

Stretch Control System, Design breakthrough & testwinner

System summary-

First introduced in the Simmer 2003 Wave and Freestyle lines, the Kevlar stretch control system has become a fundamental part of all current Simmer designs.

THE CONCEPT IS SIMPLE-

The Simmer Sails Stretch Control System creates a framework of ultra low-stretch Kevlar tendons throughout the sail body to eliminate foil distortion caused by uncontrolled cloth stretch.

WHY DO WE WANT TO ELIMINATE CLOTH STRETCH?

Because cloth stretch causes the sail to distort away from its original, intended shape.

The primary result of this distortion is that the draft of the sail moves up and back when heavily loaded. When the draft moves up and back, the leech gets tighter creating undesirable back hand pressure which means that it requires more physical strength to control the sail, especially as the wind increases. Also, when the leech gets tighter, the airflow release at the leech becomes turbulent. This disturbed air flow drastically reduces top end speed and upwind performance. Think of it like this- if the leech of your sail is tight on the edge, it is comparable to pushing a spoon through the air instead of a blade. Not good.

SO HOW DO WE STOP THIS CLOTH STRETCH AND RESULTING FOIL DISTORTION?

With our stretch control tendon system, the main load lines of the sail have been isolated and identified. It is on these load lines that the most cloth stretch happens. We have installed super lightweight, ultra low stretch tendons directly on these lines to eliminate the cloth stretch. Out of the clew, these load lines cross the entire body of the sail, which is why the clew tendons also cover this whole distance. By aligning these super lightweight tendons directly with the main distorting load lines, the stretch is brought completely under control and the stability of the foil is maintained. The intended foil stays true through a wide range of wind strengths.

Standard reinforcements to control stretch are nothing new. The difference with this system of reinforcements is that we are using small amounts of ultra-low stretch materials, in very specific parts of the sail to achieve our goals. Kevlar stretches just a fraction of the amount of any laminated film or scrim; therefore it is highly effective in this specific application.

There have been many important innovations in the history of windsurfing sail design; battens and "RAF" type foils, control over mast bend, stretch resistant sail cloth and camber inducers, but none of these innovations have effectively addressed the issue of controlling body panel distortion, until now. Stretch control tendons allow us to create sails with much more depth for low end power, without worrying about loss of high end control. More power and more control- the best of both worlds!

Stretch control tendons are the solution.

Jason Diffin, Simmer Sail Design 2004

SIMMER **STYLE**
MADE IN HAWAII



SIMMER WORLD WIDE

Check out our website for more comprehensive
information and authorized dealers: www.simmersails.com

SURF SAILS & EQUIPMENT

Welcome to Simmer Sails product line 2004

SIMMER **STYLE**
MADE IN HAWAII

Thanks to riders: Jason Diffin, Keith Teboal, Victor Fernandez,
Francisco Pereira, Riley Coon and Raul Castorina.
Photography: Daniel Wong, Daniel Miguel and Magnus Peterson.
Design by BRANT KERLAUMEVA. Printed in Germany by Frank Druck.
Simmer and the double wave logo are registered trade marks.

Superior gear is the dream that drives the Simmer team.

Welcome to Simmer Style product line 2004!

Simmer Style International is an organization of windsurfers dedicated to the sport of windsurfing. The Simmer team of sail designers, graphic designers, media managers, worldwide distributors, local riders and touring pros are all working towards one goal- more fun on the water for all Simmer Sails riders.

All sail designs are tested to the limits and beyond at our R&D center on Maui, and also around the world. The result is a range of sails that will stand up to anything that Mother Nature has to offer.

Innovations combined with durability are the cornerstone of Simmer Style product development. We have been building the highest quality, most durable surf sails for more than 20 years, and for 2004 the tradition continues.

The Simmer Stretch Control Tendon System is once again a key feature in all lines. The resulting draft stability made possible by this system has allowed us to increase the overall power and range of the sails, while maintaining the high level of control that is synonymous with Simmer Style sails.

More range for each individual sail size means less re-rigging as the conditions change. More range means more comfort on the water, and most of all MORE FUN!

Good sailing and see you on the water!

