

RACING

NeilPryde Racing is a relentless program of research, development and innovation by the NeilPryde Design Center under the direction of Robert Stroj. It is a program with a 'no compromise' approach to developing sails that offer the best possible performance, because ultimately **the difference** is winning.

NeilPryde's race sails have remained the dominant force in windsurf racing for the past 15 years. With numerous World, Speed, PWA, Euro Cup and Continental Championship wins to their credit, the RS Racing sails have been **the difference** on the racecourse since their introduction in 2001.

The NeilPryde development program has been further extended and made more accessible with the introduction of the RS:X Olympic Program in 2005, the RS:Slalom "Real World Racer" for 2007 as well as the ongoing refinement of the ultimate speed machine – the "Speedseeker".

However, the benefits of the racing program are not limited to those on the racecourse. The technology and concepts refined during the development process are ultimately applied to all of the sails in the NeilPryde range. Recent innovations include the introduction of the compact boom length in 2006 and, for 2007, the introduction of a new outline for several sails that will allow for more power and control.



RELENTLESS

When it comes to race sails, speed and power are nothing without control. Following a relentless program of research, development and testing by the NeilPryde Design Centre under the direction of Robert Stroj, the RS:6, in conjunction with the X9 Ultra mast, delivers a more controllable and efficient sail than ever before.

The Outcome - an entirely new design layout, featuring an improved luff-sleeve design and batten lay-out resulting in a more dynamic twist. This makes the RS:6 a more stable, forgiving sail that delivers excellent control while maximizing the speed potential of the rig - in both low and high end conditions.



C1

SLALOM

7

BATTENS

RS:6 Racing (Sizes 4.6m - 8.4m)

7 Battens / 4 Cambers
Smaller high-wind sizes for Speed and Slalom Racing.
Forward orientated shaping for control of the wind and in chop.
More pronounced leech twist for high speed, rough water and control.

FORMULA

8

BATTENS

RS:6 Racing (Sizes 9.0m - 12.5m)

8 Battens / 5 Cambers
Larger light-wind sizes for Formula and light air windsurfing.
Fine entry and tighter leech for extreme upwind angles.
Two carbon battens for ultra stability.

DESIGN OBJECTIVE

- To develop a sail with a wider range of optimum use, and therefore a better overall performance than the RS:5, while at the same time enhancing handling so that it is possible for the rider to sail at full power, without sheeting out, for as long as possible - even in the most extreme conditions.
- To make a sail that has a lighter, livelier feeling that will be easier to handle during transitions and in rough water.
- To improve the low-end power of the sail in order to gain power for better pick up coming out of transitions without sacrificing high-end control and stability.
- Achieve a softer twist for a smoother absorption of the gusts.

ACHIEVED BY:

- Dynamic luff sleeve shaping to stabilize the draft in front of the rider and allow the sail to twist off more smoothly and under less load reducing tension on the leech.
- Progressive batten angles relative to the luff pocket to increase stability in the lower section while giving a more consistent twist for a smoother release.
- Internal luff panel inside the double surface luff sleeve to allow more forward orientated shaping regardless of the increased sleeve width.
- Aerodynamic boom cutout closure to prevent the apparent wind from blowing into the mast sleeve generating drag.

For a closer look at the key features of the RS:6 visit rs6.neilpryde.com

SIZE	WEIGHT/KG	LUFF +/- 1cm	BOOM +/- 1cm	BASE	BATTENS	CAMS	IDEAL MAST	CODE
4.6	4.40	391	167	22	7	4	NeilPryde X9UW370	BNP6RS646
5.0	4.60	407	172	8	7	4	NeilPryde X9UW400	BNP6RS650
5.4	4.80	424	178	24	7	4	NeilPryde X9UW400	BNP6RS654
5.8	5.10	440	187	10	7	4	NeilPryde X9U430	BNP6RS658
6.2	5.20	456	193	26	7	4	NeilPryde X9U430	BNP6RS662
6.7	5.40	471	202	12	7	4	NeilPryde X9U460	BNP6RS667
7.2	5.70	485	209	26	7	4	NeilPryde X9U460	BNP6RS672
7.8	5.90	505	216	16	7	4	NeilPryde X9U490	BNP6RS678
8.4	6.10	521	225	32	7	4	NeilPryde X9U490	BNP6RS684
9.0	6.30	527	245	38	8	5	NeilPryde X9U490	BNP6RS690
9.8	6.80	549	255	20	8	5	NeilPryde X9U530	BNP6RS698
10.7	7.20	573	269	44	8	5	NeilPryde X9U530	BNP6RS617
11.6	7.50	595	282	16	8	5	NeilPryde X9U580	BNP6RS616
12.5	7.80	610	293	30	8	5	NeilPryde X9U580	BNP6RS612

SPEEDSEEKER



The NeilPryde Speedseeker is essentially a highly specialised 'research project' - a custom rig based around RS Racing Sail plan-forms, that has been developed with one purpose in mind to help Finian Maynard and Antoine Albeau break the elusive 50 knot speed record.

