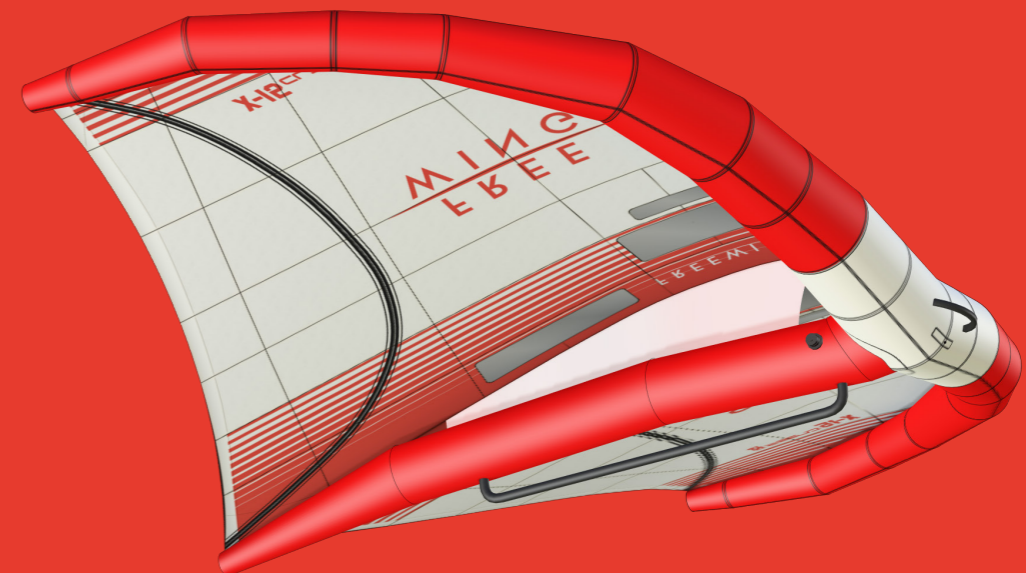
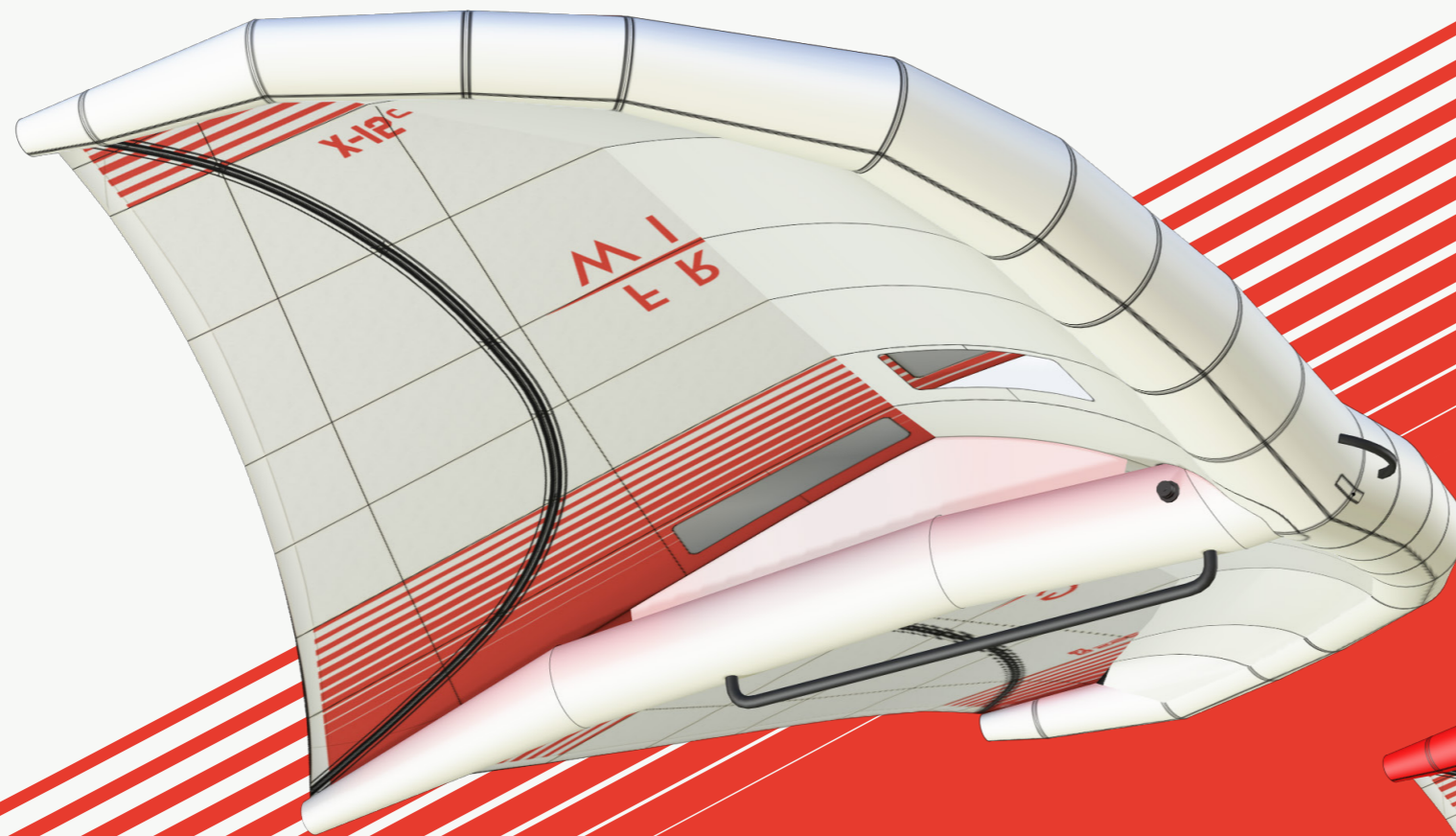


# FREE WING



**X-15** *CLASS*  
ONE-DESIGN WINGFOIL RACING

PROVISIONAL PRODUCT GUIDE

# X-15 CLASS

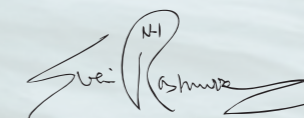
## A ONE-DESIGN WING FOIL RACING DISCIPLINE.

