150		182	66	150	45	

Cable Drag Chains in Glass Fibre Reinforced Polyamide

Shift Chain - Semi Enclosed Type (One Side Enclosed)


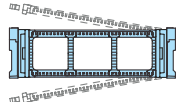

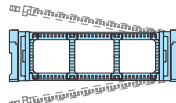

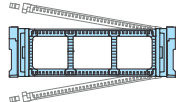
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST095.100	150,200,230,280,400	138	82	100	56	
	ST095.125		163	82	125	56	
	ST095.150		188	82	150	56	
	ST095.175		213	82	175	56	
	ST095.200		238	82	200	56	
	ST120.150	200,250,300,350,400,500	192	108	150	78	
	ST120.200		242	108	200	78	
	ST120.250		292	108	250	78	
	ST120.300		342	108	300	78	
	ST150.200	305,405,505,605	246	140	200	110	
	ST150.250		296	140	250	110	
	ST150.300		346	140	300	110	
	ST150.350		396	140	350	110	
ST150.400	446		140	400	110		

Shift Chain - E Type (Both Side Enclosed)


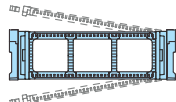

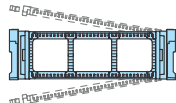
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST044E.035	70,90,120,150	56	38	35	24.5	
	ST044E.055		76	38	55	24.5	
	ST044E.075		96	38	75	24.5	
	ST044E.100		121	38	100	24.5	
	ST055E.050	100,125,150,200	71	52	50	38.5	
	ST055E.075		96	52	75	38.5	
	ST055E.100		121	52	100	38.5	
	ST055E.125		146	52	125	38.5	
	ST055E.150		171	52	150	38.5	
	ST072E.050	120,145,200,250,300	82	66	50	44	
	ST072E.075		107	66	75	44	
ST072E.100	132		66	100	44		
ST072E.125	157		66	125	44		
ST072E.150	182		66	150	44		
ST095E.100	150,200,230,280,400	138	82	100	55		
ST095E.125		163	82	125	55		
ST095E.150		188	82	150	55		
ST095E.175		213	82	175	55		
ST095E.200		238	82	200	55		
ST120E.150	200,250,300,350,400,500	192	108	150	76		
ST120E.200		242	108	200	76		
ST120E.250		294	108	250	76		
ST120E.300		342	108	300	76		
ST150E.200	305,405,505,605	246	141	200	110		
ST150E.250		296	141	250	110		
ST150E.300		346	141	300	110		
ST150E.350		396	141	350	110		
ST150E.400		446	141	400	110		

Cable Drag Chains in Glass Fibre Reinforced Polyamide

Shift Chain - S Type (Sliding with Skid)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST072S.050	100,120,145, 200,250,300	98	71	50	45	
	ST072S.075		123	71	75	45	
	ST072S.100		148	71	100	45	
	ST072S.125		173	71	125	45	
	ST072S.150		198	71	150	45	
	ST072S.175		223	71	175	45	
	ST072S.200		248	71	200	45	
	ST072S.250		298	71	250	45	
	ST072S.300		348	71	300	45	
	ST095S.075	135,150,200,230, 280,400	137	89	75	56	
	ST095S.100		162	89	100	56	
	ST095S.125		187	89	125	56	
	ST095S.150		212	89	150	56	
	ST095S.175		237	89	175	56	
	ST095S.200		262	89	200	56	
	ST095S.250		312	89	250	56	
	ST095S.300		362	89	300	56	
	ST095S.350		412	89	350	56	
ST095S.400	462	89	400	56			
	ST120S.075	180,200,250,300,350, 400,500	137	115	75	78	
	ST120S.100		162	115	100	78	
	ST120S.125		187	115	125	78	
	ST120S.150		212	115	150	78	
	ST120S.175		237	115	175	78	
	ST120S.200		262	115	200	78	
	ST120S.250		312	115	250	78	
	ST120S.300		362	115	300	78	
	ST120S.350		412	115	350	78	
	ST120S.400		462	115	400	78	
	ST120S.450		512	115	450	78	
	ST120S.500		562	115	500	78	
	ST120S.550		612	115	550	78	
ST120S.600	662	115	600	78			

Shift Chain - RS Type (Sliding with Roller Skid)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST044RS.035	70,90,120,150	73	40.5	35	26	
	ST044RS.050		88	40.5	50	26	
	ST044RS.055		93	40.5	55	26	
	ST044RS.075		113	40.5	75	26	
	ST044RS.100		138	40.5	100	26	
	ST044RS.125		163	40.5	125	26	
	ST044RS.150		188	40.5	150	26	
	ST044RS.175		213	40.5	175	26	
	ST044RS.200		238	40.5	200	26	
	ST072RS.050	100,120,145, 200,250,300	104	69	50	45	
	ST072RS.075		129	69	75	45	
	ST072RS.100		154	69	100	45	
	ST072RS.125		179	69	125	45	
	ST072RS.150		204	69	150	45	
	ST072RS.175		229	69	175	45	
	ST072RS.200		254	69	200	45	
	ST072RS.250		304	69	250	45	
	ST072RS.300		354	69	300	45	

Cable Drag Chains in Glass Fibre Reinforced Polyamide

Shift Chain - S Type (Sliding with Roller Skid)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST095RS.075	135,150,200,230,280,400	143	85	75	56	
	ST095RS.100		168	85	100	56	
	ST095RS.125		193	85	125	56	
	ST095RS.150		218	85	150	56	
	ST095RS.175		243	85	175	56	
	ST095RS.200		268	85	200	56	
	ST095RS.250		318	85	250	56	
	ST095RS.300		368	85	300	56	
	ST095RS.350		418	85	350	56	
	ST095RS.400		468	85	400	56	
	ST120RS.075	180,200,250,300,350,400,500	143	112	75	78	
	ST120RS.100		168	112	100	78	
	ST120RS.125		193	112	125	78	
	ST120RS.150		218	112	150	78	
	ST120RS.175		243	112	175	78	
	ST120RS.200		268	112	200	78	
	ST120RS.250		318	112	250	78	
	ST120RS.300		368	112	300	78	
	ST120RS.350		418	112	350	78	
	ST120RS.400		468	112	400	78	
	ST120RS.450		518	112	450	78	
	ST120RS.500		568	112	500	78	
	ST120RS.550		618	112	550	78	
	ST120RS.600		668	112	600	78	
	ST150RS.075	305,405,505,605	162	145	75	110	
	ST150RS.100		187	145	100	110	
	ST150RS.125		212	145	125	110	
	ST150RS.150		237	145	150	110	
	ST150RS.175		262	145	175	110	
	ST150RS.200		287	145	200	110	
	ST150RS.250		337	145	250	110	
	ST150RS.300		387	145	300	110	
	ST150RS.350		437	145	350	110	
	ST150RS.400		487	145	400	110	
	ST150RS.450		537	145	450	110	
	ST150RS.500		587	145	500	110	
	ST150RS.550		637	145	550	110	
	ST150RS.600		687	145	600	110	

Shift Chain - ES Type (Enclosed Sliding with Skid)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST072ES.050	120,145,200,250,300	98	71	50	44	
	ST072ES.075		123	71	75	44	
	ST072ES.100		148	71	100	44	
	ST072ES.125		173	71	125	44	
	ST072ES.150		198	71	150	44	
	ST095ES.100	150,200,230,280,400	162	89	100	55	
	ST095ES.125		187	89	125	55	
	ST095ES.150		212	89	150	55	
	ST095ES.175		237	89	175	55	
	ST095ES.200		262	89	200	55	
	ST120ES.150	200,250,300,350,400,500	212	115	150	76	
	ST120ES.200		262	115	200	76	
	ST120ES.250		312	115	250	76	
	ST120ES.300		362	115	300	76	

Cable Drag Chains in Glass Fibre Reinforced Polyamide

Shift Chain - ERS Type (Enclosed Sliding with Roller Skid)

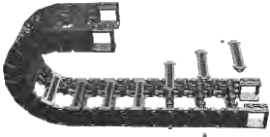
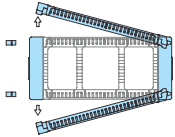
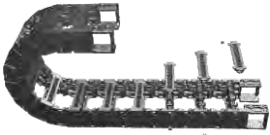
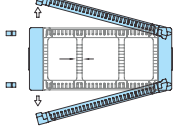
	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	ST044ERS.035	70,90,120,150	73	40.5	35	24.5	
	ST044ERS.055		93	40.5	55	24.5	
	ST044ERS.075		113	40.5	75	24.5	
	ST044ERS.100		138	40.5	100	24.5	
	ST072ERS.050	120,145,200,250,300	104	69	50	44	
	ST072ERS.075		129	69	75	44	
	ST072ERS.100		154	69	100	44	
	ST072ERS.125		179	69	125	44	
ST072ERS.150	204		69	150	44		
	ST095ERS.100	150,200,230,280,400	168	85	100	55	
	ST095ERS.125		193	85	125	55	
	ST095ERS.150		218	85	150	55	
	ST095ERS.175		243	85	175	55	
	ST095ERS.200		268	85	200	55	
	ST120ERS.150	200,250,300,350,400,500	218	112	150	76	
	ST120ERS.200		268	112	200	76	
	ST120ERS.250		318	112	250	76	
	ST120ERS.300		368	112	300	76	
	ST150ERS.200	305,405,505,605	287	145	200	110	
	ST150ERS.250		337	145	250	110	
	ST150ERS.300		387	145	300	110	
	ST150ERS.350		437	145	350	110	
	ST150ERS.400		487	145	400	110	

SABIN Chain - N Type (BOTH SIDE OPEN)


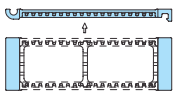

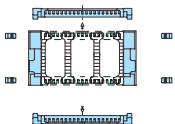


	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	NSB028N.035	46, 66, 86, 116, 146	55	38	35	26	
	NSB028N.050		70	38	50	26	
	NSB028N.055		75	38	55	26	
	NSB028N.075		95	38	75	26	
	NSB028N.100		120	38	100	26	
	NSB028N.125		145	38	125	26	
	NSB028N.150		170	38	150	26	
	NSB028N.175		195	38	175	26	
	NSB028N.200		220	38	200	26	
	NSB035N.035	55, 65, 90, 115, 140, 190	55	52	35	40	
	NSB035N.050		70	52	50	40	
	NSB035N.055		75	52	55	40	
	NSB035N.075		95	52	75	40	
	NSB035N.100		120	52	100	40	
	NSB035N.125		145	52	125	40	
	NSB035N.150		170	52	150	40	
	NSB035N.175		195	52	175	40	
	NSB035N.200		220	52	200	40	
	NSB045N.050	90, 110, 135, 165, 185, 235, 285	80	66	50	45	
	NSB045N.075		105	66	75	45	
	NSB045N.100		130	66	100	45	
	NSB045N.125		155	66	125	45	
	NSB045N.150		180	66	150	45	
	NSB045N.175		205	66	175	45	
	NSB045N.200		230	66	200	45	
	NSB045N.250		280	66	250	45	
	NSB045N.300		330	66	300	45	

Cable Drag Chains in Glass Fibre Reinforced Polyamide

SABIN Chain - N Type (BOTH SIDE OPEN)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	NSB060N.075	125, 135, 150, 180, 230, 270, 340	115	82	75	56	
	NSB060N.100		140	82	100	56	
	NSB060N.125		165	82	125	56	
	NSB060N.150		190	82	150	56	
	NSB060N.175		215	82	175	56	
	NSB060N.200		240	82	200	56	
	NSB060N.250		290	82	250	56	
	NSB060N.300		340	82	300	56	
	NSB060N.350		390	82	350	56	
	NSB060N.400		440	82	400	56	
	NSB075N.075	160, 180, 230, 280, 330, 380, 480	115	108	75	78	
	NSB075N.100		140	108	100	78	
	NSB075N.125		165	108	125	78	
	NSB075N.150		190	108	150	78	
	NSB075N.175		215	108	175	78	
	NSB075N.200		240	108	200	78	
	NSB075N.250		290	108	250	78	
	NSB075N.300		340	108	300	78	
	NSB075N.350		390	108	350	78	
	NSB075N.400		440	108	400	78	
	NSB075N.450		490	108	450	78	
	NSB075N.500		540	108	500	78	
	NSB075N.550		590	108	550	78	
	NSB075N.600		640	108	600	78	

SABIN Chain - E Type (BOTH SIDE ENCLOSED)

	Type	Bending Radius (mm)	Outer Width (mm) A	Outer Height (mm) B	Inner Width (mm) C	Inner Height (mm) D	Chain Cross Section
	NSB028E.035	66, 86, 116, 146	55	38	35	26	
	NSB028E.055		75	38	55	26	
	NSB028E.075		95	38	75	26	
	NSB028E.100		120	38	100	26	
	NSB035E.050	90, 115, 140, 190	70	52	50	40	
	NSB035E.075		95	52	75	40	
	NSB035E.100		120	52	100	40	
	NSB035E.125		145	52	125	40	
	NSB035E.150	170	52	150	40		
	NSB045E.075	90, 110, 135, 165, 185, 235, 285	105	66	75	45	
NSB045E.100	130		66	100	45		
NSB045E.125	155		66	125	45		
NSB045E.150	180		66	150	45		
NSB060E.100	125, 135, 150, 180, 230, 270, 340	140	82	100	56		
NSB060E.150		190	82	150	56		
NSB060E.200		240	82	200	56		
NSB075E.150	160, 180, 230, 280, 330, 380, 480	190	108	150	78		
NSB075E.200		240	108	200	78		
NSB075E.300		340	108	300	78		



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Printing Machine, Feeder Unit and Counting Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths CPS015	Curve above = max. 0.8 m Curve below = max. 3 m Side mounted, Unsupported = max. 0.2 m
Vertical Installation Lengths CPS020	Curve above = max. 1.0 m Curve below = max. 5 m Side mounted, Unsupported = max. 0.5 m
Approvals	

CPS CABLE DRAG CHAINS - N TYPE

CPS015 / CPS020 (BOTH SIDE OPEN)



