RS:RACING EVO7

NEILPRYDE

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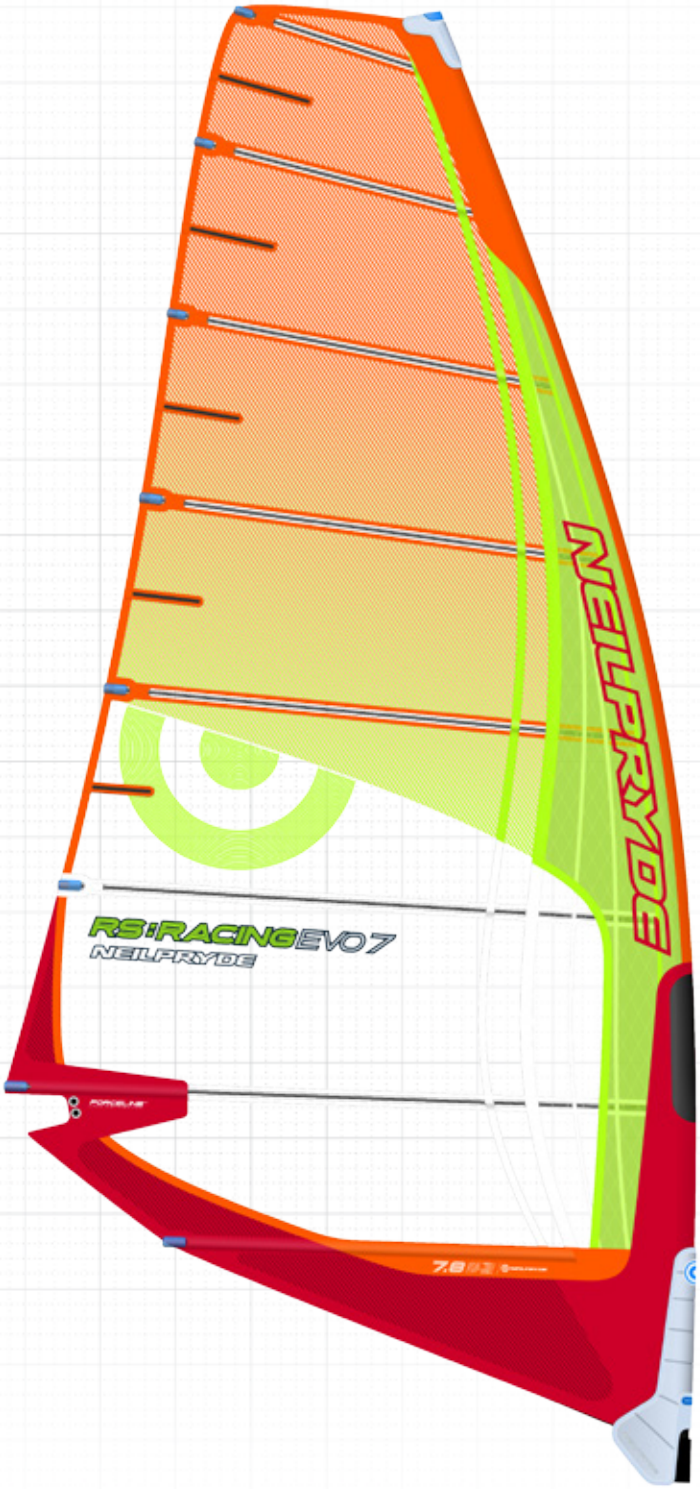
Welcome to another chapter in our relentless search for speed. The all-new EVO7 embodies the future of racing sails through its progressive leading edge design that provides breathtaking thrust. This, combined with a reactive mid leech that dynamically controls shape and drives acceleration, make EVO7 the forerunner of imitations to come. Experience another thrilling performance from the record-breaking RS:Racing program.



What's New

- More drive and stability through increased leading edge curvature supported by a wider luff sleeve.
- Better power, control and acceleration through a reactive mid leech made possible with tube carbon battens.
- Open Integrated Compact Clew used in all sizes for improved handling, stability and wind range.
- Mini carbon battens for a smoother leading edge in the upper area where no cams are used.

