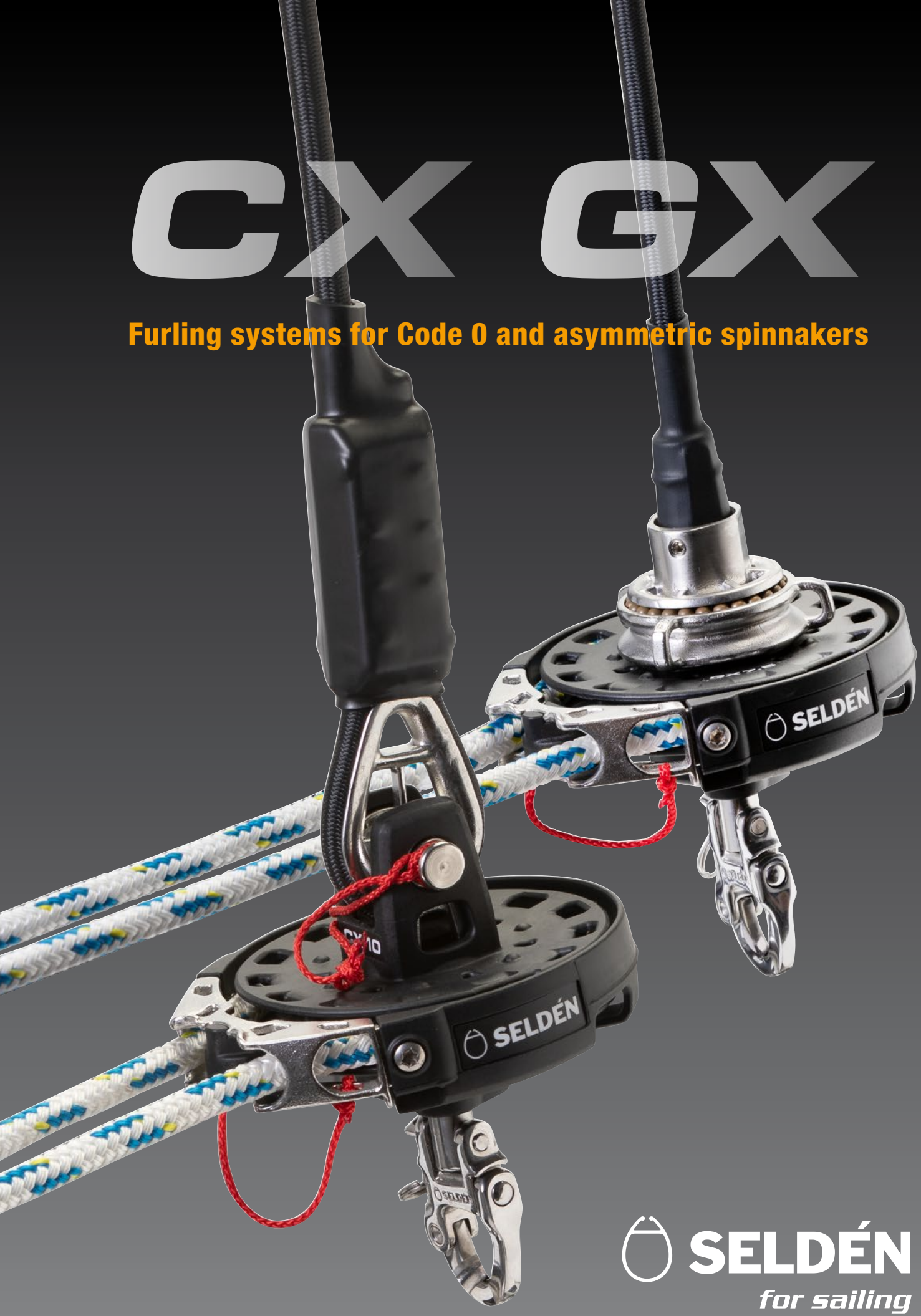
CX GX

Furling systems for Code 0 and asymmetric spinnakers



SELDÉN
for sailing

Want to see your crew smile?