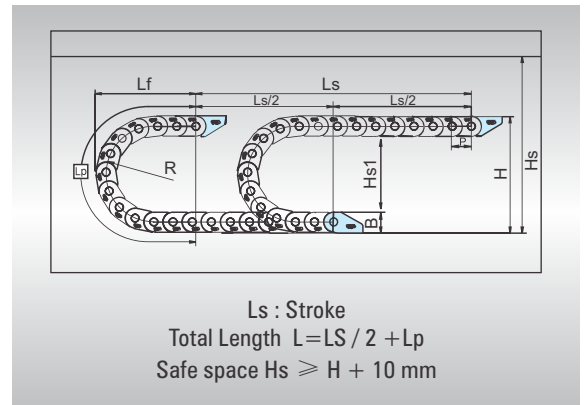
CPS015

Bending Radius R	18	28	38
Lp	117	148	180
Lf	55	65	75
H	49	69	89

CPS020

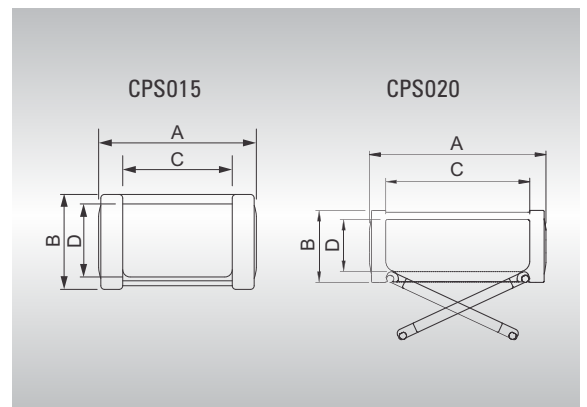
Bending Radius R	28	38	48
Lp	170	200	230
Lf	78	88	98
H	76	96	116

Technical Dimensions (mm)



Chain Cross Section

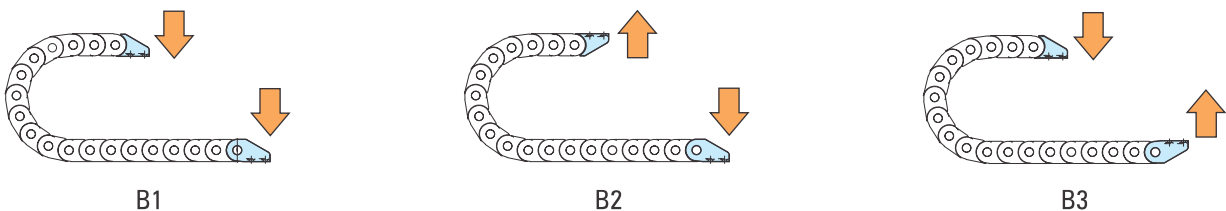
Cat. No.	A	B	C	D	Bending Radius
CPS015.06	12.6	13	6	10	
CPS015.10	16.6	13	10	10	18, 28, 38
CPS015.15	21.6	13	15	10	
CPS015.20	26.6	13	20	10	
CPS020.15	24	20	15	14.5	
CPS020.20	29	20	20	14.5	28, 38, 48
CPS020.30	39	20	30	14.5	
CPS020.40	49	20	40	14.5	

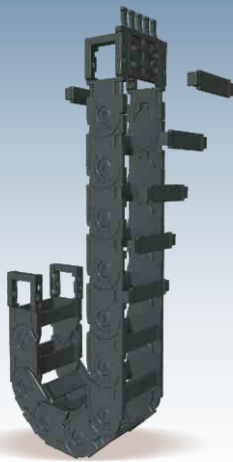


End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
S-TEB015.06/10/15/20	Tiewrap	CPS015
S-TEB020.15/20/30/40	Tiewrap	CPS020

End Bracket Mounting Method






CPS CABLE DRAG CHAINS - N TYPE

CPS030 / CPS033 (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 1.5 m Curve below = max. 10 m Side mounted, Unsupported = max. 0.6 m
Approvals	

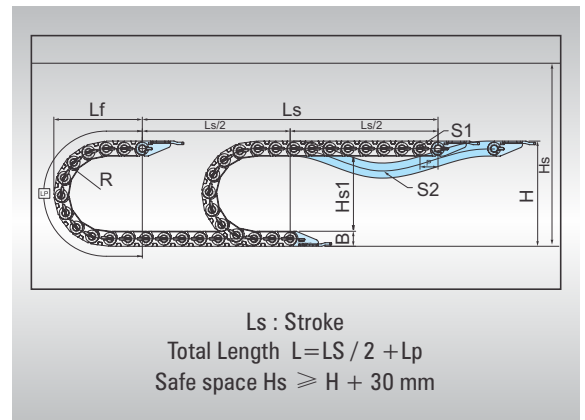
CPS030

Bending Radius R	38	48	75	100
Lp	240	271	356	434
Lf	110	119	148	173
H	101	121	175	225

CPS033

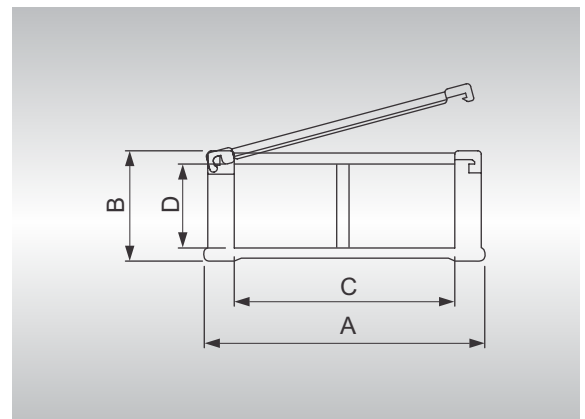
Bending Radius R	35	45	75	100	120
Lp	242	274	368	446	509
Lf	117	127	157	182	202
H	101	121	181	231	271

Technical Dimensions (mm)



Chain Cross Section

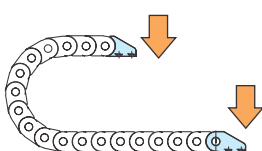
Cat. No.	A	B	C	D	Bending Radius
CPS030.15	29	26	15	19	38,48,75,100
CPS030.25	39	26	25	19	
CPS030.35	49	26	35	19	
CPS030.50	64	26	50	19	
CPS033.27	45	31	27	23	35, 45, 75, 100, 120
CPS033.37	43	31	37	23	
CPS033.47	53	31	47	23	
CPS033.67	83	31	67	23	
CPS033.77	93	31	77	23	



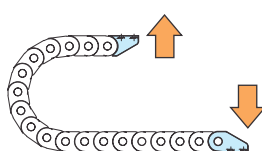
End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
S-TEB030.15/25/35/50	Tiewrap (B1/B2/B3)	CPS030
S-EEB033.27/37/47/67/77	Easy (B0)	CPS033

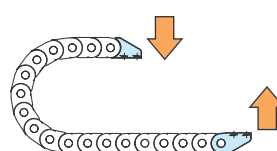
End Bracket Mounting Method



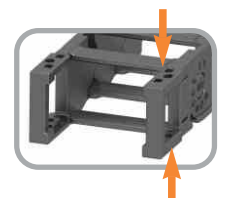
B1



B2



B3

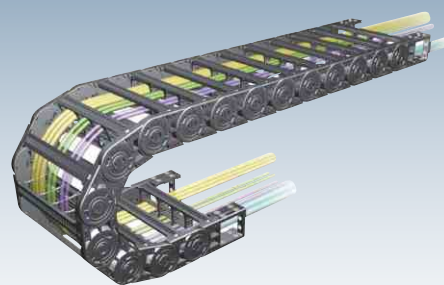


Easy End Bracket B0



SHIFT CABLE DRAG CHAINS - N TYPE

ST044N (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 2 m Curve below = max. 40 m Side mounted, Unsupported = max. 1 m
Approvals	

ST044N

Bending Radius R	50	70	90	120	150
Lp	333	396	459	553	648
Lf	157	177	197	227	257
H	138	178	218	278	338

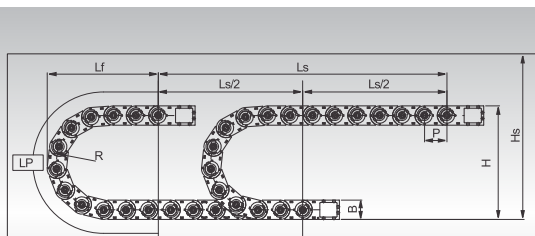
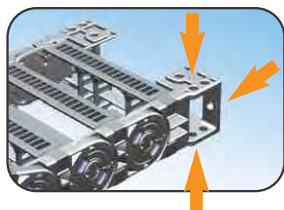
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST044N.035	56	38	35	26	50, 70, 90, 120, 150
ST044N.050	71	38	50	26	
ST044N.055	76	38	55	26	
ST044N.075	96	38	75	26	
ST044N.100	121	38	100	26	
ST044N.125	146	38	125	26	
ST044N.150	171	38	150	26	
ST044N.175	176	38	175	26	
ST044N.200	221	38	200	26	

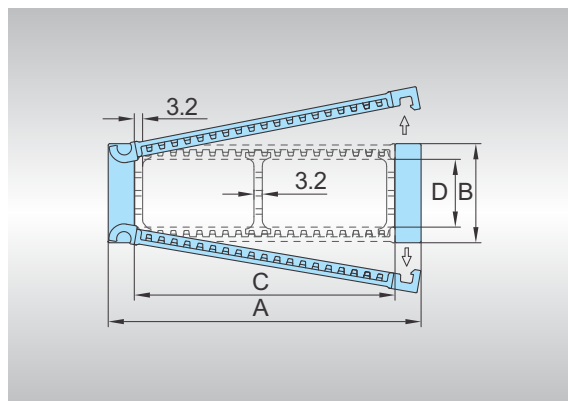
End Bracket (Polyamide)

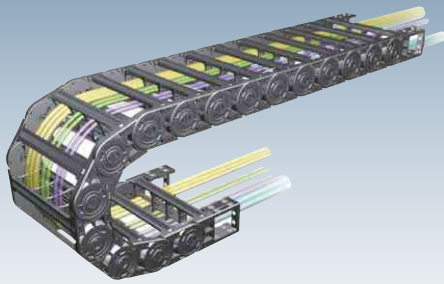
Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044N/S	Free	ST044

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 30 \text{ mm}$






SHIFT CABLE DRAG CHAINS - N TYPE

ST055N (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30 ⁰ C to +130 ⁰ C Continuous
Vertical Installation Lengths	Curve above = max. 3 m Curve below = max. 50 m Side mounted, Unsupported = max. 1 m
Approvals	

ST055N

Bending Radius R	65	75	100	125	150	200
Lp	424	456	535	613	692	849
Lf	201	211	236	261	286	336
H	182	202	252	302	352	452

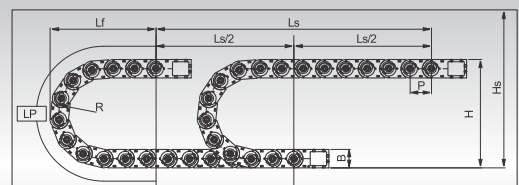
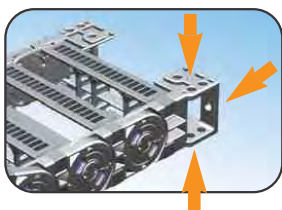
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST055N.035	56	52	35	40	65,75,100, 125,150,200
ST055N.050	71	52	50	40	
ST055N.055	76	52	55	40	
ST055N.075	96	52	75	40	
ST055N.100	121	52	100	40	
ST055N.125	146	52	125	40	
ST055N.150	171	52	150	40	
ST055N.175	176	52	175	40	
ST055N.200	221	52	200	40	

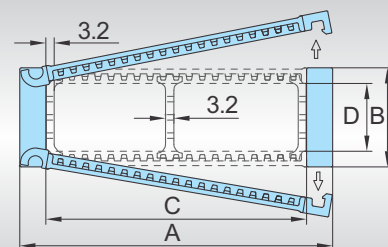
End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB055N/E	Free	ST055N

End Bracket



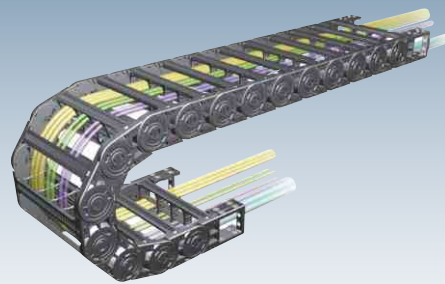
Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 35 \text{ mm}$





SHIFT CABLE DRAG CHAINS - N TYPE

ST072N (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

ST072N

Bending Radius R	72	100	120	145	200	250	300
Lp	514	603	665	743	916	1074	1230
Lf	249	277	297	322	377	427	477
H	210	266	306	356	466	566	666

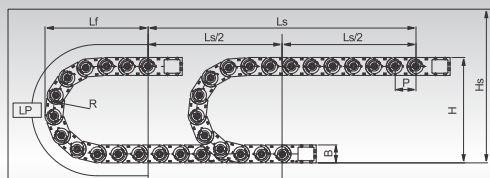
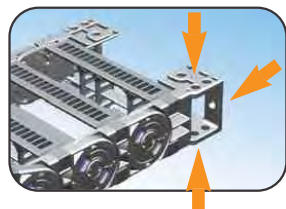
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072N.050	82	66	50	45	
ST072N.075	107	66	75	45	
ST072N.100	132	66	100	45	
ST072N.125	157	66	125	45	72,100,
ST072N.150	182	66	150	45	120,145,
ST072N.175	207	66	175	45	200,250,300
ST072N.200	232	66	200	45	
ST072N.250	282	66	250	45	
ST072N.300	332	66	300	45	

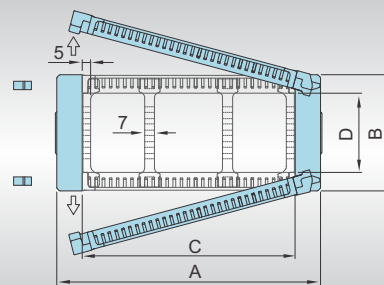
End Bracket (In Polyamide with Steel Spacers)

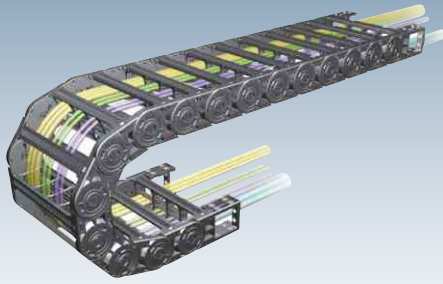
Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072N/S	Free	ST072N

End Bracket



Ls : Stroke
 Total Length $L = Ls / 2 + Lp$
 Safe space $Hs \geq H + 40 \text{ mm}$





SHIFT CABLE DRAG CHAINS - N TYPE

ST095N (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 3 m
Approvals	CE

ST095N

Bending Radius R	135	150	200	230	280	400
Lp	805	855	1010	1110	1260	1640
Lf	364	374	428	459	505	629
H	352	382	482	542	642	882