Size	Luff	Boom	Base	Battens	Cams	Weight	Ideal Mast	Code
5.8	430	186	30	8	4	5.35	400	BNPRE758
6.4	451	196	22	8	4	5.58	430	BNPRE764
7.0	472	207	12	8	4	5.73	460	BNPRE770
7.8	492	217	32	8	4	6.04	460	BNPRE778
8.6	513	229	24	8	4	6.35	490	BNPRE786
9.2	528	236	8	8	4	6.45	520	BNPRE792
9.6	534	242	14	8	4	6.6	520	BNPRE796
10.0	TBC	TBC	TBC	TBC	TBC	TBC	TBC	BNPRE700
11.0	TBC	TBC	TBC	TBC	TBC	TBC	TBC	BNPRE711
12.2	TBC	TBC	TBC	TBC	TBC	TBC	TBC	BNPRE712

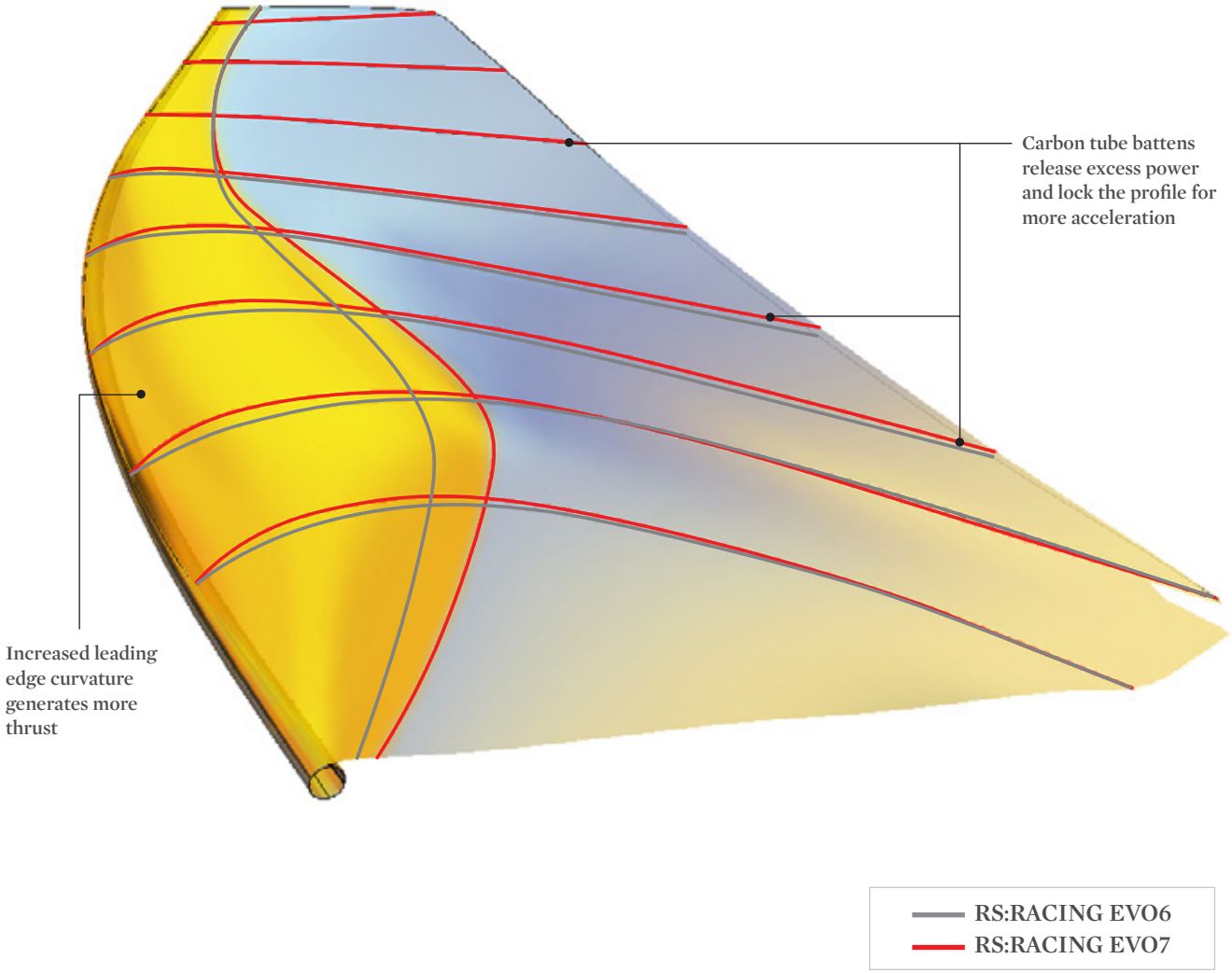
HIGHLIGHTS

Drive and Stability

For the EVO7 we developed a progressive leading edge design that focuses the sail on top-end performance. An increased leading edge curvature supported by a wider luff sleeve aerodynamically generates more forward thrust and acceleration. The luff sleeve is up to 20% wider (in the boom area) supporting the extra fullness, locking the profile in and keeping it stable. Smooth, laminar airflow on the leeward side created by this new sail shape ensures minimal drag despite increased thrust.

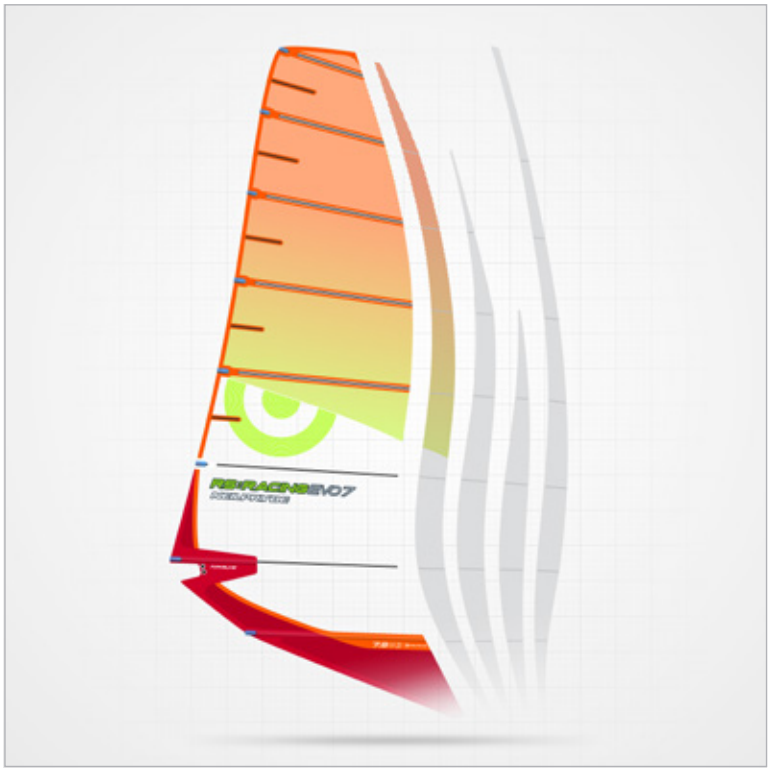
Control and Acceleration

Introduction of two carbon tube battens above the boom allows for power release in the mid leech section. This reactive mid leech prevents the draft from migrating back and releases excessive thrust generated. Using carbon battens meant that we could achieve the best stiffness to weight ratio, allowing for faster leech response. This power release system enables the rider to control the extra thrust created by the new sail profile, holding the shape and resulting in better acceleration.



