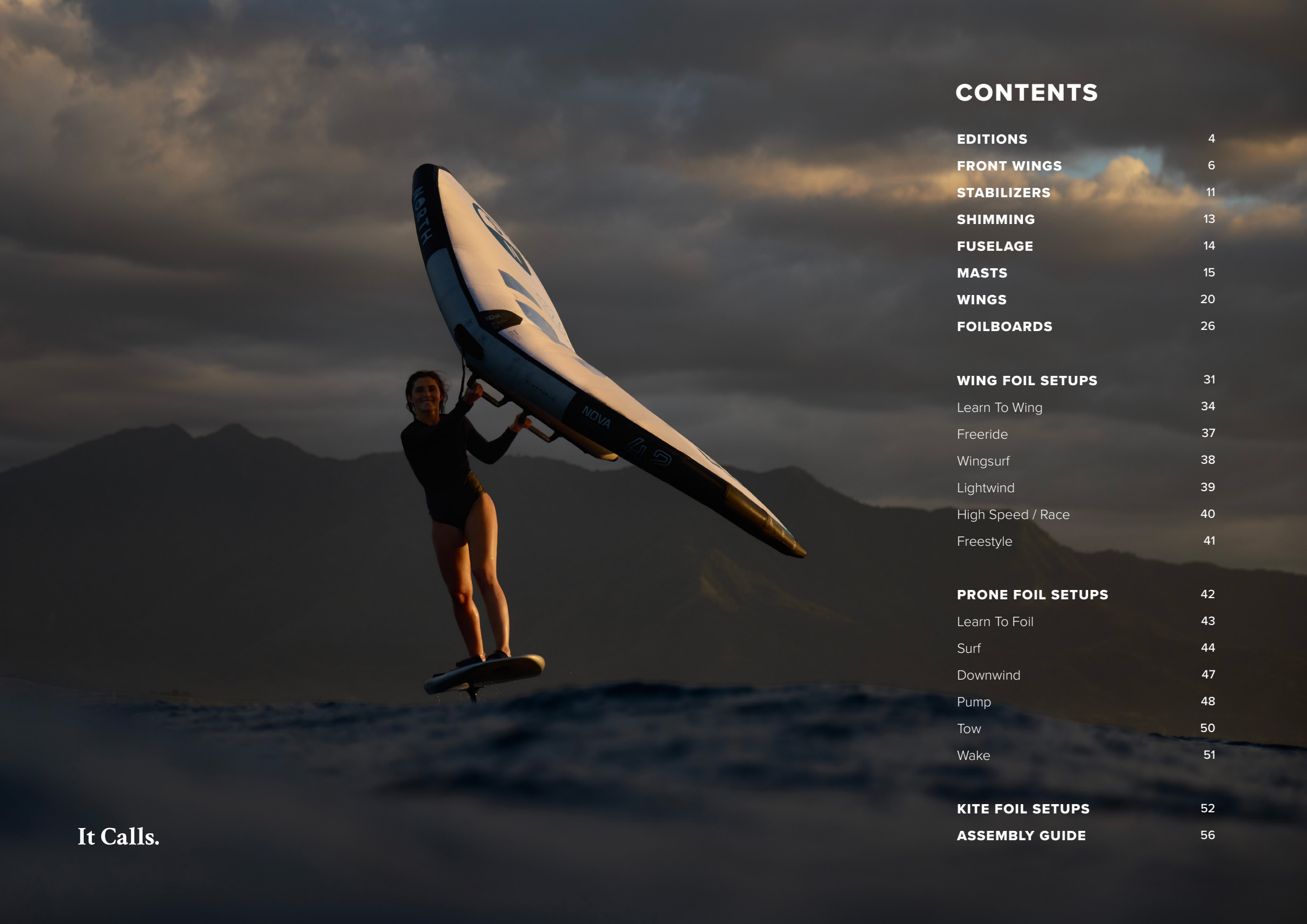
SONAR RIDER GUIDE V4

Build Your Perfect Foil

northfoils.com



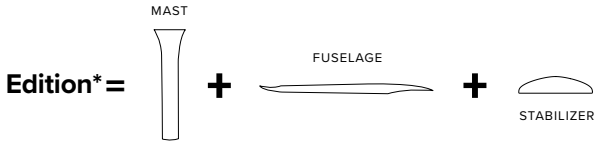
It Calls.

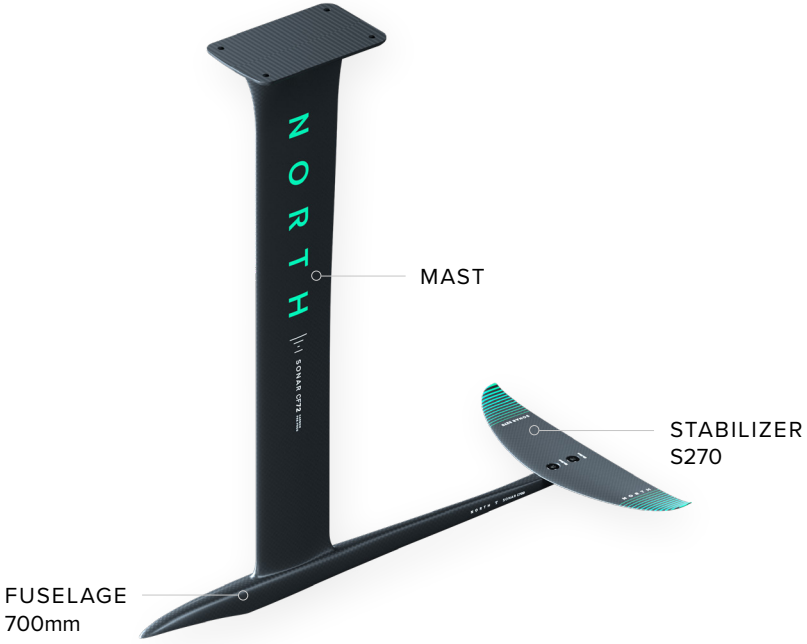
CONTENTS

LET'S GET STARTED

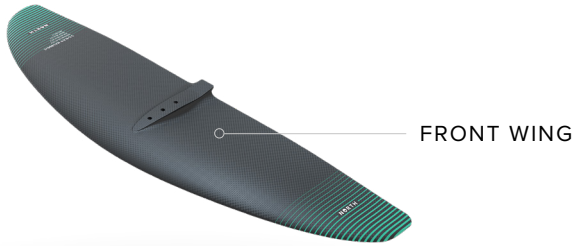
To build your Sonar foil setup, start with an Edition (which is made up of a Mast, Fuselage and Stabilizer) then add your choice of Front Wing.

Choose your Edition





Choose your Front Wing



The Sonar System is fully modular, so you can easily update the components further along your foiling journey.

WHAT SIZE?

When choosing your Edition, you'll need to decide what Mast length and construction type suits your style and budget.

MAST LENGTH (CM)
Choose your ride height:

72cm

Why shorter?

Choose the 72cm for shallower waters, prone surf and learning to foil. You can easily update your Mast later.

85cm

Why taller?

Choose the taller 85cm when you need more height to clear waves or heel over for tighter turns. The longer mast is more suitable for advanced beginners to pros.

CARBON OR ALUMINIUM?

We offer two variations of the Foil Edition: Aluminium (AF) and Carbon (CF).

The Carbon Mast has a light, strong, tapered one-piece design for immediate feedback and a stiff, direct feel. (No Board Adaptor required).

The AF (Aluminium) mast has a more affordable price tag.

Aluminium is more durable.
Carbon is by nature a less corrosive material.

Weight Difference

Carbon CF72 vs Aluminium AF72
Sonar CF72 Edition is:

29%
Lighter than Sonar AF72 Edition

Carbon CF72 vs Aluminium AF72
Sonar CF85 Edition is:

31%
Lighter than Sonar AF85 Edition

*Each Edition is made up of a Mast, Fuselage and Stabilizer. All Sonar Editions come with an S270 Carbon Stabilizer and 700mm Fuselage.
**Front Wings are available separately.

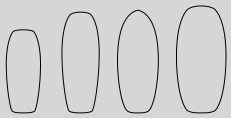
WHAT'S IN THE BAG?

Sonar Edition Bag

We deliver your Edition in a spacious, multi-functional, padded bag with compartments for each component, screws, tools and a quick installation guide.

The AF Edition includes an AF Board Adaptor to attach the mast to the board.

CF Editions come with protective mast cover to help prevent damage when not in use.



Fits all boards

Compatible with any foilboard with an industry-standard 165x90mm mast track.

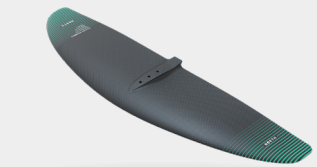
*Front wing not included with Edition.

FIND YOUR FRONT WING

Wing, Kite, Surf, Wake, Downwind, Pump, High Speed.

Sizes

- MA1500v2
- MA1850v2
- MA1850v2 PRIME
- MA2100v2
- MA2100v2 PRIME
- MA2400v2 PRIME



C CARBON PRE-PREG

P PRIME PRE-PREG

MAv2 - Mid Aspect Series

Wing / Boat / Wake / Learn to Foil

Ideal for progressing in all foil disciplines, pitch stable across the entire speed range with controllable early lift and a lower stall speed.

Sizes

- MA500v2
- MA600v2
- MA700v2
- MA850v2
- MA1050v2
- MA1200v2

C CARBON PRE-PREG

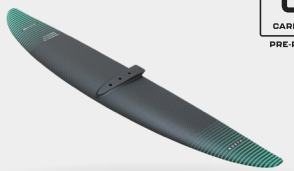
MAv2 - Mid Aspect Series

Wing / Kite / Boat / Wake / Surf

A quick, responsive, versatile all-rounder. Highly agile and fast-turning, the smaller MAv2 retain a stable feel for upwind/powered riding.