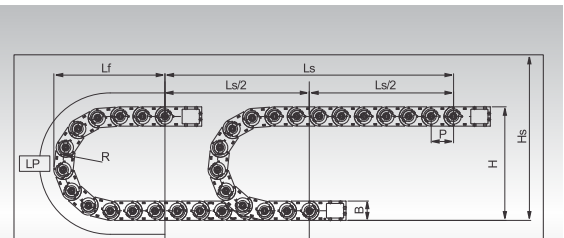
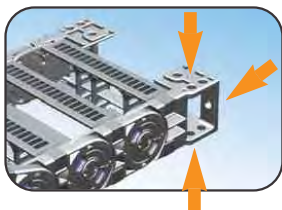
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST095N.075	113	82	75	56	135,150,200, 230,280,400
ST095N.100	138	82	100	56	
ST095N.125	163	82	125	56	
ST095N.150	188	82	150	56	
ST095N.175	213	82	175	56	
ST095N.200	238	82	200	56	
ST095N.250	288	82	250	56	
ST095N.300	338	82	300	56	
ST095N.350	388	82	350	56	
ST095N.400	438	82	400	56	

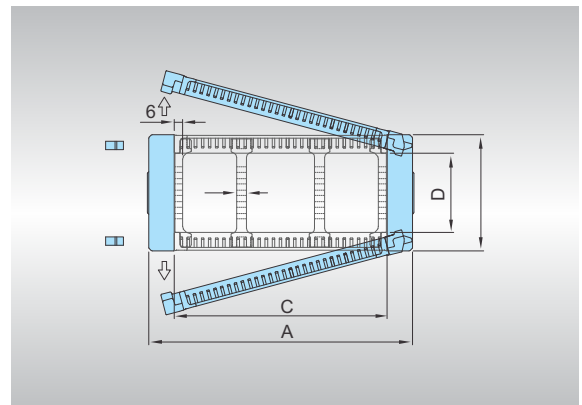
End Bracket (In Polyamide with Steel Spacers)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB095N/S	Free	ST095N

End Bracket



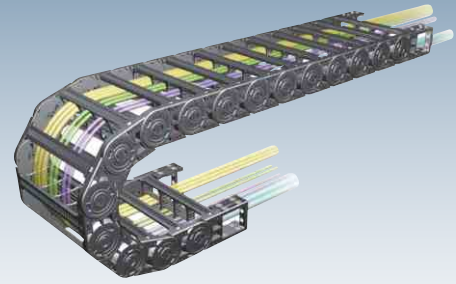
Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 50$ mm





SHIFT CABLE DRAG CHAINS - N TYPE

ST120N (BOTH SIDE OPEN)



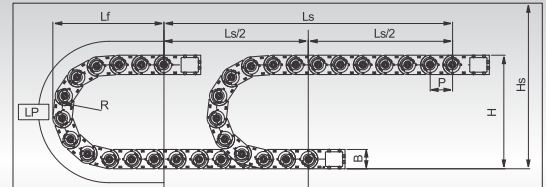
Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 120 m Side mounted, Unsupported = max. 3 m
Approvals	

ST120N

Bending Radius R	180	200	250	300	350	400	500
Lp	1046	1109	1266	1423	1580	1737	2051
Lf	474	494	544	594	644	694	794
H	468	508	608	708	808	908	1108

Chain Cross Section

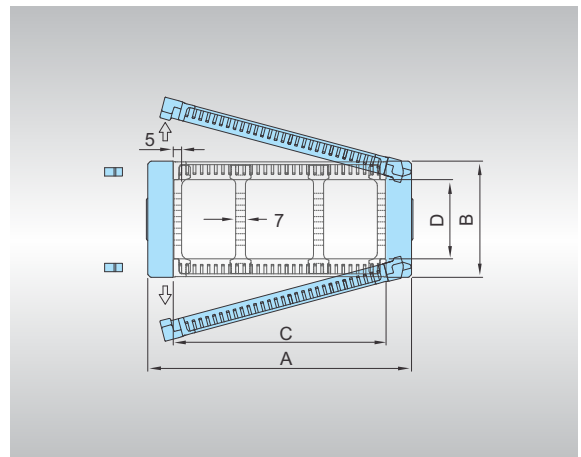
Cat. No.	A	B	C	D	Bending Radius
ST120N.075	117	108	75	78	
ST120N.100	142	108	100	78	
ST120N.125	167	108	125	78	
ST120N.150	192	108	150	78	
ST120N.175	217	108	175	78	
ST120N.200	242	108	200	78	180,200,
ST120N.250	292	108	250	78	250,300,
ST120N.300	342	108	300	78	350,400,
ST120N.350	392	108	350	78	500
ST120N.400	442	108	400	78	
ST120N.450	492	108	450	78	
ST120N.500	542	108	500	78	
ST120N.550	592	108	550	78	
ST120N.600	642	108	600	78	



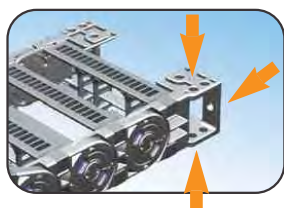
Ls : Stroke
Total Length $L = LS / 2 + Lp$
Safe space $Hs \geq H + 60 \text{ mm}$

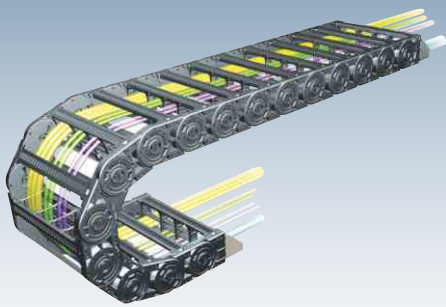
End Bracket (In Polyamide with Steel Spacers)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB120N/S	Free	ST120N



End Bracket





SHIFT CABLE DRAG CHAINS - N TYPE

ST150N (BOTH SIDE OPEN)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 7 m Curve below = max. 150 m Side mounted, Unsupported = max. 4 m
Approvals	CE

ST150N

Bending Radius R	205	305	405	505	605
Lp	1215	1510	1807	2106	2405
Lf	561	651	743	835	928
H	550	750	950	1150	1350

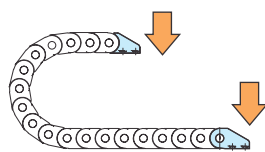
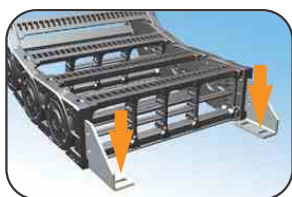
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST150N.075	121	140	75	110	
ST150N.100	146	140	100	110	
ST150N.125	171	140	125	110	
ST150N.150	196	140	150	110	
ST150N.175	221	140	175	110	
ST150N.200	246	140	200	110	
ST150N.250	296	140	250	110	205,305,
ST150N.300	346	140	300	110	405,505,
ST150N.350	396	140	350	110	605
ST150N.400	446	140	400	110	
ST150N.450	496	140	450	110	
ST150N.500	546	140	500	110	
ST150N.550	596	140	550	110	
ST150N.600	646	140	600	110	

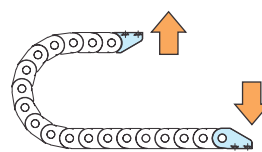
End Bracket in Steel

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-SEB150/B1-B2-B3	B1/B2/B3	ST150N

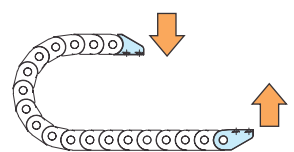
End Bracket



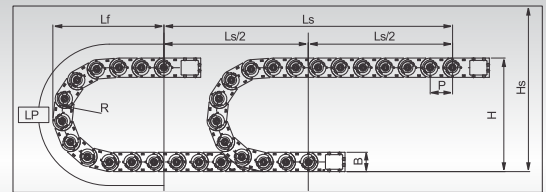
B1



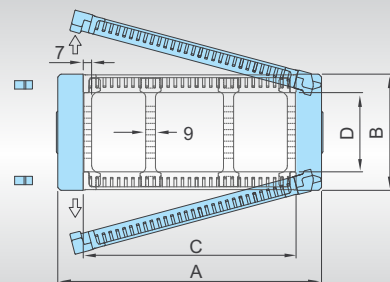
B2



B3



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 80 \text{ mm}$

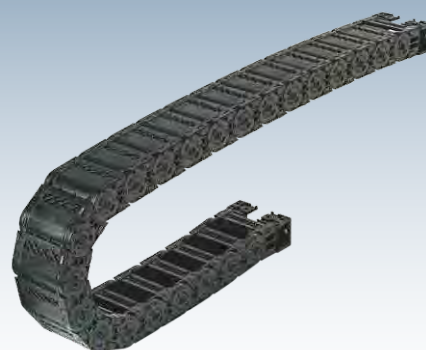




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 2 m Curve below = max. 40 m Side mounted, Unsupported = max. 1 m
Approvals	

SHIFT CABLE DRAG CHAINS

ST044 / ST055 (ONE SIDE ENCLOSED)

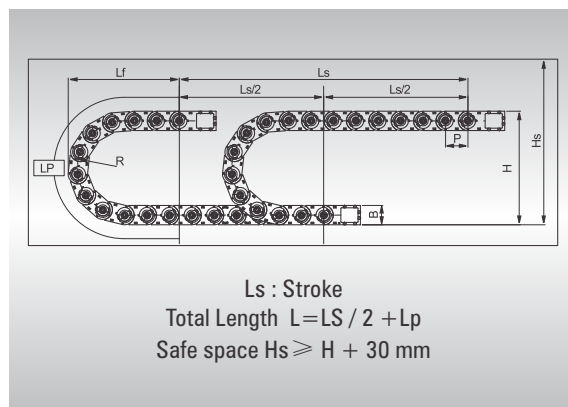


ST044

Bending Radius R	70	90	120	150
Lp	396	459	553	648
Lf	177	197	227	257
H	178	218	278	338

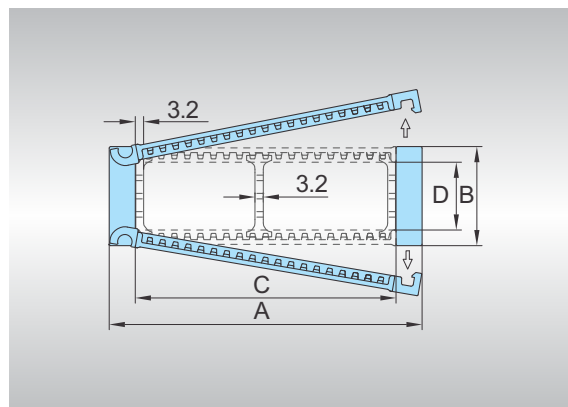
ST055

Bending Radius R	100	125	150	200
Lp	535	613	602	849
Lf	236	261	286	336
H	252	302	352	452



Chain Cross Section

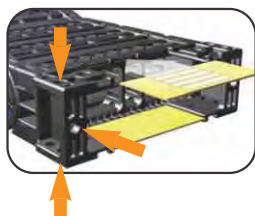
Cat. No.	A	B	C	D	Bending Radius
ST044.035	56	38	35	26	70, 90, 120, 150
ST044.055	76	38	55	26	
ST044.075	96	38	75	26	
ST044.100	121	38	100	26	
ST055.050	71	52	50	40	100, 125, 150, 200
ST055.075	96	52	75	40	
ST055.100	121	52	100	40	
ST055.125	146	52	125	40	
ST055.150	171	52	150	40	

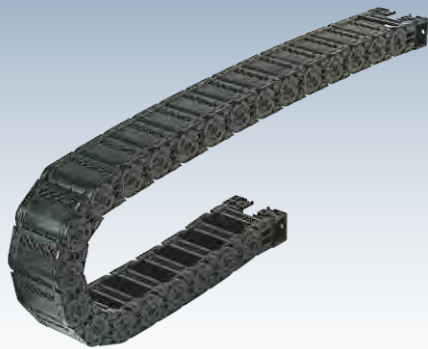


End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044N/S	Free	ST044
ST-FEB055N/E	Free	ST055

End Bracket





SHIFT CABLE DRAG CHAINS

ST072 / ST095 (ONE SIDE ENCLOSED)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST072

Bending Radius R	120	145	200	250	300
Lp	665	743	916	1074	1230
Lf	297	322	377	427	477
H	306	356	466	566	666

ST095

Bending Radius R	150	200	230	280	400
Lp	855	1010	1110	1260	1640
Lf	374	428	459	505	629
H	382	482	542	642	882

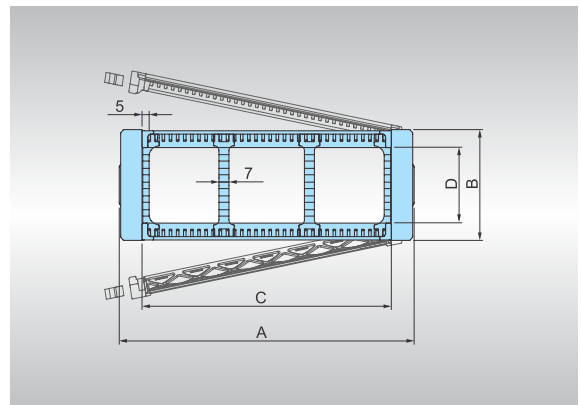
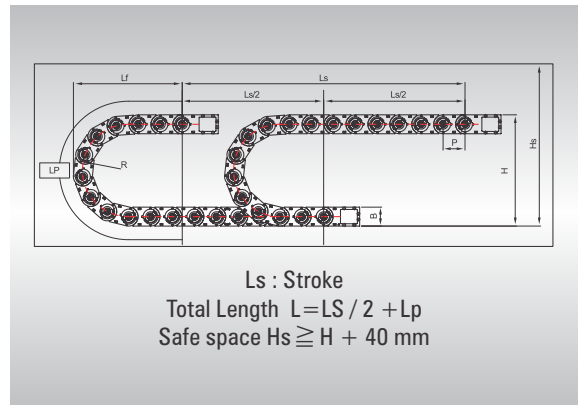
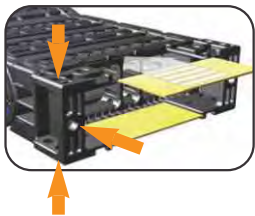
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072.050	82	66	50	45	120,145, 200,250,300
ST072.075	107	66	75	45	
ST072.100	132	66	100	45	
ST072.125	157	66	125	45	
ST072.150	182	66	150	45	150,200,230, 280,400
ST095.100	138	82	100	56	
ST095.125	163	82	125	56	
ST095.150	188	82	150	56	
ST095.175	213	82	175	56	
ST095.200	238	82	200	56	

