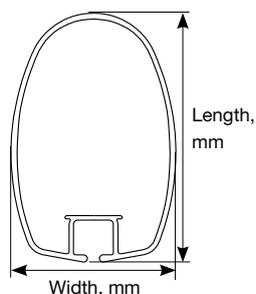


Aluminium masts

Tradition and development

From the very beginning in the 1960's, Seldén produced a comprehensive range of aluminium yacht masts. Since then, the range has developed and expanded. The seven new keelboat sections feature a wealth of sophisticated and functional solutions, originating from the dinghy range and the yacht range.

The sections are extruded and anodized and they are all available with a tapered top. When tapering the mast section, a wedge shaped piece of the section is cut out and the section is squeezed together and welded. This process does not affect the strength of the mast section as it takes place prior to the hardening process of the section. The taper is parabolic which means it has a fair curve over its entire length. A tapered top results in lower weight aloft, with less windage and improved response to gusts.



A Mast ID number is engraved into the lower end of the mast section, for example D14-C126-0584. This mast is made from a C126 section. This is vital information when looking for mast parts in this catalogue.

Aluminium mast sections

	Mast section	Length/Width, mm	I _y , cm ⁴	I _x , cm ⁴	Wall thickness, mm	Weight, kg/m	W _y , cm ³	W _x , cm ³	Sail groove, mm	Bolt rope, Ø mm	Sail slider Art. no.
	C080	79/60	37.0	22.0	2.0	1.49	8.6	7.4	4.5	10	511-601
	C087	87/64	49.8	27.5		1.67	10.6	8.74			
	C096	96/69	65.7	34.6		1.79	12.67	10.15			
	C106	106/71	92.6	44.1	2.3	1.97	15.95	12.63	5.0		511-602
	C116	116/75	126.4	57.2		2.26	19.88	15.41			
	C126	126/79	172.2	74.6		2.4	25.37	18.99			
	C139	139/85	237.4	99.0		2.5	29.4	23.33			



Photo: Billy Black. CW Hood 32.

Carbon masts

The future is black and beautiful

All Selden carbon masts use custom designed laminates to suit the particular application. The combination of meticulous care, long experience and exact specifications enable us to achieve optimum performance for minimum weight. The purpose is to make each individual boat go faster.

The main characteristic of a carbon mast is the high longitudinal and lateral stiffness in relation to weight. The stiffness is customised to suit each individual boat and the crew can fine tune the prebend and the forestay tension to achieve a higher precision in the sail trim.

The weight of a carbon mast is considerably lower than the equivalent aluminium section. When designing a new boat, the designer has the option to select a lighter keel for the same righting moment as when using an aluminium mast. Alternatively, he keeps the standard keel and gains righting moment, a great advantage for a short handed crew with no crew members on the windward rail.

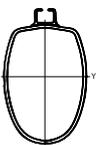
Seldén use unidirectional carbon fibre, pre-impregnated in epoxy for optimum resin content. Black pigment in the epoxy protects against UV radiation damage and

preserves the mast appearance. The carbon tows are wound around a mandrel producing a seamless uniform quality masts. During the design process the position and alignment of each fibre is precisely calculated so as to meet the required bend characteristics. Our CNC winding process makes for high repeatability, an important issue when producing one design masts. It is a highly developed and efficient process when compared to older manual processes such as female moulding.

In addition to the base laminate, Seldén apply local reinforcement as required e.g. in areas for cut-outs or along the front edge if further stiffness is requested. The laminate is compressed and cured by the means of vacuum, pressure and heat in an autoclave making it compact and light. The cured tube is separated from the mandrel and fitted out to customer specification. Masts can be clear coated or painted as required.

Carbon fibre masts from Seldén are characterized by their “viper” pattern. Feared by the opponents, appreciated by winners.

Carbon mast sections

	Mast section	Section dim. incl. track, mm	EI_y (GNmm ²)	EI_x (GNmm ²)	Wall thickness, mm	Weight, kg/m	W_y cm ³	W_x cm ³	Bolt rope	Sail slider Art. no.
	CC077	94/62	28-31	18-23	2.1-2.4	0.9-1.0	8.5-10	7-9	8	N/A
	CC086	100/62	30-47	18-30	2.4-3.0	1.0-1.3	13-16	9-11	8	N/A
	CC095	109/68	41-63	24-39	2.4-3.0	1.0-1.4	16-19	11-14	8	N/A
	CC105	121/71	72-110	41-56	2.4-3.0	1.3-1.7	19-23	13-16	10	511-602
	CC115	131/75	92-139	36-67	2.4-3.0	1.4-1.8	22-27	15-19	10	511-602
	CC125	140/79	148-206	61-98	3.0-3.6	1.8-2.2	32-37	22-26	10	511-602
	CC138	155/86	194-269	76-121	3.0-3.6	1.9-2.3	37-44	26-31	10	511-602

The above table shows data for typical Seldén sections using our standard tracks. CC077-CC095 use our PVC extruded bolt rope track as standard, CC105-CC138 use our aluminium extruded track. Other track options are available for particular applications.

Seldén use standard modulus carbon fibre as standard for mast sections and boom sections. For special applications, please consult Seldén if higher specifications material is required.

Carbon boom sections

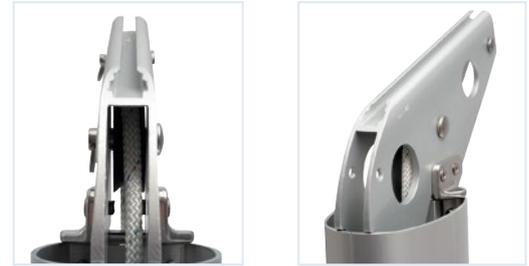
	Boom section	Section dim., mm	EI_y (GNmm ²)	EI_x (GNmm ²)	Wall thickness, mm	Weight, kg/m	W_y cm ³	W_x cm ³
	BC086	87/62	40	21	2.4	0.9	13	9
	BC115	115/74	110	36	2.4	1.3	26	15



Photo: Olivier Blanchet. Heol 7.4.

Head box, fractional rig

The head box is manufactured from an extruded aluminium section and prepared for a variety of functions. An integrated groove in the top edge of the head box fitting helps in the installation of instrument brackets and backstay flicker, see page 16. To reduce the weight, the head box has four lightening holes.

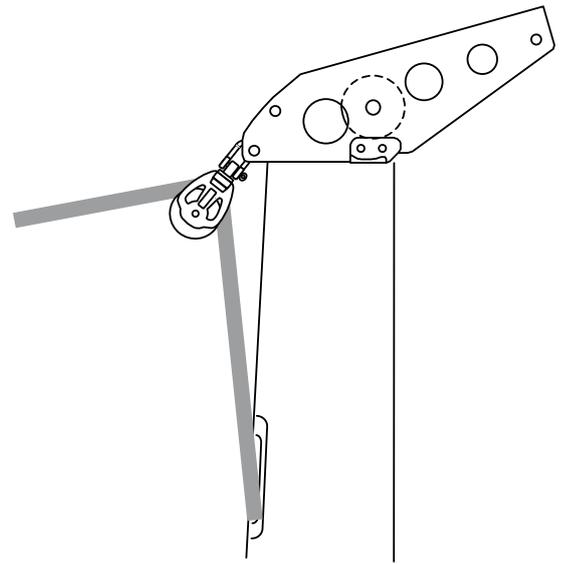
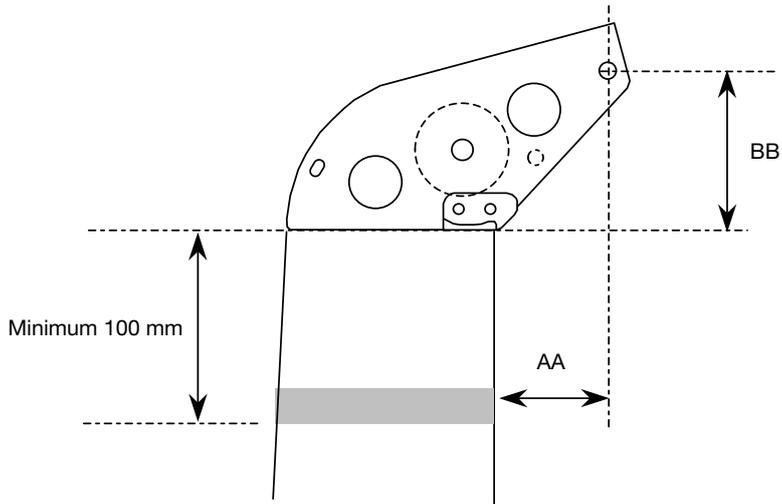


Head boxes for un-tapered sections, with back stay

Mast section		Art. no.		Weight, gr	AA, mm		BB, mm	Clevis pin for back stay		Back stay Max. dia., mm (wire)	Main halyard Max. dia., mm (rope)
Alu.	Carbon	Aluminium	Carbon		Alu	Carbon		Dim., mm	Art. no.		
C087 C096	CC086 CC095	501-123-01	501-153-01	415	65	50	75	6	165-005	4	8
					56	40					
C106 C116	CC105 CC115	501-127-01	501-157-01	473	80	65	85	8	165-113	5	
					70	55					
C126 C139	CC125 CC138	501-131-01	501-161-01	549	95	80	90	8	165-113	5	
					82	65					