Sizes

- SF530
- SF680
- SF830
- SF930
- SF1080
- SF1230



C CARBON PRE-PREG

SF - Surf Series

Prone Surf / Wing Surf / Downwind / Pump / Wake

Where effortless pumping and surf-style carving meet. Engineered to rise onto the foil earlier and glide for longer, at slower speeds.

Sizes

- DW750
- DW900
- DW1100
- DW1400

HM CARBON PRE-PREG

DW - Downwind Series

Downwind / SUP

Engineered for low drag and longer glide, with the intuitive turning and manoeuvrability required for navigating downwind swell, and maximum ventilation resistance.

Sizes

- P1800
- P2050

HM CARBON PRE-PREG

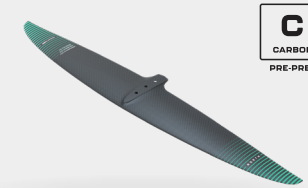
P - Pump Series

Pump / Dockstart / SUP Paddle-Up

High-efficiency, low-speed design for max pump duration, with a relaxed, endurance-focused cadence. Ultra-stiff carbon laminate layup for a predictable and responsive ride.

Sizes

- HA550
- HA650
- HA750
- HA850
- HA950
- HA1050
- HA1150
- HA1250
- HA1450



C CARBON PRE-PREG

HA - High Aspect Series

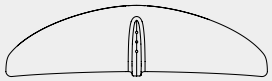
Wing / Race / Kite / Surf / Tow-in Surf / Downwind

Our highest-performance wing, ideal for intermediate to advanced riders. Efficient, fast and direct, with exceptional glide.

FIND YOUR FRONT WING

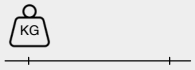
What size do I need? Large, small or something in between?

Choose your foil size:

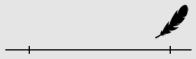


Larger surface area

Smaller surface area



Heavier or novice riders



Lighter or more advanced riders

Lower
speed range

Higher
speed range

Larger
turning radius

Smaller
turning radius

Easier to get up on foil
More area = More lift

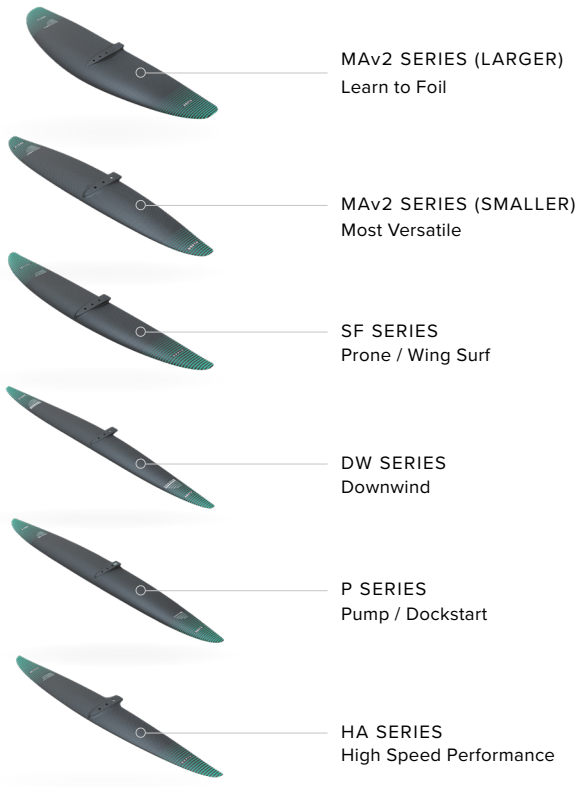
More effort to get up on foil
Less area = Less lift

FIND YOUR FRONT WING

What Front Wing Series do I need?

We offer several different series of Front Wings, to cover a range of different foiling disciplines.

Each Series delivers a different feel, speed range, manoeuverability, pump and performance - and within the series the characteristics of the front wing change according to the size you choose.



MAv2 SERIES (LARGER)
Learn to Foil

MAv2 SERIES (SMALLER)
Most Versatile

SF SERIES
Prone / Wing Surf

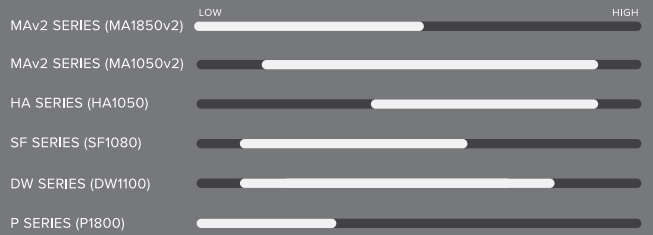
DW SERIES
Downwind

P SERIES
Pump / Dockstart

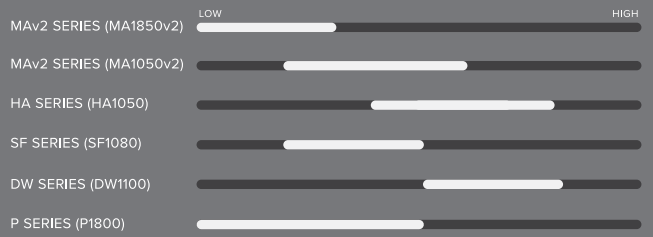
HA SERIES
High Speed Performance

Front Wing Characteristics

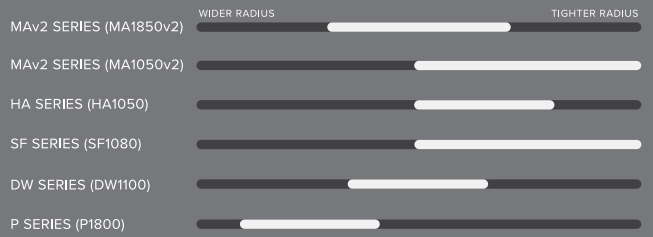
Speed Range



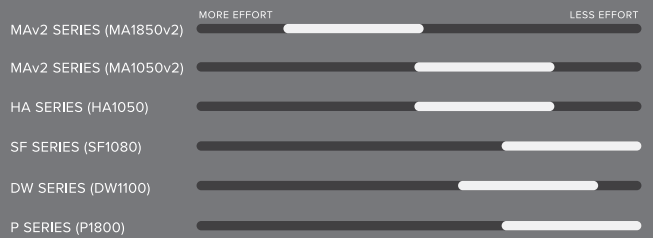
Skill Required



Turning



Pumping



This chart applies only when comparing wings of a similar size across the series e.g. MA1050 v HA1050 v DW1100 or MA1850v2 v P1800.

MATERIAL TECHNOLOGY

HM CARBON PRE-PREG

High Modulus Carbon Construction

High Modulus Carbon Prepreg provides maximum stiffness and efficiency in the Pump and Downwind Series Front Wings and Glide (2) Stabilizers.

C CARBON PRE-PREG

Carbon Construction

100% Carbon Prepreg layup for lighter weight and more direct response in the MAv2, SF, HA Front Wings, Freeride (0), Surf (5) and High Speed (8) Stabilizers.

P PRIME PRE-PREG

Prime Construction

Made out of the same moulds as the carbon pre-preg construction, the Prime pre-preg e-glass construction offers the same high performance, durability, and impact resistance as the carbon pre-preg, at a more accessible price. Available in MA1850-MA2400v2.

Sonar Front Wings and Stabilizers

- High-performance, durable and impact-resistant.
- Engineered with a monocoque construction, whereby individual Carbon Pre-preg layers wrap completely around the leading edge, encasing a high-density foam core.
- Strategically placed layers of HM Carbon, standard modulus Carbon, or Prime E-glass ensure optimal stiffness and weight across different series.

FRONT WING PERFORMANCE

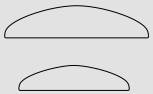
		ACTUAL AREA CM²	WINGSPAN MM	ASPECT RATIO	WING FREERIDE	WING SURF	WING LIGHT WIND	WING HIGH SPEED	WING DOWNWIND	PADDLE DOWNWIND	PUMP/ DOCKSTART	TOW-IN SURF (OVER HEAD)	SURF BIG (OVER HEAD)	SURF SMALL (UNDER HEAD)	KITE	BOAT	WAKE
MID ASPECT	MA500 v2	500	630	7.9	✓	✓		✓				ADV	ADV		✓		
	MA600 v2	600	680	7.7	✓	✓		✓				ADV	ADV		✓		
	MA700 v2	700	720	7.4	ADV	✓		✓	ADV			✓	ADV	ADV	✓		
	MA850 v2	850	780	7.2	ADV	✓		✓	✓			✓	✓	ADV	✓		
	MA1050 v2	1050	850	6.9	✓	✓		✓	✓						✓		
	MA1200 v2	1200	875	6.4	✓		✓		✓						✓	✓	✓
	MA1500 v2	1500	920	5.6	✓		✓		✓							✓	✓
	MA1850 v2	1850	960	5	✓		✓									NOV	
	MA2100 v2	2100	1000	4.8	>85		>85									NOV	
	MA2400 v2	2400	1040	4.5	NOV >85		>85									NOV >95	
SURF SERIES	SF530	530	750	10.6		ADV						ADV	ADV				
	SF680	680	790	9.2	ADV	ADV			ADV			✓	ADV				
	SF830	830	865	9.0	✓	✓			✓			✓	ADV	ADV			<75
	SF930	930	900	8.8	✓	✓	<85		✓	ADV		✓	✓	<85		✓	✓
	SF1080	1080	915	7.1	✓	✓	✓		✓	✓	ADV		>85	✓		✓	✓
	SF1230	1230	930	7.1	>85	>85	✓		>85	>85	✓			>85		✓	✓
DOWNWIND	DW750	750	1000	13.3					✓	ADV							
	DW900	900	1080	13			ADV		✓	ADV							
	DW1100	1100	1150	12			✓		✓	✓							
	DW1400	1400	1250	11.2			✓		✓	✓							
PUMP	P1800	1800	1300	9.4							✓						
	P2050	2050	1400	9.6							>85						
HIGH ASPECT	HA550	550	740	10.0	ADV	ADV		ADV	ADV			ADV	ADV		✓		
	HA650	650	810	10.1	ADV	ADV		ADV	ADV			ADV	ADV		✓		
	HA750	750	870	10.1	ADV	ADV		✓	✓			ADV	ADV		✓		
	HA850	850	920	10.0	✓	ADV		✓	✓			✓	ADV		✓		
	HA950	950	1000	10.6	✓	ADV		✓	✓			✓	✓		✓		
	HA1050	1050	1050	10.5	✓			✓	✓			✓	✓		✓		
	HA1150	1150	1100	10.5	✓			LW	✓				>85				
	HA1250	1250	1120	10.1	✓			LW	LW								
	HA1450	1450	1200	10.0	✓			LW	LW								

NOV: Novice, new to foiling - has other board sports experience
INT: Intermediate, progressing on Foil - may cross over from another foil sport
ADV: Advanced, pro/semi-pro, has mastered all manoeuvres
LW: Light Wind, **<85:** Riders under 85kg, **>85:** Riders over 85kg

*Wing Foil recommendations dependent on wind strength and rider ability

SWITCH YOUR STAB

The S270 is your go-to stab and can be used with most front wings, however we recommend switching your stabilizer to improve the foil's performance in your chosen discipline.