End Bracket (In Polyamide with Steel Washers)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072N/S	Free	ST072
ST-FEB095N/S	Free	ST095

End Bracket

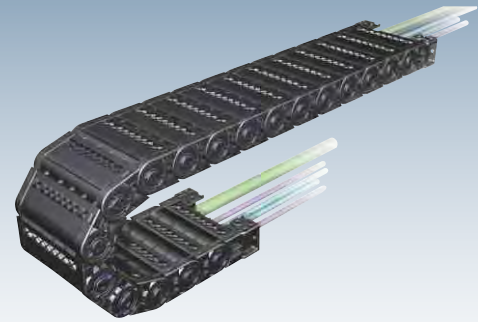




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 2 m Curve below = max. 40 m Side mounted, Unsupported = max. 1 m
Approvals	

SHIFT CABLE DRAG CHAINS - E TYPE

ST044E / ST055E (BOTH SIDE ENCLOSED)

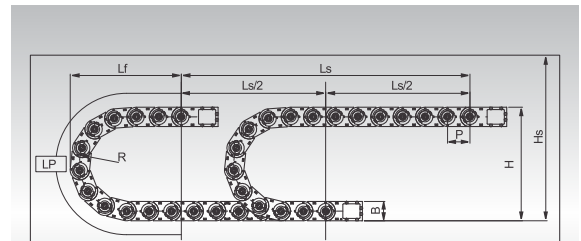


ST044E

Bending Radius R	70	90	120	150
Lp	396	459	553	648
Lf	177	197	227	257
H	178	218	278	338

ST055E

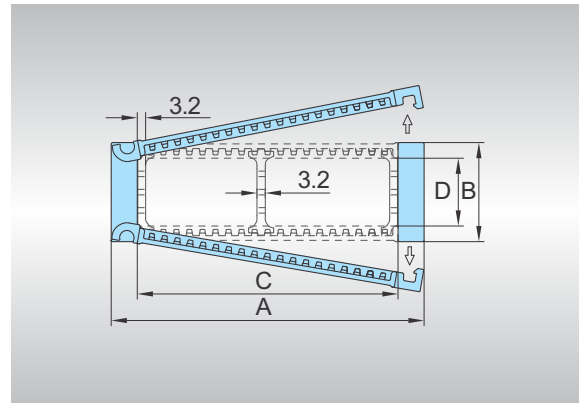
Bending Radius R	100	125	150	200
Lp	535	613	602	849
Lf	236	261	286	336
H	252	302	352	452



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 30 \text{ mm}$

Chain Cross Section

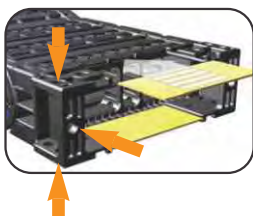
Cat. No.	A	B	C	D	Bending Radius
ST044E.035	56	38	35	24.5	70, 90, 120, 150
ST044E.055	76	38	55	24.5	
ST044E.075	96	38	75	24.5	
ST044E.100	121	38	100	24.5	
ST055E.050	71	52	50	38.5	100, 125, 150, 200
ST055E.075	96	52	75	38.5	
ST055E.100	121	52	100	38.5	
ST055E.125	146	52	125	38.5	
ST055E.150	171	52	150	38.5	

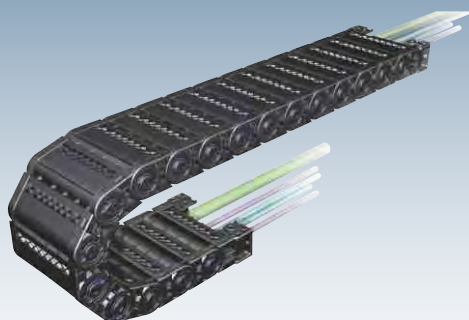


End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044E	Free	ST044E
ST-FEB055N/E	Free	ST055E

End Bracket





SHIFT CABLE DRAG CHAINS - E TYPE

ST072E / ST095E (BOTH SIDE ENCLOSED)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST072E

Bending Radius R	120	145	200	250	300
Lp	665	743	916	1074	1230
Lf	297	322	377	427	477
H	306	356	466	566	666

ST095E

Bending Radius R	150	200	230	280	400
Lp	855	1010	1110	1260	1640
Lf	374	428	459	505	629
H	382	482	542	642	882

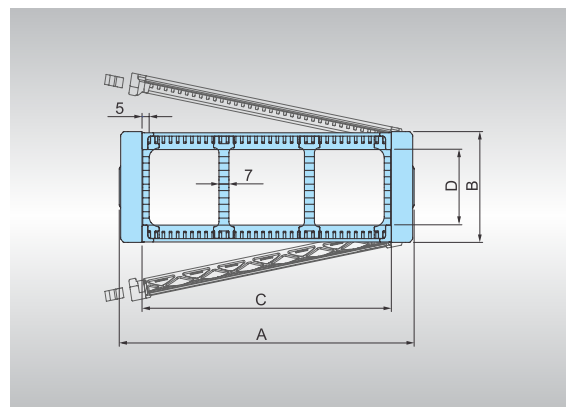
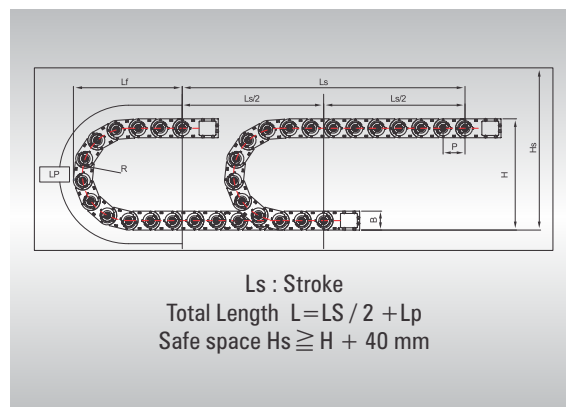
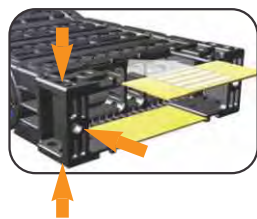
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072E.050	82	66	50	44	120,145, 200,250,300
ST072E.075	107	66	75	44	
ST072E.100	132	66	100	44	
ST072E.125	157	66	125	44	
ST072E.150	182	66	150	44	
ST095E.100	138	82	100	55	150,200,230, 280,400
ST095E.125	163	82	125	55	
ST095E.150	188	82	150	55	
ST095E.175	213	82	175	55	
ST095E.200	238	82	200	55	

End Bracket (In Polyamide with Steel Washers)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072E	Free	ST072E
ST-FEB095E	Free	ST095E

End Bracket

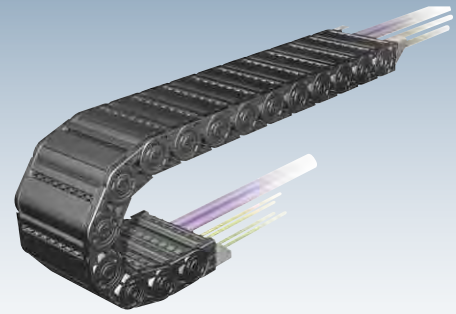




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 8 m Curve below = max. 120 m Side mounted, Unsupported = max. 3.0 m
Approvals	

SHIFT CABLE DRAG CHAINS - E TYPE

ST0120E / ST0150E (BOTH SIDE ENCLOSED)

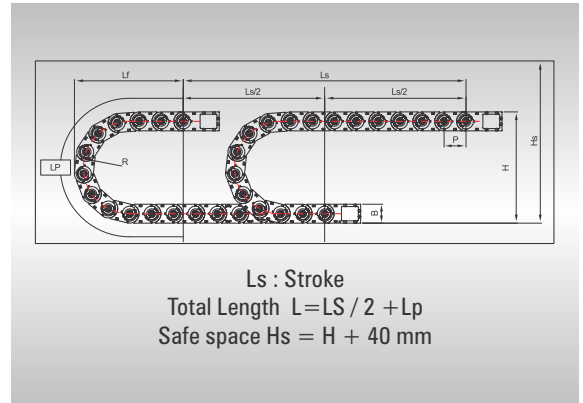


ST120E

Bending Radius R	200	250	300	350	400	450
Lp	1109	1266	1423	1580	1737	2051
Lf	494	544	594	644	694	794
H	508	608	708	808	908	1108

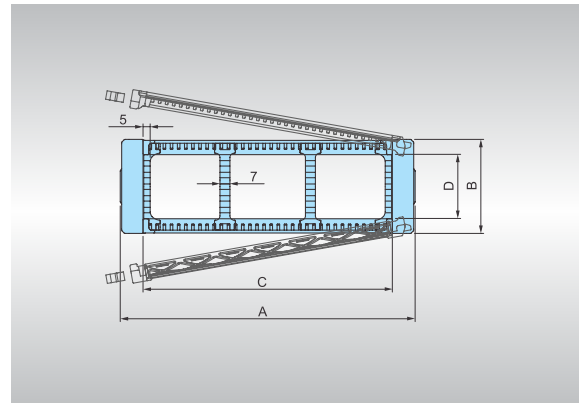
ST150E

Bending Radius R	305	405	505	605
Lp	1510	1807	2106	2405
Lf	651	743	835	928
H	752	952	1152	1352



Chain Cross Section

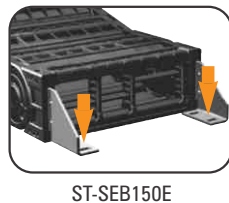
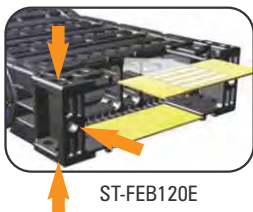
Cat. No.	A	B	C	D	Bending Radius
ST120E.150	192	108	150	76	200,250,300, 350,400,500
ST120E.200	242	108	200	76	
ST120E.250	294	108	250	76	
ST120E.300	342	108	300	76	
ST150E.200	246	141	200	110	305,405, 505,605
ST150E.250	296	141	250	110	
ST150E.300	346	141	300	110	
ST150E.350	396	141	350	110	
ST150E.400	446	141	400	110	

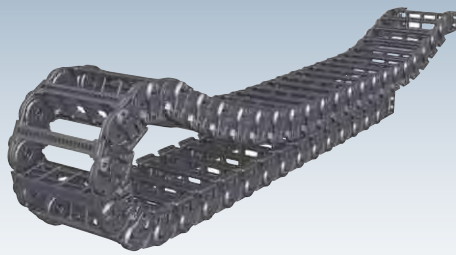


End Bracket with Steel Washers

Cat. No.	Material	End Bracket Type	Suitable for Chain Size
ST-FEB120E	Polyamide	Free	ST120E
ST-SEB150E/B1-B2-B3	Steel	B1/B2/B3	ST150E

End Bracket





SHIFT CABLE DRAG CHAINS - S TYPE

ST044S (SLIDING WITH SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST044S

Bending Radius R	70	90	120	150
Lp	544	662	926	1190
Lf	249	289	393	497
H	130	130	130	130

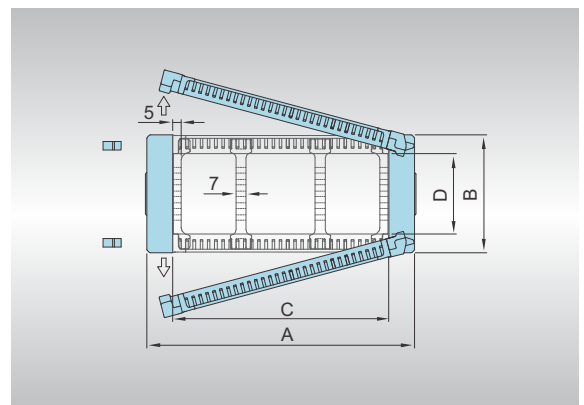
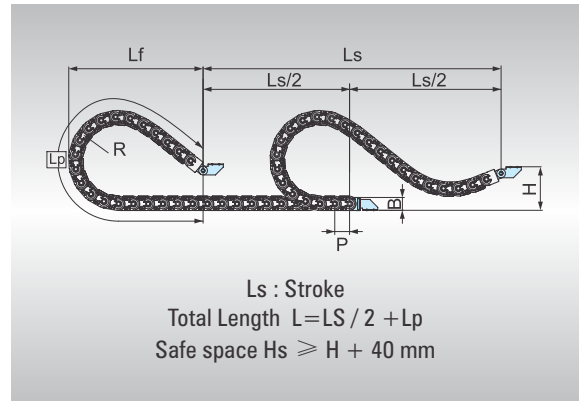
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST044S.035	73	40.5	35	26	
ST044S.050	88	40.5	50	26	
ST044S.055	93	40.5	55	26	
ST044S.075	113	40.5	75	26	70,90,
ST044S.100	138	40.5	100	26	120,150
ST044S.125	163	40.5	125	26	
ST044S.150	188	40.5	150	26	
ST044S.175	213	40.5	175	26	
ST044S.200	238	40.5	200	26	

End Bracket in Polyamide

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044N/S	Free	ST044S

End Bracket

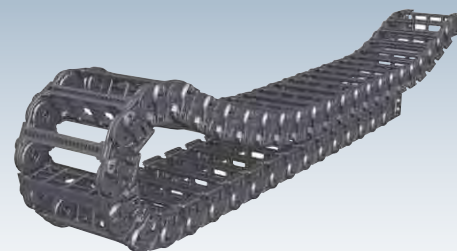




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.3 - 0.4 μ
Speed	10m / sec
Temperature Range	-30° C to +130° C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

SHIFT CABLE DRAG CHAINS - S TYPE

ST072S (SLIDING WITH SKID)



ST072S

Bending Radius R	100	120	145	200	250	300
Lp	806	917	1063	1400	1840	2280
Lf	380	420	470	580	752	924
H	230	230	230	230	230	230

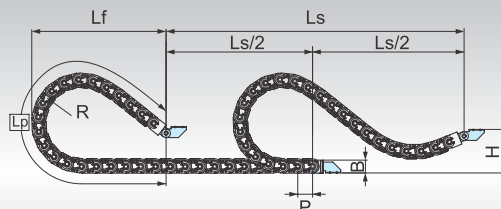
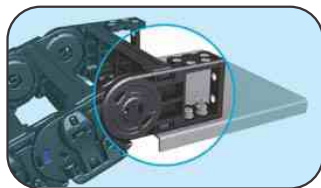
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072S.050	98	71	50	45	
ST072S.075	123	71	75	45	
ST072S.100	148	71	100	45	
ST072S.125	173	71	125	45	100,120,145,
ST072S.150	198	71	150	45	200,250,300
ST072S.175	223	71	175	45	
ST072S.200	248	71	200	45	
ST072S.250	298	71	250	45	
ST072S.300	348	71	300	45	