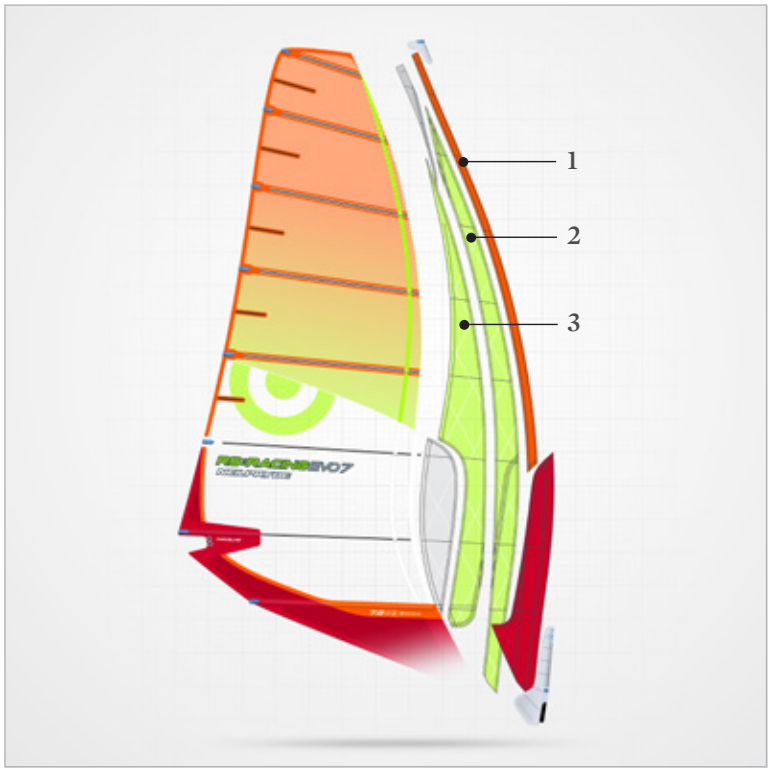
Quadruple Luff Panel Layout

EVO7 features four continuous luff panels that carry most of the sail body shaping. This configuration stabilises the critical section draft position while also providing lightweight yet stretch-resistant way of increasing the film thickness proportional with downhaul load distribution. Continuous panels eliminated horizontal seams crossing the highly loaded leading edge, which increases response of the sail as well as durability. Introduction of this extremely stable leading edge platform that is able to take very high downhaul loads allowed us to integrate Clear Pocket construction in the remaining sail body.



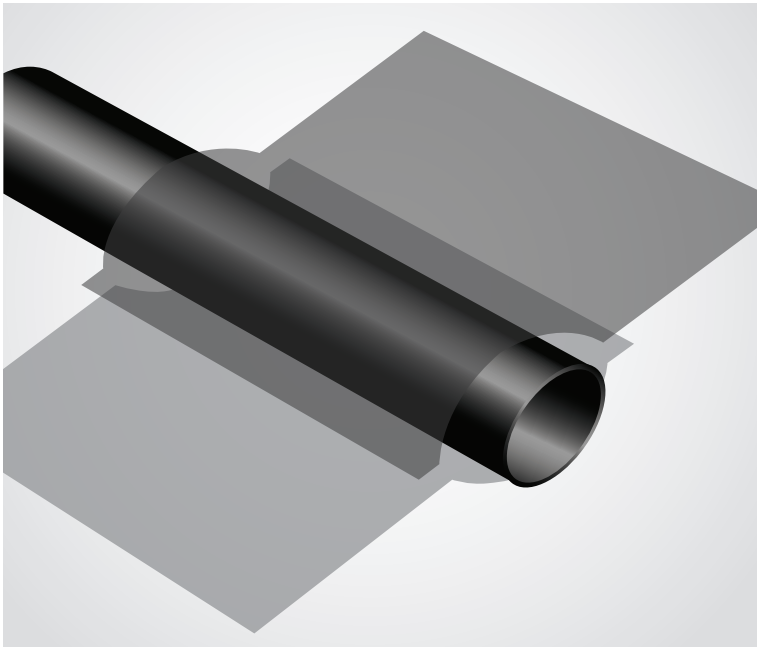
Component Sleeve Construction

The EVO7 sleeve is constructed by combining different materials with specific properties to achieve optimum profile entry stability and elasticity, critical for rotation and light weight. The front upper section (1) is made from lightweight woven material that has necessary elasticity and durability to resist wear from direct contact with the mast.
Behind this panel there is a low stretch Dyneema™ ArmourWeb section (2) that takes high downhaul tension and is critical in stabilising the profile entry, providing smooth bridging between Ultra Cams.
Inserted between this Dyneema™ panel and the sail body is a very lightweight, rip-resistant laminated film/taffeta with Dyneema™ yarns (3). Film controls the stretch, Dyneema™ provides ultimate rip resistance and taffeta is crucial for stitch holding. Bottom part of the sleeve is finished using our Luff Glide material as on other NeilPryde sails. This material combines very low friction against the mast (important for smooth rotation) with excellent durability and necessary elasticity in the bottom part.