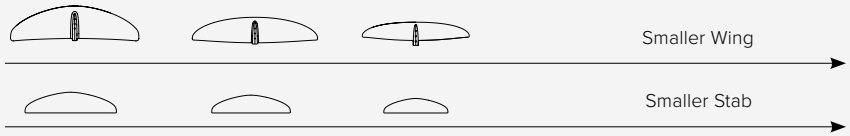
Larger Stab = More stability & more front foot pressure

Smaller Stab = Faster, more responsive & less front foot pressure

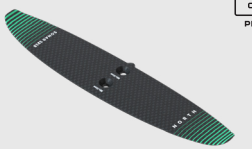
Stabilizer Key:
All Stablizers that end with:

0 = Freeride | **2** = Glide | **5** = Surf | **8** = Speed

As you progress to **smaller wing sizes,** change to a **smaller stabilizer** for added manoeuvrability.



Sizes
- S185
- S215

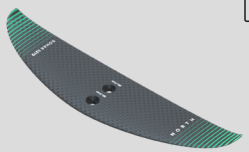


Surf Series /5

Surf-inspired, these Stabs are designed to operate at low speeds, love to carve and turn.
Pair with the SF and P Series.

*Stab Size ends in 5

Sizes
- S210
- S270
- S320

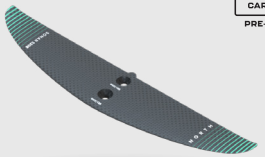


Freeride Series /0

Your go-to for all round performance, with optimal balance, speed, efficiency and control.
Pair with the MA-Series.

*Stab Size ends in 0

Sizes
- S178
- S208
- S238



High Speed Series /8

Flat, loose and fast. A higher aspect ratio and flatter rondure wing for more experienced riders.
Pair with the HA and smaller MA Series.

*Stab Size ends in 8

Sizes
- S142
- S192

Glide Series /2

For more advanced riders for downwind, pump and surf. Designed to cover insane distances with minimal effort.
Pair with the DW, SF, and P-SERIES

*Stab Size ends in 2

FRONT WING X STAB COMBINATIONS

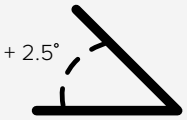
What stabs and front wings go together best?

FRONT WINGS	STABILIZERS									
	Freeride			Surf		High Speed			Glide	
	S210	**S270**	**S320**	**S185**	**S215**	**S178**	**S208**	**S238**	**S142**	**S192**
ACTUAL AREA CM²	210	270	320	185	217	180	208	238	**150**	**192**
WINGSPAN MM	350	395	430	350	368	380	380	430	**380**	**440**
ASPECT RATIO	5.9	5.8	5.9	6.6	6.3	8.1	7	7.8	**10.2**	**10.1**
SF530				✓					ADV	
SF680				✓	✓	ADV			ADV	
SF830				✓	✓	ADV	ADV		✓	
SF930				✓	✓		ADV		✓	✓
SF1080				ADV	✓				✓	✓
SF1230					✓				>85	✓
MA500 V2	✓					✓				
MA600 V2	✓					✓				
MA700 V2	✓					✓	✓			
MA850 V2	✓	✓				✓	✓			
MA1050 V2	✓	✓					✓	✓		
MA1200 V2	✓	✓					✓	✓		
MA1500 V2	✓	✓	✓					✓		
MA1850 V2		✓	✓							
MA2100 V2		✓	✓							
MA2400 V2			✓							
HA550	✓					✓	✓			
HA650	✓					✓	✓			
HA750	✓					✓	✓			
HA850	✓	✓				✓	✓			
HA950	✓	✓				✓	✓			
HA1050	✓	✓				✓	✓	✓		
HA1150	✓	✓					✓	✓		
HA1250	✓	✓						✓		
HA1450		✓						✓		
P1800								✓	ADV	✓
P2050								✓	ADV	✓
DW750									✓	✓
DW900									✓	✓
DW1100									✓	✓
DW1400									<85	✓

Stabilizer Key: All Stablizers that end with: **0** = Freeride / **2** = Glide / **5** = Surf / **8** = Speed

SHIMMING

Finetune your ride

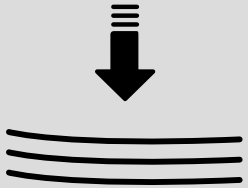


Shimming changes the **angle of attack** (AOA) and controls the amount of downforce the Stabilizer creates on the overall foil system.

The rear Stabilizer's main role is to maintain a level and stable flight path. However, conditions and user preference may change what Stabilizer angle feels the best (aka the sweet spot).

Negative shimming
Reduce front foot pressure

Positive shimming
Increase front foot pressure



Stack multiple shims, from -0.5 to +2.5 degrees

With the Sonar Stabilizer Shim Kit you can stack multiple shims, from -0.5 to +2.5 degrees. Positive shimming will increase front foot pressure. Negative shimming will reduce front foot pressure. The full stack (+2.5deg) creates the maximum recommended AOA to ensure your stabilizer is still effective without creating drag.

CHANGE YOUR FUSE LENGTH

Sonar Fuselage come in a choice of three lengths - 600, 650 or 700mm - and two constructions, Aluminium or Carbon.

700 v 600mm Fuse Length

700mm

Why longer?

The 700mm fuse has a longer, slower cadence and more stability.

600mm

Why shorter?

The 600mm Fuse has a shorter, faster pump cadence and a faster turning response.

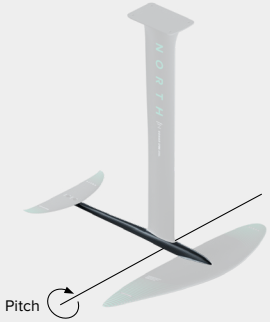
Cranking turns in style

Longer fuse
= wider turning radius (wider arc).

Shorter fuse
= tighter turning radius (arc).

Pitch Stability v Sensitivity

Pitch is the rocking movement of the foil forward and back through the pitch axis. A longer Fuselage offers greater pitch stability and is ideal for learning or foiling at high speeds. A shorter Fuselage is more pitch sensitive. Pitch sensitivity benefits more advanced riders who want a faster response, especially when pumping to connect waves, dock-starting or downwind foiling.



CARBON OR ALUMINIUM?

42% Lighter

than Aluminium, yet still incredibly strong.

Carbon Fuselage

SIZES: C600 / C650 / C700

The lighter weight carbon monocoque sandwich construction with a foam core and thin carbon laminate wrap makes a significant difference to the performance of your Sonar Foil System due to reduced swing weight.

Aluminium Fuselage

SIZES: A600 / A700

The Aluminium Fuse is CNC-machined into a hydrodynamically-optimized shape.

If you find the C600 is too pitch sensitive and the C700 is too hard to pump, then choose the C650.

SWITCH YOUR MAST

Change your ride height, construction and speed.

ALUMINIUM, CARBON, OR ULTRA HIGH MODULUS CARBON

Aluminium

AF Mast

SIZES: AF55 / AF72 / AF85 / AF95

The refined Aluminium Mast profile section gives the optimal balance between lightweight design and exceptional strength for every discipline. Designed to use with an AF Board Adaptor.

BOARD ADAPTOR

More affordable, **more** durable.

Carbon

CF Mast

SIZES: CF72 / CF85 / CF95

24% lighter than Aluminium, our highest quality pre-preg Carbon Mast delivers a stiffer, more direct feel and more immediate feedback. The refined one-piece design is tapered for optimal load transfer and lower surface friction. Arguably, one of the stiffest pre-preg Carbon Masts. Competitive to many High Modulus Masts.

24% Lighter

High Modulus Carbon

HM Mast

SIZES: HM80 / HM85 / HM95 / HM105

We've reduced the thickness of the submerged portion of our new Ultra High Modulus Prepreg Carbon masts by over 15% compared to our Carbon masts, while also increasing both bending and torsional stiffness. This creates a more efficient foil system, with a more direct steering impulse, faster response and reduced drag for high and easier-to-reach top-end speed.

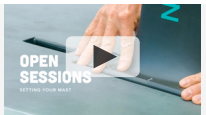
→ ← **15%** Thinner

What size?

The 80cm and under Masts are ideal for shallower waters, and prone surf foiling, the **55cm Mast** for extremely shallow locations.

The taller 85 and above Masts perform across all disciplines and offer you more ride height to clear waves or to heel over for tighter turns. They are also more forgiving in rougher conditions.

DESIGNER NOTES / Masts



OPEN SESSIONS / Setting Your Mast

Impossibly thin, impressively fast.