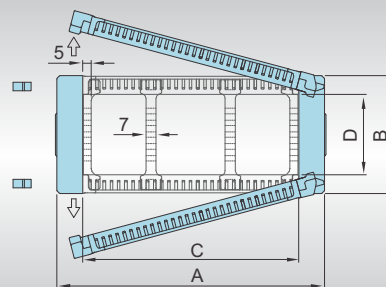
End Bracket (In Polyamide with Steel Washer)

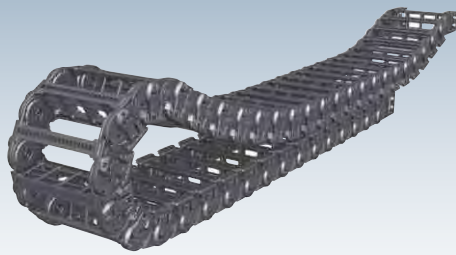
Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072N/S	Free	ST072S

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 40 \text{ mm}$





SHIFT CABLE DRAG CHAINS - S TYPE

ST095S (SLIDING WITH SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.3 - 0.4 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST095S

Bending Radius R	135	150	200	230	280	400
Lp	1091	1178	1479	1666	2146	3232
Lf	504	534	634	694	889	1319
H	250	250	250	250	250	250

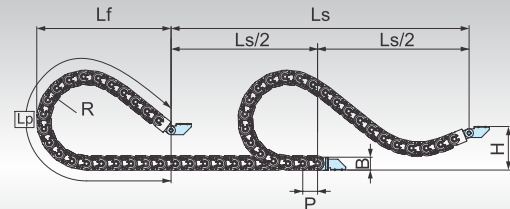
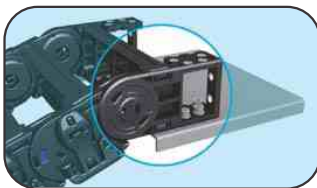
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST095S.075	137	89	75	56	135,150,200, 230,280,400
ST095S.100	162	89	100	56	
ST095S.125	187	89	125	56	
ST095S.150	212	89	150	56	
ST095S.175	237	89	175	56	
ST095S.200	262	89	200	56	
ST095S.250	312	89	250	56	
ST095S.300	362	89	300	56	
ST095S.350	412	89	350	56	
ST095S.400	462	89	400	56	

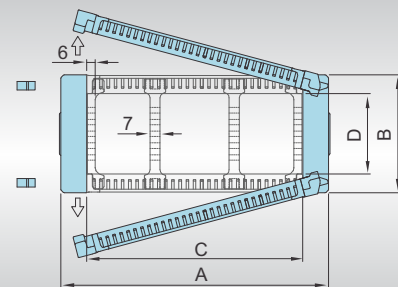
End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB095N/S	Free	ST095S

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 40$ mm

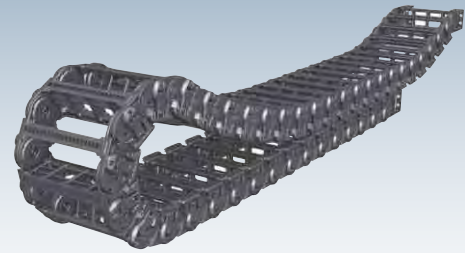




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.3 - 0.4 μ
Speed	10m / sec
Temperature Range	-30 ^o C to +130 ^o C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

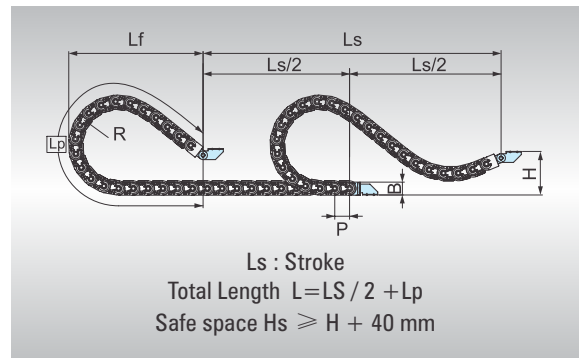
SHIFT CABLE DRAG CHAINS - S TYPE

ST120S (SLIDING WITH SKID)



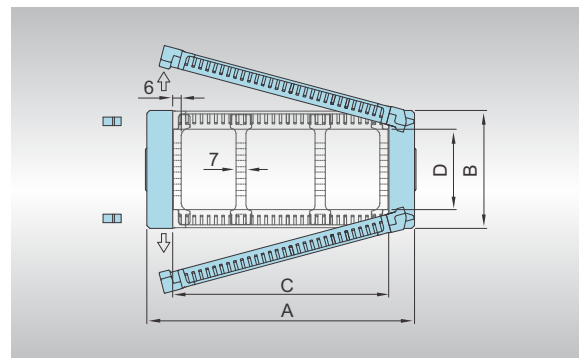
ST120S

Bending Radius R	180	200	250	300	350	400	500
Lp	1441	1559	1864	2178	2701	3225	4062
Lf	654	694	794	894	1114	1334	1654
H	300	300	300	300	300	300	300



Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST120S.075	137	115	75	78	
ST120S.100	162	115	100	78	
ST120S.125	187	115	125	78	
ST120S.150	212	115	150	78	
ST120S.175	237	115	175	78	
ST120S.200	262	115	200	78	180,200,
ST120S.250	312	115	250	78	250,300,
ST120S.300	362	115	300	78	350,400,
ST120S.350	412	115	350	78	500
ST120S.400	462	115	400	78	
ST120S.450	512	115	450	78	
ST120S.500	562	115	500	78	
ST120S.550	612	115	550	78	
ST120S.600	662	115	600	78	

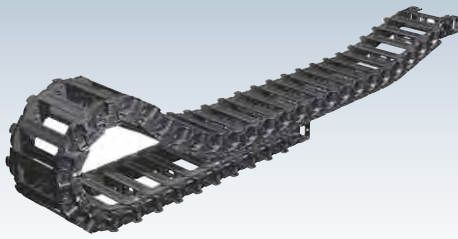


End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB120N/S	Free	ST120S

End Bracket





SHIFT CABLE DRAG CHAINS - RS TYPE

ST044RS (SLIDING WITH ROLLER SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

ST044RS

Bending Radius R	70	90	120	150
Lp	544	662	926	1190
Lf	249	289	393	497
H	130	130	130	130

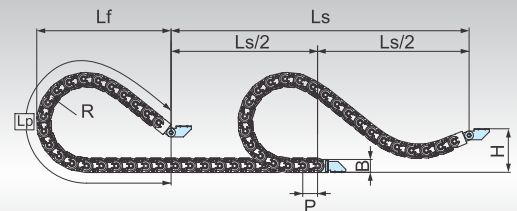
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST044RS.035	73	40.5	35	26	70,90, 120,150
ST044RS.050	88	40.5	50	26	
ST044RS.055	93	40.5	55	26	
ST044RS.075	113	40.5	75	26	
ST044RS.100	138	40.5	100	26	
ST044RS.125	163	40.5	125	26	
ST044RS.150	188	40.5	150	26	
ST044RS.175	213	40.5	175	26	
ST044RS.200	238	40.5	200	26	

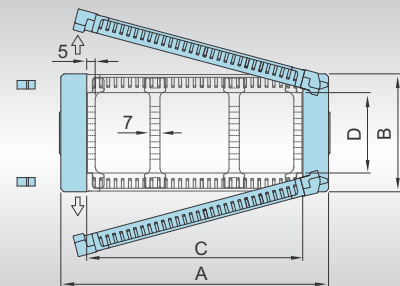
End Bracket in Polyamide

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044N/S	Free	ST044RS

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $H_s \geq H + 40$ mm

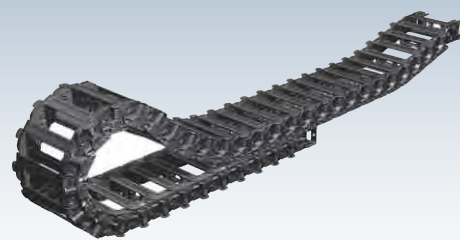




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30 ^o C to +130 ^o C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

SHIFT CABLE DRAG CHAINS - RS TYPE

ST072RS (SLIDING WITH ROLLER SKID)



ST072RS

Bending Radius R	100	120	145	200	250	300
Lp	806	917	1063	1400	1840	2280
Lf	380	420	470	580	752	924
H	230	230	230	230	230	230

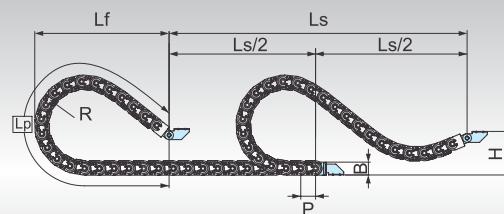
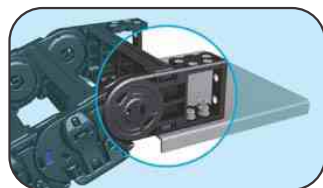
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072RS.050	104	69	50	45	
ST072RS.075	129	69	75	45	
ST072RS.100	154	69	100	45	
ST072RS.125	179	69	125	45	100,120,145,
ST072RS.150	204	69	150	45	200,250,300
ST072RS.175	229	69	175	45	
ST072RS.200	254	69	200	45	
ST072RS.250	304	69	250	45	
ST072RS.300	354	69	300	45	

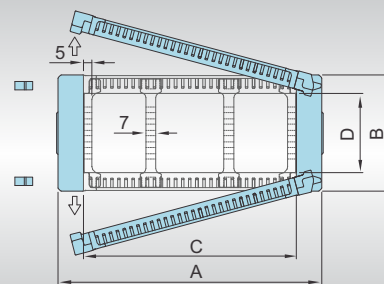
End Bracket (In Polyamide with Steel Washer)

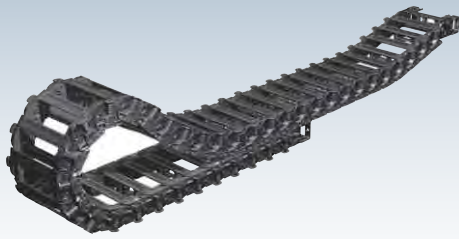
Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072N/S	Free	ST072RS

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $H_s \geq H + 40$ mm





SHIFT CABLE DRAG CHAINS - RS TYPE

ST095RS (SLIDING WITH ROLLER SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST095RS

Bending Radius R	135	150	200	230	280	400
Lp	1091	1178	1479	1666	2146	3232
Lf	504	534	634	694	889	1319
H	250	250	250	250	250	250

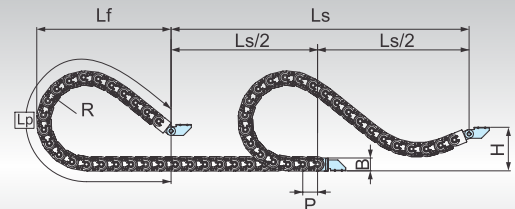
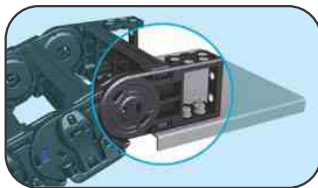
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST095RS.075	143	85	75	56	135,150,200, 230,280,400
ST095RS.100	168	85	100	56	
ST095RS.125	193	85	125	56	
ST095RS.150	218	85	150	56	
ST095RS.175	243	85	175	56	
ST095RS.200	268	85	200	56	
ST095RS.250	318	85	250	56	
ST095RS.300	368	85	300	56	
ST095RS.350	418	85	350	56	
ST095RS.400	468	85	400	56	

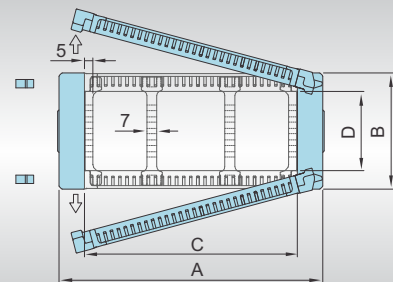
End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB095N/S	Free	ST095RS

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $H_s \geq H + 40$ mm

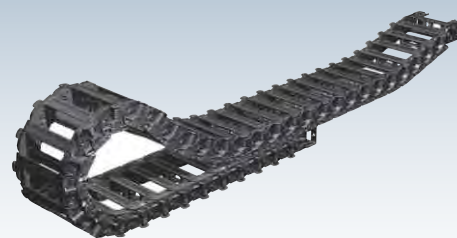




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30 ^o C to +130 ^o C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

SHIFT CABLE DRAG CHAINS - RS TYPE

ST120RS (SLIDING WITH ROLLER SKID)

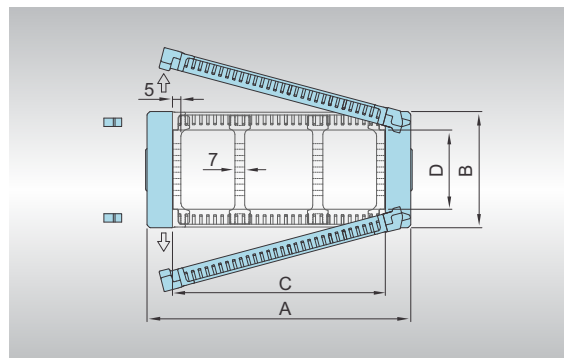
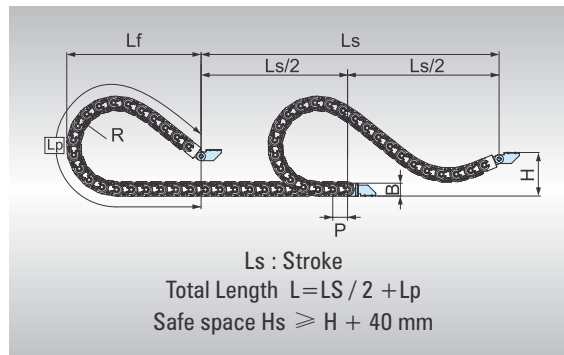


ST120RS

Bending Radius R	180	200	250	300	350	400	500
Lp	1441	1559	1864	2178	2701	3225	4062
Lf	654	694	794	894	1114	1334	1654
H	300	300	300	300	300	300	300

Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST120RS.075	143	112	75	78	180,200,250, 300,350,400, 500
ST120RS.100	168	112	100	78	
ST120RS.125	193	112	125	78	
ST120RS.150	218	112	150	78	
ST120RS.175	243	112	175	78	
ST120RS.200	268	112	200	78	
ST120RS.250	318	112	250	78	
ST120RS.300	368	112	300	78	
ST120RS.350	418	112	350	78	
ST120RS.400	468	112	400	78	
ST120RS.450	518	112	450	78	
ST120RS.500	568	112	500	78	
ST120RS.550	618	112	550	78	
ST120RS.600	668	112	600	78	