There are many popular one-design classes in both sailing and windsurfing. But, until now, there have not been any one-design wingfoil classes. So here we are. Together, Starboard and FreeWing have stepped up to the plate to introduce one-design wingfoil racing.

Why one-design racing though? Well, it's a whole lot more fun when everyone is in the same "race car"! One-design racing is popular, largely because homogenous equipment inherently introduces elements of fairness. That means no decisions and no second-guessing. And the gear stays the same for longer so you don't have to update it every year - avoiding the much criticised "pay to win" or "pay to play" aspects of traditionally material-driven sports like sailing where costly more advanced equipment creates a huge advantage for those who wield it.

We felt like a lot of riders wanted to see this in winging - to enjoy the benefits that one design brings. That's why we're here, and that's what this is: The X-15 Class - one-design wing foil racing featuring the latest cutting-edge equipment.

May the best rider win.



Svein Rasmussen

# X-15 CLASS 5.5m / 6.0m / 6.5m

U17 / U19 / SENIOR WOMEN & MEN

- EXCLUSIVE ULTRA X CANOPY
- ULTRALIGHT & DURABLE HO'OKIPA AIRFRAME
- DOUBLE SURFACE DESIGN
- REEF ZIPPER TECH
- BOOM HANDLE SYSTEM



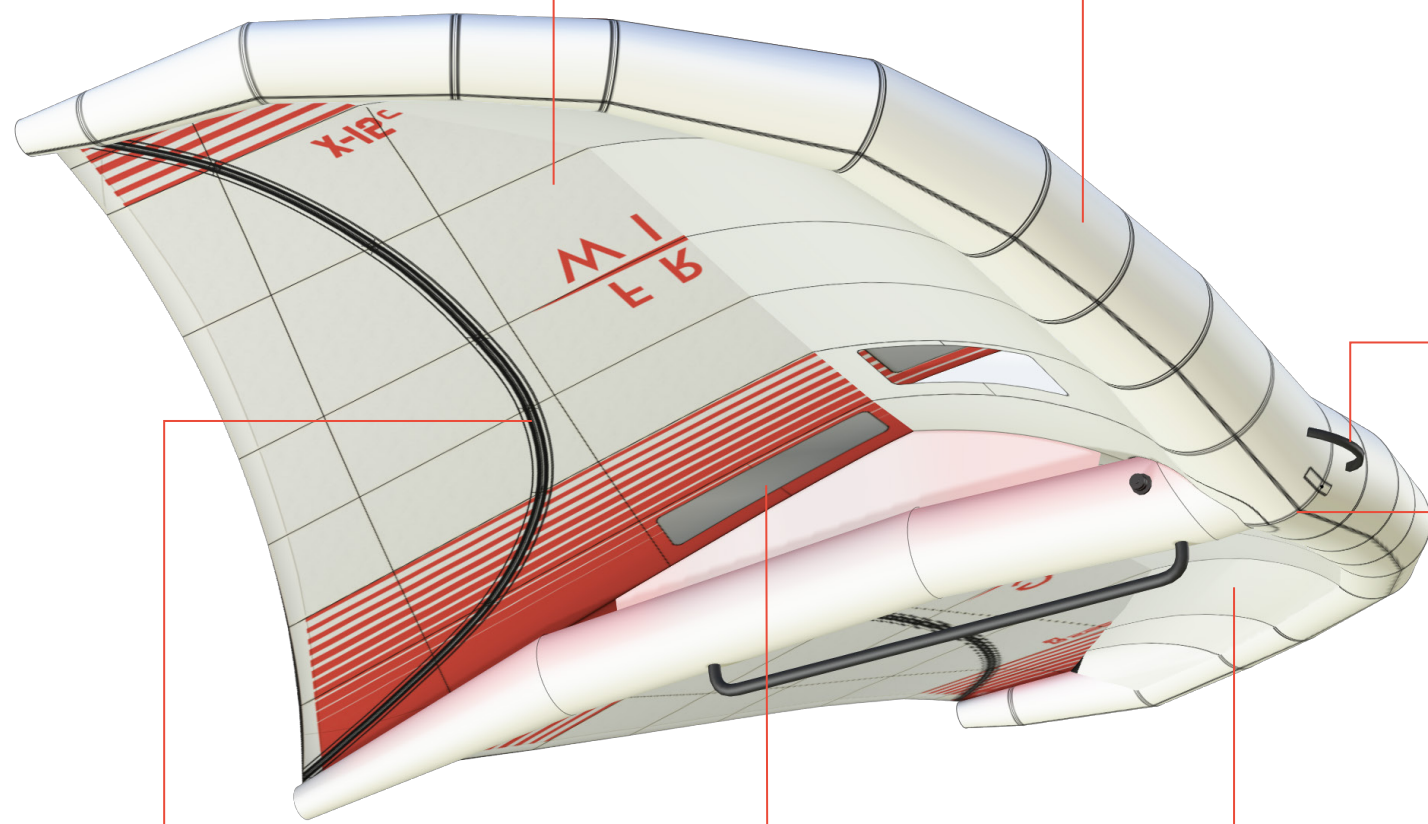
## NEW EXCLUSIVE ULTRA X CANOPY

Next-generation canopy development features a traditional woven canopy enhanced with an ultra-light PE mesh to carry the primary load. More performance, more durability, lighter weight.