In the HM Masts we use ultra-high modulus carbon to achieve our design target. **Ultra-thin, ultra-stiff.**

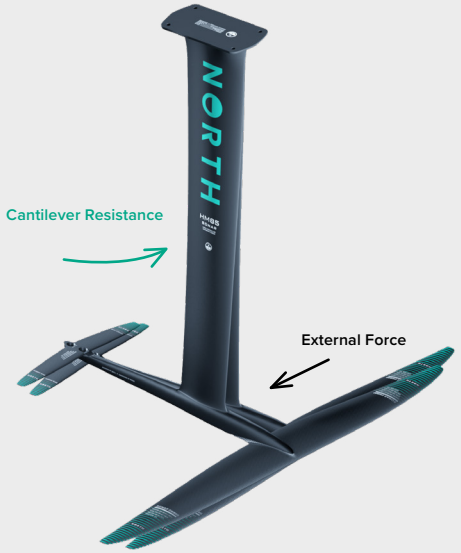
HM85 Mast

CF85 Mast

Equal Weight of **1.9kg**

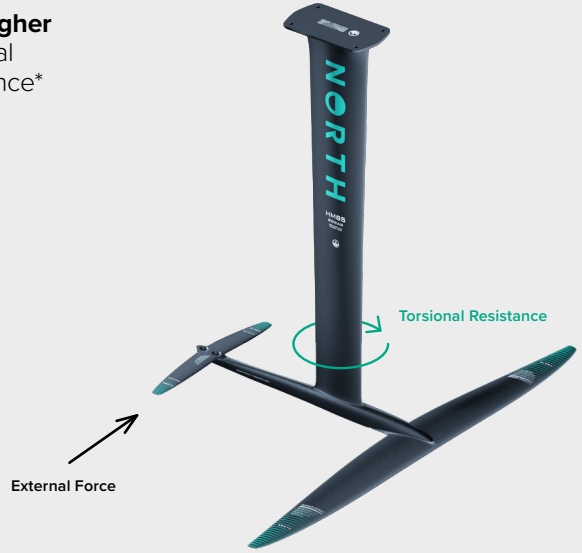
Compared to the CF85, the HM85 has:

67% Greater
Cantilever Bend Resistance*



35% Greater
Eccentric Bend Resistance*

25% Higher
Torsional Resistance*



*Comparing HM85 to CF85 Mast

MAST POSITIONING

Find your sweet spot.

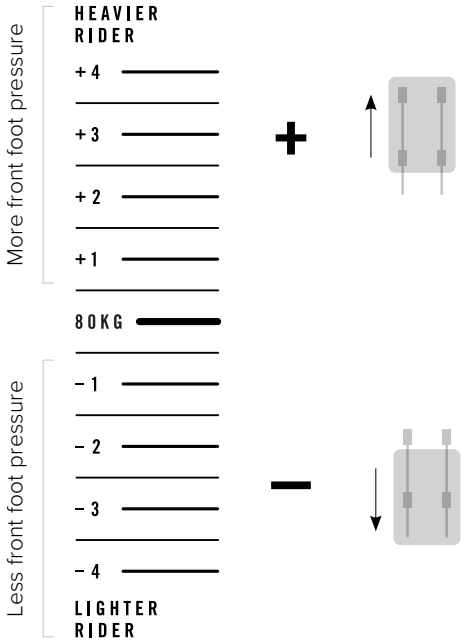
When you're starting your foiling journey, we recommend you position the Mast all the way back in the DropBox track. This prevents the foil from lifting straight away, giving you time to familiarise yourself with the board and wing.

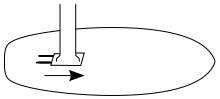
When you're ready to progress, move the mast further forward, until you feel an even stance between both feet. This is what we call the "sweet spot".

Follow the rider weight guide printed on the board next to the DropBox track.

Play around with the positioning depending on how much front foot pressure you prefer.

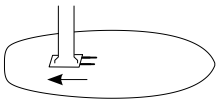
Where to place your Mast?





Heavier rider = position Mast further forward

Slide the Mast forward for more front-foot pressure.



Lighter rider = position Mast further back

Slide it back if you find you need more control or you're feeling overpowered on the foil.

DROP BOX

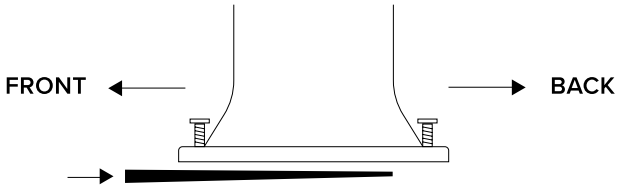
We've engineered our Sonar Foils so that the mast positioning should stay the same regardless of which front wing you put on the foil setup. This ensures your sweet spot feels the same, and you don't need to move the mast drastically up and down the track each time you swap out your front wing.

SHIMMING YOUR MAST

To adjust your foil angle of attack and board trim

Install from front

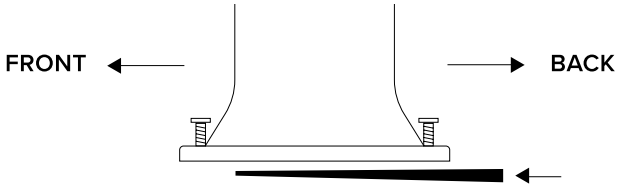
To trim the board more nose-up



If your board is trimmed too nose-down at speed when powered riding, add the shim with the thick edge under the leading edge of the mast. This will enable you to gain back a more comfortable stance and control over the board, preventing nose drops at higher speeds.

Install from back

To trim the board more nose-down



If the board is riding too nose-up at lower speeds (e.g. pump, dockstart or downwind) add the shim with the thick edge under the trailing edge of the mast to engage the foil sooner or trim the board more nose-down once foiling.

North boards and foils are designed to work together for their intended discipline without the need for shimming. However, the Mast shim can be useful when mixing different brands of board and foil or using a given board or foil in conditions outside of those it was designed for.

Classic / Pro / Ultra

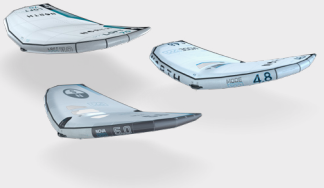
A new tier system to champion our highest-performance products.

ICONIC CLASSIC

Classic represents the iconic quality, durability and ease of use we associate with all North equipment.

PRO

Since its founding in 1957, North has been dedicated to creating equipment that enhances your time on the water. The Pro Series is the next level of development that champions more advanced materials and technology.



ultra

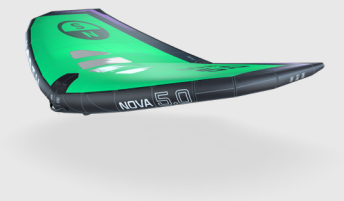
At North, we're always looking for more. We seek change. We pursue progress. The Ultra Series represents the pinnacle of material technology. Ultimate precision. Highest performance. Fastest speed. Lightest, most direct handling. Designed for advanced riders.

SELECT YOUR WING

Your Wing, your style.

Wind Range*

1.9	2.5	2.9	3.5	4.2	5.0	6.0
6+	20-40+	18-38	16-34	12-30	9-24	9-22



Nova

Freeride: Wide Wind Range

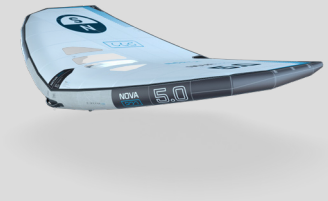
Balanced, easy-to-use all-round wing with a wide wind range, low-end power, high-end stability and light, intuitive handling.

N-X6 N-HTRS

CARBON UDI

Wind Range*

2.9	3.5	4.2	5.0	6.0
18-38+	16-36	12-32	9-26	8-24



Nova PRO

Performance Freeride

Carving ocean swells, boosting or freestyling. Advanced materials and balanced tensioning guarantee shape-hold in overpowered and light wind conditions.

N-WEAVE 4S HYBRID AIR FRAME

CARBON UDI

MATRIX HYBRID N-HTRS

SHIFT||LOCK

Wind Range*

7.0	8.0
6-16	6-16
60-80kg	>80kg

Loft PRO

Light Wind: 6 - 16 Knots

The power to unlock borderline sessions, lift you up instantly in the lightest wind and keep you on the foil for longer. Refined, compact outline for reduced tip-strike.

N-WEAVE 4S AIR FRAME

N-HTRS HIGH TENACITY RIBSTOP

GRIPLOCK CARBON

Wind Range*

3.5	4.2	4.8	5.5	6.8
22-36+	16-33	13-31	9-24	7-21

Mode PRO

High Speed Performance

For high-speed performance, efficiency is key. Featuring a high-tensile airframe and canopy for greater speed, explosive boost and hangtime, and massive wind range.

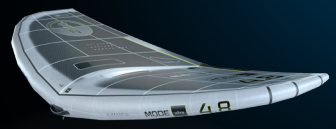
N-WEAVE 4S AIR FRAME

MATRIX N-HTRS

SHIFT||LOCK

Wind Range*

3.5	4.2	4.8	5.5	6.5
16-36	12-32	9-26	7-24	6-20



Mode ULTRA

Performance Race

Powerful and direct performance race wing featuring ultra-stiff N-Xi ultra-high modulus composite canopy by North Sails Advanced Textiles.

N-WEAVE 4S AIR FRAME

CARBON UDI

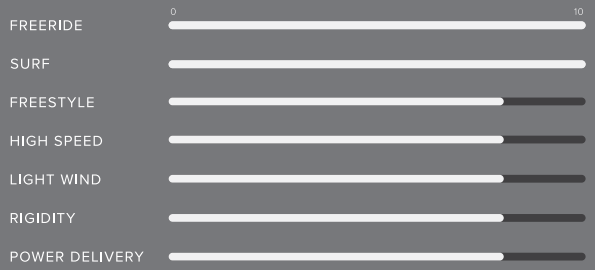
N-Xi COMPOSITE FUSION LAMINATE

GRIPLOCK CARBON

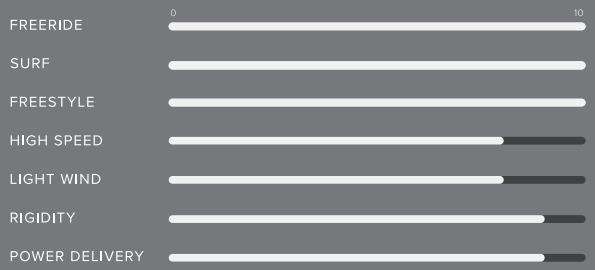
SELECT YOUR WING

Your Wing, your style.