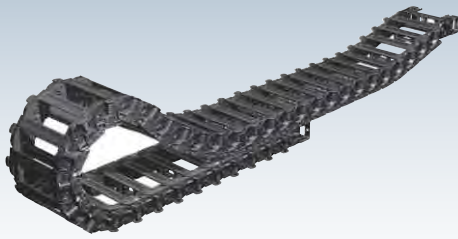


End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB120N/S	Free	ST120RS

End Bracket





SHIFT CABLE DRAG CHAINS - RS TYPE

ST150RS (SLIDING WITH ROLLER SKID)



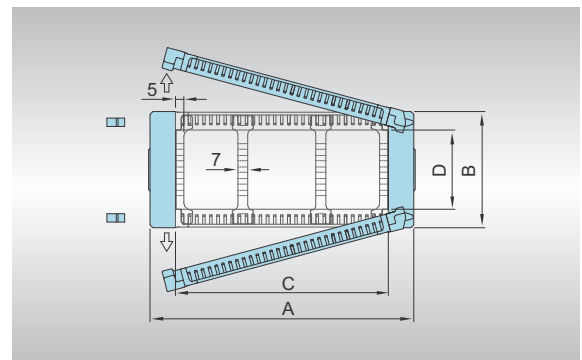
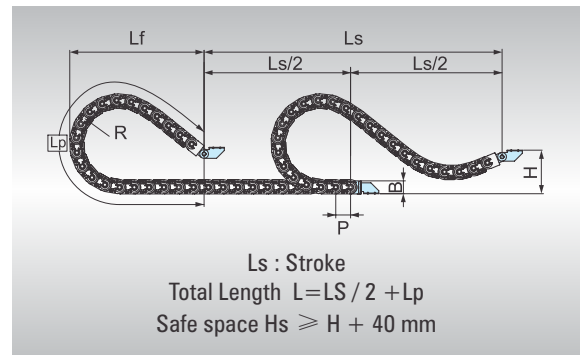
Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	CE

ST150RS

Bending Radius R	305	405	505	605
Lp	2272	3161	4050	4940
Lf	985	1335	1685	2035
H	400	400	400	400

Chain Cross Section

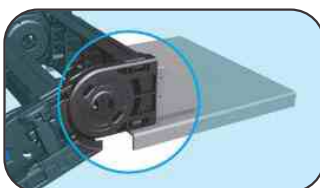
Cat. No.	A	B	C	D	Bending Radius
ST150RS.075	162	145	75	110	305,405, 505,605
ST150RS.100	187	145	100	110	
ST150RS.125	212	145	125	110	
ST150RS.150	237	145	150	110	
ST150RS.175	262	145	175	110	
ST150RS.200	287	145	200	110	
ST150RS.250	337	145	250	110	
ST150RS.300	387	145	300	110	
ST150RS.350	437	145	350	110	
ST150RS.400	487	145	400	110	
ST150RS.450	537	145	450	110	
ST150RS.500	587	145	500	110	
ST150RS.550	637	145	550	110	
ST150RS.600	687	145	600	110	



End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-SEB150N/S B1-B2	B1/B2	ST150RS

End Bracket

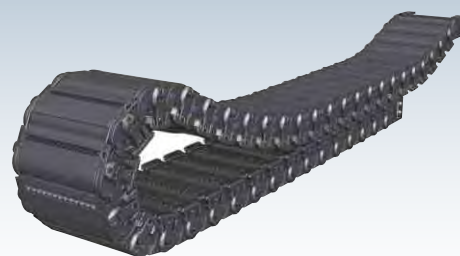




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.3 - 0.4 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

SHIFT CABLE DRAG CHAINS - ES TYPE

ST072ES (ENCLOSED SLIDING WITH SKID)



ST072ES

Bending Radius R	120	145	200	250	300
Lp	917	1063	1400	1840	2280
Lf	420	470	580	752	924
H	230	230	230	230	230

ST095ES

Bending Radius R	150	200	230	280	400
Lp	1178	1479	1666	2146	3232
Lf	534	634	694	889	1319
H	250	250	250	250	250

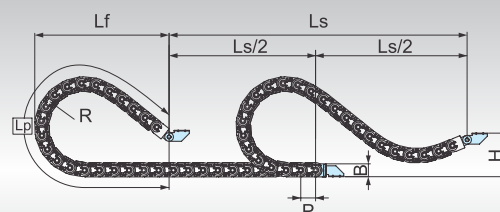
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST072ES.050	98	71	50	44	120,145, 200,250,300
ST072ES.075	123	71	75	44	
ST072ES.100	148	71	100	44	
ST072ES.125	173	71	125	44	
ST072ES.150	198	71	150	44	
ST095ES.100	162	89	100	55	150,200, 230,280,400
ST095ES.125	187	89	125	55	
ST095ES.150	212	89	150	55	
ST095ES.175	237	89	175	55	
ST095ES.200	262	89	200	55	

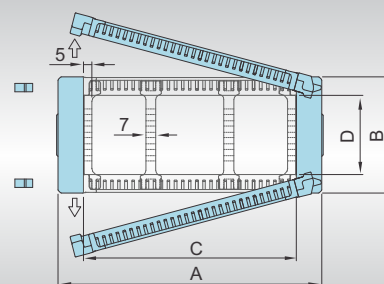
End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB072E	Free	ST072ES
ST-FEB095E	Free	ST095ES

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 40 \text{ mm}$





SHIFT CABLE DRAG CHAINS - ES TYPE

ST120ES (ENCLOSED SLIDING WITH SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.3 - 0.4 μ
Speed	10m / sec
Temperature Range	-30 ^o C to +130 ^o C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

ST120ES

Bending Radius R	200	250	300	350	400	500
Lp	1559	1864	2178	2701	3225	4062
Lf	694	794	894	1114	1334	1654
H	300	300	300	300	300	300

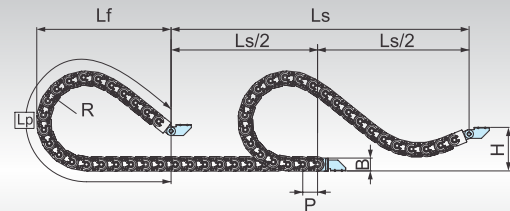
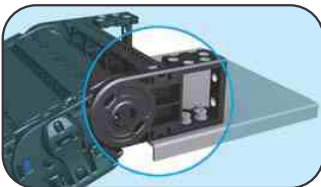
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST120ES.150	212	115	150	76	200,250,300, 350,400,500
ST120ES.200	262		200	76	
ST120ES.250	312	115	250	76	
ST120ES.300	362		300	76	

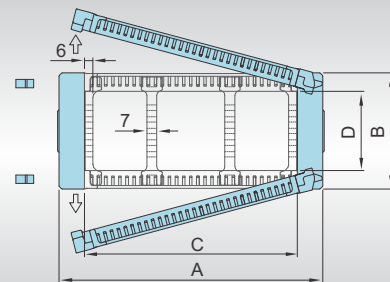
End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB120E	Free	ST120ES

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 40$ mm

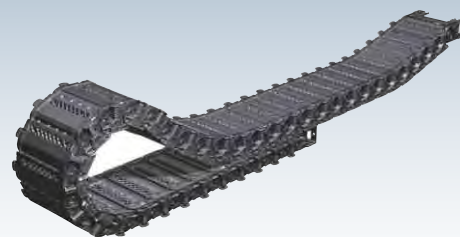




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

SHIFT CABLE DRAG CHAINS - ERS TYPE

ST044ERS / ST072ERS (ENCLOSED SLIDING WITH ROLLER SKID)

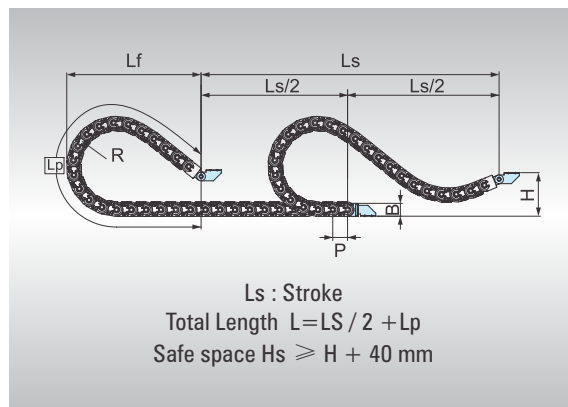


ST044ERS

Bending Radius R	70	90	120	150
Lp	544	662	926	1190
Lf	249	289	393	497
H	130	130	130	130

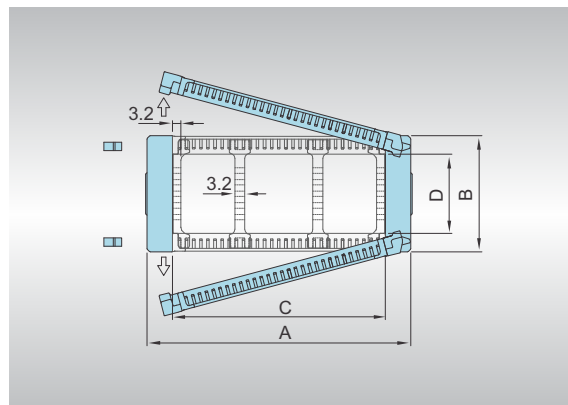
ST072ERS

Bending Radius R	150	200	230	280	400
Lp	1178	1479	1666	2146	3232
Lf	534	634	694	889	1319
H	250	250	250	250	250



Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST044ERS.035	73	40.5	35	24.5	70,90, 120,150
ST044ERS.055	93	40.5	55	24.5	
ST044ERS.075	113	40.5	75	24.5	
ST044ERS.100	138	40.5	100	24.5	
ST072ERS.050	104	69	50	44	120,145,200, 250,300
ST072ERS.075	129	69	75	44	
ST072ERS.100	154	69	100	44	
ST072ERS.125	179	69	125	44	
ST072ERS.150	204	69	150	44	



End Bracket in Polyamide

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB044E	Free	ST044ERS
ST-FEB072E	Free (With Steel Washer)	ST072ERS

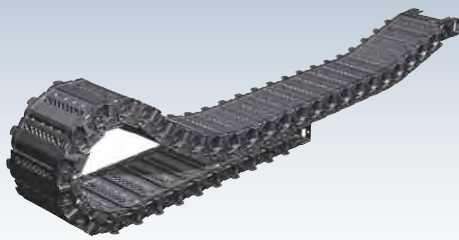
End Bracket



ST-FEB044E




ST-FEB072E



SHIFT CABLE DRAG CHAINS - ERS TYPE

ST095ERS / ST120ERS (ENCLOSED SLIDING WITH ROLLER SKID)



Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

ST095ERS

Bending Radius R	150	200	230	280	400
Lp	1178	1479	1666	2146	3232
Lf	534	634	694	889	1319
H	250	250	250	250	250

ST120ERS

Bending Radius R	200	250	300	350	400	500
Lp	1559	1864	2178	2701	3225	4062
Lf	694	794	894	1114	1334	1654
H	300	300	300	300	300	300

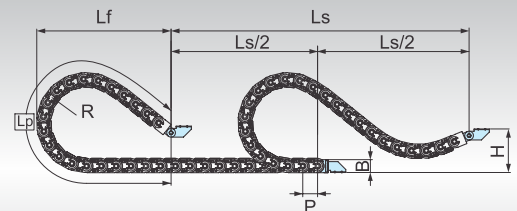
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
ST095ERS.100	168	85	100	55	150,200,230, 280,400
ST095ERS.125	193	85	125	55	
ST095ERS.150	218	85	150	55	
ST095ERS.175	243	85	175	55	
ST095ERS.200	268	85	200	55	
ST120ERS.150	218	112	150	76	200,250,300, 350,400,500
ST120ERS.175	243	112	175	76	
ST120ERS.200	268	112	200	76	
ST120ERS.250	318	112	250	76	
ST120ERS.300	368	112	300	76	

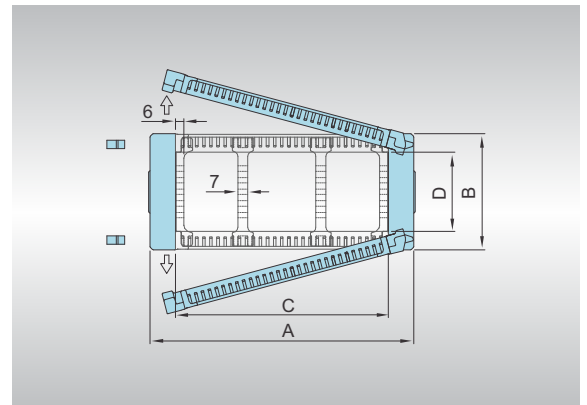
End Bracket (In Polyamide with Steel Washer)

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-FEB095E	Free	ST095ERS
ST-FEB120E	Free	ST120ERS

End Bracket



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 40 \text{ mm}$

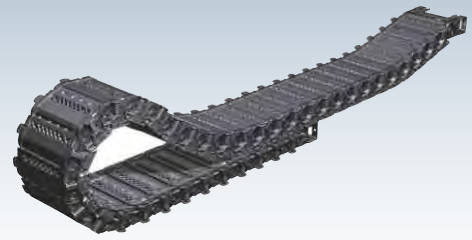




Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	40 dB (DIN EN 61672-1)
Applications	Gantry Robot, Machine Center, Textile Machine, Welding Machine, Wood Work Machine and Fabric Machine having long stroke length
Coefficient of Friction	0.02 - 0.07 μ
Speed	10m / sec
Temperature Range	-30°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m Side mounted, Unsupported = max. 2.5 m
Approvals	

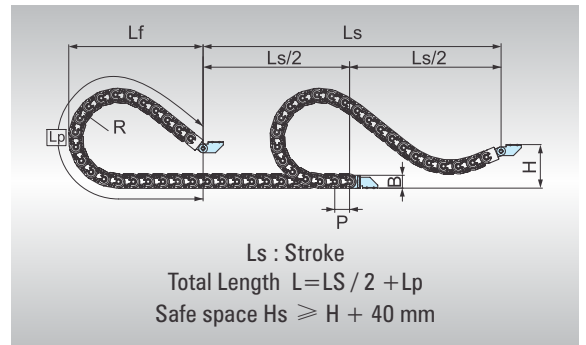
SHIFT CABLE DRAG CHAINS - ERS TYPE

ST150ERS (ENCLOSED SLIDING WITH ROLLER SKID)