*Tomas Persson, Jason Diffin,
And the Simmer Style Team*

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SIMMER STYLE
MAUI HAWAII

Superior Features = Superior Performance

Features on all 2004 models include-

- Kevlar Stretch Control Tendon System for remarkable foil stability
- Rounded head outlines for smooth airflow release
- Distinctive “Step Leech” promotes progressive twist and eliminates leech flutter
- Combination horizontal and vertical shaping provides powerful yet flexible foil sections
- 2-ply Dacron luff panels for maximum durability and a soft feel
- Custom designed batten tapering for perfect batten flex
- Narrow batten pockets for batten stabilization
- Integrated mast pad to protect you and your board
- Easy to adjust, screw type batten tensioners
- Spectra batten tensioner loops for lifetime durability
- Square cut Kevlar batten stoppers for positive batten tensioning
- Standard or Phillips head compatible batten screw tensioners
- Radial head, clew and tack patches increasing overall strength of the sail
- Reinforced sleeve at all high abrasion points to maximize sleeve life
- High quality vented, zipper closure sail bags



X-FLEX



Size	Mast	Luff	Boom
3.0	RDM 370	350	135
3.5	RDM 370	348	136
3.7	RDM 370	365	138
4.0	RDM 370	378	145
4.2	RDM 400	390	148
4.5	RDM 400	405	155
4.7	RDM 400	414	158
5.0	RDM 430	427	164
5.3	RDM 430	439	167
5.6	RDM 430	452	175
6.1	RDM 430	457	185

BEST MAST CHOICE: Simmer SC-RDM

SECOND MAST CHOICE: Simmer SC-6

BATTEN COUNT: 5

X FLEX - Bullet proof Wave

- Sail body Construction- X-ply body panels (no mono film), vinyl window, Dacron patch reinforcements and Kevlar Stretch Control Tendons.
- The X FLEX is the ideal choice for a maximum durability sail with a softer more forgiving feel.
- The X FLEX is the same cut as the VISION, the only difference is materials.

X FLEX - handling characteristics 2004 - MORE POWER, MORE CONTROL.

X FLEX 2004 features a fuller draft profile overall, combined with a longer than 2003 boom length in the sizes 4.0, 4.2, 4.5 and 4.7. This creates sails with better low end power and glide while also providing a smoother feel. The deeper draft overall gives the sails more clew tension than 2003. This clew tension gives the sails a lighter, more responsive feel, and increases the range of adjustment on the outhaul setting.

The new rounded head outline provides a smoother airflow release and eliminates the mast-flexing "head wag" effect associated with more pointed outlines.

VISION



Size	Mast	Luff	Boom
3.0	RDM 370	350	135
3.5	RDM 370	348	136
3.7	RDM 370	365	140
4.0	RDM 370	378	145
4.2	RDM 400	390	148
4.5	RDM 400	405	155
4.7	RDM 400	414	158
5.0	RDM 400	427	164
5.3	RDM 430	439	167
5.6	RDM 430	452	175
6.1	RDM 430	457	185

BEST MAST CHOICE: Simmer SC-RDM

SECOND MAST CHOICE: Simmer SC-6

BATTEN COUNT: 5

VISION - Wave

- Construction- 7mil mono film body panels, X-ply luff and foot panels, Dacron patch reinforcements and Kevlar Stretch Control Tendons
- The VISION is the ideal choice for a crisp- direct response sail with maximum visibility.
- The VISION is the same cut as the X FLEX, the only difference is materials.

VISION HANDLING CHARACTERISTICS 2004 - More power, more control.

Vision 2004 features a fuller draft profile overall, combined with a longer than 2003 boom length in the sizes 4.0, 4.2, 4.5 and 4.7. This creates sails with better low end power and glide while also providing a smoother feel. The deeper draft overall gives the sails more clew tension than 2003. This clew tension gives the sails a lighter, more responsive feel, and increases the range of adjustment on the outhaul setting.

The new rounded head outline provides a smoother airflow release and eliminates the mast-flexing "head wag" effect associated with more pointed outlines.

CROSSOVER

SIZE	BOOM- MIN.	MAX.	LUFF	MAST
3.5	132	154	365	370/17
3.9	140	162	379	370/17
4.0	145	167	386	370/17
4.2	150	172	395	400/19
4.5	156	178	405	400/19
4.7	161	183	413	400/19
5.0	168	179	422	430/21
5.5	175	175	431	430/21
5.7	182	184	443	430/21
6.2	191	195	457	430/21

BEST MAST CHOICE: Simmer SC-6
SECOND MAST CHOICE: Simmer SC-RDM
BATTEN COUNT: 5

CROSSOVER - Lightweight, power Wavestyle

- Sail body Construction- 7mil mono film body panels, Dacron patch reinforcements and Kevlar Stretch Control Tendons
- The CROSSOVER is the ideal choice for early planing, multi-purpose Wavestyle sailing- flat water maneuvers, multiple angle wave sailing, freestyle, and blazing top end speed are what the CROSSOVER is all about.