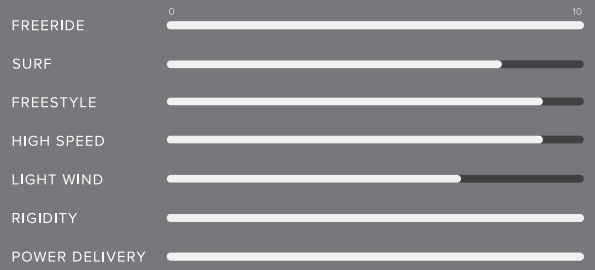
Nova



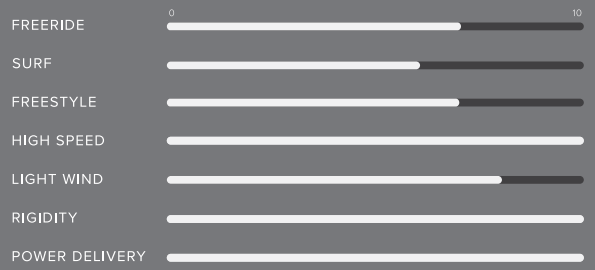
Nova Pro



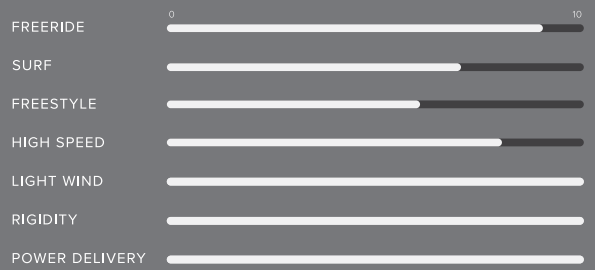
Mode Pro



Mode Ultra



Loft Pro



WING SPEC CHART

	NOVA							NOVA PRO				
WING SIZE	**1.9**	**2.5**	**2.9**	**3.5**	**4.2**	**5.0**	**6.0**	**2.9**	**3.5**	**4.2**	**5.0**	**6.0**
WINGSPAN (M)	1.85	2.2	2.54	2.73	2.94	3.2	3.33	2.55	2.75	2.98	3.25	3.4
PSI	>10PSI	>10PSI	>10PSI	>9PSI	>8PSI	>8PSI	>7PSI	10PSI	9PSI	9PSI	8PSI	7PSI
FRONT HANDLE	400MM	400MM	400MM	400MM	500MM	500MM	500MM	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	500MM NOT INCLUDED	500MM NOT INCLUDED
REAR HANDLE	400MM	400MM	400MM	400MM	400MM	400MM	500MM	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	500MM NOT INCLUDED
HANDLE COMPOSITION	ALUMINIUM	ALUMINIUM	ALUMINIUM	ALUMINIUM	ALUMINIUM	ALUMINIUM	ALUMINIUM	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK
LE/STRUT MATERIAL	DACRON	DACRON	DACRON	DACRON	DACRON	DACRON	DACRON	HYBRID N-WEAVE45 / DACRON	HYBRID N-WEAVE45 / DACRON	HYBRID N-WEAVE45 / DACRON	HYBRID N-WEAVE45 / DACRON	HYBRID N-WEAVE45 / DACRON
CANOPY MATERIAL	N-HTRS / N-X6	N-HTRS / N-X6	N-HTRS / N-X6	N-HTRS / N-X6	N-HTRS / N-X6	N-HTRS / N-X6	N-HTRS / N-X6	HYBRID MATRIX / N-HTRS	HYBRID MATRIX / N-HTRS	HYBRID MATRIX / N-HTRS	HYBRID MATRIX / N-HTRS	HYBRID MATRIX / N-HTRS
WINDOWS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
BATTENS	NONE	NONE	NONE	NONE	NONE	NONE	NONE	1X 250MM, 3MM	1X 250MM, 3MM	1X 250MM, 3MM	1X 250MM, 3MM	1X 250MM, 3MM
VALVES	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE
HARNESS	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE
WRIST LEASH	S, 1350MM	S, 1350MM	S, 1350MM	M, 1800MM	M, 1800MM	M, 1800MM	L, 2400MM	M, 1800MM	M, 1800MM	M, 1800MM	M, 1800MM	L, 2400MM
WIND RANGE (KNOTS)	6+ (<50KG)	20-40+	18-38	16-34	12-30	9-24	8-22	18-38+	16-36	12-32	9-26	8-24
WEIGHT KG +/-10%	1.95	2.25	2.36	2.60	2.90	3.15	3.39	2.05	2.24	2.55	2.80	3.09

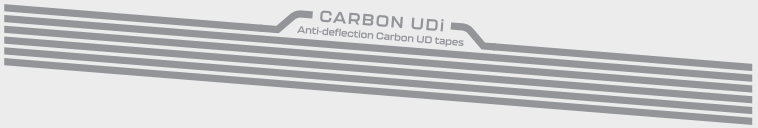
	LOFT PRO		MODE PRO					MODE ULTRA				
WING SIZE	**7.0**	**8.0**	**3.5**	**4.2**	**4.8**	**5.5**	**6.5**	**3.5**	**4.2**	**4.8**	**5.5**	**6.5**
WINGSPAN (M)	3.6	3.75	2.75	2.99	3.21	3.3	3.42	2.86	3.16	3.39	3.53	3.65
PSI	>7PSI	>7PSI	10PSI	9PSI	8PSI	7PSI	6PSI	10PSI	9PSI	9PSI	8PSI	7PSI
FRONT HANDLE	500MM	500MM	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	500MM NOT INCLUDED	500MM NOT INCLUDED	400MM	400MM	400MM	500MM	500MM
REAR HANDLE	500MM	500MM	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM NOT INCLUDED	400MM	400MM	400MM	400MM	400MM
HANDLE COMPOSITION	CARBON	CARBON	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON SHIFTLOCK	CARBON	CARBON	CARBON	CARBON	CARBON
LE/STRUT MATERIAL	N-WEAVE45	N-WEAVE45	N-WEAVE45	N-WEAVE45	N-WEAVE45	N-WEAVE45	N-WEAVE45	N-WEAVE45/ N-WEAVE	N-WEAVE45/ N-WEAVE	N-WEAVE45/ N-WEAVE	N-WEAVE45/ N-WEAVE	N-WEAVE45/ N-WEAVE
CANOPY MATERIAL	N-HTRS	N-HTRS	MATRIX	MATRIX	MATRIX	MATRIX	MATRIX	N-XI	N-XI	N-XI	N-XI	N-XI
WINDOWS	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES`	YES
BATTENS	2X 250MM	2X 250MM	3X 250MM, 3MM	3X 250MM, 3MM	3X 250MM, 3MM	3X 250MM, 3MM	3X 250MM, 3MM	2X 250MM, 3MM	2X 250MM, 3MM	2X 250MM, 3MM	2X 250MM, 3MM	2X 250MM, 3MM
VALVES	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE	2X HYPER FLOW, 1X HOSE
HARNESS	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE	FIX TO HANDLE
WRIST LEASH	L, 2400MM	L, 2400MM	M, 1800MM	M, 1800MM	M, 1800MM	M, 1800MM	L, 2400MM	M, 1800MM	M, 1800MM	M, 1800MM	M, 1800MM	L, 2400MM
WIND RANGE (KNOTS)	6-16 (70-90KG)	6-16 (>90KG)	22-36+	16-33	11-30	9-24	6-22	16-36+	12-32	9-26	8-24	7-20
WEIGHT KG +/-10%	3.10	3.30						2.2	2.3	2.5	2.7	3.1

*Recommended wing size dependent on rider size, ability and foil setup. 1.9m Nova designed for lighter riders (under 50kg) or skateboard sessions.
Choose Loft Pro according to your rider size. Wing weight includes wrist leash, Nova Pro weight does not include ShiftLock Carbon Wing Handles, these are sold separately.
Up to 200g weight savings on the Nova when fitted with optional Carbon Wing Handles (sold separately).
The 1100 Boom is not compatible with the Nova Pro 2.9m

WING TECHNOLOGY

CARBON UDi
UDi Anti-Deflection Tape

NOVA / NOVA PRO / MODE PRO / MODE ULTRA
Chasing stiffness of the inflated airframe, whether locally or globally. Anti-deflection Carbon UD tapes are placed inside the leading edge on strategic high load areas, to provide additional wingtip stiffening while keeping the wing lightweight and responsive.



N-Xi COMPOSITE FUSION LAMINATE

MODE ULTRA
Ultra stiff in three directions. Our latest North Sails Advanced Textiles high-performance canopy material is engineered from two laminate films, sandwiched around UHMWPE fibres laid in the direction and +/- 60-degree direction.

Ultra Stiff
IN THREE DIRECTIONS
0° / 60° UHMWPE

UV and Tear Resistant

N-WEAVE 45 AIRFRAME

MODE PRO / NOVA PRO / LOFT PRO
N-Weave45 reduces structural deflection and transfers wind energy into greater forward speed, explosive boost and hangtime for freestyle tricks.

30% lighter

3x stiffer
ON THE 0° WARP DIRECTION
0°

2x torsionally stiffer
ON THE 45° BIAS DIRECTION*
45°

MATRIX N-HTRS

MODE PRO / NOVA PRO
New low-stretch, low-deflection Matrix N-HTRS high-tenacity canopy material manages the added tension of the N-Weave45 airframe, further increasing the wind range, holding its shape in all conditions and resisting foil tears.

2.5x stiffer
ON THE 0°/90° WARP/WEFT DIRECTION
0° / 90°

5x torsionally stiffer
ON THE 45° BIAS DIRECTION**
45°

N-X6 N-HTRS

NOVA
Engineered for use in the highly-loaded TE area, durable and lightweight N-X6 panels help to maintain shape hold over time, provide greater TE tension, dampen flutter and help to create a cleaner release with minimal drag.