Head boxes for tapered sections, with back stay

Mast section		Art. no.		Description	Weight, gr	AA, mm		BB, mm	Clevis pin for back stay		Back stay Max dia., mm (wire)	Main halyard Max dia., mm (rope)
Alu.	Carbon	Aluminium	Carbon			Aluminium	Carbon		Dim., mm	Art. no.		
C087 C096	CC086 CC095	501-124-01	501-154-01	Standard head box	336	C087: 58	CC086: 45	65	6	165-005	4	8
						C096: 52	CC095: 40					
		501-125-01	501-155-01	Long head box	422	C087: 149	CC086: 135	90	C096: 143	CC095: 130		
C106 C116	CC105 CC115	501-128-01	501-158-01	Standard head box	377	C106: 70	CC105: 55	70	8	165-113	5	
						C116: 63	CC115: 50					
C106 C116	CC105 CC115	501-129-01	501-159-01	Long head box	504	C106: 180	CC105: 165	100	8	165-113	5	
						C116: 173	CC115: 160					
C106 C116	CC105 CC115	501-130-01	501-160-01	Long head box with block attachment for masthead spinnaker	448	C106: 105	CC105: 90	80	8	165-113	5	
						C116: 99	CC115: 84					
C126 C139	CC125 CC138	501-132-01	501-162-01	Standard head box	448	C126: 83	CC125: 70	85	8	165-113	5	
						C139: 74	CC138: 60					
		501-133-01	501-163-01	Long head box	594	C126: 212	CC125: 195	120	C139: 203	CC138: 190		
C126 C139	CC125 CC138	501-134-01	501-164-01	Long head box with block attachment for masthead spinnaker	529	C126: 127	CC125: 112	100	8	165-113	5	
						C139: 118	CC138: 103					



Long head box with block attachment for masthead spinnaker.

Head box, no back stay

Mast section	Art. no.	Weight, gr	Main halyard Max. dia., mm (rope)
C080-C106	501-101-01	136	8

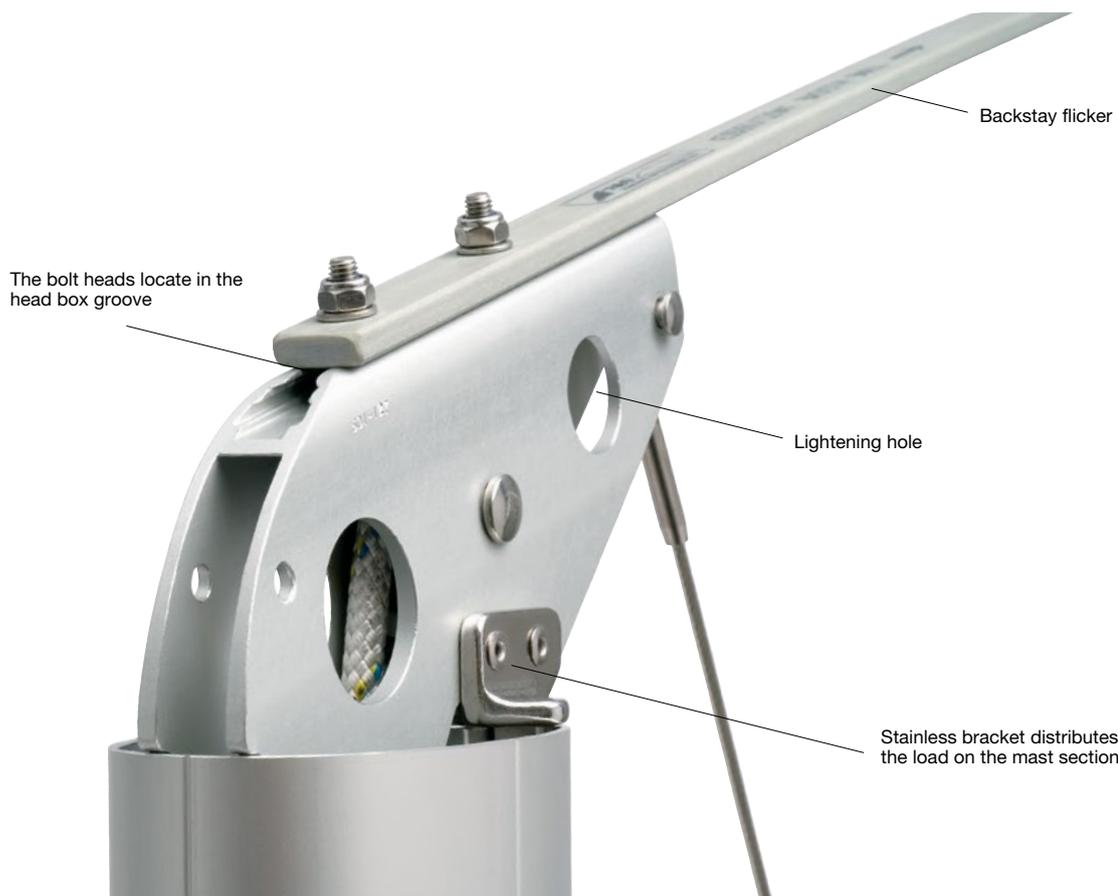


Photo: www.sail-box.ch. Mocean.

Accessories, fractional rig

Mast section		Bracket for instrument and lights Art. no.	Tricolour light, incl. screws, Art. no.	Tricolour light + anchor light, incl. screws, Art. no.	Bracket for Windex or VHF antenna Art. no.	Backstay flicker 1200 x 20 mm Art. no.
Aluminium	Carbon					
C080 – C139	CC077 – CC138	508-303-01	526-020-01	526-021-01	508-334-01*	511-120-03

* cannot be combined with backstay flicker



The backstay flicker lifts the backstay to avoid damage to the leech of the sail when gybing and tacking.



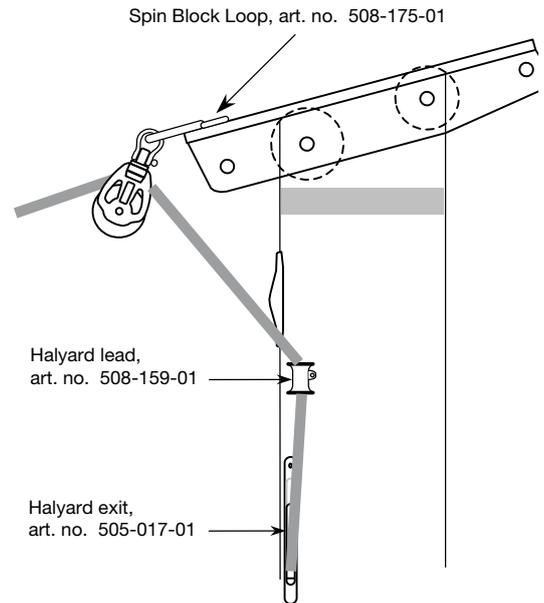
508-303-01
Bracket for instruments and lights (Ø 65 mm).



508-334-01
Bracket for Windex or VHF antenna

Head box, masthead rig

This head box fitting is also manufactured from an extruded aluminium section. It is mounted with a 15° angle and features two sheaves forward for jib/genoa halyards and two aft sheaves for main halyard and topping lift.



Accessories, Masthead rig

Mast section		Art. no.	Weight, gr	Halyard Max. dia., mm (rope)	Forward sheaves,	Aft sheaves,	Loop for spinnaker halyard block Art. no.	Halyard lead Art. no.	Halyard exit for spinnaker-halyard Art. no.	Furlex halyard box Art. no.
Aluminum	Carbon				Art. no.	Art. no.				
C126 C139	CC125 CC138	501-028-01	979	8	504-326 (Ø 70 x 13 mm)	504-324 (Ø 57 x 13 mm)	508-175-01	508-159-01	505-017-01	505-072-01

Mast section		Bracket for Windex or anchor light Art. no.	Bracket for Tricolour light, incl. screws, Art. no.	Instrument base Art. no.
Aluminium	Carbon			
C126 – C139	CC125 – CC138	508-549-01 (20 x 30 mm)	508-560-01 (60 x 30 x 63 mm)	508-563-01 (100 x 40 mm)
				

Forestay toggles and back stay toggles

Wire dia., mm	Art. no.	Clevis pin dia., mm
3	517-001-02	6
4	517-001-01	8
5		
6	517-002-01	10