Clear Pocket Batten Sleeve

On the EVO7, overlapping body panels create a sleeve for battens, eliminating the need for traditional separate batten pockets. This obviously saves on unnecessary weight and simplifies construction. Much more importantly, Clear Pockets create a fully symmetrical batten cavity, eliminating the tendency of traditional batten pockets to load differently from one tack to another. Traditional batten pockets, sewn on one side of the sail make the sail body set deeper when they are on the leeward side of the profile than when they are on the windward side. Clear Pockets, set the battens effectively in the middle of the horizontal cross section of the sail, avoiding this problem.



Forceline

The clew area of the EVO7 features a custom laminated Kevlar™ Forceline Panel for load distribution. Load spreading Kevlar™ strips are laminated directly onto the sail body, fanning from the point load at the grommet and continuously crossing over panel joints. This not only provides optimum load distribution but it makes for extremely lightweight yet strong construction eliminating any air pockets present in traditional patch construction.

FEATURES

Mini Batcams
Streamline and reduce weight in critical upper leech.

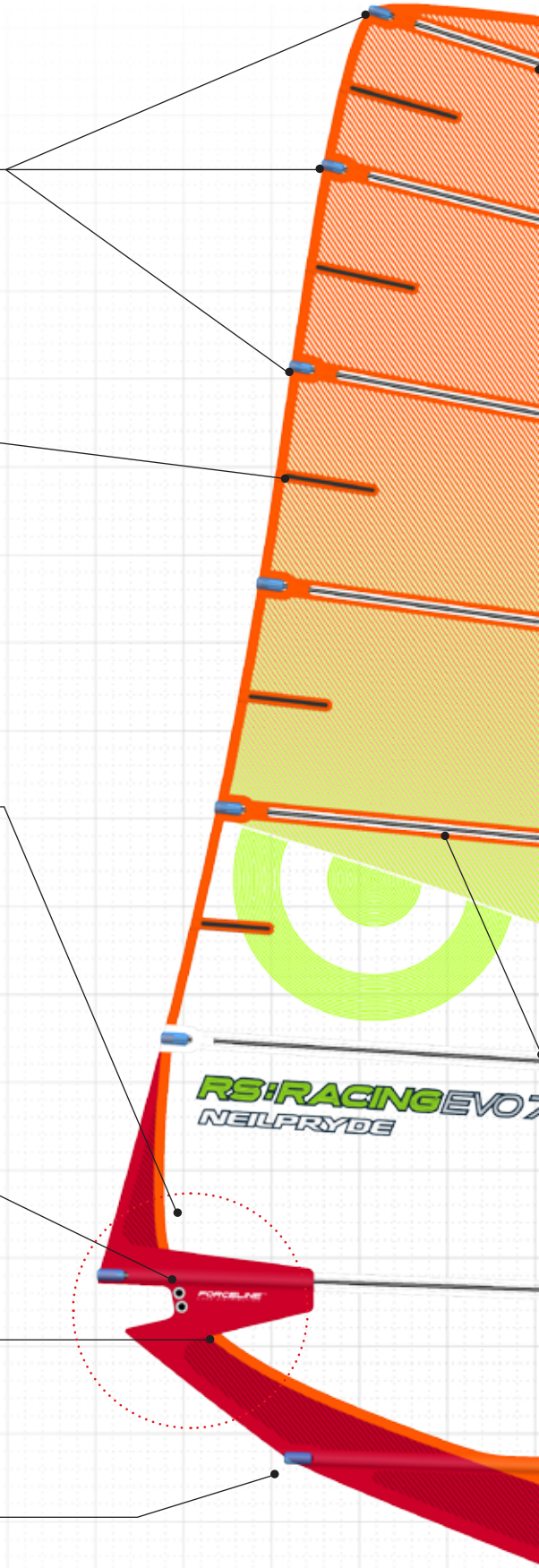
Carbon Leech Mini Battens
Provide max support with minimum weight.