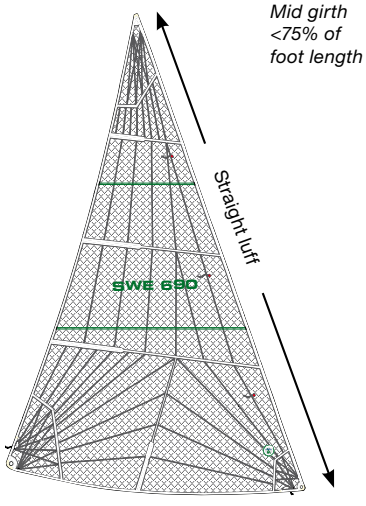
The power and acceleration achieved when unfurling a Code 0 or an asymmetric spinnaker is spectacular. It will make your sailing more fun.

Simply hoist the furled sail, release the furling line, pull on the sheet and you have added horse power to your sailing and given your crew a positive sailing experience. To douse the sail, ease the sheet, pull the continuous furling line and secure it in the purpose made Twin Cam block. Once the sail is furled it can be neatly dropped and coiled into a bag or left hoisted for later use. Seldén provide all necessary accessories for safe and carefree furling of "off-the-wind" sails.

The sails

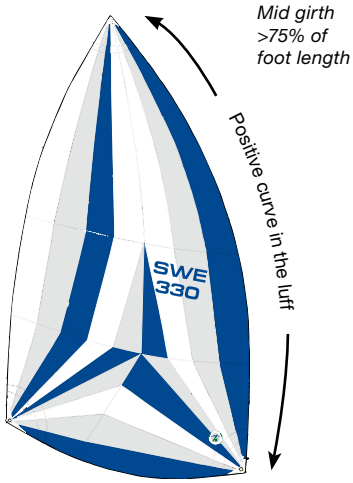
Code 0

The Volvo Ocean Race was the break through for the Code 0 concept, but lately the benefits of this type of sail have become recognized and appreciated also amongst ordinary sailors for the extra power it brings to light wind sailing. The luff is straight, set under tension and made for furling which simplifies the handling of this large sail. An AT-cable is integrated in the luff and fitted with thimbles in head and tack, and the entire luff length is furled simultaneously. The Code 0 is hoisted as high as the mast dimension permits and is tacked to the bow or to a sturdy bowsprit. The design is quite flat and reaches its maximum performance in apparent wind angles between 40° and 90°.
Seldén CX is the right furler for this sail.



Asymmetric spinnaker

This sail is often called “gennaker” or “cruising chute”. The mid girth is >75% of the foot length and the sail is defined as a spinnaker in most international measurement rules. The luff is at least 2% longer than the leech and this is what makes the sail asymmetric. This sail is furled with a Seldén GX system and fitted at the tack to the swivelling tack atachment and at the head to the halyard swivel. An AT-cable connects the drum and the halyard swivel and transmits the rotation of the drum enabling the furling to start at the top and work its way down until the entire sail is stowed away. This is called top-down furling. The Seldén GX furler is fitted to the bow of the boat or preferably on a retractable Seldén bowsprit to expose the sail to the wind and to get clearance from the forestay. The halyard tension is moderate and the sail is hoisted using the spinnaker halyard. The design of the sail has a great impact on when it will perform at its best, hence, a deep full size gennaker is more of a down wind sail than a sail which is cut flatter. Generally, the sail is developed for light and moderate winds and apparent wind angles between 90° and 120°. Prior to furling we recommend that power is taken out of the sail by releasing the sheet and if possible bearing away.