Forestay attachments and halyard routing, fractional rig

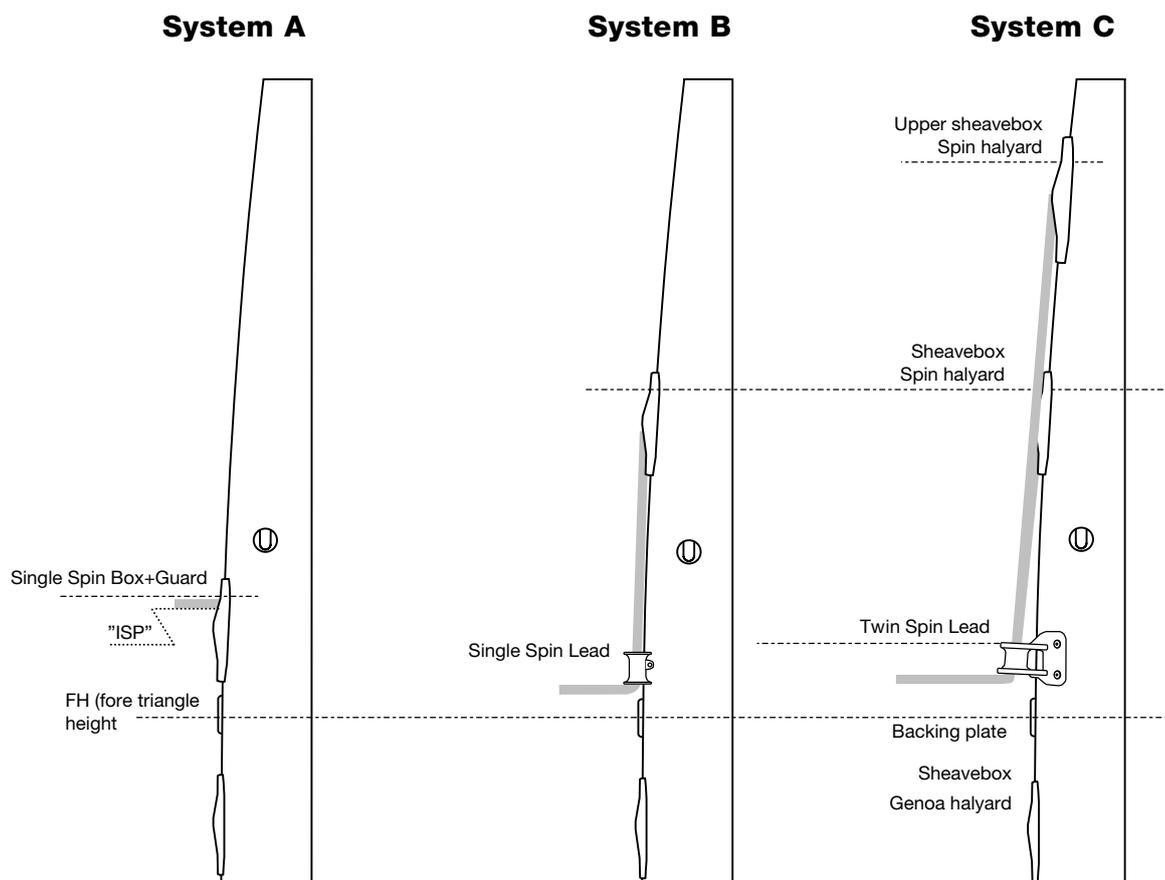
Backing plate for T-terminal

The most common type of forestay attachments is a T-terminal in the top end of the wire and a backing plate in the mast. The backing plate is located inside the mast so the rig load is properly distributed on the mast section. The middle part of the fitting protrudes through the section forming the female part in the forestay attachment. The forestay has full articulation, which ensures correct alignment and provides a secure and low fatigue attachment.

Halyard box

All boxes are made of a glass fibre reinforced polyamide composite. When used for a spinnaker halyard coming straight out of the box, Seldén supplies a stainless wear guard. This protects both the halyard and the box. Halyard boxes combined with Ø 3-5 mm forestays are available both with plain bearing sheaves as well as ball bearing sheaves.

Seldén offers three basic systems



System A

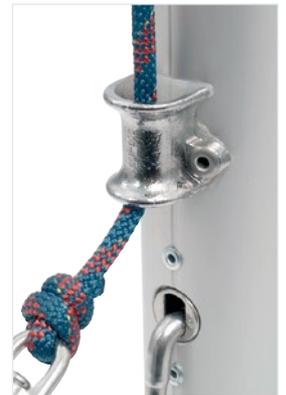
Forestay dia., Ø mm	Backing plate	Halyard box with wear guard for spinnaker halyard, plain bearing sheave. Art. no.	Halyard box with wear guard for spinnaker halyard, ball bearing sheave. Art. no.	Halyard box for jib halyard Art. no.
3	507-553-01	505-061-12	505-061-16	505-061-03
4	507-551-01			
5	507-552-01			
6	507-560-01	-	-	505-072-01



Halyard box with wear guard

System B

Forestay dia., Ø mm	Backing plate	Halyard box for spinnaker halyard, plain bearing sheave. Art. no.	Halyard box for spinnaker halyard, ball bearing sheave. Art. no.	Halyard lead Art. no.	Halyard box for jib halyard Art. no.
3	507-553-01	505-061-03	505-061-10	508-159-01	505-061-03
4	507-551-01				
5	507-552-01				
6	507-560-01	505-072-01	-		505-072-01



Single halyard lead

System C

Forestay dia., Ø mm	Backing plate Art. no.	Upper Halyard box for spinnaker halyard, plain bearing sheave. Art. no.	Lower Halyard box for spinnaker halyard, plain bearing sheave. Art. no.	Lower Halyard box for spinnaker halyard, ball bearing sheave. Art. no.	Double Halyard lead Art. no.	Halyard box for jib halyard Art. no.
5	507-552-01	505-072-01	505-061-03	505-061-10	508-734-01	505-061-03
6	507-560-01			-		505-072-01



Double halyard lead

Three functions in one fitting

With a Triple combi box the sheaves for the spinnaker halyard and the jib halyard are combined with the forestay attachment. This fourth system is available for mast section C106 - C139. The exits for the halyards are well rounded to prevent wear. The sheave for the spinnaker halyard is of larger diameter than the sheave for the jib halyard. This separates the halyards inside the mast and makes for smooth low friction operation.

Triple-combi box

Forestay dia., mm	Triple-combi box, Art. no.	Spinnaker halyard, max. dia., mm (rope)	Jib halyard, recommended dia., mm (rope)	Halyard lead for Furlex Art. no.
4-5	505-011-01	10	8-10	508-159-01

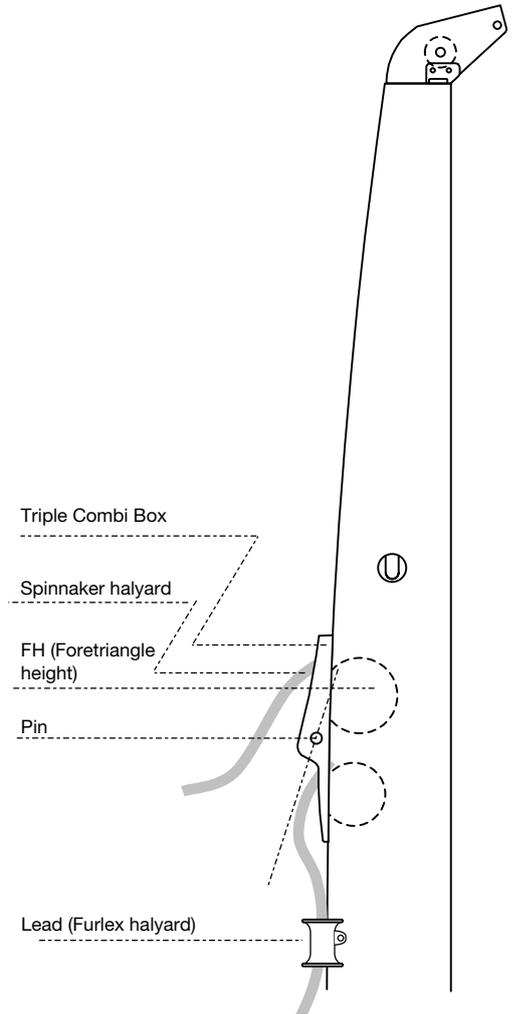


Photo: Fiona Brown. Quarter tonners.

Halyard boxes

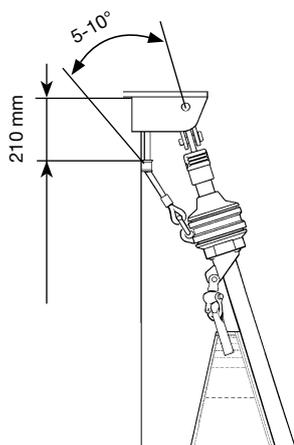
Well thought out routing of halyards not only reduces friction, but will also prolong rope life. It makes for safe and fast sail setting and dousing, equally important for the cruising sailor as well as for the racing sailor. It's all about quick and controlled sail handling.

Seldén halyard boxes for halyards and spinnaker lift are designed to satisfy very high demands for functionality, strength and light weight.

Halyard lead

The single halyard lead guides the halyard vertical and into the halyard box. It prevents chafe on the halyard and on the halyard box. The location of the halyard lead determines the maximum spinnaker hoist. The Seldén halyard lead is U-shaped, hence it can be retrofitted without pulling out the halyard from the mast. The material is chromed bronze which is kind to a wire halyard. Of course, the lead works well with rope halyards too. Two halyard leads can be fitted side by side to handle two halyards.

Halyard routing is particularly important when a jib furling system is fitted. It prevents the halyard wrapping around the luff extrusion when furling or unfurling the sail. A so called halyard-wrap can seriously damage the furling system, the forestay and the halyard.