Breaking World Speed Sailing Records involves months of meticulous preparation and then usually no more than a 30-minute window in which wind and water conditions become ideal for sailing at up to 90 km/h, just inches from the water and at the very limits of control. Optimal conditions for breaking the current World Record of 48.7 knots, are 45 knots of wind at an angle of 120-125 degrees. That is a challenge in itself as these types of conditions are rare during the allotted time periods of record attempts.

The entire length of the purpose-built speed canal in Saintes Maries de la Mer, France - the location of this year's record attempts - runs 1,100 meters by a width of 25 meters. There are five different 500M courses accommodating the four wind directions of N, WNW, SE and SW with the most common being N (Mistral) and SE (Le Marin).

Until recently, the typical speed sailing rigs used by Finian and Antoine measured between 5.0 and 5.3. But after experiencing gut-wrenching winds of 60-65 knots for two hour periods in previous attempts, without being able to capitalize on the moment, the riders will be bringing two additional smaller 4.6 and 4.8 Speedseeker sails to future record attempts.

Finian and Antoine's speed boards range in size from 35 to 40 cm wide and are in the range of 225-230 cm long and are made from a styrofoam core with a Carbon/PVC sheet foam full-sandwich and weigh-in at close to 4kg.

During a record attempt, riders accelerate from 0-44 knots in about 6 seconds (that's almost the same acceleration as a Porsche 911 RS) and the boomerang sensation once the bow of the board is forced downwind onto the run is similar to being shot out of a cannon. At these speeds experience is essential, as is total confidence in the equipment. The forces at work on the rig and the rider are intense. At peak speed, it's all the rider can do just to see where he's going.

While we have no plans to sell Speedseeker sails to the general public, the research and development work that has gone into the Speedseeker Programme has yielded a great deal of performance data that's enabled Robert Stroj and the Design Team in Maui to greatly improve the performance and handling of the RS:Racing, RS:Slalom and other NeilPryde high performance flatwater sails.



Finian Maynard



REAL WORLD RACING

New for 2007, the RS:SLALOM is designed to take the high performance of NeilPryde's race sail, the RS:6, and build it into a sail that is simple to rig and easy to use. Designed around the X6 Mast, the RS:SLALOM

features a combination of enhanced bottom end power and smooth rotation, making it the ideal sail for weekend racers; GPS speedsters and those simply looking to go faster than their friends.



C1

Aerodynamic Boom cutout closure

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



Removable Camber

The bottom camber can be removed for enhanced rotation, easy rigging and a softer feel.



DESIGN OBJECTIVE

- To design and build a sail that will fit between the RS:6 and the 2007 V8.
- To deliver performance as close as possible to purebred race sails but with easier on the water handling and user-friendly rigging and de-rigging.
- The sail must have a soft, forgiving feeling and a light 'sailing weight' when on the water.
- The sail must offer smooth rotation during gybes and excellent acceleration out of the corners.
- The sail must be designed on, and developed using, the NeilPryde X6 mast.
 - The X9 Mast must be compatible as the 'performance upgrade' for ultimate performance.
- The sail must be suitable for the Slalom 42 racing format combining good windward ability with control and speed on a broad reach.

ACHIEVED BY:

- Using the RS:6 outline and sail body as a base to ensure high performance.
- Reducing the number of cams to produce a softer feeling rig with smooth rotation, excellent handling during gybes and good acceleration out of the corners. It has also made rigging easier and reduced the sail weight.
- Sail versatility. The bottom camber can be removed depending on what the rider is looking for. If stability, speed and control are required, the rider can choose to keep the bottom camber in place. Should the sailors' preference be for enhanced rotation, easy rigging and a softer feel the bottom camber can be removed resulting in a softer profile and better rotation.
- Reducing the width of the luff sleeve, relative to the RS:6, to make water starting easier.
- The sail has been designed and developed on the X6 mast. The X9 Ultra Mast is a performance upgrade. *Note: The RS:SLALOM will be supplied with cambers pre-tuned for the X6 Mast.*