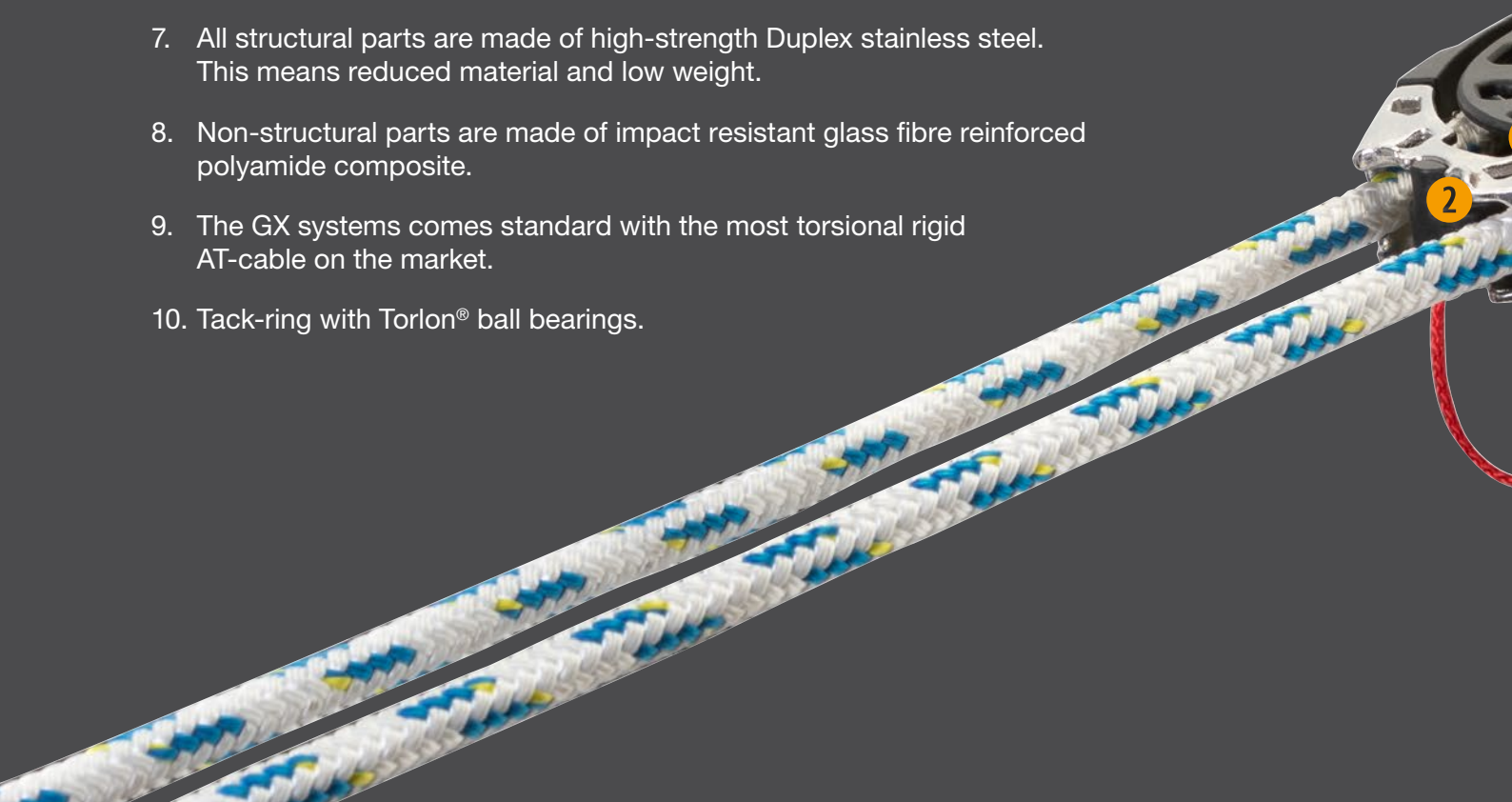
The furlers



CX

CX and Seldén **GX** are operated with an endless furling line running over a line driver drum. The furling line is preferably led all the way back to the cockpit and Seldén offer the Double Fairlead and the Twin-Cam block for a well organized set up. A purpose made AT-Cable has been developed to secure the function of the system and as the performance of top-down furling is dependant on the torsional rigidity of the AT-cable, it is included in the Seldén GX furlers.

1. Metal ”teeth” in the drum make for a good grip on the line when furling the sail.
2. A wedge in the line guide separates the line from the drum when unfurling the sail and the drum spins freely.
3. Sealed steel bearing in the drum and in the halyard swivel for long service life.
4. Rubber fender prevents the halyard swivel from chafing the mast while hoisting the furled sail.
5. CX. Spring loaded lock makes it easy to connect the thimbles to the drum and the halyard swivel.
6. GX. Patented line lock for easy mounting of the AT-Cable to the drum and to the halyard swivel.
7. All structural parts are made of high-strength Duplex stainless steel. This means reduced material and low weight.
8. Non-structural parts are made of impact resistant glass fibre reinforced polyamide composite.
9. The GX systems comes standard with the most torsional rigid AT-cable on the market.
10. Tack-ring with Torlon® ball bearings.

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Seldén GX for top-down furling of an asymmetric spinnaker/gennaker

Seldén GX drum and halyard swivel and an AT-cable is included in the kit. The drum and the halyard swivel are permanently fitted to the sail with the Seldén line lock. Connect the drum to the bow and the spinnaker halyard to the halyard swivel. Lead the furling line to the cockpit by using Seldén Double Fairleads on the stanchions, tighten the furling line and secure it in the Twin-Cam block. Thereafter hoist the furled sail.