1 2 Halyard

The double halyard lead fitting consists of a stainless bracket with two integrated stainless rings. The bracket has the same radius as the front of the mast. The rings are well rounded and have flared entry/exit for minimum friction, promoting fast spinnaker handling.



3 Double halyard

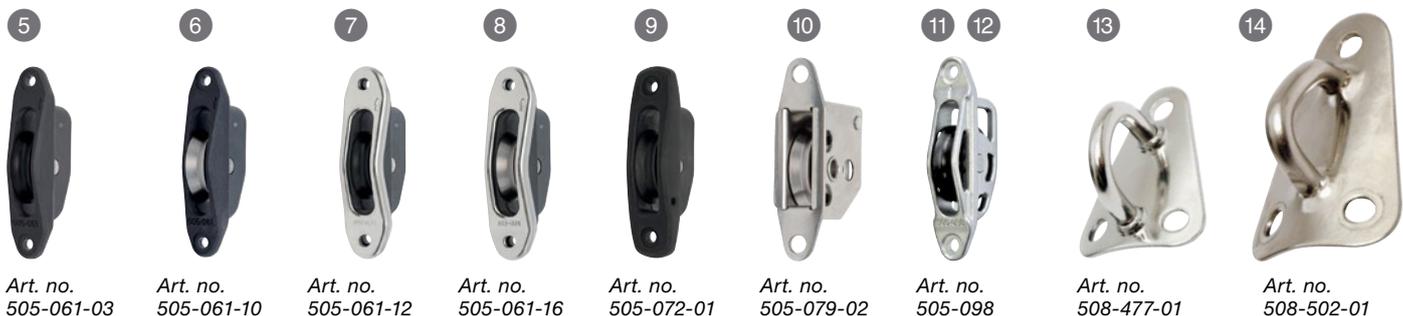
Halyard exit

A halyard exit is used to lead the halyard out of the mast and further down to a cleat or a block at deck level. The fitting prevents chafe between a halyard and the cut-out in the mast. The location of exits is a very important factor in smooth and effective halyard routing. They must be located with a certain distance from each other, not to weaken the mast and at the correct height for effective sail hoisting. Seldén has a standard set-up for halyard slots, but we will incorporate custom solutions to suit to a specific deck layout.

To prevent corrosion, all fittings made of bronze or stainless steel are insulated from the aluminium mast section. With carbon fibre masts the insulation protects the fittings from corroding.

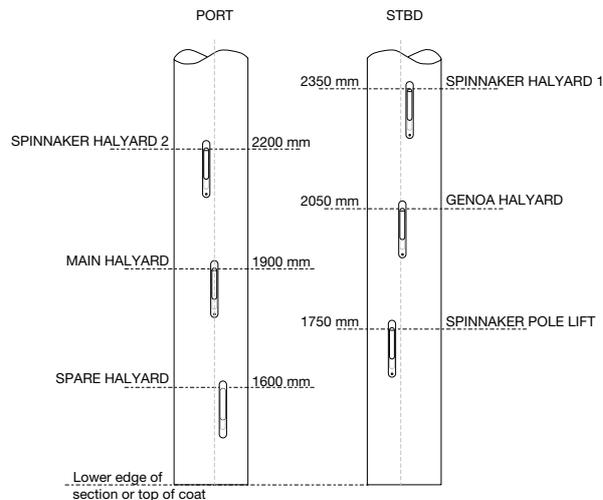
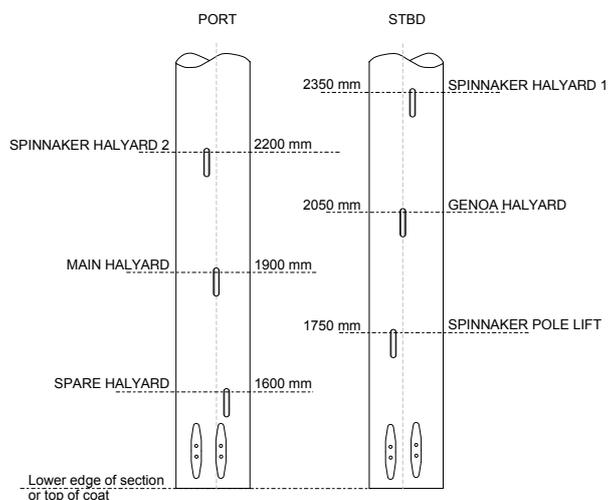


4 Halyard exit



Halyard leads, halyard boxes and halyard exits

	Art. no.	Description	Application	Weight, gr	Max. rope dia., mm	Safe working load, kN	Max. RM at 30°. kNm	To be combined with forestay dia., mm	Fasteners included
1	508-159-01	Single halyard lead in chromed bronze	Spinnaker, jib and genoa	67	12	-	-	-	2 pop rivets 167-004 (Ø 6.4 x 12.7 mm) and insulating washer.
2	508-159-03	Single halyard lead in chromed bronze		67	-	-	-	-	Ø 5.3 mm drill-bit, self tapping M6 skruv and insulating washer.
3	508-734-01	Double halyard lead in stainless steel	Spinnaker	182	12	-	-	-	4 pop rivets 167-004 (Ø 6.4 x 12.7 mm)
4	505-017-01	Halyard exit in stainless steel	Halyard, spinnaker lift	42	8	-	-	-	1 pop rivet 167-007 (Ø 4.8 x 9.9 mm). The fitting must be laquered for insulation.
5	505-061-03	Composite box. Ø 35 mm plain bearing sheave	Spinnaker, jib and genoa	50	8	6	16.0	3-5	2 pop rivets 167-006 (Ø 4.8 x 16.5 mm)
6	505-061-10	Composite box. Ø 35 mm ball bearing sheave		91					
7	505-061-12	Composite box with chafe guard in stainless. Ø 35 mm plain bearing sheave		85					
8	505-061-16	Composite box with stainless chafe guard. Ø 35 mm ball bearing sheave		126					
9	505-072-01	Composite box with Ø 45 mm plain bearing sheave	Spinnaker, jib and genoa	94	12	8	-	6	2 pop rivets 167-004 (Ø 6.4 x 12.7 mm)
10	505-079-02	Stainless box. Ø 25 mm ball bearing sheave	Spinnaker lift for mast section C080- C087	45	5	1	-	-	2 pop rivets 167-007 (Ø 4.8 x 9.9 mm)
11	505-098-03	Stainless box Ø 35 mm plain bearing sheave	Jib halyard	119	8	8	16.0	4-6	2 pop rivets 167-006 (Ø 4.8 x 16.5mm)
12	505-098-06	Stainless box Ø 35 mm plain bearing sheave		159					
13	508-477-01	Stainless loop for attachment of block 403-101-01	External spinnaker lift. Mast section C080-C096	16	-	-	-	-	3 pop rivets 167-018 (Ø 4.8 x 12.7 mm)
14	508-502-01	Stainless loop for attachment of block 404-101-01	External spinnaker lift. Mast section C106-C139	35	-	-	-	-	3 pop rivets 167-004 (Ø 6.4 x 12.7 mm)

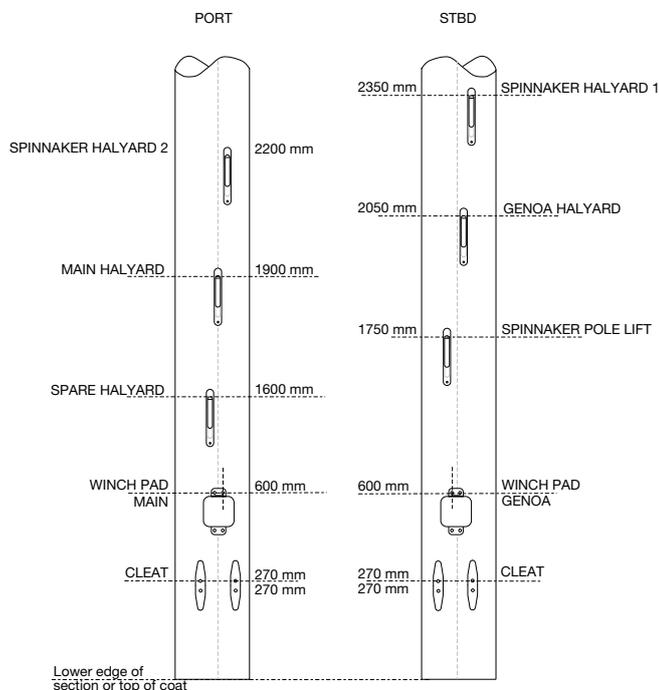


Standard layout, C080, CC077

For these small sections no slot fittings are used. A 50 x 8 mm cut-out is thoroughly chamfered to prevent chafe on the halyards.

Standard layout, all ropes to cockpit

C087-C139, slot fitting 505-017-01
CC086-CC138, slot fitting 505-017-51



Location of halyard exits

Aluminium masts and carbon fibre masts

The standard Seldén layout of the halyard exits is based on long experience of how to handle halyards, and other parts of the running rig, in the most efficient way. Amongst other things, we assume that the mast man prefers to stand on the starboard side of the mast when hoisting the spinnaker and adjusting the spinnaker lift. As exceptions do occur, we can adapt our standard arrangements to suit specific deck layouts.