CROSSOVER - handling characteristics 2004

Building on the highly acclaimed 2003 model, CROSSOVER 2004 continues to set the standard for power, maneuverability, and control.

New for 2004- Smallest sizes have been modified to create more power and stability. Size 6.2 has been refined to improve twist and handling characteristics. Size range has expanded to include 6.7 and 7.2.

COMPACT

SIZE	BOOM- MIN.	MAX.	LUFF	MAST
4.9	171	175	410	400/19
5.5	177	179	425	430/21
5.7	182	184	439	430/21
6.0	186	188	450	430/21
6.5	190	192	459	460/25
6.7	196	198	474	460/25
7.1	201	204	486	460/25

BEST MAST CHOICE: Simmer SC-6
SECOND MAST CHOICE: Simmer SC-RDM
BATTEN COUNT: 5

COMPACT - Lightweight, low aspect Freestyle

Construction- 7mil mono film body panels, Dacron patch reinforcements and Kevlar Stretch Control Tendons

NEW FOR 2004 - the COMPACT is Freestyle nirvana!

With a combination of explosive low end power and effortless handling characteristics, the COMPACT is the tool you need to push your freestyle Performance to new levels.

The short Luff length of the COMPACT allows for easy manipulation of the rig's rake angle during maneuvers. A full profile provides explosive low end speed. Also, the COMPACT's moderate boom length will allow for easy sheet angle adjustments while providing smooth predictable power.

These key handling characteristics combined with lightweight yet durable construction make the COMPACT the premier sail for the modern Freestyler.

ZEROFIVE



ZEROFIVE - Lightweight, easy handling, maneuver/freeride

Sail body Construction- 7mil mono film body panels, lightweight Dacron patch reinforcements and Kevlar Stretch Control Tendons

ZEROFIVE - Enter the world of high performance windsurfing.

The ZEROFIVE is the best choice for sailors who want to build a solid foundation of fundamental windsurfing skills. Up-hauling, water starting, planing, up wind sailing, jumping, tacking- all the basics of high performance windsurfing are effortless on the ZEROFIVE.

The ZEROFIVE features all the best that Simmer designs have to offer- light weight, durable construction, smooth power and easy handling all combined in to an entry level sail that will get you started on windsurf!

SIZE	BOOM- MIN. MAX.	LUFF	MAST
4.4	154 155	305	400/19
4.9	161 162	309	400/19
5.4	176 176	324	430/21
5.9	179 180	344	430/21
6.4	189 190	383	460/25
6.9	196 197	474	460/25
7.5	207 208	492	460/25
8.0	217 218	498	460/25

BEST MAST CHOICE: Simmer SC-3

SECOND MAST CHOICE:
Simmer SC-6 or virtually any constant curve type mast out there- the ZEROFIVE is designed to be compatible with a wide range of masts to make getting up easier for you.

BATTEN COUNT: 5

FLY



SIZE	BOOM- MIN. MAX.	LUFF	MAST
5.2	172 173	428	430/21
5.7	182 185	444	430/21
6.2	189 190	460	460/25
6.8	197 198	474	460/25
7.4	210 211	484	460/25

BEST MAST CHOICE: Simmer SC-8

SECOND MAST CHOICE: Simmer SC-6

BATTEN COUNT: 6

FLY - The ultimate in versatile performance

Sail body Construction- 7mil mono film body panels, Dacron patch reinforcements and Kevlar Stretch Control Tendons

The FLY is the chameleon of the 2004 Simmer Style sail range. You pick the conditions and the FLY will perform- it defies classification!

Small waves and jumping, hard turns and maneuvers, or just flat out speed, the FLY is your secret weapon. Featuring a high cut foot with 1 batten below the boom for easy maneuvering, 6 full battens overall for ultra stable foil profile, and a relatively full profile and Stretch Control Tendons for power and incredible range, the FLY will exceed your expectations in more conditions than you thought possible.

zeroseven



SIZE	BOOM MIN.	MAX.	LUFF	MAST
5.9	183	184	444	430/21
6.4	195	196	435	430/21
7.0	201	202	408	400/25
7.6	206	209	402	380/25
8.5	222	225	502	490
9.0	232	235	521	490

BEST MAST CHOICE: Simmer SC-10

SECOND MAST CHOICE: Simmer SC-8

BATTEN COUNT: 7; no Cambers

ZEROSEVEN – *Lightning speed, minimum rigging time, race performance*

Sail body Construction- 7mil mono film body panels, Dacron patch reinforcements and Kevlar Stretch Control Tendons

ZEROSEVEN means top race performance, with minimum rigging time. The camberless design of the **ZEROSEVEN** makes rigging and tuning a breeze.