Seldén GX	Kit including GX drum, halyard swivel and AT-Cable Art. No. ①+②+③	Max length of the system	Drum size, Ø mm	Dimension of included AT-cable, Ø mm	Max suggested sail area m²	Max working load, kN
GX7.5	545-018-24	10000	105	9	50	7.5
	545-018-21	13000				
	545-018-22	16000				
	545-018-23	19000				
GX10	545-118-21	13000	120	11	80	10
	545-118-22	16000				
	545-118-23	19000				
	545-118-24	22000				
GX15	545-218-21	16000	150	13	115	15
	545-218-22	19000				
	545-218-23	22000				
	545-218-24	25000				
	545-218-25	28000				
GX25	545-418-21	19000	190	15	200	25
	545-418-22	22000				
	545-418-23	25000				
	545-418-24	28000				

Seldén CX for Code 0

The AT-cable is integrated in the luff of the sail and thimbles connect the luff to the drum and to the halyard swivel. Special Cable clamps are required to fit the thimbles to the Seldén AT-cable. A dedicated halyard for Code 0 is required and 2:1 purchase is recommended to obtain the required luff tension and to reduce the load on the halyard sheave and on the line stoppers. The drum and the furling line can be permanently mounted to the bow and along the stanchions.





Seldén CX	Kit including drum and halyard swivel Art. No. ①+②	Drum size, Ø mm	Safe working load, kN	Max suggested sail area, m²	Max RM at 30° heel, kNm	Approx. displacement, tonnes
CX10	545-010-10	105	10	50	25	5
CX15	545-100-10	120	15	80	45	7.7
CX25	545-200-10	150	25	115	90	14
CX45	545-433-10	190	45	200	200	28

Seldén CX for top-down furling of an asymmetric spinnaker/gennaker

A Seldén CX drum is combined with a Free Tack Adapter and a GX halyard swivel, both of them with Seldén line lock. The furled sail with the Adapter is connected to the drum and the sail is hoisted with the spinnaker halyard. The drum and the furling line can be permanently mounted to the bow and along the stanchions.





Seldén CX	CX drum Art. No. ❶	Kit including Free Tack Adapter & GX halyard swivel Art. No. ❷+❷	AT-cable Dimension, Ø mm	This combination equals…	Max suggested sail area, m²
CX10	545-010-11	545-028-10	9	GX7.5	50
CX15	545-100-11	545-128-10	11	GX10	80
CX25	545-200-11	545-228-10	13	GX15	115
CX45	545-433-11	545-428-10	15	GX25	200

Seldén CX for Code 0 & top-down furling of an asymmetric spinnaker/gennaker

This is an all-in-one solution for the sailor using both Code 0 and gennaker and prefers using one halyard for both applications.

A Seldén CX drum and halyard swivel for thimbles are used both for the Code 0 sail and an additional gennaker. Connect the sail suitable for the prevailing conditions to the drum and to the halyard swivel and hoist the furled sail using the Code 0 halyard. The Free Tack Adapter is permanently fitted to the tack of the asymmetric spinnaker/gennaker with the Seldén line lock. The drum and the furling line can be permanently mounted to the bow and along the stanchions.





Seldén CX	CX drum and halyard swivel Art. No. ❶+❷	Adapter Art. No. ❸	AT-cable Dimension, Ø mm	This combination equals…	Max suggested sail area of the gennaker, m²
CX10	545-010-10	545-028-11	9	GX7.5	50
CX15	545-100-10	545-128-11	11	GX10	80
CX25	545-200-10	545-228-11	13	GX15	115
CX45	545-433-10	545-428-11	15	GX25	200

Accessories

Seldén AT-Cables (Anti-Torsion)

The more torsional rigid AT-cable, the quicker and safer the sail will furl. Seldén provide the most rigid cable on the market, three times more rigid than the second best, and it is included in the Seldén GX kit.