Standard layout, main halyard and genoa halyard to be handled at the mast.

C106-C139, CC105-CC138

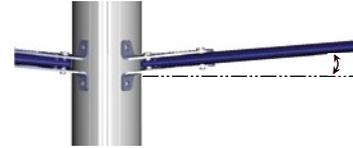
Slot fitting art. no. 505-017-01
Cleave art. no. 511-016-01
Winch pad art. no. 523-043-01



Photo: Karin Herrström. H-Boat.

Spreaders and spreader brackets

Aluminium sections C080-C096 and carbon CC077-CC095 feature external stainless spreader brackets. These fittings feature a wide base to transfer spreader loads to the mast extrusion. This makes for a rigid connection, low windage and low weight.



The spreader brackets are angled 6° for optimum rig support.

C080; CC077

With the clevis pin vernier adjuster system, the spreader angle can be set anywhere from 0° to 34°, with adjustment increments as small as 2°. This allows rapid and repeatable tuning to suit weather conditions.

Mast section		Spreader bracket starboard and port side, Art. no. Alu. /Carbon	Width of spreader, mm	Spreader angle	Length, mm	Pair of spreaders excluding end plugs, Art. no.		End plug, Art. no.
Aluminium	Carbon					Blue anodised		
C080	CC077	522-168-01/-51	P-35	0 - 34°	285	503-770-11		500-801-01
					335	503-771-11		
					375	503-772-11		
					435	503-773-11		
					485	503-774-11		
					535	503-775-11		
					585	503-777-11		



C087-C096; CC086-CC095

This is a larger and stronger version of the vernier adjust type listed above, but with fixed angle spreaders. This is often required to comply with individual Class rules. Spreaders are custom made to give the correct sweep.

Mast section		Spreader bracket starboard and port side, Art. no. Alu. /Carbon	Width of spreader, mm	Spreader angle	Length, mm	Pair of spreaders excluding end plugs, Art. no.		End plug, Art. no.
Aluminium	Carbon					Silver anodised	Black anodised	
C087 C096	CC086 CC095	522-193-01	P-50	0° - 19° 0° - 15°	250	503-730-01	503-610-01	500-545-01
						503-731-01	503-611-01	
C087 C096	CC086 CC095	522-169-01/-51 522-170-01		20° - 30° 16° - 30°	300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200	503-732-01	503-612-01	
						503-733-01	503-613-01	
						503-734-01	503-614-01	
						503-735-01	503-615-01	
						503-736-01	503-616-01	
						503-737-01	503-617-01	
						503-738-01	503-618-01	
						503-739-01	503-619-01	
						503-740-01	503-620-01	
						503-741-01	503-621-01	
						503-742-01	503-622-01	
						503-743-01	503-623-01	
						503-744-01	503-624-01	
						503-745-01	503-625-01	
503-746-01	503-626-01							
503-747-01	503-627-01							
503-748-01	503-628-01							
503-749-01	503-629-01							



C106 – C139; CC105 – CC138

This type of spreader bracket is a through-bar design which provides strength as well as a smooth and elegant appearance. The shroud fittings for the lower shrouds are integrated into the spreader bracket. This reduces the number of fittings on the mast, minimising weight and windage.

Mast section		Spreader bracket starboard and port side, Art. no.	Width of spreader, mm	Spreader angle	Stemball-cup		Length, mm	Pair of spreaders excluding end plugs, Art. no.		End plug, Clamped Art. no.	Linked end plug, Art. no.
Aluminium	Carbon				Wire, dia., mm	Cup		Silver anodised	Black anodised		
C106	CC105	522-171-01	T-60	0° - 30°	3 – 5	R9	300	503-174-01	503-634-01	500-629-01	500-630-01
C116	CC115	522-172-01					350	503-175-01	503-635-01		
C126	CC125	522-173-01			3 – 6	R11	400	503-176-01	503-636-01		
C139	CC138	522-174-01					450	503-177-01	503-637-01		
							500	503-178-01	503-638-01		
							550	503-179-01	503-639-01		
							600	503-180-01	503-640-01		
							650	503-181-01	503-641-01		
							700	503-182-01	503-642-01		
							750	503-183-01	503-643-01		
							800	503-184-01	503-644-01		
							850	503-185-01	503-645-01		
					900	503-186-01	503-646-01				
					950	503-187-01	503-647-01				
			1000	503-188-01	503-648-01						
			1050	503-189-01	503-649-01						
			1100	503-190-01	503-650-01						
			1150	503-164-01	503-651-01						
			1200	503-165-01	503-652-01						
			1250	503-166-01	-						
			1300	503-167-01	-						
			1350	503-168-01	-						
			1400	503-169-01	-						



Clevis pins for spreader brackets

Mast section		Spreader bracket starboard and port side, Art. no.	Width of spreader, mm	Inner clevis pin, mm			Outer clevis pin, mm			Split ring Art. no.	Split pin Art. no.
Aluminium	Carbon			Alu. /Carbon	Ø	L	Art. no.	Ø	L		
C080	CC077	522-168-01/-51	P-35	4.75	14	165-608	M5 bolt M5 nut	-	155-049 158-004	301-527 (Ø 10 x 1.5 mm)	
C087	CC086	522-193-01 522-169-01/-51	P-50	8	32	165-105	8	32	165-105	301-528 (Ø 15 x 1.5)	
C096	CC095	522-193-01 522-170-01									
C106	CC105	522-171-01	T-60				8	27	165-113		301-049 (Ø 2.9 x 16/19 UEL)
C116	CC115	522-172-01									
C126	CC125	522-173-01									
C139	CC138	522-174-01									

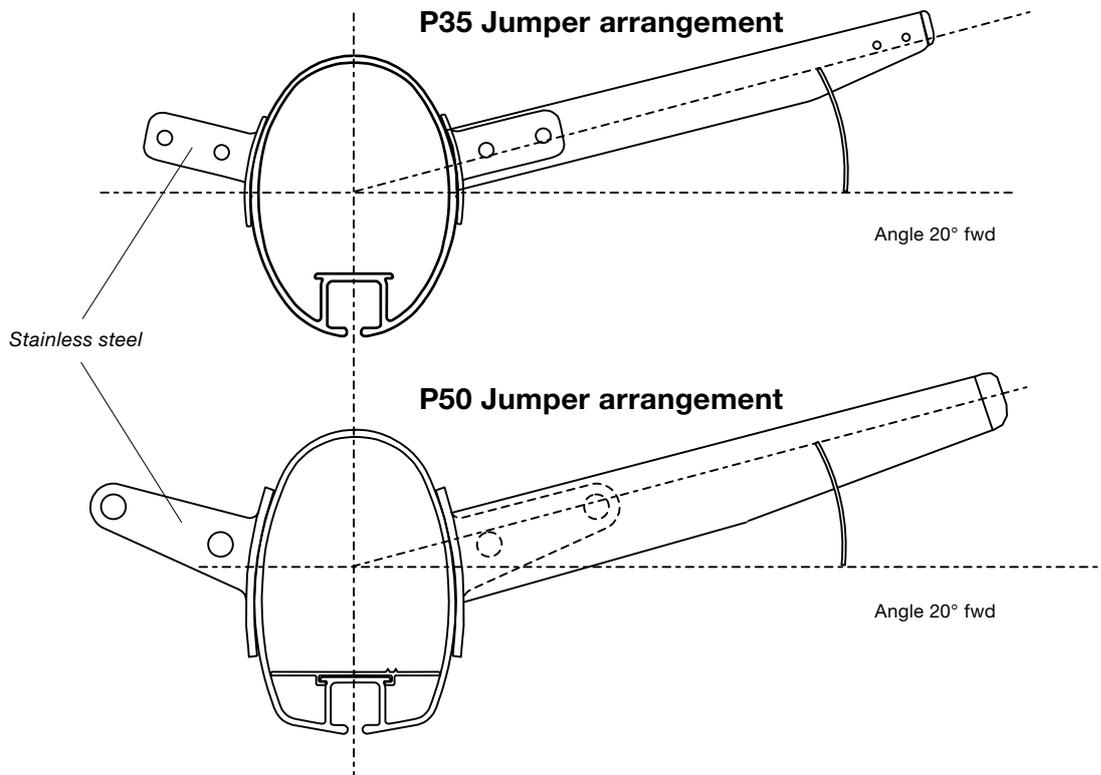
UEL = Un Equal Length



Jumper arrangement

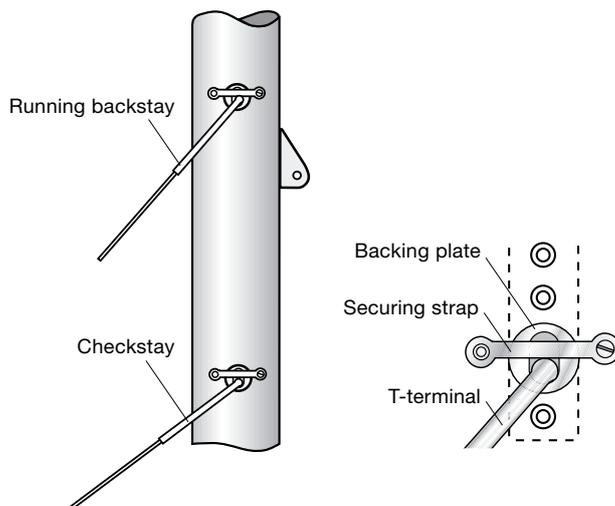
A jumper arrangement is a pair of spreaders in the top of the mast, angled 20° forward. Jumpers increase the longitudinal and lateral stiffness of the mast, and are sometimes required if a high hoist gennaker/spinnaker is used, or to stabilize the head of the mainsail.