40% stiffer
WARP DIRECTION
0°

55% stiffer
WEFT DIRECTION
90°

3x torsionally stiffer
BIAS DIRECTION
45°

*Compared to a traditional Dacron (176gsm) **Compared to a traditional canopy material (51gsm)

WING HANDLE TECHNOLOGY

SHIFT||LOCK
MODULAR TRACK MOUNTING SYSTEM

MODE PRO / NOVA PRO

Our new intuitive modular handle system lets you slide and lock any length handles (or boom) into any position along the strut.

Breaking load of >710kg

Carbon Handles
AND TRACK

Ding Protection
FOR YOU AND YOUR BOARD

GRIPLOCK CARBON

MODE ULTRA / LOFT PRO

The lighter fixed Carbon GripLock micro-trim control handles offer an even faster, more direct response and more intuitive transitions. Upgrade your Nova handles to Carbon GripLock for higher performance.

GRIPLOCK

NOVA

Our rigid micro-trim control handles with soft EVA handle bumper ensure a more immediate response and intuitive transitions than a soft handle, for instant control and reduced hand fatigue.

ACCESSORIES:

GripLock
Handle Bumper

GripLock
Bridge Boom

ShiftLock Action
Camera Mount

ShiftLock
Paddle Mount

WHAT HANDLE LENGTH DO I NEED?

For the Nova Pro, follow the size chart below to determine the best handle combination for your wing size. You also have the option to downsize or go for a boom.

1100 Boom
Lightest option. Most forgiving because it allows you to slide your hand up and down the track. Suits any rider's ability. Lighter rig for lighter winds and larger wings.

Handle weight:
335g +/- 2%

500mm
Larger handle. The one offering most hand placements. Suits every riders ability.

Handle weight:
242g +/- 2%

400mm
Medium size handle. Ideal for smaller wing sizes. Very good all rounder.

Handle weight:
216g +/- 2%

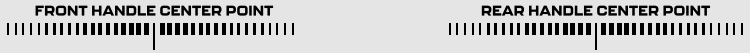
250mm
For more advanced riders who prefer a minimalist setup. 250 handle can be combined with a 400 or 500, or another 250.

Handle weight:
188g +/- 2%

Recommended Handle Lengths for ShiftLock Wings. The 1100 Boom is not compatible with the 2.9m Nova Pro.

Wing Size	2.9	3.5	4.2	5	6
Front	400	400	400	500	500
Rear	400	400	400	400	500

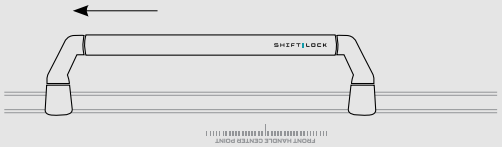
HANDLE POSITIONING



Positioning marks printed on the strut show the centre point for the 500mm or 400mm handles; from there, you can tailor to your riding style.

Handles forward
= the Wing depowers more as you go move through the tack.

Handles back
= a more powered position for jumping.



TIP: you don't need to remove the handles to adjust - simply undo the mounting screw one revolution, shift the handle mount, and then make one revolution to tighten.

CHOOSE YOUR FOILBOARD

Wing, Downwind and Learn to Foil with confidence.

WING
BOAT

Length (ft)	Volume (L)
4'9	58L
4'11	68L
5'1	78L
5'3	88L
5'5	98L
5'7	108L
5'9	118L
5'11	138L

Seek

Wing Foilboard

Early take-off, stable and responsive freeride wing foil board forgiving on touchdowns. Engineered for an intuitive and direct connection to your hydrofoil.

HC HYBRID CARBON

WING
TOW-IN SURF
SURF
BOAT
WAKE
KITE

Length (ft)	Volume (L)
4'4	35L
4'6	45L
4'8	55L
4'10	65L
5'0	75L
5'2	85L

Swell

Wingsurf Foilboard

Re-engineered for cranking turns and riding waves with a wing. Cleaner, faster lift to foil, curved surf-style outline for optimal wave fit and deeper carves.

HC HYBRID CARBON

DOWNWIND / SUP
LW WING
DOWNWIND WING

Length (ft)	Volume (L)
6'10	95L
7'5	105L
7'10	115L
8'4	125L

WING
BOAT

Length (ft)	Volume (L)
4'10	78L
5'1	110L
5'5	124L
5'9	132L
6'2	155L

Seek Air

Wing Boat Inflatable Foilboard

All the lightweight convenience, portability, and durability of an inflatable with a rigid-board feel.

CST-BASE
CARBON SANDWICH TRANSFER BASE

WING

Length (ft)	Volume (L)
6;4	138L
6'10	168L

Seek Prime

Learn-to-Wing Foilboard

The early planing design has a longer waterline to get you up on foil faster, plus ample width and volume for stability.

Horizon

C CARBON

Downwind LW Wing Foilboard

Designed for riders downwinding with a paddle, wing or tow-kite, SUP foil-surfing and light wind wingfoiling.

CHOOSE YOUR FOILBOARD

Prone Surf, Pump, Wake, Kite and Tow.

SURF · TOW-IN SURF · WING · BOAT · WAKE · KITE

Length (ft)	Volume (L)
4'4	35L
4'6	45L

Swell

Wing Surf Crossover Foilboard

In the two smaller sizes, the Swell remains a crossover board for heavier riders for strapped prone, kite, wake, and tow-foiling.

HC HYBRID CARBON

KITE · TOW-IN SURF · WAKE · BOAT

Length (cm)	Volume (L)
120	16L
135	19L

Scoop

Wake Kite Tow Foilboard

A versatile, direct and responsive board with instant touchdown recovery.

HC HYBRID CARBON

SURF · TOW-IN SURF · PUMP · WAKE

Length (ft)	Volume (L)
4;2	25L
4'5	30L

Vert

Performance Surf Foilboard

A fast and intuitive dedicated prone board for progressive foil surfers. The 100% carbon layup gives the board a lively, dynamic feel.

C CARBON

KITE · BOAT · WAKE

Length (cm)
135 x 47

Sense

Kite Wake Foilboard

Intuitive glide with roll to ride water starts. Modern technology, strength and performance in a user-friendly low volume wood core foil board.

KITE · PUMP · WAKE

Length (cm)	Volume (L)
110	10L

Scoop Mini

Pump Kite Tow Foilboard

A direct and responsive high-performance kite foilboard for more advanced riders.

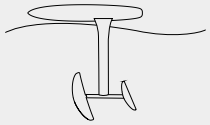
HC HYBRID CARBON

IDEAL WING FOILBOARD VOLUMES

What size do I need? Large, small or something in between?

Floater

Novice - Intermediate Riders

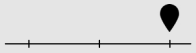


For a wingfoil board to float when stationary, it needs to be similar to the rider's kg weight in litres. A "floater" is ideal for intermediate riders, kneeling or standing starts, and light wind usage.

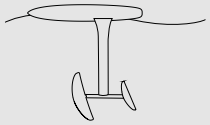
↑ **+30 to +40L**

Select a board +30 to +40L above body weight in kg.

Sinker



Advanced Riders



When looking for a "sinker", we recommend avoiding the -10 to -20L zone, because a semi-floating board is harder to use.

↓ **-25 to -30L**

Go for -25 to -30L under your body weight in kg, so it remains stable. A sinker is more stable when it sits just under the water, rather than breaking the surface.

FOILBOARD SPEC CHART

		VOL (L)	LENGTH (FT)	WIDTH (IN)	THK (IN)	STRAP INSERTS	TAIL SHAPE	NOSE SHAPE	BOTTOM SHAPE	RAIL	FOIL MOUNT	CONSTRUCTION	NOVICE* RIDER KG	INTERMEDIATE* RIDER KG	ADVANCED* RIDER KG
SCOOP MINI	110	10L	3'6	17 11/12 (45CM)	7/8	CENTRED, V-STRAP	FLAT	PULLED-IN SLIGHTLY SCOOPED	FLAT	ROUNDED	DROPBOX 165X90MM	HYBRID CARBON HD CORE		ALL	ALL
SCOOP	120	16.5L	3'11	18 1/8 (46CM)	1 1/2	CENTRED, V-STRAP	FLAT	PULLED-IN SCOOPED	TRI-PLANE	REFINED BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	ALL	ALL	ALL
SCOOP	135	19.5L	4'5	18 7/8 (48CM)	1 1/2	CENTRED, V-STRAP	FLAT	PULLED-IN SCOOPED	TRI-PLANE	REFINED BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	ALL	ALL	ALL
SENSE	135		4'5	18 1/2 (47CM)		CENTRED, V-STRAP	FLAT	PULLED-IN SLIGHTLY SCOOPED	TRI-PLANE	ABS	165X90MM	WOOD CORE	ALL	ALL	ALL
VERT	4'2	25L	4'2	18	2 7/16	NO	CHOPPED SQUARE	ROUNDED	TRI-PLANE	SOFT BEVELLED	DROPBOX 165X90MM	CARBON	<75	<75	<75
VERT	4'5	30L	4'5	19	2 5/8	NO	CHOPPED SQUARE	ROUNDED	TRI-PLANE	SOFT BEVELLED	DROPBOX 165X90MM	CARBON	>75	>75	>75
HORIZON	6'10	95L	6'10	17 ½	6 ½	NO	NARROW TAPRERED	NARROW ROUNDED	DISPLACEMENT	SQUARE	DROPBOX 165X90MM	CARBON		<65	<75
HORIZON	7'5	105L	7'5	18	6 ½	NO	NARROW TAPRERED	NARROW ROUNDED	DISPLACEMENT	SQUARE	DROPBOX 165X90MM	CARBON		65-75	75-85
HORIZON	7'10	115L	7'10	18 ½	6 ½	NO	NARROW TAPRERED	NARROW ROUNDED	DISPLACEMENT	SQUARE	DROPBOX 165X90MM	CARBON		75-85	85-95
HORIZON	8'4	125L	8'4	19	6 ½	NO	NARROW TAPRERED	NARROW ROUNDED	DISPLACEMENT	SQUARE	DROPBOX 165X90MM	CARBON		>85	>95