## HO'OKIPA ULTRA PE AIRFRAME

Unmatched durability, lightweight and responsiveness. Off the chart tensile strength allows a Ho'okipa leading edge & strut to be inflated to significantly higher pressures, creating a wing that is lighter and more responsive than anything else on the market.



## NEW REEF ZIPPER TECH

The first wing to feature a reduceable canopy size, Reef Zipper Tech by FreeWing allows the wing to be easily and rapidly reduced by 1m<sup>2</sup>. This design feature allows a single wing to be used in greater wind range, eliminating the need for wing quivers and greatly reducing the cost of entering fair racing.

## DUAL VISION WINDOWS

Prioritising safe racing: Windows are in the ideal position for maximum vision and increasing field of view at speed. Suitable for use in all climate conditions.

## NEW DOUBLE SURFACE DESIGN

To fine-tune wing performance, riders need to optimise pressures in the leading and center strut independently. For this, we've added a second inflation valve to the centre strut to allow for precise pressure control.

## OPTIMISED GEOMETRY

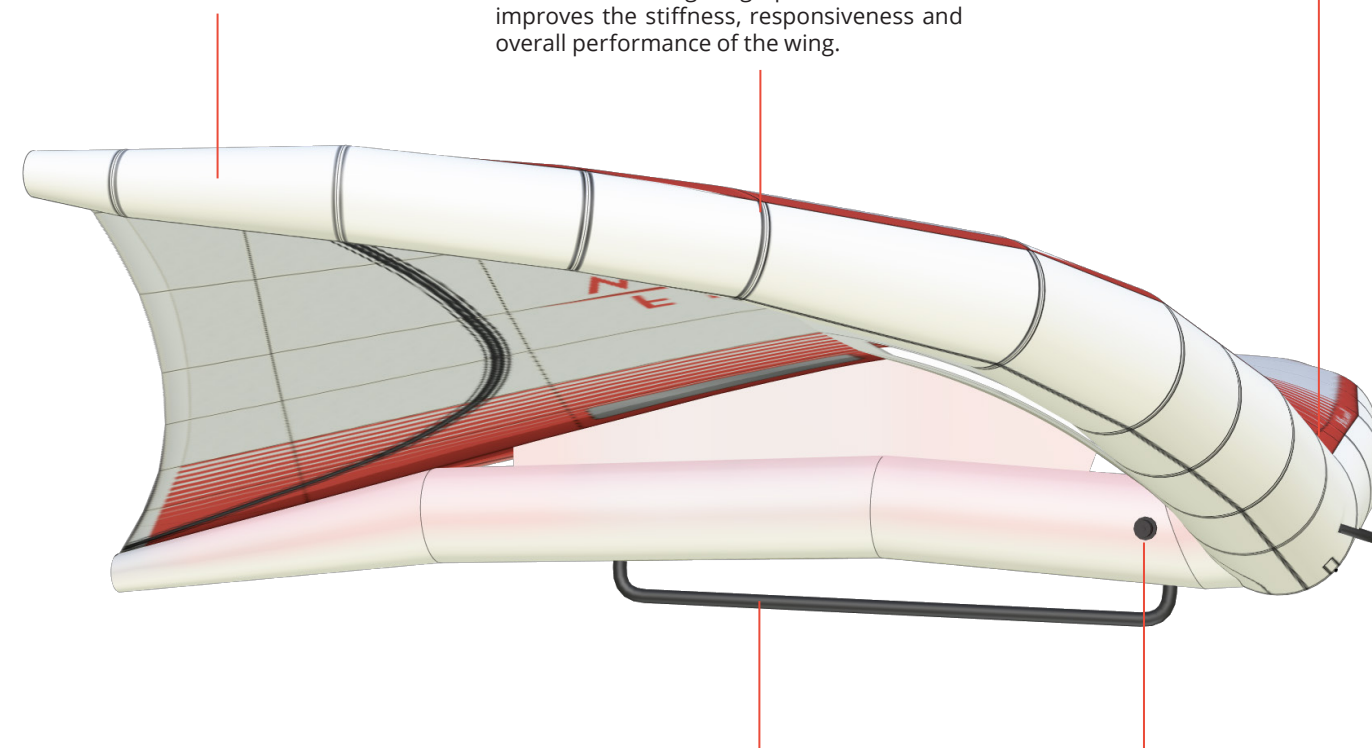
Mid-aspect wing ratio together with a short strut for compact power balance makes the wing more maneuverable, performing better through tacks & gybes, and when flagged out.

## NEW INNOVATIVE SEAM CONSTRUCTION

We developed a new seam construction that can tolerate higher PSI in the leading edge and strut. Attaining a high-pressure airframe improves the stiffness, responsiveness and overall performance of the wing.

## OPTIMISED DIHEDRAL

The leading edge features a slight dihedral to maintain significant power whilst gaining better stability when the wing is flagged out.