Micah Buzianis, Gonzalo Costa Hoevel & Peter Slate

SIZE	WEIGHT/KG	LUFF +/- 1cm	BOOM +/- 1cm	BASE	BATTENS	CAMS	IDEAL MAST*	CODE
5.4	4.60	423	179	24	7	3/2	NeilPryde X6 400	BNP7RSS54
5.8	4.90	439	185	10	7	3/2	NeilPryde X6 430	BNP7RSS58
6.2	5.00	455	192	26	7	3/2	NeilPryde X6 430	BNP7RSS62
6.7	5.20	472	202	12	7	3/2	NeilPryde X6 460	BNP7RSS67
7.2	5.50	485	209	26	7	3/2	NeilPryde X6 460	BNP7RSS72
7.8	5.70	503	216	14	7	3/2	NeilPryde X6 490	BNP7RSS78
8.4	5.90	520	225	30	7	3/2	NeilPryde X6 490	BNP7RSS84
9.2	6.10	532	238	42	7	3/2	NeilPryde X6 490	BNP7RSS92
10.0	6.40	538	254	38	7	3/2	NeilPryde X6 520	BNP7RSS10

*Compatible with NeilPryde Matrix.





RS:SLALOM DEVELOPMENT



X6 Performance Optimised

The RS:SLALOM has been designed and developed around the X6 mast to deliver optimal performance to a wide range of sailors. Out of the factory all the cams are tuned to accommodate the larger mast diameter of the X6 compared to the X9. The luff curve is specifically developed to be less sensitive to the slightly slower reflex found in the X6 mast relative to the X9.



Switchable 3/2 Cams

A key feature of the RS:SLALOM is the versatility offered by the 3/2 Cam system where the bottom camber can be removed for enhanced rotation, easy rigging and a softer feel. Using the 3 cam configuration will boost your top speed and control in the upper end.



GPS

With a combination of good top-end speed, plenty of low-end power and easy rigging, the RS:SLALOM is ideally suited to the rapidly growing group of riders with an interest in GPS Speed-Sailing.



'Over the past 3-4 years the NeilPryde race sail has evolved into highly technical and specialized racing machine. The result of this evolution has delivered clear performance advantages on the race course but also increased the level of skill required to use them. The development of the RS:SLALOM was a great opportunity to take this knowledge and put it into a racing sail specifically designed to be used by a wide range of performance minded sailors. As a result we have an easy to use racing sail that requires even less skill than racing sails required 4 years ago but with far superior performance.'

Robert Stroj / NeilPryde Design



'With the easy rigging of the RS:SLALOM you can maximise your time on the water, and the high acceleration makes it ideal for GPS racing; all in all the RS:SLALOM is a great addition to the NeilPryde racing programme.'

Pieter Bijl / NeilPryde Windsurfing R&D



'I like the RS:SLALOM because it's really fast. It's really light in the hands and the big size is really soft in light winds and planes early. The rotation of the cam in the gybe is perfect. I think I can go really fast with these sails.'

Antoine Albeau / FRA192



'This sail is the perfect sail for the weekend racer, who doesn't have a lot of time but wants to go fast with all of his buddies. This sail is super light, super easy to rig and I have no doubt it is going to be the most competitive sail in the slalom class.'

Micah Buzianis / USA34



KEY FEATURES



1. Flexhead Configuration

A tube/rod component batten enables the head of the sail to adjust dynamically by allowing twist along the horizontal and vertical axes. This reduces drag and increases top end speed, performance and stability.

2. Aerodynamic Boom cutout closure

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

3. Cam Pressure Adjustment System

An innovative system using molded spacers that allow sailors to perfectly adjust the pressure on the cambers to fit their individual needs.



4. Switchable 3/2 Cams

The bottom camber can be removed for enhanced rotation, easy rigging and a softer feel.

5. Compact Clew Length

- a) Compact working boom length improves draft stability and prevents the boom from hitting the water during gybes or when reaching.
- b) Centre of effort is closer to the rider enhancing control.
- c) Improved sail twist is possible due to the clew not being on the leech.

6. Progressive Batten Angle

By changing the angle of the battens relative to the luff pocket, it is possible to increase stability in the lower section, giving more consistent twist for a smoother release.