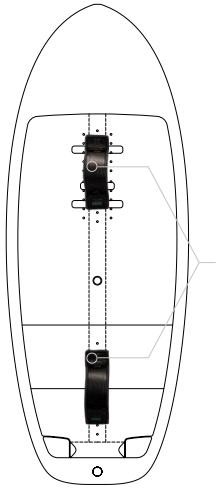
		VOL (L)	LENGTH (FT)	WIDTH (IN)	THK (IN)	STRAP INSERTS	TAIL SHAPE	NOSE SHAPE	BOTTOM SHAPE	RAIL	FOIL MOUNT	CONSTRUCTION	CROSSOVER WINGSURF / PRONE SURF RIDER KG	FLOATER RIDER KG	SINKER RIDER KG
SWELL	4'4	35L	4'4	19 3/4	19 3/4	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON	> 70		60-65
SWELL	4'6	45L	4'6	21 1/4	21 1/4	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON	> 80		70-75
SWELL	4'8	55L	4'8	22 1/2	22 1/2	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON		<60	80-85
SWELL	4'10	65L	4'10	24	24	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON		<70	90-95
SWELL	5'0	75L	5'0	25	25	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON		<80	>100
SWELL	5'2	85L	5'2	26	26	CENTRED, V-STRAP, OFFLINE	CHOPPED SQUARE	ROUNDED SURF	TRI-PLANE	STEEP BEVELLED CONCAVED	DROPBOX 165X90MM	HYBRID CARBON		<90	

		VOL (L)	LENGTH (FT)	WIDTH (IN)	THK (IN)	STRAP INSERTS	TAIL SHAPE	NOSE SHAPE	BOTTOM SHAPE	RAIL	FOIL MOUNT	CONSTRUCTION	NOVICE RIDER KG	FLOATER RIDER KG	SINKER RIDER KG
SEEK	4'9	58	4'9	22 1/4	3 3/4	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON		<60	83-88KG
SEEK	4'11	68	4'11	23 1/2	3 7/8	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON		<70	93-98KG
SEEK	5'1	78	5'1	24 1/2	4 1/8	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>50KG	<80	103-108KG
SEEK	5'3	88	5'3	25 1/2	4 1/4	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>60KG	<90	
SEEK	5'5	98	5'5	26 1/2	4 1/2	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>70KG	<100	
SEEK	5'7	108	5'7	27 1/2	4 3/4	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>80KG	<110	
SEEK	5'9	118	5'9	28 1/2	4 3/4	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>90KG	<120	
SEEK	5'11	138	5'11	29	5 1/4	CENTRED, V-STRAP, OFFLINE	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	HYBRID CARBON	>100KG	<140	
SEEK PRIME	6'4	138L	6'4	27 1/5	5 3/8	CENTRED, V-STRAP,	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	ECOLITE SOFTSKIN	<85		
SEEK PRIME	6'10	168L	6'10	29 5/16	5 5/8	CENTRED, V-STRAP,	BOX	ROUNDED SQUARE	TRI-PLANE	STEEP BEVELLED	DROPBOX 165X90MM	ECOLITE SOFTSKIN	>85		
SEEK AIR	4'10	78L	4'10	25 1/16	4	CENTRED, V-STRAP	SHARP RELEASE	ROUNDED SQUARE	FLAT	STEEP CURVED	DROPBOX 165X90MM	INFLATABLE	<55	<75	<95
SEEK AIR	5'1	110L	5'1	28 1/8	4 3/4	CENTRED, V-STRAP	SHARP RELEASE	ROUNDED SQUARE	FLAT	STEEP CURVED	DROPBOX 165X90MM	INFLATABLE	<85	<105	>85
SEEK AIR	5'5	124L	5'5	29 7/8	4 3/4	CENTRED, V-STRAP	SHARP RELEASE	ROUNDED SQUARE	FLAT	STEEP CURVED	DROPBOX 165X90MM	INFLATABLE	<95	<120	>95
SEEK AIR	5'9	132L	5'9	30	4 3/4	CENTRED, V-STRAP	SHARP RELEASE	ROUNDED SQUARE	FLAT	STEEP CURVED	DROPBOX 165X90MM	INFLATABLE	<100	<125	>100
SEEK AIR	6'2	155L	6'2	31	4 3/4	CENTRED, V-STRAP	SHARP RELEASE	ROUNDED SQUARE	FLAT	STEEP CURVED	DROPBOX 165X90MM	INFLATABLE	>75	>95	

***NOVICE**: New to foiling - has other board sports experience. **INTERMEDIATE:** Progressing on Foil - may cross over from another foil sport. **ADVANCED:** Pro/Semi-Pro, has mastered all manoeuvres.

Centreline

ALL MODELS

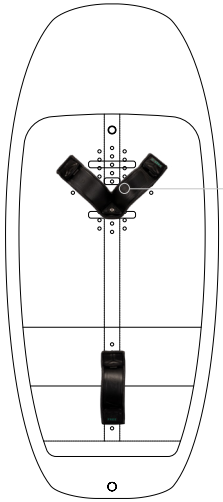


1.

CENTRELINE: mounting front strap in line with rear strap allows you to swap stance on any foilboard (Diagram 1).

V-Strap

ALL MODELS EXCEPT SWELL

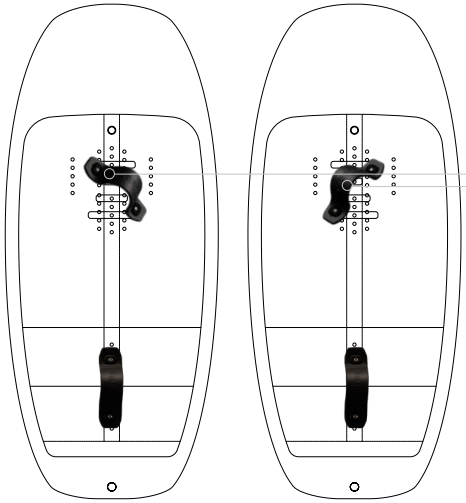


2.

V-STRAP: if you prefer to swap your stance while riding, we recommend using this (Diagram 2).

Offline

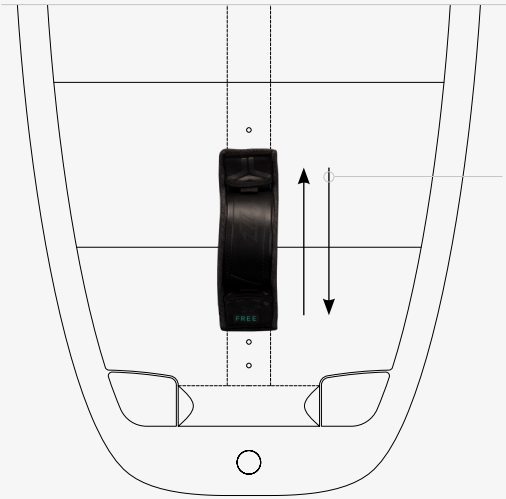
SWELL/SEEK ONLY



3. 4.

OFFLINE: mounting on a diagonal allows you to ride left foot forward (Diagram 3) or right foot forward (Diagram 4).

FOIL STRAP MOUNTING



Mount the straps forward or backward to suit your rider stance, body size and the position of your hydrofoil.

If you feel too much back foot pressure when foiling, move both straps further back, or position your hydrofoil mast further forward.

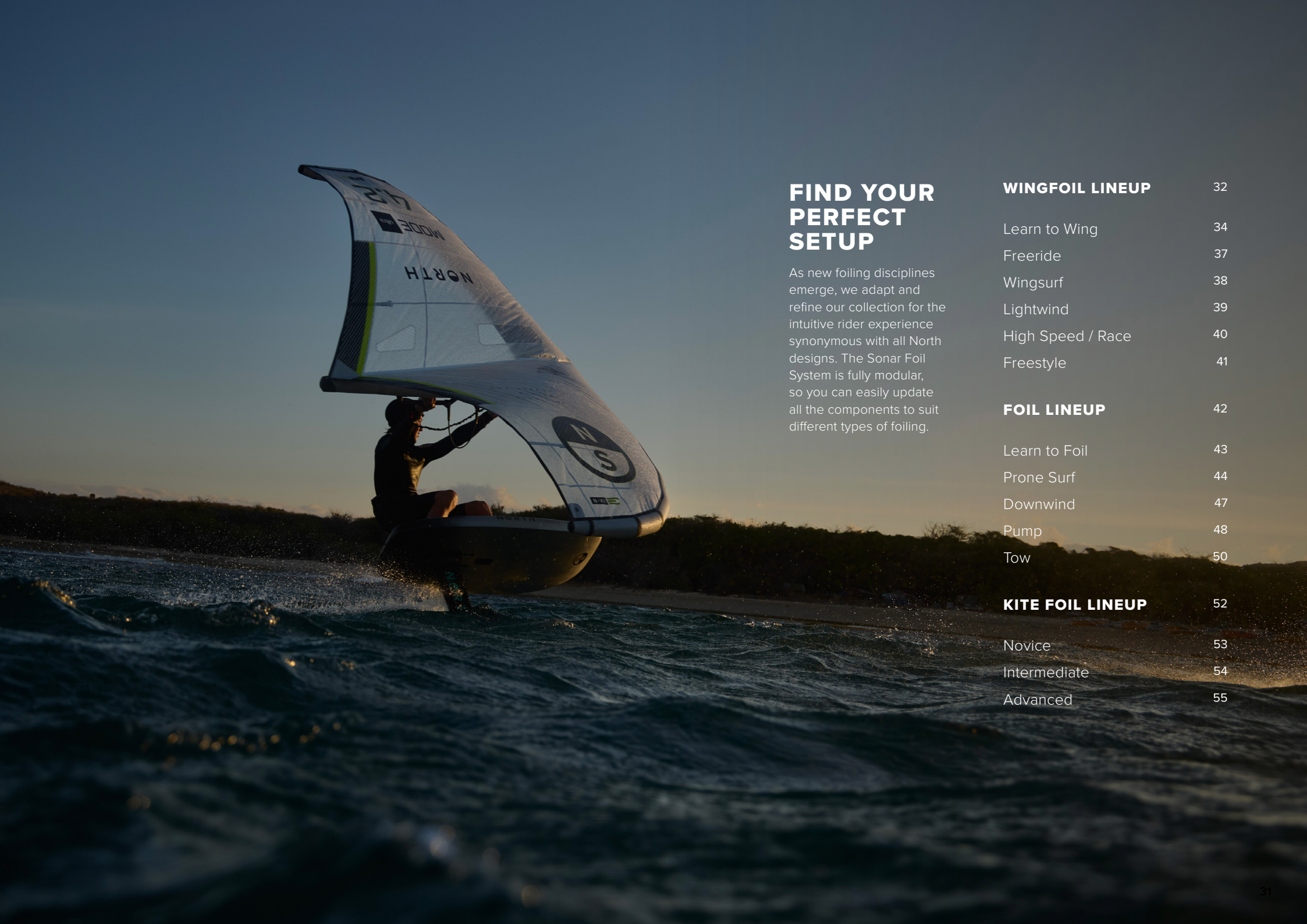
If you feel too much front foot pressure when foiling, mount both straps further forward, or position your hydrofoil mast further backward.