## NEW PRE-PREG CARBON ULTRA BOOM

The X-15 wing comes standard with our latest stiff and lightweight Pre-Preg Carbon Boom, delivering the ultimate in locked-in, responsive performance. Wrapped in grippy EVA, this one-size boom fits all X-15 wings for seamless compatibility.

## DUAL INFLATIONS VALVES

To fine-tune wing performance, riders need to optimise pressures in the leading and center strut independently. For this, we've added a second inflation valve to the centre strut to allow for precise pressure control.

## STIFF & RESPONSIVE FRONT HANDLE

Reduced weight on the class-leading front handle design with generous space and comfort. It is designed to be stiff and responsive, ensuring maximum control of the wing when flagged out.

## LARGE CENTER STRUT CONNECTION

The tapered strut features a wide and strong connection at the base, creating a stiffer overall airframe. Pumping becomes more efficient, improving acceleration and both high-end power & speed.



## SIZE-SPECIFIC WRIST LEASH

Strong, recoil leash matches the length of the strut when stretched, yet always have as short a leash as possible to prevent getting tangled.



## NEW ONEPACK WING BAG

Go all-in with a single bag. The vented bag accommodates both the wing, pump and accessories, equipped with boom attachment points and carrying straps for your on-the-go lifestyle. Also features external and internal pockets.



## INCLUDES NOZZLE ADAPTER

Allows you to turn your inflatable SUP pump into a FreeWing pump.

\*Pump not included\*

# X-15 CLASS 4.5m / 5.0m

U13 / U15

- EXCLUSIVE ULTRA X CANOPY
- GRADIENT LOAD DACRON AIRFRAME
- SINGLE SURFACE DESIGN
- REEF ZIPPER TECH
- BOOM HANDLE SYSTEM

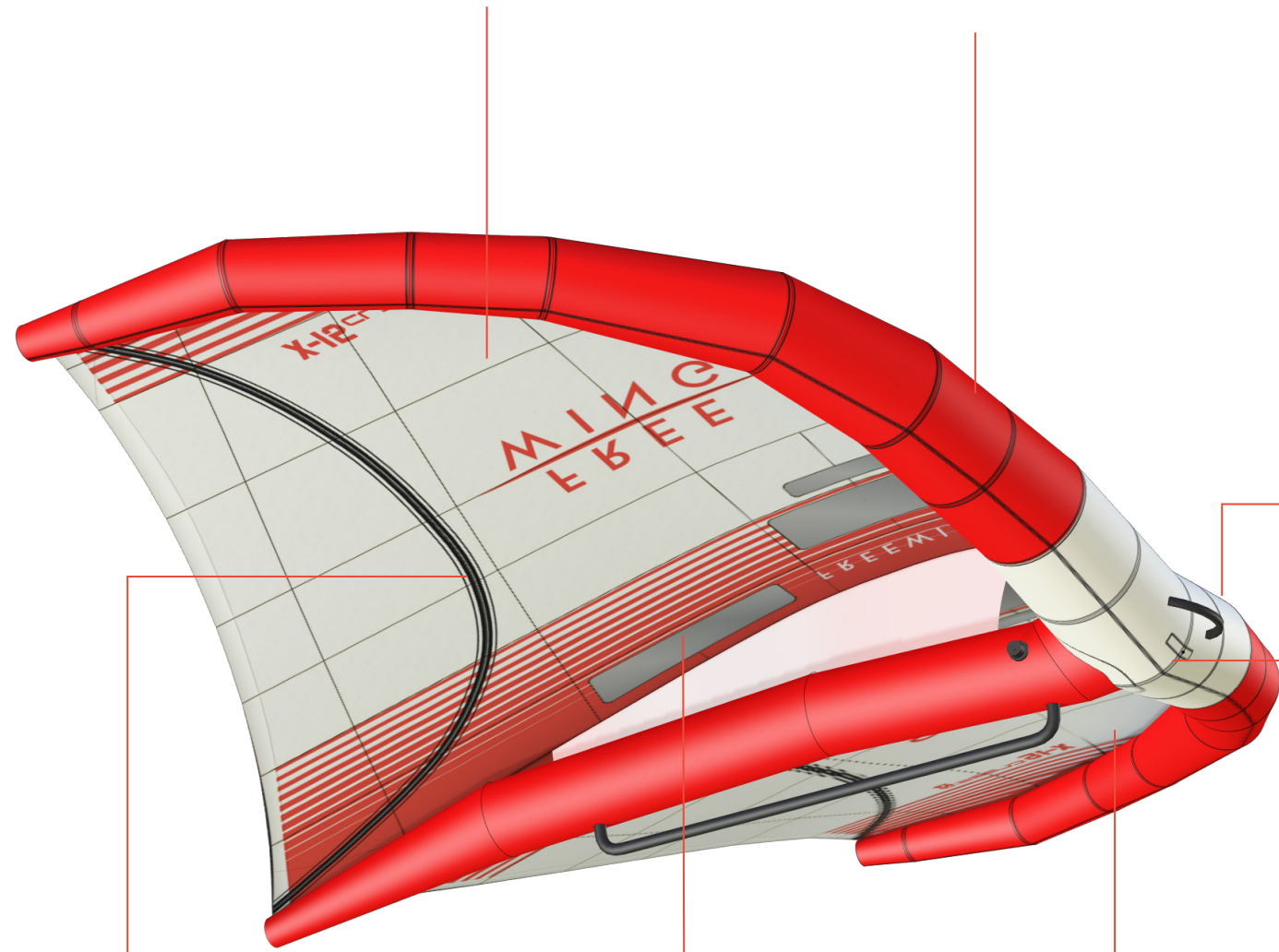


## NEW EXCLUSIVE ULTRA X CANOPY

Next-generation canopy development features a traditional woven canopy enhanced with an ultra-light PE mesh to carry the primary load. More performance, more durability, lighter weight.

