



Shaping advantages

We continue our quest for a light feel with full power character. Last year we separated the twist and leech tension from the desired rig loading by using methods developed in the TR-3 evolution. By bringing this same methodology to the wave and freestyle sails, we felt we made big advances in the softness-with-power search. But there was still more to be had in the refinement of the designs size by size. To implement the changes in 2008 versions, we used a blanket of changes, mostly relying on numerical projection as we had done with TR-3. You have to start somewhere.

By applying the numerical progressions we were able to get very close, and second tries got even better. But as you run into your deadlines, you call the final version, and move to the next project. And then you get to use the sails from production every day. This is what drives the next round of changes... the desire for something more.

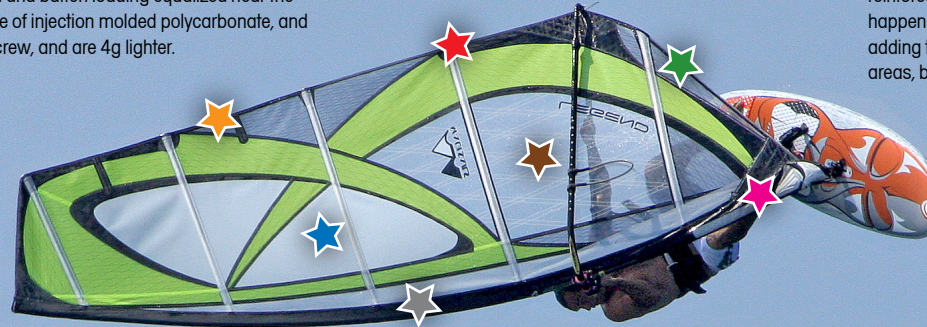
So this brings us to 2009... many months of refinement on top of the radical beginnings that drove last year. The result is feather light in the hands as all the minor tension inconsistencies are smoothed, and the main body shaping is leaned out to keep chord depth positioned and matching the twisted shape. Leech tension and driving power with a minimum of dragging forces is the result. And shape neutral handling in transitions, even for the largest sizes takes the wave and freestyle series into a whole new realm of wave performance.

New batten tensioners

First introduced with the TR-4 race sails, these new tensioners go even farther to get the leech tension and batten loading equalized near the edge of the sail. They are made of injection molded polycarbonate, and use a 10mm stainless steel screw, and are 4g lighter.

Multi-strand Kevlar™ leech reinforcements

This year we decided to change the way the leech was designed for ultimate reinforcement. In order to toughen the lower leech where wave destruction so often happens, we added six strands of Kevlar™ and attached them with sewing before adding the tape edge cover. To further add beef through the most loaded leech areas, back to back woven fiber patches take the loads first.



Reduced foot bead

This saves lots of weight and still does the job, hitting shins and ankles much less hard, and being more flexible in general.

Pearlescent white XPly™

We were looking for something unusual that would make the graphics more potent. We had tried several times before to make a 'sparkle' or pearlescent characteristic, but there were always technical problems that made the end result come out looking poor. Over last year we worked steadily with our laminator and came up with an interesting solution that turns out to do a lot of good things.

First we had to laminate two layers of film with the pearl material in between. This assures the quality of the reflective and puts it away from the colored glue. Then the double layer is laminated again with the white glue and fibers sandwiched inside, making the final high-end reflective look on the bright white color. The added benefit is very high UV resistance and higher puncture and tear resistance because of the multiple layers. There is no weight penalty for this new material.

Tougher sleeve

Our fiber aligned designs can take full advantage of the new sleeve material we are using. It is more resilient using tougher yarns and very resistant to reef and rock damage.

6mil window mesh

In response to sailors wanting a 100% fiber laminated wave sail, we developed a material slightly thicker than was commercially available. We felt it was better to increase the laminate thickness to add to the benefit of having the fiber reinforcement. There is no weight penalty versus a 7mil film window.

Tack chafe reinforcement

Expanding the area of chafe protection in the lower sleeve has been approached in a way that results in solid protection for the areas that take the serious damage from decks and rails, and a very lightweight solution for the areas that are seldom, if ever, impacted. The end result is saving 250g and is soft on the feet, and tough in all the right places.

TR-5. Five is a magic number

SIZE	MAST	IMCS	BOOM	LUFF	HEAD EXT.	DOWNHAUL	HEAD TYPE	BATTENS	CAM	WEIGHT
4,3	370	17	158	375	-	5	fixed	8	4	4,35
4,7	370	17	166	386	-	16	fixed	8	4	4,50
5,1	400	19	178	406	-	6	fixed	9	4	5,00
5,5	400	19	187	415	-	15	fixed	9	4	5,10
5,9	430	21	188	436	-	6	fixed	9	4	5,20
6,3	430	21	199	446	-	16	fixed	9	4	5,50
6,6	460	25	206	463	-	3	fixed	9	4	5,70
7,0	460	25	215	471	-	11	fixed	9	4	5,90
7,6	460	25	228	481	-	21	fixed	9	4	6,30
8,4	490	29	238	503	-	13	fixed	9	4	6,70
9,2	520	32	250	524	-	4	fixed	9	4	7,00
10,0	520	32	266	533	-	13	fixed	9	4	7,40
11,0	550	37	279	561	-	11	fixed	9	5	7,90
12,0	550	37	295	581	-	31	fixed	9	5	8,40

The TR-5 from MauiSails is not your average race sail. Super tuned for four seasons, it is now refined and better balanced than ever, with the softest feel yet, superior low end, and solid control at speed being the goals. Strong results in Formula and Slalom 4/2 gave us the basis for advancing the shapes and delivering the performance.

Last year we introduced a special order XT model made with Technora™ scrim laminate that is half the weight of current film material with equal stability. The reduced weight aloft and supple character of the XPly™, makes a sail that is easier to use, especially when combined with the normal easy handling and comfortable character of the TR-5 design. These special order sails will be available in sizes from 7.0 - 12.0 again in 2009, but will require advanced purchase agreements.

We have been building on an evolving unusual shaping method, and refinement and performance consistency moving size to size has been the focus. Developing an even tension and smooth transition from fuller lower sections to flatter more twisted upper sections results in excellent low end power and amazing upwind speed. Slalom sizes benefit from similar adjustments and a general easing of tension to make a soft feel.