Mast section		Jumper bracket, starboard and port side, Art. no. Alu. /Carbon	Width of spreader, mm	Length, mm	Pair of jumpers incl. end plugs, Art. no.		Pair of jumpers excl. end plugs, Art. no.		Clevis pin, (mm) Art. no.	Split ring, Art. no.	End Plug, clamped, Art. no.
Aluminium	Carbon				Blue	Black	Silver anodised	Black anodised			
C080-C096	CC077-CC095	522-200-01/-51	P-35	Cut to length	503-758-11	503-784-11			165-607 (Ø 4.7 x 8.9)	301-527 (Ø 10 x 1.5)	500-801-01 (for Ø 2-3 mm wire)
C106-C139	CC105-CC138	522-199-01/-51	P-50	250			503-730-01	503-610-01	165-105 (Ø 8 x 32)	301-528 (Ø 15 x 1.5)	500-545-01 (for Ø 3-6 mm wire)
				300			503-731-01	503-611-01			
				350			503-732-01	503-612-01			
				400			503-733-01	503-613-01			
				450			503-734-01	503-614-01			
				500			503-735-01	503-615-01			



Attachment of the lateral rigging

The attachment for a running backstay or check stay is a backing plate with a securing strap. The strap ensures that the unloaded lee-ward stay does not disengage from the backing plate.



Backing plate including securing strap

Wire dia., mm	Aluminium mast Art. no.	Carbon mast Art. no.
3	507-553-02	507-553-52
4	507-551-02	507-551-52
5	507-552-02	

T/Eye toggle for low weight rope runners

Rope runners make for lower weight as well as less chafe on mast and sail compared to traditional wire runners.

Wire dia., mm	Art. no.
3	174-136
4	174-137
5	174-138



When replacing traditional wire runners with lightweight runners, in for example HMPE, keep your existing backing plate and add a T/Eye toggle.



Lower shrouds attached to through bar spreader bracket. C106-C139, CC105-CC138

Shroud attachments

The lower shrouds are attached to the mast with a backing plate if the spreader bracket is an external type. For a mast with through bar spreader brackets, the aft lowers are fitted in the brackets and the forward shrouds in separate backing plates.

Wire dia., mm	Backing plate Art. no. Aluminium/Carbon	Min. mast section	Location of the lower shroud below the spreader bracket, mm
3	507-553-01/-51	-	180
4	507-551-01/-51	-	
5	507-552-01	C116	
6	507-600-01	C126	
7	507-601-01	C139	



Lower shroud attached with backing plate. C080-C096, CC077-CC095

Attachments of lower diagonals

When using a GNAV the lower part of the mast is supported by lower diagonals. The attachment point is a stainless bracket on the front side of the mast. Read more about GNAV at page 50.

Wire dia., mm	Aluminium, mast section	Art. no.
3	C080-C139	518-081-01
4		518-078-01

Wire dia., mm	Carbon, mast section	Art. no.
3	CC077-CC086	518-081-51
	CC095-CC105	518-081-52
4	CC077-CC138	518-078-01

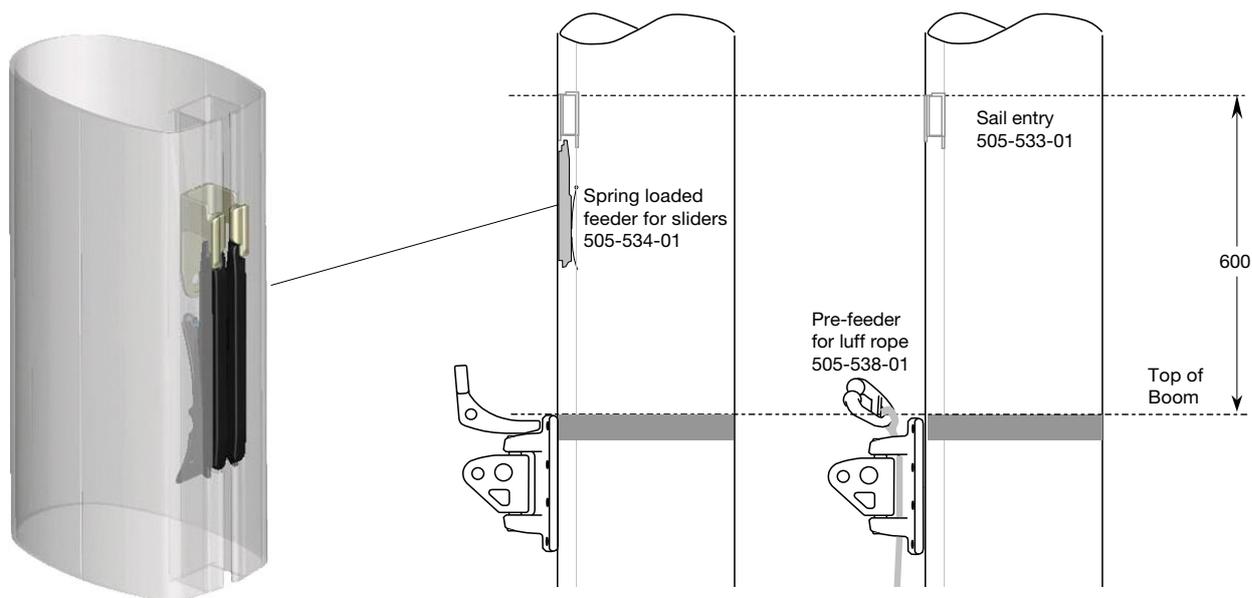


Photo: G-Force Yachts. Xtreme 25.

Sail entry

The sail entry is a smooth stainless fitting and accepts both bolt rope and sliders. Combined with a prefeeder fitted to the boom bracket, hoisting a sail with bolt rope becomes really smooth. For sails with sliders, a spring loaded feeder is inserted in the luff groove.

The feeder allows for the sliders to pass the sail entry and all the way down to the boom bracket when the sail is reefed or doused. To select the correct size slider, please see page 10.



Feeding a sail with sliders



1) Feed all sliders into the sail entry.



2) The sliders will pass the sail entry all the way down to the tack.



3) The sliders always connect the sail to the mast, simplifying hoisting and reefing.

Feeding a sail with luff rope



1) Tie the pre-feeder to the boom bracket.



2) Feed the luff rope into the sail entry.

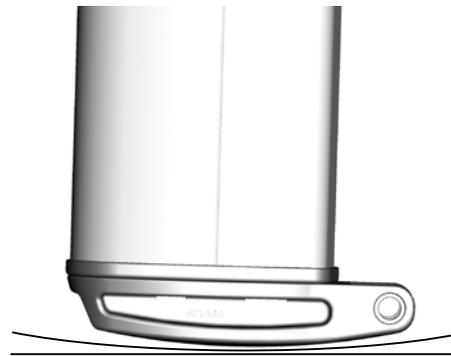
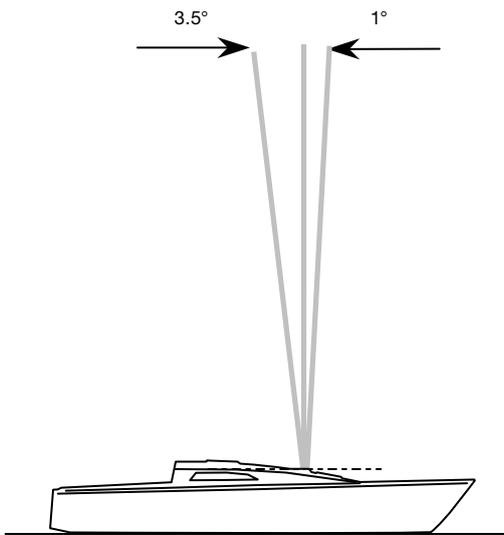


3) Hoist the mainsail.

Deck-stepped masts

Load distribution

A convex heel plug at the lower end of the mast section allows the mast to be raked $3,5^\circ$ aft and 1° forward, and still evenly transfer compression load to the mast section. This concept is far from new but nevertheless, brilliant. It was introduced by Seldén early 70's.



Convex heel plug distributes compression load evenly on the mast section.