## DACRON AIRFRAME WITH GRADIENT LOAD

The Leading Edge is comprised of a two-stage, high-tenacity Dacron Construction. Center segments feature the new HD 260 Dacron with outer sections utilising a 160g High Tenacity Dacron.



## NEW REEF ZIPPER TECH

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## DUAL VISION WINDOWS

Prioritising safe racing: Windows are in the ideal position for maximum vision and increasing field of view at speed. Suitable for use in all climate conditions.

## SINGLE SURFACE

Single surface design makes transitioning to a race wing easier for younger riders.

## OPTIMISED GEOMETRY

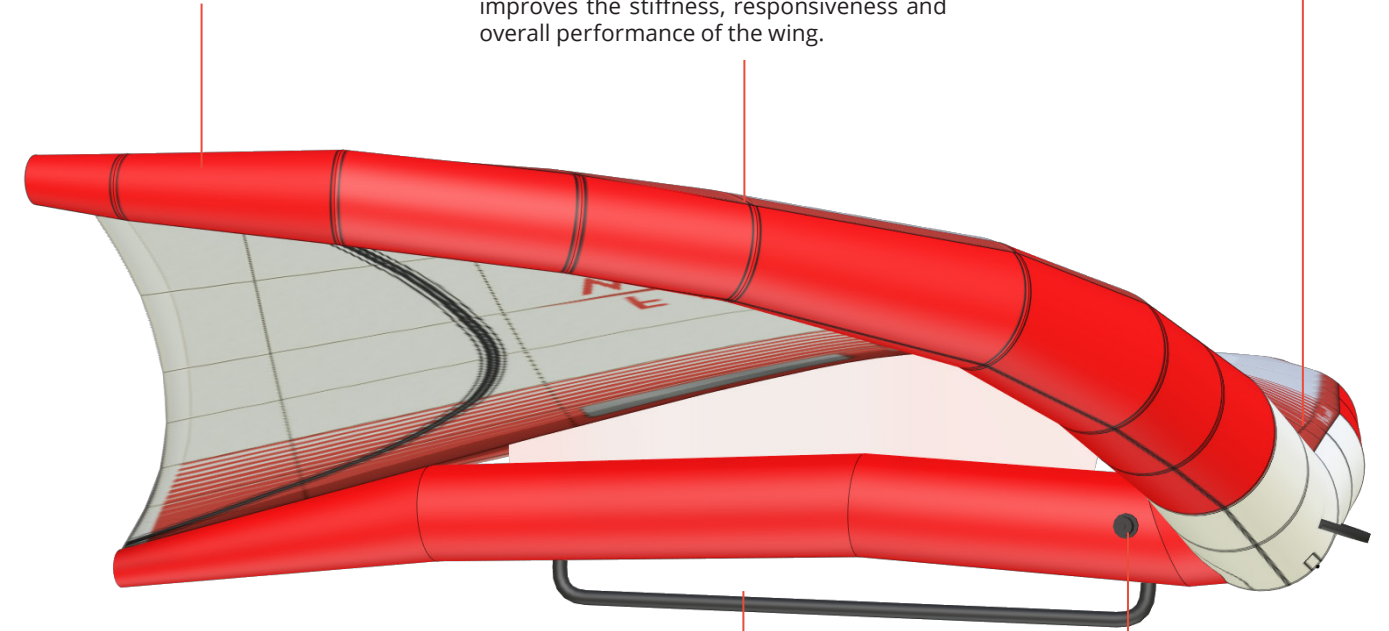
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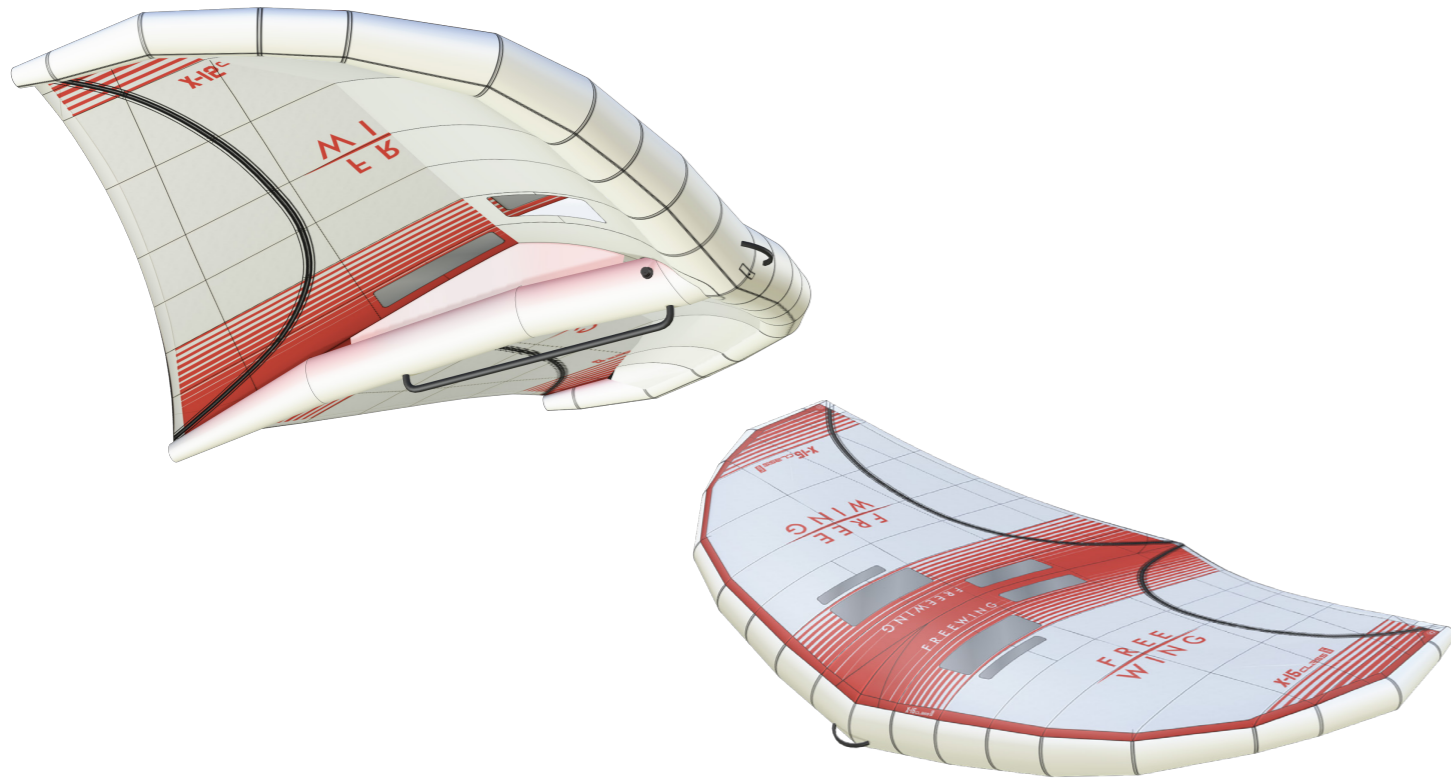