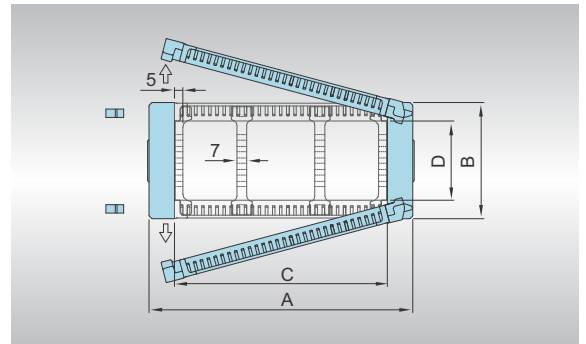
ST150ERS

Bending Radius R	305	405	505	605
Lp	2272	3161	4050	4940
Lf	985	1335	1685	2035
H	400	400	400	400



Chain Cross Section

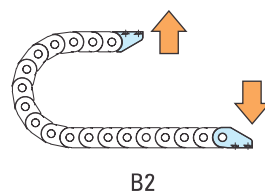
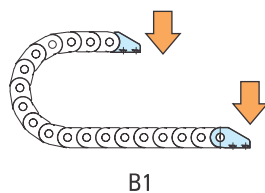
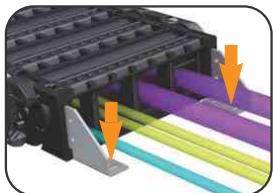
Cat. No.	A	B	C	D	Bending Radius
ST150ERS.200	287	145	200	110	
ST150ERS.250	337	145	250	110	
ST150ERS.300	387	145	300	110	305,405,
ST150ERS.350	437	145	350	110	505,605
ST150ERS.400	487	145	400	110	

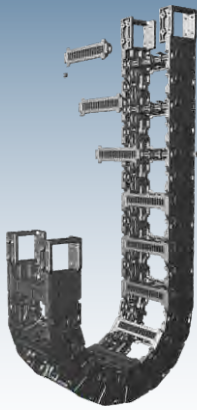


End Bracket in Steel

Cat. No.	End Bracket Type	Suitable for Chain Size
ST-SEB150E/B1-B2	Free B1/B2	ST150ERS

End Bracket





SABIN CABLE DRAG CHAIN - N TYPE

NSB028N / NSB035N (BOTH SIDE OPEN)

NSB028N

Bending Radius R	46	66	86	116	146
Lp	313	376	439	533	627
Lf	153	173	193	223	253
H	138	178	218	278	338

NSB035N

Bending Radius R	55	65	90	115	140	190
Lp	383	414	493	572	650	807
Lf	194	204	229	254	279	329
H	178	198	248	298	348	448

Chain Cross Section

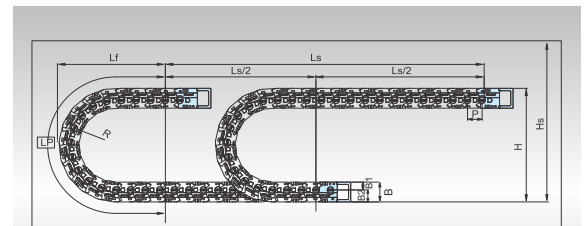
Cat. No.	A	B	C	D	Bending Radius
NSB028N.035	50	38	35	26	46, 66, 86, 116, 146
NSB028N.050	70	38	50	26	
NSB028N.055	75	38	55	26	
NSB028N.075	95	38	75	26	
NSB028N.100	120	38	100	26	
NSB028N.125	145	38	125	26	
NSB028N.150	170	38	150	26	
NSB028N.175	195	38	175	26	
NSB028N.200	220	38	200	26	
NSB035N.035	50	52	35	40	
NSB035N.050	70	52	50	40	
NSB035N.055	75	52	55	40	
NSB035N.075	95	52	75	40	
NSB035N.100	120	52	100	40	
NSB035N.125	145	52	125	40	
NSB035N.150	170	52	150	40	
NSB035N.175	195	52	175	40	
NSB035N.200	220	52	200	40	

End Bracket (Polyamide)

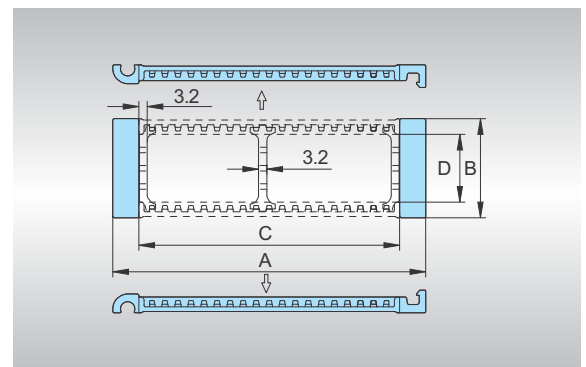
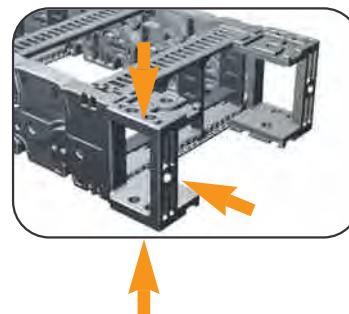
Cat. No.	End Bracket Type	Suitable for Chain Size
NSB-FEB028N/E	Free	NSB028N
NSB-FEB035N/E	Free	NSB035N

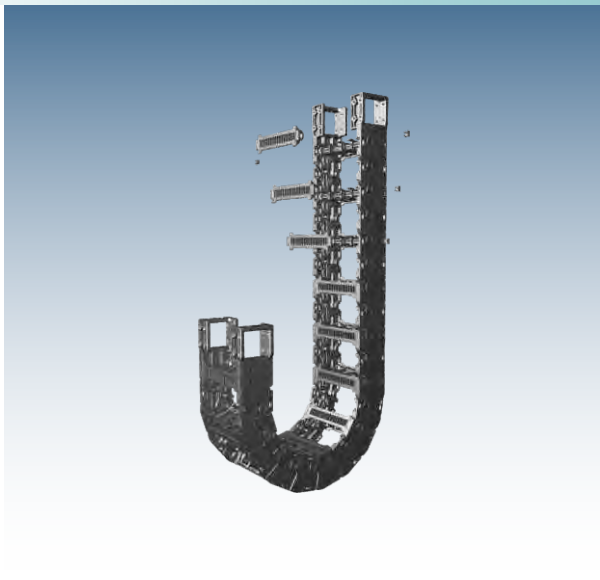
'SABIN' type Cable Drag Chains offer the distinct advantage of fast assembly by virtue of snap-on type links and are available in closed as well as open configurations. Also due to their 'Snap-On' type design and absence of poke pins (as in normal design) these produce extremely low mote (dust) because of friction. With benefits like higher speed (upto 15 m/s) and low noise (as low as 30 dB), these drag chains are the ultimate when it comes to cable protection in motion.

Technical Details :	
Chain Material	CPS-amide UL 94-HB
Applications	Gantry Robot, Machining Center, Textile Machine, Welding Machine, Feeder Unit, Assembly Loader, Woodworking Machines, Lathes, Fabric Machines, etc.
Speed	15m / sec
Temperature Range	-40°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 2.0 m Curve below = max. 40 m Side mounted, Unsupported = max. 1.0



Ls : Stroke
Total Length $L = Ls / 2 + Lp$
Safe space $Hs \geq H + 30 \text{ mm}$

**End Bracket**



SABIN CABLE DRAG CHAIN - N TYPE
NSB045N / NSB060N (BOTH SIDE OPEN)

Sabin Cable Drag Chains

Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	30 dB (DIN EN 61672-1)
Mote (IPA)	VDI 2083 Class 2 DIN EN 14644-1 ISO CALSS 4
Applications	Gantry Robot, Machining Center, Textile Machine, Welding Machine, Feeder Unit, Assembly Loader, Woodworking Machines, Lathes, Fabric Machines, etc.
Speed	15m / sec
Temperature Range	-40°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m (045N & 060N) = max. 120 m (075N) Side mounted, Unsupported = max. 2.5 to 3.0m

NSB045N

Bending Radius R	90	110	135	165	185	235	285
Lp	633	695	774	868	931	1,088	1,245
Lf	291	311	336	366	386	436	486
H	268	308	358	418	458	558	658

NSB060N

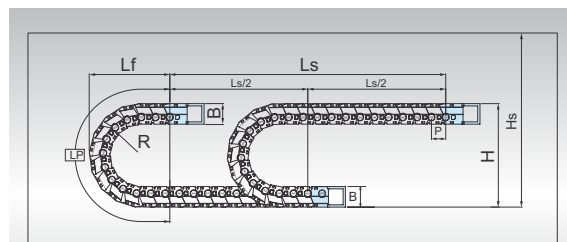
Bending Radius R	125	135	150	180	230	270	340
Lp	854	885	932	1,026	1,183	1,309	1,529
Lf	389	399	414	444	494	534	604
H	358	378	408	468	568	648	788

Chain Cross Section

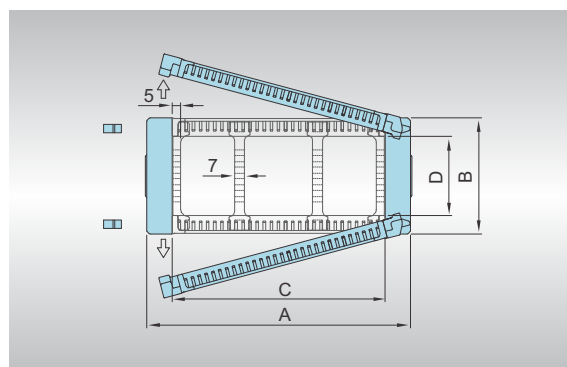
Cat. No.	A	B	C	D	Bending Radius
NSB045N.050	80	66	50	45	90, 110, 135, 165 185, 235, 285
NSB045N.075	105	66	75	45	
NSB045N.100	130	66	100	45	
NSB045N.125	155	66	125	45	
NSB045N.150	180	66	150	45	
NSB045N.175	205	66	175	45	
NSB045N.200	230	66	200	45	
NSB045N.250	280	66	250	45	
NSB045N.300	330	66	300	45	
NSB060N.075	115	82	75	56	
NSB060N.100	140	82	100	56	
NSB060N.125	165	82	125	56	
NSB060N.150	190	82	150	56	
NSB060N.175	215	82	175	56	
NSB060N.200	240	82	200	56	
NSB060N.250	290	82	250	56	
NSB060N.300	340	82	300	56	
NSB060N.350	390	82	350	56	
NSB060N.400	440	82	400	56	

End Bracket (Polyamide)

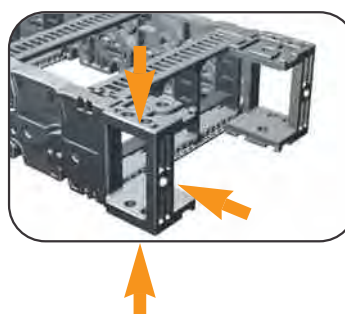
Cat. No.	End Bracket Type	Suitable for Chain Size
NSB-FEB045N/E	Free	NSB045N
NSB-FEB060N/E	Free	NSB060N

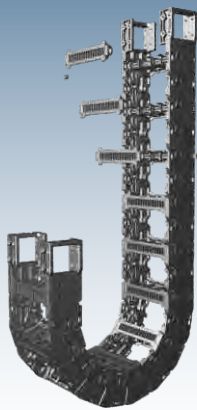


Ls : Stroke
Total Length $L = L_s / 2 + L_p$
Safe space $H_s \geq H + 40$ mm



End Bracket





SABIN CABLE DRAG CHAIN - N TYPE

NSB075N (BOTH SIDE OPEN)

NSB075N

Bending Radius R	160	180	230	280	330	380	480
Lp	1,084	1,147	1,304	1,461	1,618	1,775	2,089
Lf	495	515	565	615	665	715	815
H	464	504	604	704	804	904	1,104

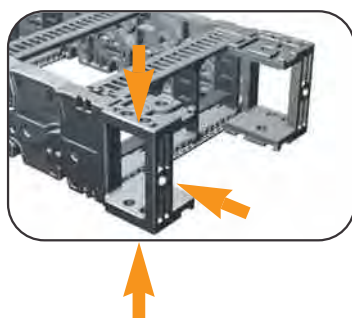
Chain Cross Section

Cat. No.	A	B	C	D	Bending Radius
NSB075N.075	115	108	75	78	160, 180, 230, 280, 330, 380, 480
NSB075N.100	140	108	100	78	
NSB075N.125	165	108	125	78	
NSB075N.150	190	108	150	78	
NSB075N.175	215	108	175	78	
NSB075N.200	240	108	200	78	
NSB075N.250	290	108	250	78	
NSB075N.300	340	108	300	78	
NSB075N.350	390	108	350	78	
NSB075N.400	440	108	400	78	
NSB075N.450	490	108	450	78	
NSB075N.500	540	108	500	78	
NSB075N.550	590	108	550	78	
NSB075N.600	640	108	600	78	

End Bracket (Polyamide)

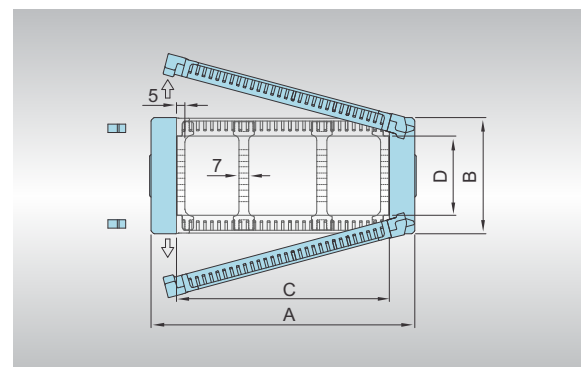
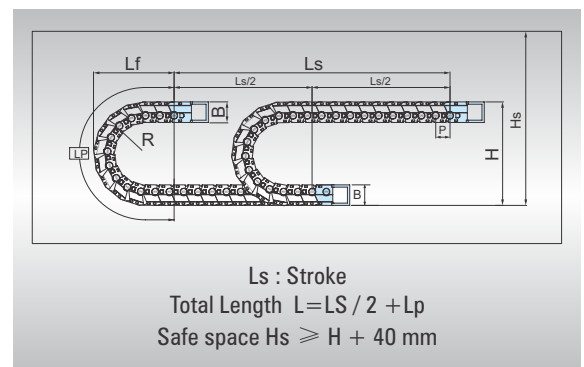
Cat. No.	End Bracket Type	Suitable for Chain Size
NSB-FEB075N/E	Free	NSB075N