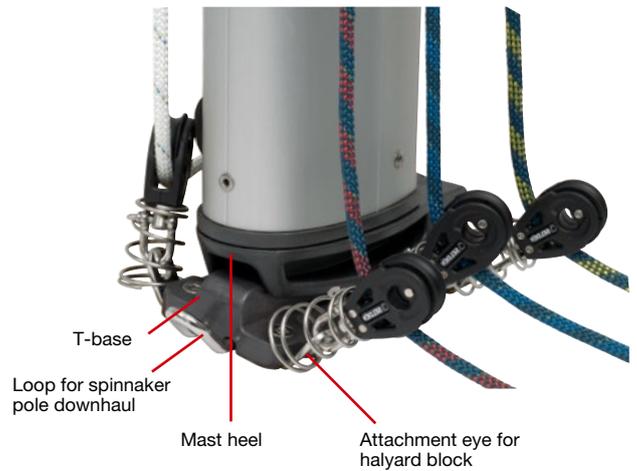
It is easy to step the mast

The aft end of the heel plug is connected to the T-base with a clevis pin. This clevis pin works as a hinge and allows for controlled raising and lowering of the mast, a great help for sailors who frequently un-step their mast. For the owner of a trailer boat the advantage is obvious.



T-base, heel and attachments for deck blocks

Ropes leaving the mast through halyard exits continue down and then lead aft to clutches, Cam cleats or Valley cleats® located within reach of the crew in the cockpit. The mast stands on an aluminium T-base, which is bolted to the deck. Six stainless attachment eyes, three on each side, can be fitted between the T-base and the deck for attachment of lead blocks. This enables ropes to be efficiently routed to the cockpit. In addition, the T-base comes with two centre line attachment loops, one forward and one aft. These loops are mainly used for spinnaker pole downhaul and the kicking strap.

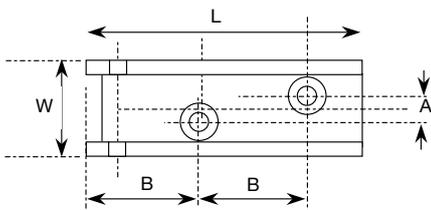


Mast heel without sheaves

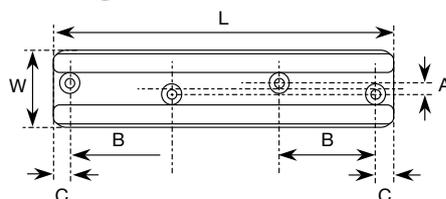
Mast section		Heel plug, Art. no.	T-base, Art. no.	Attachment eye, Art. no.	Loop, Art. no.	L mm	W mm	A mm	B mm
Aluminium	Carbon								
C080	CC077	502-560-01	① 510-158-01	-	-	100	35	10	40
		502-560-02 (sheaves)	② 510-155-01 (adjustable)	-	-	150	40	7	44
C087	CC086	502-561-01	③ 510-161-01*	508-497	508-459	120	70	50	90
C096	CC095	502-562-01							
C106	CC105	502-563-01	④ 510-171-01*			150	70	50	120
C116	CC115	502-564-01							
C126	CC125	502-565-01							
C139	CC138	502-566-01							

*Including attachment eyes and loops.

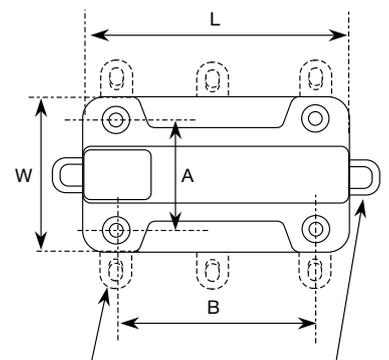
① T-Base



② Adjustable T-base



③ ④ T-Base, attachment eye and loop



Attachment eye,
Art. no. 508-497

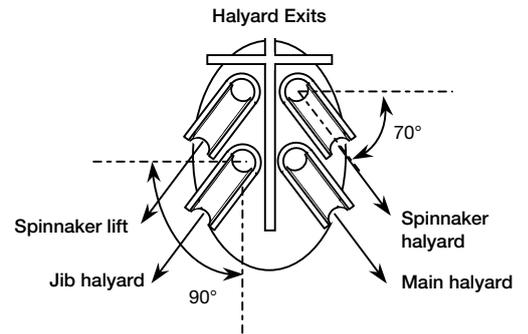
Loop,
Art. no. 508-459



Read more about Seldén's blocks, Cam cleats and Valley cleats® in our Deck Hardware catalogue, art. no. 595-905-E.

Mast heel with integrated sheaves

An alternative to halyard exit slots is to run the halyards out through the mast heel. Seldén offers this solution by adding a fitting with four integrated sheaves between the mast section and the heel. The sheaves are fitted in adjustable cages that can be individually angled towards a deck organiser or direct to a Cam Cleat in the cockpit area. In the top of the stainless cages, rubber o-rings preserve the cage alignment when the rope is unloaded. They also prevent rattling.

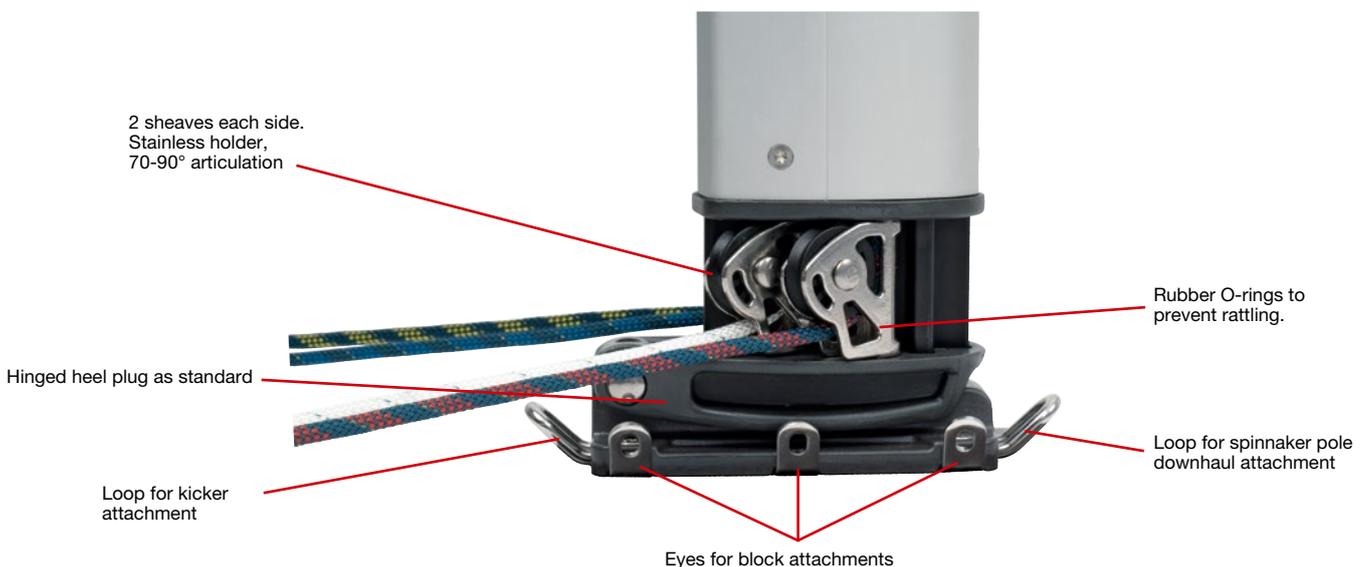


Ball bearing sheaves are available for some of the sections.

When needed, additional attachment eyes and loops can be fitted underneath the T-base.

Mast heel with sheaves

Mast section		Mast heel with four plain bearing sheaves, Art. no.	Mast heel with four ball bearing sheaves Art. no.	Height of ropes above deck
Aluminium	Carbon	Aluminium/Carbon		mm
C080	CC077	502-560-02	-	33
C087	CC086	502-561-02/-52	502-561-03	50
C096	CC095	502-562-02/-52	502-562-03	
C106	CC105	502-563-02/-52	502-563-03	
C116	CC115	502-564-02/-52	502-564-03	
C126	CC125	502-565-02/-52	-	52
C139	CC138	502-566-02/-52	-	



Keel-stepped masts

The aluminium deck ring comes with six stainless attachment eyes, three on each side. Blocks for halyards are attached to the eyes to lead ropes back to the cockpit. There are also two stainless loops fitted to the deck ring, one forward and one aft. These are intended for the spinnaker pole downhaul and kicking strap.