Art. No.	Length, mm	Dimension, Ø mm	To be used for...
613-020-01 613-020-02 613-020-03	13000 16000 19000	9	CX10 GX7,5 CX10 + GX7,5 adapter
613-021-01 613-021-02 613-021-03 613-021-04	13000 16000 19000 22000	11	GX10 CX15 CX15 + GX10 adapter
613-022-01 613-022-02 613-022-03 613-022-04 613-022-05	16000 19000 22000 25000 28000	13	GX15 CX25 CX25 + GX15 adapter
613-023-01 613-023-02 613-023-03 613-023-04	19000 22000 25000 28000	15	CX45 GX25 CX45 + GX25 adapter

Endless furling line

Art. No. Line only	Art. No. Line with Twin cam block installed	Length, mm	Dimension, Ø mm	To be used for...
611-007-06 611-007-07 611-007-09 611-007-08	611-007-31 611-007-32 611-007-33 611-007-34	2 x 4000 2 x 8000 2 x 10000 2 x 12000	8	CX10 CX15 GX7,5 GX10
611-011-05 611-011-06 611-011-07 611-011-18 611-011-19	611-011-31 611-011-32 611-011-33 611-011-34 611-011-35	2 x 5000 2 x 7000 2 x 9000 2 x 12000 2 x 15000	10	CX25 GX15
611-015-06 611-015-07 611-015-08 611-015-09	611-015-31 611-015-32 611-015-33 611-015-34	2 x 5000 2 x 9000 2 x 12000 2 x 17000	12	CX45 GX25

Unique and patented line lock system



Line terminal with a conical shape. Set of wedges.



Pull the terminal over the line and fold the core of the line over the wedges. Insert the wedges to the terminal.



Install the drum/halyard swivel and tighten the locking screw.



Twin cam block for furling line
PBB50 Art. No. 405-001-40R (max Ø10 mm line)
PBB60 Art. No. 406-001-40R (Ø12 mm line)

Double Fairlead

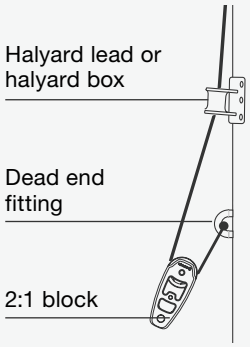
Ordinary blocks cannot be used to lead the endless furling line back to the cockpit. Seldén Double Fairlead consist of a composite bracket fitted to a 25 mm or 30 mm stanchion and a spring loaded ”push-and-twist” bracket in stainless steel. Easy to open to attach the line and just as easy to close. The Double Fairlead prevents the line to get tangled up and the smooth stainless bracket prevents friction.
Art. No. 480-501-01R.



Code 0 halyard with 2:1 purchase

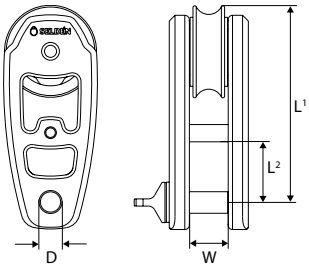
To boost the performance when using a Code 0, the halyard load must be higher than what normal halyard boxes and stoppers can handle. Therefore, a 2:1 purchase needs to be arranged by fixing the dead end of the halyard in the mast and letting it run through a block attached to the halyard swivel. Position on the mast must be specified by Seldén. In most cases Code 0 sails need to be hoisted lower than gennakers and spinnakers.





Block for 2:1 purchase

Art. No.	Dim.	Weight, g	L^1	L^2	W	D	Safe working load, kg	Breaking load, kg	Max line size, mm	To be used for...
403-501-01R	30	100	68	21	13	8	1500	3000	10	CX15
404-501-01R	40	187	85	26	18	10	2500	5000	12	CX25, GX25
405-501-01R	50	335	104	31	24	12	4000	8000	16	CX45



Dead end fitting

Art. No.	Mast section	Max rope, Ø mm	Max RM at 30° heel, kNm
508-843-01R	E177, E206, C137, C153, C156, C175, C180, C192, C193, C208, C211, C227, F170, F176, F185, F194, F199, F212, F217, F228	12	45
508-844-01R	E206, C225, C242, C245, C261, C264, C285, F246, F252, F265, F272, F286, F291, F305	14	180
508-838-01R	C280, C321, C365, F324, F370, F406	16	350



Thimbles for AT-cable

Art. No. (2 pcs)	For AT-Cable, Ø mm	To be used for...
545-114-01	8-9	CX10
545-116-01	10-11	CX10, CX15
545-216-01	12-13	CX25
545-416-01	14-16	CX45



Cable clamps

To fit thimbles to the Seldén AT-cable. Heat shrink tubing included.

Art. No. (2 pcs)	For AT-Cable, Ø mm
301-311-01	9-11
301-312-01	12-13
301-313-01	14-15



For CX25 and CX45 double clamps at each end of the AT-cable are required.

Adapters

An adapter adds a tack swivel to a CX furler. The CX drum can now be used both for Code 0 and for asymmetric spinnaker/gennaker. The adapters feature the patented Seldén line lock and Torlon ball bearings.