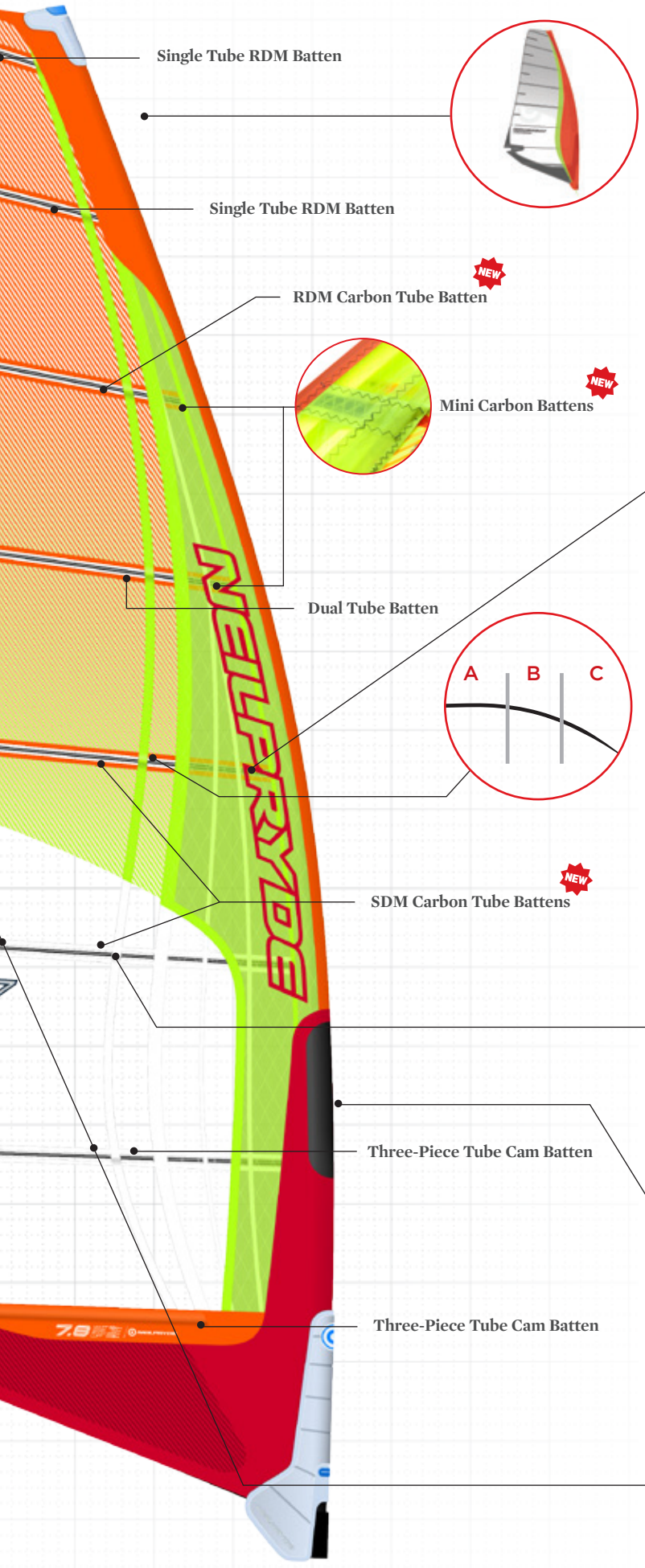
Open Integrated Compact Clew
Eliminates the cutout at the clew and connects the foot area with the leech by closing the sail behind the boom end. This results in improved handling, stability and wind range.

Dual Clew Eyelets
Allowing fine individual tuning.

Clew Batten
Providing clew support and load distribution.