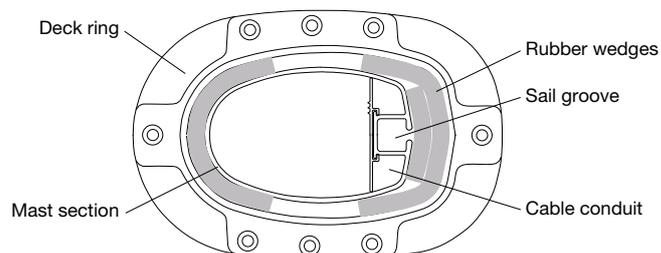
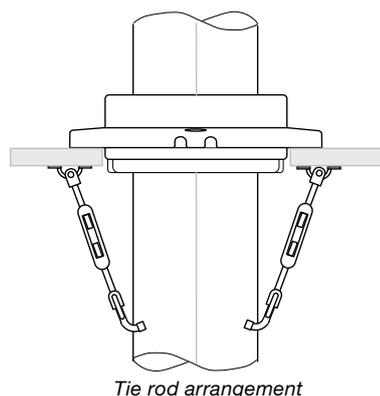
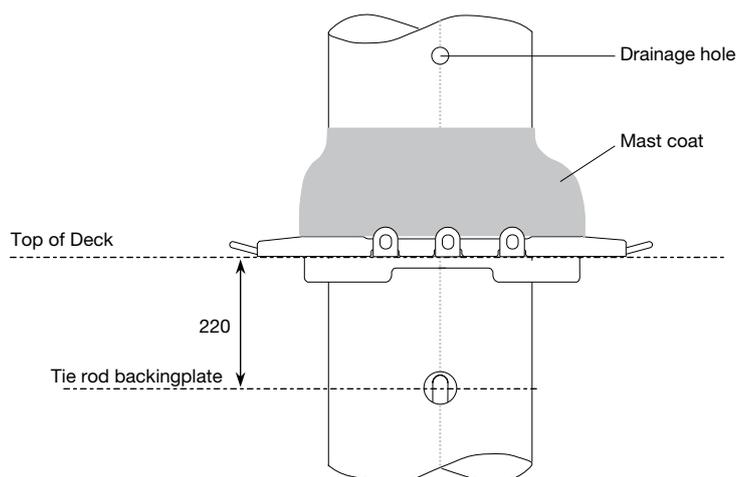
The mast is secured in the deck ring by rubber wedges.

To prevent lifting the deck by the halyard loads, Tie-rods are fitted in backing plates in the mast section and connected by rigging screws to attachment loops in the solid deck laminate.

A keel-stepped mast has, as standard, an internal seal in order to minimise water leaking into the bilge. The cable conduits are open to simplify installation of additional cables but they can be sealed afterwards if required. Externally, a flexible mast coat prevents water leaking through the deck.

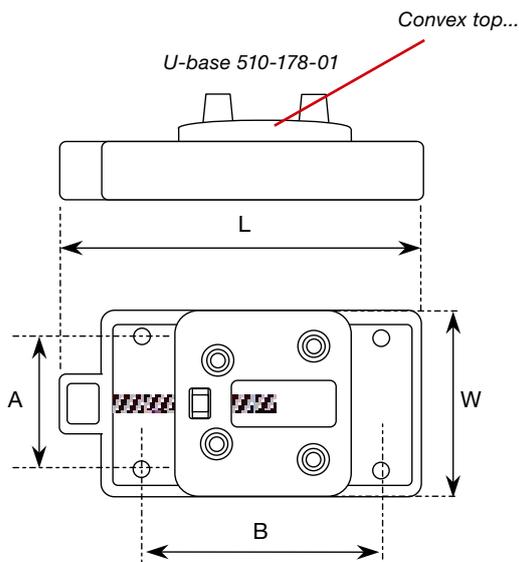
Deck ring

Mast section		T-Base, Art. no.	Deck ring including attachment eyes, loops, backing plates for Tie-rods and rubber wedges, Art. no.	Mast coat, Art. no.	Hose clip, Art. no.	Attachment eyes, Art. no.	Loops, Art. no.	Rubber wedges, Art. no.
Aluminium	Carbon							
C116	CC115	510-171	533-034-01	530-063	312-202	508-497	508-459	2 x 530-239 2 x 530-240
C126	CC125	-		530-064				2 x 530-239 1 x 530-240
C139	CC138	-		530-065				2 x 530-239

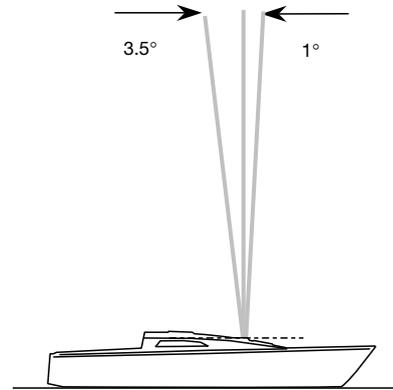


U-base

Mast section		U-base, Art. no.	L mm	W mm	A mm	B mm
Aluminium	Carbon					
C116	CC115	510-178-01	180	85	50	120
C126	CC125					
C139	CC138					



... allows the mast to be raked 3,5° aft and 1° forward, and still evenly transfer compression load to the mast section.



Adjustable mast heel (C126-C139, CC125-CC138)

The U-Base allows for +/- 25 mm longitudinal adjustment of the mast heel. Pre bend and rake can therefore be trimmed for ultimate performance.

Differing from deck stepped masts, the heel plug has a straight lower edge, whereas the upper part of the U-base is convex. The mast can be raked 3.5° aft and 1° forward without subjecting the mast section to uneven compression loads.

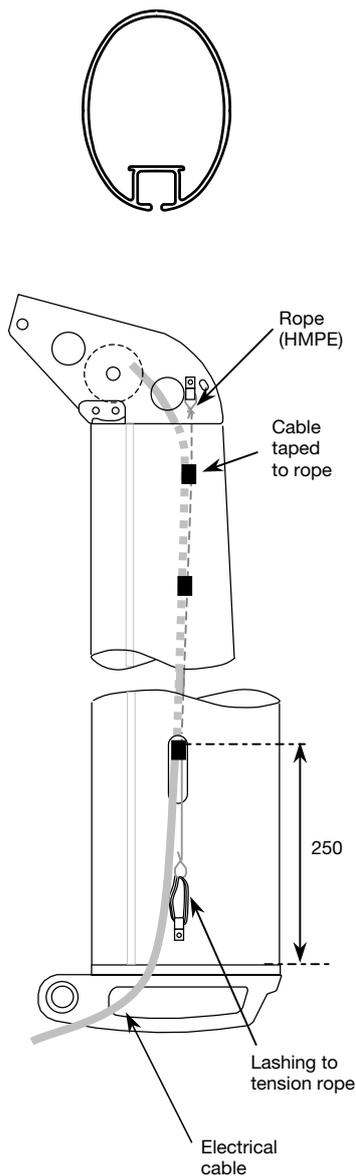


Cables in the mast

When required, Seldén will install cables in the mast for electrical equipment such as VHF antennae, navigational lights, windex light or wind instruments.

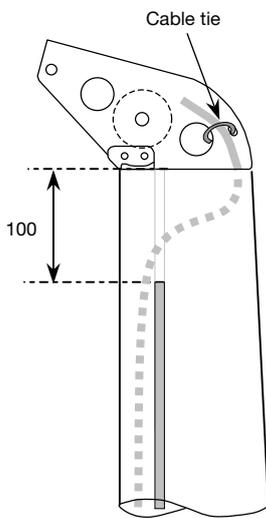
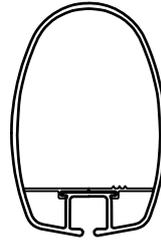
Aluminium C087 - C096 Carbon CC077 - CC138

Low weight installation of cables is an essential requirement with these sections. Limited space in the smaller sections also calls for a tight installation. Seldén attaches the cables to a $\varnothing 3$ mm tensioned rope inside the mast. The rope is fixed in the top with a stainless loop and the lower end is tensioned with a lashing.

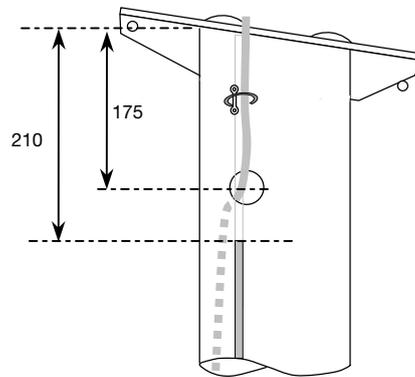


C106 - C139

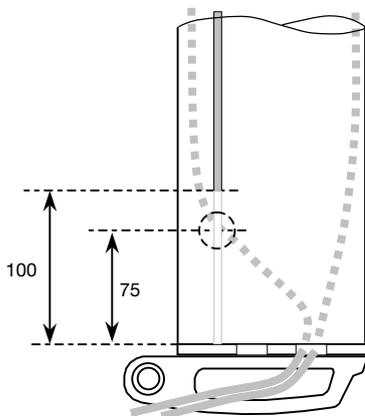
A flat PVC extrusion slides on to a track in the aluminium section. This is an inspired solution keeping the weight down while creating two spacious conduits.



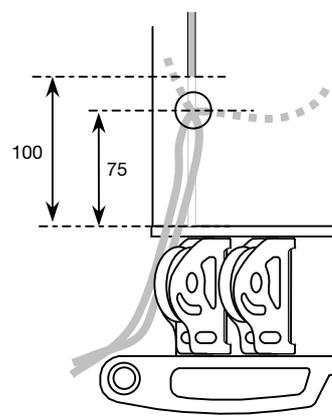
C106 - C139, fractional rig. The cables exit at the top between the mast section and the head box and are fixed with a cable tie.



C126 - C139, masthead rig. The cables exit through a well rounded Ø 20 mm hole and are fixed with a cable tie.



C106 - C139. The cables exit through the heel plug, or alternatively through a Ø 20 mm hole.



C106 - C139 with sheaves integrated in the heel. The cables exit through a well rounded Ø 20 mm hole.