ONE DESIGN RACING

Leveraging the knowledge and experience gained through the development of the RS sails NeilPryde launched a successful bid to design, and supply, the One Design equipment for the 2008 Olympic games in Beijing.

Closely based on the proven RS Formula sails, the **RS:X** is a light weight sail that been modified to suit the demands of Olympic Windsurfing. Specifically designed for use with a longer boom and large board, the **RS:X** is able to deliver a high level of performance across a wind range from 3-30knots.

SAIL



RS:X 9.5



RS:X 8.5

SIZE	WEIGHT/KG	LUFF	BOOM	BASE	BATTENS	CAMS	IDEAL MAST	CODE
8.5	5.5	519	RS:X 225-265	30	7	2	RS:X 490	BNPRSX085
9.5	6.1	552	RS:X 225-265	32	7	2	RS:X 520	BNPRSX095

BOARD



The **RS:X** is a true cross-over board in that it makes the best compromise between traditional raceboard sailing in sub-planing conditions, and exciting "Formula" racing in planing conditions starting from 8-10 knots.

PERFORMANCE CHARACTERISTICS:

Sub-Planing Conditions, Dagger-Board down (up to 8-10 knots)

- **In light-wind** sailing the **RS:X** board behaves in a similar fashion to a traditional raceboard. However, due to the shorter length in comparison to a traditional raceboard, the ease of manoeuvrability in tacking and gybing is significantly improved.
- **Startline tactics** : Many Olympic racers often sail the board backwards in order to keep a good position on the start line. The rounded tail on the back of the board, in addition to improving the flow of water, makes it easier to sail the board backwards!
- **Upwind** : In a little breeze with the Dagger-Board down, the rider can pump the board onto the rail for good tracking upwind. On the rail, the "Convex Tail" allows the board to be rolled with the gusts and swells. Side footstraps help to give the rider more stability and control.
- **Downwind** : With the Dagger-Board up for going downwind, the board provides good stability for pumping (if necessary).

Planing Conditions, Dagger-Board up (8-10 knots and above)

- **In planing conditions**, the board behaves largely like a Formula Windsurfing board, thus giving much faster performance and a more exciting ride.
- **In downwind conditions**, with the adjustable mast track set to the back, the board sails both with good speed and a very steep angle.

*Fin, Dagger-Board and Footstraps are included.

PRODUCT	LENGTH	MAX.WIDTH	WEIGHT/KG	VOLUME	CONSTRUCTION	FIN ATTACHMENT	CODE
BOARD	286 cm	93 cm	15.5	220 litres	Carbon Sandwich	Deep Tuttle	DNPRSXB
DAGGER-BOARD	77 cm	None	None	None	Pre-preg Glass Sandwich	None	
FIN-LADIES	60 cm	None	None	None	Pre-preg Carbon	None	DNPRSXF60
FIN-MEN	66 cm	None	None	None	Pre-preg Carbon	None	DNPRSXF66

MAST



The **RS:X** mast is based closely on the masts used in NeilPryde's matrix mast range. The RS:X is a 90-100% carbon mast that has the same bend curves and tapers as the NeilPryde Progressive Flex bend curve. The RS:X is a high performance mast designed to work in all wind conditions, both planing and non-planing.

SIZE	LENGTH/CM	IMCS	WEIGHT/KG	CARBON CONTENT	FINISH	BAG	CODE
490	490	29	2.20	90%	Semi Gloss	silver	RMRSX490
520	520	32	2.4	100%	Semi Gloss	silver	RMRSX520

BOOM

The **RS:X** Carbon Boom has been developed to achieve the best light weight to stiffness ratio available on the market today.



SIZE	ADJUST/CM	WEIGHT/KG	DIAMETER	MATERIAL	FRONT	FRONT ATTACH	BACK END	CODE
225-265	40	3.05	OverS & 30	Uni-Directional Pre-preg Carbon / Glass	Monocoque	Carbon Head	Monocoque Carbon	RBRX225

RS:X ACCESSORIES

PRODUCT	CODE	PRODUCT	CODE
RSX EXTENSION	RERSX48	BOARD BAG	GNPRXB8
POWER U-BASE	RPBRX	8.5 RIG BAG	GNPRXB8
ADJUSTABLE DOWNHAUL KIT	RADRSX	9.5 RIG BAG	GNPRXB9

FOR FULL PRODUCT DETAILS AND INFORMATION ON WHERE TO BUY AN RS:X VISIT www.neilpryde-rsx.com



2005 Pacific Coast Championship, San Francisco. Photo: David Bell.