## INCLUDES NOZZLE ADAPTER

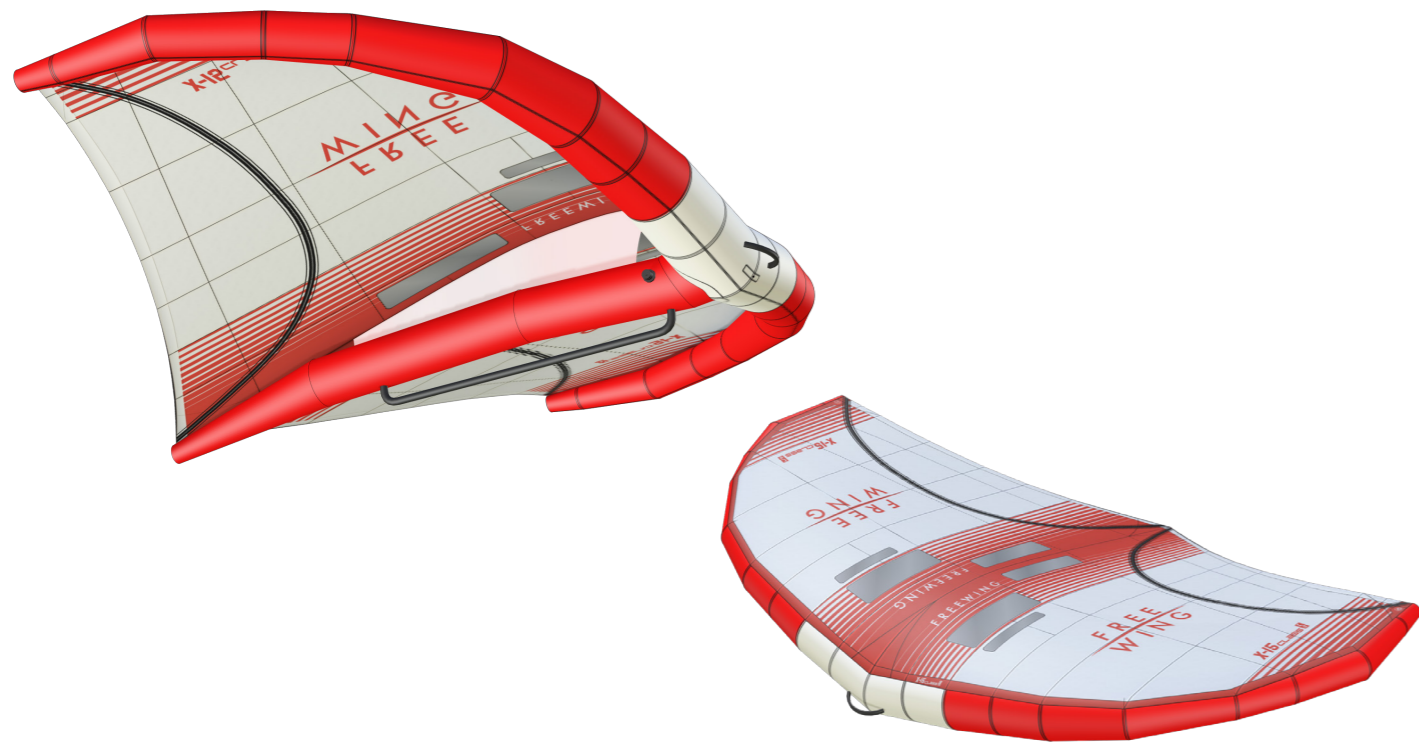
Allows you to turn your inflatable SUP pump into a FreeWing pump.