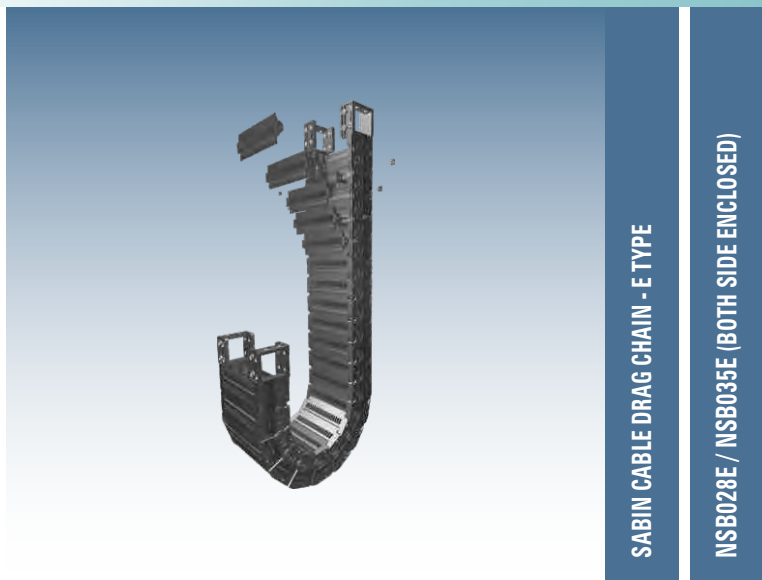
End Bracket



Sabin Cable Drag Chains

Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	30 dB (DIN EN 61672-1)
Mote (IPA)	VDI 2083 Class 2 DIN EN 14644-1 ISO CALSS 4
Applications	Gantry Robot, Machining Center, Textile Machine, Welding Machine, Feeder Unit, Assembly Loader, Woodworking Machines, Lathes, Fabric Machines, etc.
Speed	15m / sec
Temperature Range	-40°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m (045N & 060N) = max. 120 m (075N) Side mounted, Unsupported = max. 2.5 to 3.0m





SABIN CABLE DRAG CHAIN - E TYPE

NSB028E / NSB035E (BOTH SIDE ENCLOSED)

NSB028E

Bending Radius R	66	86	116	146
Lp	240	271	356	434
Lf	110	119	148	173
H	101	121	175	225

NSB035E

Bending Radius R	90	115	140	190
Lp	240	271	356	434
Lf	110	119	148	173
H	101	121	175	225

Chain Cross Section

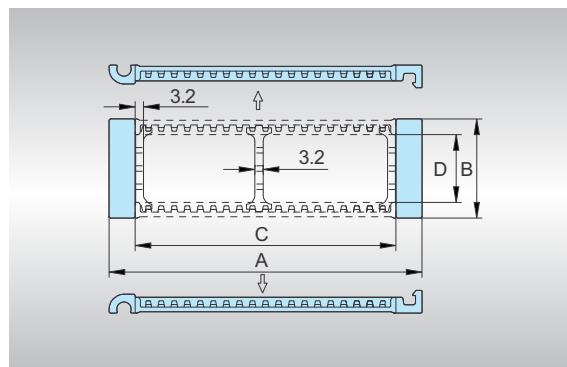
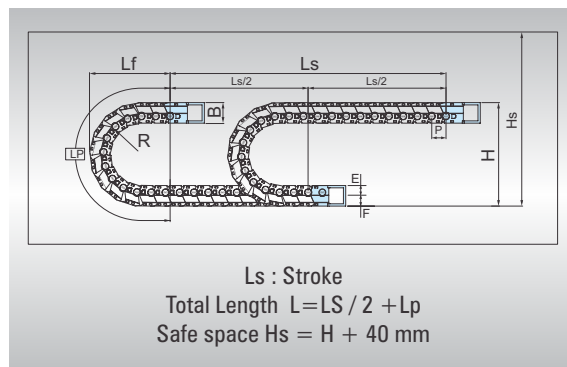
Cat. No.	A	B	C	D	Bending Radius
NSB028E.035	55	38	35	26	66,86,116,146
NSB028E.055	75	38	55	26	
NSB028E.075	95	38	75	26	
NSB028E.100	120	38	100	26	
NSB035E.050	70	52	50	40	90,115,140,190
NSB035E.075	95	52	75	40	
NSB035E.100	120	52	100	40	
NSB035E.125	145	52	125	40	
NSB035E.150	170	52	150	40	

End Bracket (Polyamide)

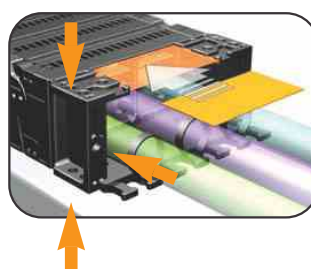
Cat. No.	End Bracket Type	Suitable for Chain Size
NSB-FEB028N/E	Free	NSB028E
NSB-FEB035N/E	Free	NSB035E

Sabin Cable Drag Chains

Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	30 dB (DIN EN 61672-1)
Mote (IPA)	Class II - VDE2083 ISO Class IV-DIN EN 14644-1
Applications	Semi conductor production line which requires dust regulation minimum class 10, industrial zone which requires cable protection from dust or foreign substance.
Speed	15m / sec
Temperature Range	-40°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m (045E & 060E) = max. 120 m (075E) Side mounted, Unsupported = max. 2.5~3.0m



End Bracket





SABIN CABLE DRAG CHAIN - E TYPE

NSB045E / NSB060E / NSB075E (BOTH SIDE ENCLOSED)

NSB045E

Bending Radius R	90	110	135	165	185	235	285
Lp	463	526	604	699	761	918	1,075
Lf	224	244	269	299	319	369	419
H	268	308	358	418	458	558	658

NSB060E

Bending Radius R	125	135	150	180	230	270	340
Lp	633	664	711	806	963	1,088	1,308
Lf	299	309	324	354	404	444	514
H	358	378	408	468	568	648	788

NSB075E

Bending Radius R	160	180	230	280	330	380	480
Lp	803	866	1,023	1,180	1,337	1,494	1,808
Lf	382	402	452	502	552	602	702
H	464	504	604	704	804	904	1,104

Technical Dimensions (mm)

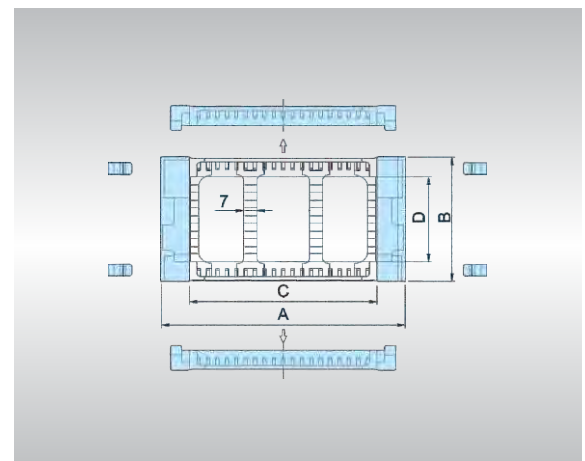
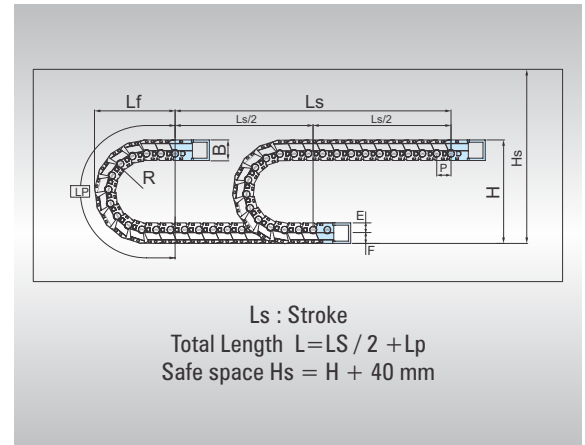
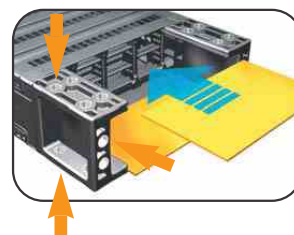
Chain Cross Section

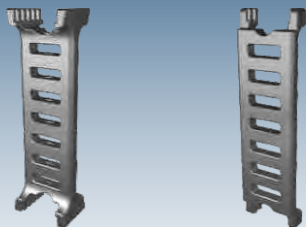
Cat. No.	A	B	C	D	Bending Radius
NSB045E.075	105	66	75	45	
NSB045E.100	130	66	100	45	90, 110, 135, 165
NSB045E.125	155	66	125	45	185, 235, 285
NSB045E.150	180	66	150	45	
NSB060E.100	140	82	100	56	
NSB060E.150	190	82	150	56	125, 135, 150, 180,
NSB060E.200	240	82	200	56	230, 270, 340
NSB075E.150	190	108	150	78	160, 180, 230, 280,
NSB075E.200	240	108	200	78	330, 380, 480
NSB075E.300	340	108	300	78	

End Bracket (Polyamide)

Cat. No.	End Bracket Type	Suitable for Chain Size
NSB-FEB045N/E	Free	NSB045E
NSB-FEB060N/E	Free	NSB060E
NSB-FEB075N/E	Free	NSB075E

Technical Details :	
Chain Material	Glass fibre reinforced Polyamide, UL 94-HB
Noise	30 dB (DIN EN 61672-1)
Mote (IPA)	Class II - VDE2083 ISO Class IV-DIN EN 14644-1
Applications	Semi conductor production line which requires dust regulation minimum class 10, industrial zone which requires cable protection from dust or foreign substance.
Speed	15m / sec
Temperature Range	-40°C to +130°C Continuous
Vertical Installation Lengths	Curve above = max. 6 m Curve below = max. 100 m (045E & 060E) = max. 120 m (075E) Side mounted, Unsupported = max. 2.5~3.0m

**End Bracket**



DV-M

DV-S



DRAG CHAIN ACCESSORIES

DIVIDERS

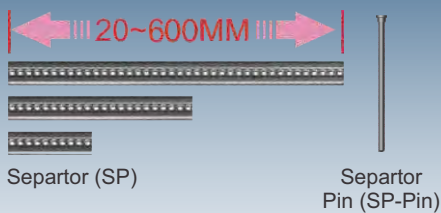


Accessories like Dividers help in the management of the cables within the Cable Drag Chain.

Dividers DV-M type act like vertical partitions which help differentiate the cables into different columns within the Cable Drag Chain.

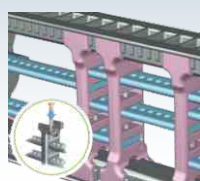
The Dividers DV-S act like self supporting partitions at both sides of inner chain to support the Separators.

Cat. No.	Description
S-DV 030	Divider for 30 Series CPS Cable Drag Chains
S-DV 033	Divider for 33 Series CPS Cable Drag Chains
SB-DV028/044M	Divider for Sabin 028 & Shift 044 Series Chains
SB-DV035/055M	Divider for Sabin 035 & Shift 055 Series Chains
SB-DV045/072M	Divider for Sabin 045 & Shift 072 Series Chains
SB-DV060/095M	Divider for Sabin 060 & Shift 095 Series Chains
SB-DV075/120M	Divider for Sabin 075 & Shift 120 Series Chains
SB-DV150M	Divider for Sabin 100 & Shift 150 Series Chains



Separator (SP)

Separator Pin (SP-Pin)



CABLE DRAG CHAIN ACCESSORIES

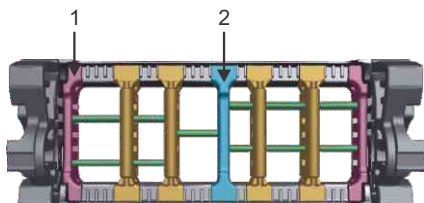
HORIZONTAL SEPARATORS



Accessories like Separators Holders help in the management of the cables within the Cable Drag Chain.

Separators act like horizontal partitions which help manage different 'rows' of cables within the Cable Drag Chain. The Separators are locked in to place at each end by fixing pin passing through divider and separator.

Cat. No.	Description
S-SP/M.35	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.50	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.75	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.100	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.125	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.150	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.175	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
S-SP/M.200	Separator for NSB 028,035 & ST 044,055 Series Cable Drag Chain
SB-SP/400.400	Separator for NSB 045,060,075 & ST 072,095,120,150 Serie



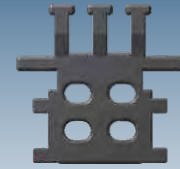
1 DV-S

2 DV-M





The cables passing through the Cable Drag Chain need to be fixed at the ends of the drag chain by means of tie wraps. Upon installation the Tie Wrap Holder provides a location for the cables to be tied to. Once the cables are tied to the Tie Wrap Holder they are prevented from tangling and the subsequent possibility of cable disconnection.

CABLE DRAG CHAIN ACCESSORIES
TIE WRAP


CPS Series



NSB & ST Series

Cat. No.	Description
S-TW033.27	Tie Wrap Holder for CPS 33 Series Cable Drag Chains
S-TW033.37	Tie Wrap Holder for CPS 33 Series Cable Drag Chains
S-TW033.47	Tie Wrap Holder for CPS 33 Series Cable Drag Chains
S-TW033.67	Tie Wrap Holder for CPS 33 Series Cable Drag Chains
S-TW033.77	Tie Wrap Holder for CPS 33 Series Cable Drag Chains
S-TW028/044.35	Tie Wrap Holder for NSB 028 & ST 044 Series Cable Drag Chains
S-TW028/044.55	Tie Wrap Holder for NSB 028 & ST 044 Series Cable Drag Chains
S-TW028/044.75	Tie Wrap Holder for NSB 028 & ST 044 Series Cable Drag Chains
S-TW028/044.100	Tie Wrap Holder for NSB 028 & ST 044 Series Cable Drag Chains
S-TW028/044.125	Tie Wrap Holder for NSB 028 & ST 044 Series Cable Drag Chains
S-TW035/055.50	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.75	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.100	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.125	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.150	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.175	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW035/055.200	Tie Wrap Holder for NSB 035 & ST 055 Series Cable Drag Chains
S-TW50	Tie Wrap Holder for ST 72, 95, 120 & 150 Series Cable Drag Chains
S-TW75	Tie Wrap Holder for ST 72, 95, 120 & 150 Series Cable Drag Chains
S-TW100	Tie Wrap Holder for ST 72, 95, 120 & 150 Series Cable Drag Chains
S-TW125	Tie Wrap Holder for ST 72, 95, 120 & 150 Series Cable Drag Chains
S-TW150	Tie Wrap Holder for ST 72, 95, 120 & 150 Series Cable Drag Chains