Art. No.	Converts...	...to
545-028-11	CX10	GX7.5
545-128-11	CX15	GX10
545-228-11	CX25	GX15
545-428-11	CX45	GX 25

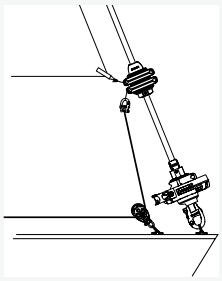


Adjustable Tack Swivel (ATS)

This accessory for Seldén GX furlers enables the sailor to easily trim the luff of the gennaker. The Adjustable Tack Swivel slides up and down over the AT-cable and is handled from the cockpit with a down haul. As opposed to trimming the luff by slacking the halyard, the AT-cable can now be permanently tensioned and always ready for furling.

Art. No.	To be used for...
545-040-10	GX7.5
545-140-10	GX10
545-240-10	GX15
545-440-10	GX25

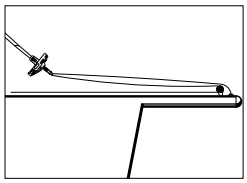


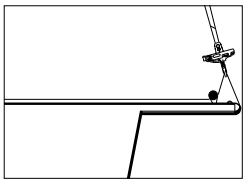


The sliding sleeve of ATS consists of two halves and therefore it is easy to retrofit the swivel on an AT-cable.

Low friction shackle

This snap shackel has a big, well rounded loop allowing the rope to slide with low friction and it can be used to tension a Seldén CX with 2:1 purchase. This not only makes for better performance but it also makes it easier to connect the Seldén CX to a bowsprit, from the foredeck. The shackle is made of high strength Duplex steel and has a quality mirror finish.





Art. No.	Dimension	Weight, g	Safe working load, kg	Breaking load, kg	To be used for...
307-435-01R	50	70	900	1800	CX10, GX7,5, GX10
307-436-01R	60	118	1500	3000	CX15, GX15
307-437-01R	80	278	2500	5000	CX25, GX25
307-438-01R	100	540	4000	8000	CX45



Bracket for masthead rigs

To allow for a Seldén GX system to be fitted to a mast head rig, the halyard must be moved forward to prevent conflict between the halyard swivel and the forestay.
A mast head bracket with a smooth halyard lead solves the problem.
This bracket is intended for gennakers/asymmetric spinnakers only and not Code 0's.
Max righting moment (RM) at 30° heel; 35 kNm.
Calculate your boat's RM with the calculator found on our website.



Art. No. 508-060-01R

Anti-Twist shackle

The Anti-Twist shackle is an optional shackle connecting the halyard to the halyard swivel. The long pin will lean against the mast and prevent a "soft" halyard from twisting.
This shackle is not necessary for a 2:1 halyard set up nor is it for a high quality Dyneema® halyard.

Art. No.	Dimension	To be used for...
545-030-01R	M6, L = 220 mm	CX10, GX7.5, GX10
545-130-01R	M8, L = 220 mm	CX15, GX15
545-230-01R	M10, L = 280 mm	CX25, GX25
545-430-01R	M12, L = 390 mm	CX45





CX Code 0 furler on a permanent carbon bowsprit. The low friction shackle (optional) underneath the drum is connected to the tack-line. 2:1 purchase enables the bowman to pull the drum out on the bowsprit while remaining on the foredeck. It also makes for a high luff load



A Seldén CX15 Code 0 furler and a Race80 Bowsprit from Båtsystem, Sweden. www.batsystem.se.

The luff load on a Code 0 is more than the double compared to an asymmetric spinnaker. Therefore, a sturdy bowsprit is required.

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Seldén Mast AB, Sweden
Tel +46 (0)31 69 69 00
e-mail info@seldenmast.com

Seldén Mast Limited, UK
Tel +44 (0)1329 50 40 00
e-mail info@seldenmast.co.uk

Seldén Mast Inc., USA
Tel +1 843-760-6278
e-mail info@seldenus.com

Seldén Mast A/S, Denmark
Tel +45 39 18 44 00
e-mail info@seldenmast.dk

Seldén Mid Europe B.V., Netherlands
Tel +31 (0)111-698 120
e-mail info@seldenmast.nl

Seldén Mast SAS, France
Tel +33 (0)251 362 110
e-mail info@seldenmast.fr

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597-200-E 2024-09-04 Printed in Sweden.

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