Seven custom tapered battens provide foil stability. A full draft profile offers incredible low end power.

Highly rotated lower battens combined with Kevlar Stretch Control Tendons provide forward driving power, range and effortless handling.

The **ZEROSEVEN** is for sailors requiring race level performance in a lightweight, easy to rig sail.

Simmer Masts – Your sail will fit like a glove

All Simmer Sails have been developed using our high performance masts and they are optimized to work 100% together. Each sail has a perfect match among our masts.

SC-RDM

90% Carbon - Wave Our 90% Carbon Prepreg constructed SC RDM. Not only for the radical! This mast will improve the handling of wave sails for everyone. Every rider will appreciate the easier rigging, more comfortable handling, and light "bladey" feeling that the SC RDM gives their rig. Includes standard diameter boom adapter.

SC-10

100% Carbon - Race With the new Tip and Tip, Base and Base technology the SC-10 is among the lightest masts available today. The center of gravity is low and the reflex response ratio is the highest of any mast in our line.

SC-8

75% Carbon - Freerace/Freeride/Freestyle The ultimate Free-race/ride/style mast, features superior durability and very high performance at an excellent value.

SC-6

55% Carbon - Wave/Freestyle/Freeride When durability counts the SC-6 rules. This mast has a slightly reduced diameter and increased wall thickness to make it stronger. Boom area and base diameter is still according to industry standards.

SC-5

30% Carbon - All-round This entry level Carbon mast offers excellent value with maintained top quality and durability.



All Simmer masts feature tip and tip, base and base technology - so you can mix and match and replace tips and bases individually.

SC-RDM					SC-10					SC-8					SC-6					SC-5				
LENGTH		STIFFNESS		WEIGHT	LENGTH		STIFFNESS		WEIGHT	LENGTH		STIFFNESS		WEIGHT	LENGTH		STIFFNESS		WEIGHT	LENGTH		STIFFNESS		WEIGHT
CM	INCH	CM	INCH	KG	CM	INCH	CM	INCH	KG	CM	INCH	CM	INCH	KG	CM	INCH	CM	INCH	KG	CM	INCH	CM	INCH	KG
460	25	21	3.9	1.8	520	27	34	4.6	2.1	460	25	29	3.7	1.7	430	25	21	4.2	1.9	460	25	29	5.9	2.7
430	25	21	3.9	1.8	520	27	34	4.6	2.1	460	25	29	3.7	1.7	430	25	21	4.2	1.9	460	25	29	5.9	2.7
400	26	19	3.5	1.6	490	26	29	3.9	1.8	430	21	21	3.6	1.65	400	26	19	4.0	1.8	430	25	21	5.2	2.4
370	27	17	3.3	1.5	460	25	29	3.4	1.5	400	25	21	3.3	1.5	370	27	17	3.3	1.5	400	26	19	4.8	2.2
					430	25	21	3.0	1.4															



BOARD BAG - Extra durable
SIZE: 255 cm, 260 cm, 275, 285cm



BOARD BAG - Durable
SIZE: 255 cm, 260 cm, 275 cm, 285 cm



WAIST HARNESS - Wave
SIZE: Small, Medium, Large



WAIST HARNESS - Freeride, Wave
SIZE: Small, Medium, Large, Extra Large



WAIST HARNESS - Freeride, Wave
SIZE: Small, Medium, Large, Extra Large



EQUIPMENT BAG - Medium Size
Holds your gear for easy transport where ever you go.



BACK PACK - Day pack
Holds your stuff and stays comfortable all day long.

Accessories

Quality is king when it comes to Simmer Style accessories. Quality means durability, convenient design features, and for the harnesses, comfort. Constructed from the highest quality materials and components, these accessories will withstand the rigors of worldwide travel and endless on the water abuse.



MAST PROTECTION - Heavy Duty



UP HAUL - Durable



HARNESS LINES - Long Life
SIZE: 22, 24, 26, 28, 30, 32



QUIVER BAG - With or without wheels
SIZE: 260 cm, 280 cm, 300cm
Holds more than five sails and several masts.