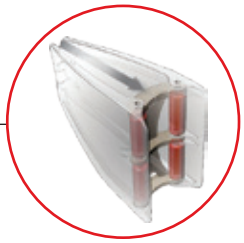
Batcam Screw Adjuster
For easy and precise tension application.





Dynamic Luff Sleeve Shaping

A. Increasing the width of the double surface leading edge in the area where the profile is deepest, ie in front of the rider, helps to keep the draft stable in this critical area.
B. Decreasing the width of the double luff in the head allows the sail to twist off more smoothly and under less load. This reduces tension on the leech.



Ultracams

Innovative suspended camber system dramatically improves sail rotation and acceleration out of gybes. Simultaneous tuning of battens and cambers makes the sail easy to tune.

Three-Piece Cam Battens

A 3-piece batten provides the framework for the design of a smooth, lightweight and stable sail profile.

A. Carbon/fiberglass tube: stiffest section
B. Hollow mid-section: medium stiffness
C. Precision Tapered CNC Batten: variable stiffness

Kevlar Batten Bridges

To distribute the high downhaul load crossing the battens

Aerodynamic Boom cutout closure

Prevents the apparent wind from blowing into the mast sleeve and generating drag.

Batten Chafe Protection

Abrasion resistant PU print to help protect the battens from damage caused by rigging or boom contact.

RIGGING INSTRUCTIONS

Downhaul - This is the most critical aspect of the Racing sails, as this is where the real speed and control come from. We at the NeilPryde Design Centre take great time in getting the rigging specs exactly right and this is a great place to start. Downhaul is also subject to personal preference but at minimum you should set your mast and base to the spec and pull it so there is about 1cm between the pulley on the sail and the pulley on the base. Then while sitting in the downhaul position lift the leech and mast up off the ground and look at the twist in the sail – you want to see a very progressive falling of the leech from the boom to the top of the sail and the top 2-3 battens should be falling off enough so you can't see the ends of the battens. Some of our top racers like to put a little more downhaul on their sails as they use them always very powered up. But this downhaul setting is for all conditions, light or strong wind, so you want the twist in the sail always to be able to get the maximum speed.

Outhaul - With the outhaul we strongly recommend using an adjustable system, as this is where you will want to do a lot of tuning depending on wind conditions. We suggest setting the boom one step longer than the recommended setting printed on the sail. This will give you a larger range of adjustment options and will also help to improve the camber rotation allowing the back of the sail to push out as the draft is rotating. The ideal setting is with the sail just touching the boom at full power. As the wind gets lighter don't be afraid to let the outhaul off even to the point where the sail is laying on the boom up to your harness lines. Don't over outhaul the sail as the wind gets stronger. If you pull too much outhaul you can lose power causing the sail to be very twitchy. This loss of power can also cause a loss of drive to your board, which then makes controlling it more difficult.

Batten tension - The batten tension relates directly to sail stability and camber rotation and you need to find a balance that works well for you. Put the most tension on the bottom two battens to lock the shape for maximum stability. These two bottom battens feature the Batcam Screw Adjuster which lets you precisely apply high tension using an allen key without the need to open the batcam. Next battens up still need high tension but considerably less than the bottom two battens. On the fourth batten from the bottom give enough tension to just take the wrinkles out of the batten pocket. For the remaining top battens you want them to have just enough batten tension so that the bat cam snaps shut. You need to be careful with these battens – don't put too much tension on them and add shape into the sail. Don't worry about tensioning all the wrinkles out of the sail body. Instead look at the batten and make sure that it is flat from the leading edge to the leech and if you push on the batten it is static and doesn't induce shape.

Tack strap - The tack strap tension has direct impact on sail stability and camber rotation but it also affects the softness of the sail. Apply considerable tack strap tension for lighter winds. This generally means for the larger sails, 7.0 and up, and also applies in flatter water. For the smaller sails, 6.4 and down, less tack strap tension will make the sail softer and more forgiving which works well in rough water. The stronger the tack strap tension the stiffer the camber rotation will become. Find a balance that works well for you and the conditions you are sailing in.

Race sail tuning is a very personal process dictated by sailing styles, boards and personal preference. Play with the gear and tuning settings to find what is right for you.