# X-15 class 5.5m / 6.0m / 6.5m

FREE  
WING



# X-15 class 4.5m / 5.0m



## SIZE CHART

	CATEGORY	WIND RANGE	RECOMMENDED PSI		WEIGHT	LE MATERIAL	
			LEADING EDGE	CENTER STRUT		HO'OKIPA	DACRON
	U13	TBA	TBA	TBA	TBA		✓
	U15	TBA	TBA	TBA	TBA		✓
	U17	TBA	TBA	TBA	TBA	✓	
	U19 / WOMEN	TBA	TBA	TBA	TBA	✓	
	SENIOR-M	TBA	TBA	TBA	TBA	✓	

# CANOPY MATERIAL TECHNOLOGY



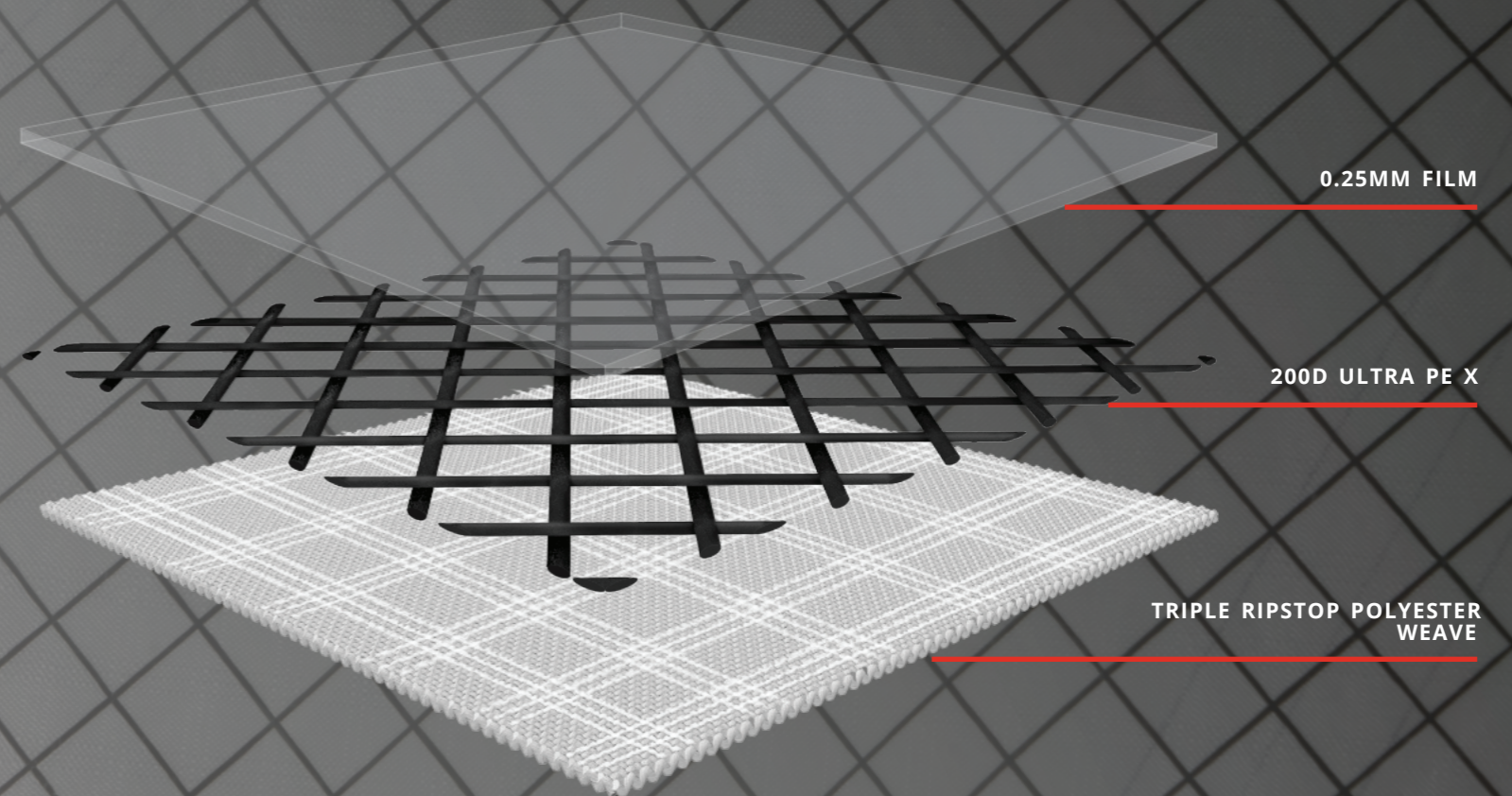
**LOW STRETCH  
ULTRA RESPONSIVE  
DURABLE & LIGHTWEIGHT**

## Understanding Ultra X

In pursuit of superior performance, lightweight and durability we developed the next generation composite canopy materials. The Ultra X canopy features a traditional woven canopy base layer for packability, which is laminated to an ultra-light weight film to limit any stretch and increase performance.

Sandwiched between these layers we added the super strong Micro X Load Frame, preventing deformation along the bias — which is prone to stretching. The primary loads from the canopy are supported through a lightweight Ultra PE mesh. The 200D Ultra PE fibres also increases overall durability and reduces the chances of tears in the canopy.

This revolutionary new canopy material is exclusive to FreeWing.



# AIRFRAME TECHNOLOGY

FREE  
WING



Developed in conjunction with Challenge Sailcloth, this unique woven composite is the result of exhaustive development and testing, to find the optimum balance between responsiveness, light-weight and long-term performance.

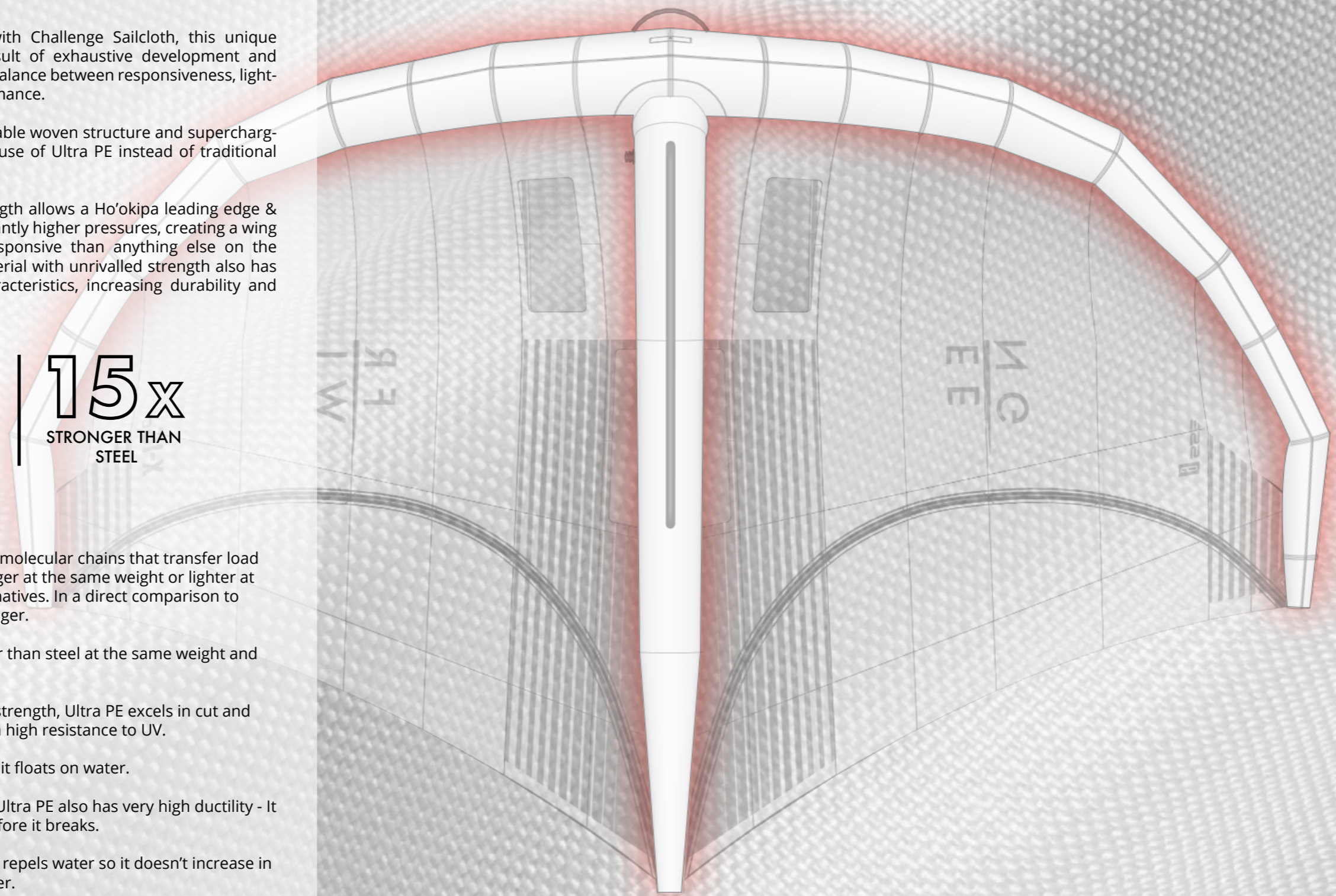
Ho'okipa Ultra PE takes a reliable woven structure and supercharges the material through the use of Ultra PE instead of traditional polyester fabric.

This unmatched tensile strength allows a Ho'okipa leading edge & strut to be inflated to significantly higher pressures, creating a wing that is lighter and more responsive than anything else on the market. This lightweight material with unrivalled strength also has high tear and abrasion characteristics, increasing durability and long-term use.

**2x** | **15x**  
LIGHTER THAN CARBON FIBER | STRONGER THAN STEEL

## Understanding Ultra PE

- Ultra PE has extremely long molecular chains that transfer load more effectively. So it's stronger at the same weight or lighter at the same strength than alternatives. In a direct comparison to polyester it is up to 32 x stronger.
- Ultra PE fiber is 15x stronger than steel at the same weight and 2x lighter than Carbon Fiber.
- As well as its extraordinary strength, Ultra PE excels in cut and abrasion resistance and has a high resistance to UV.
- Ultra PE fiber is so light that it floats on water.
- Stiff does not mean fragile, Ultra PE also has very high ductility - It can absorb a lot of energy before it breaks.
- Ultra PE is hydrophobic — it repels water so it doesn't increase in weight after contact with water.



**FREE**  
**WING**

**FOR EVERY FREEWING SOLD**



We also collect 1.4 kg of beach / ocean plastic trash - equivalent to the amount of plastic trash entering the ocean, per person, per year. FreeWing balances this amount for our customers.



FreeWing plants 1 mangrove tree with Worldview International Foundation. Each Mighty Mangrove sinks down 673kg of VCS certified CO<sub>2</sub> during its first 25 years. Offsetting the wings Carbon Emissions more than 10 X over while also funding livelihood projects in Myanmar.