Foilboard / Foot Strap Guide

What foot strap setup can I use?

	CENTRELINE	V-STRAP	OFFLINE
SCOOP MINI	✓	✓	
SCOOP	✓	✓	
SENSE	✓	✓	
SWELL	✓	✓	✓
SEEK	✓	✓	✓
SEEK AIR	✓	✓	
SEEK PRIME	✓	✓	

*Vert Surf and Horizon Downwind boards do not have Footstrap Inserts



FIND YOUR PERFECT SETUP

As new foiling disciplines emerge, we adapt and refine our collection for the intuitive rider experience synonymous with all North designs. The Sonar Foil System is fully modular, so you can easily update all the components to suit different types of foiling.

WINGFOIL LINEUP

Learn to Wing

NOVA
SEEK PRIME
SEEK
SEEK AIR
MA1500-2400v2
AF / CF72 EDITION

Freeride

NOVA / NOVA PRO /
MODE PRO
SEEK / SEEK AIR
MA700-2100v2
CF85 EDITION
HM85 MAST
S210-320 STAB

Surf

NOVA / NOVA PRO
SWELL
SF530-1230 /
MA500-1050v2
HA650-950
AF / CF72-85 EDITION
HM80-85 MAST
C600-700 FUSE
S185 / 215 / 208 / 142 STAB

Lightwind

LOFT PRO
SEEK / SEEK AIR /
HORIZON
CF85 EDITION
HM85-105 MAST
MA1200-2100v2
SF1080-1230
HA1150-1450
DW1100-1400
S320 / 215 / 238 STAB

High Speed/Race

MODE PRO /
MODE ULTRA
SEEK
HA550-1150
HM85-105 MAST
C600-700
S178-S208 STAB

Freestyle

NOVA PRO
SWELL / SEEK
MA500-1050v2
HA750-1050
HM85 MAST
C600-650 FUSE
S210-178 / 208 STAB

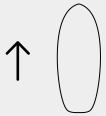
Big Air

MODE PRO
SWELL / SEEK
MA500-1050v2
HA750-1050
HM85 MAST
C600-650 FUSE
S210-178 / 208 STAB

WHAT SIZE GEAR DO I NEED?

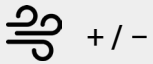
Larger, smaller or something in between?

Heavier or less experienced rider?



Size up to a larger volume board

Choose a larger foil, stab and **longer** fuse



Wing size is wind-dependent

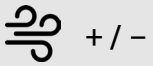
A larger foil doesn't usually require as big a wing to get up on the foil

Lighter weight or more advanced rider?

Drop down to a lower volume board

Upgrade to a smaller foil, stab and **lighter** fuse

Upgrade to a higher-performance wing to suit your style



Wing size is wind-dependent

A smaller foil can require a bigger wing size in lighter wind

LEARN TO WING

Recommended setup

Nova Freeride

- Select wing size best suited to wind conditions
- Start in 12-18knots (medium strength wind)
- A slightly bigger wing will provide more power and speed to get on to foil

Seek Prime / Seek / Seek Air

- Select a board 30-40L above your rider weight in kg
- Position mast towards back of mast track
- Keep the higher volume Seek in your quiver as your light wind wingfoil board.
- Seek Air is ideal for family, boating and travel – lightweight and durable
- Seek Prime has forgiving Softskin for impact protection – ideal for schools

Prime MA1500-2400v2

- Larger sizes provide a stable, easy-to-use foil for most rider weights
- Keep it in the quiver for lighter wind sessions
- Lighter or more advanced riders, choose a smaller front wing.
- Heavier or more entry-level riders, choose a larger front wing.

CF / AF Edition

- 700 Fuse
- S270 / S320 Stab
- Fully modular Sonar setup
- Mast length location dependent
- We recommend starting with a 72cm – the foil is closer to the rider, so easier to control
- For a higher performance / lighter weight option, choose a CF or HM Mast

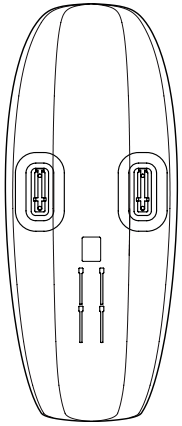
GETTING STARTED

Learn to Wing in Safe Shallow Waters without the Foil

High-volume boards with fin adaptors provide a large, easy-to-use platform to balance on.

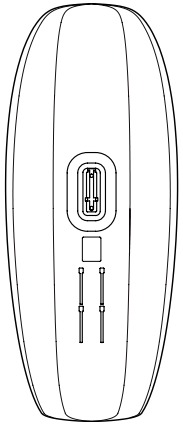
Stick on Fins and a DropBox Fin Adaptor can be used with any large SUP or Foilboard with a 165x90mm Foil Mast Track.

We recommend using 2x Stick-On Fins under rail near front foot.



DUAL FIN PLACEMENT (RECOMMENDED)

Install two fins, one near each rail, in line with your front foot placement, with a DropBox Fin Adaptor or Rear Centre Fin* under your back foot.



SINGLE FIN PLACEMENT

Install a single-centre fin under your foot at the board's centreline, with a DropBox Fin Adaptor or Rear Centre Fin* under your back foot.

*Recommended for use with the North DropBox Fin Adaptor (sold separately), which slots into your foil mast track,

GETTING STARTED

Your learn-to-foil setup

1.

2.

4.

3.

5.

6.

7.

9.

8.

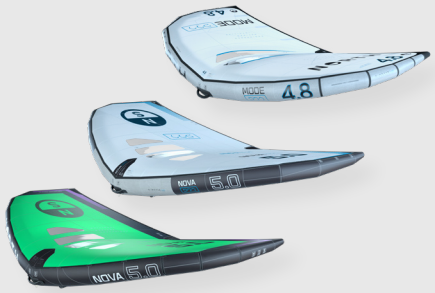
10.

11.

1. NOVA | **2.** SEEK PRIME | **3.** WAIST BOARD LEASH | **4.** SONAR MA1850/2100v2 FRONT WINGS | **5.** AF FOIL EDITION (72/85) | **6.** S320 STAB | **7.** DROPBOX FIN ADAPTOR | **8.** NORTH PONCHO | **9.** KITE/WING PUMP | **10.** TORX T40 TOOL | **11.** DETACHABLE STICK-ON FIN

FREERIDE

Recommended setup



Nova / Nova Pro / Mode Pro

- Nova Freeride is durable and cost-effective. Inflate and go, easy to get up on foil
- Nova Pro has higher performance with a wider range
- Nova Pro and Mode Pro feature customisable ShiftLock handles, stiffer N-Weave45 airframe and Matrix canopy

Seek / Seek Air

- Select a board similar to your rider weight in kg (floater)
- More advanced riders go for 25-30L below (sinker)
- Seek Air is ideal for family, boating and travel – lightweight and durable

MA700-2100v2

- Larger surface area foils suit heavier or novice riders, or lighter wind
- Smaller sizes have a higher speed range and smaller turning radius
- The MAv2 in the Prime Aluminium construction are a durable and cost-effective optio

CF85 / AF85 Edition

- 650-700cm Fuse
- S210-320 Freeride Stabs
- HM85 Mast

WINGSURF

Recommended setup

Nova / Nova Pro

- Nova Freeride is durable and cost-effective. Easy to get up on foil, with balanced trailering while riding waves
- Nova Pro stiffer, higher performance
- Nova Pro features customisable ShiftLock handles

Swell

- Equally at home in choppy onshore or overhead peeling surf

SF530-1230 / MA500-1050v2 / HA650-950v2

- Smaller SF Series wings for bigger waves, stronger wind, smaller or more advanced riders
- MA700-1050v2 not as low a stall speed but great fun with a wing
- HA650-950 ideal in bigger, faster moving swells. Very efficient, high speed and more advanced.

AF / CF72-85 Edition

- 600-700cm Fuse
- S185/215 Surf Stabs to match SF Series Front Wings
- S142 Glide Stab super loose in surf
- S208 High-Speed Stab with HA or MA for added manoeuvrability
- HM80-85 Mast

LIGHT WIND

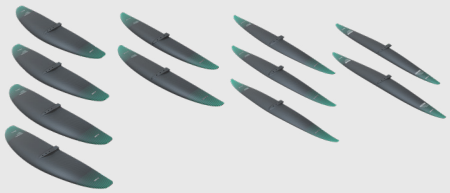
Recommended setup

Loft Pro

- 6-16knots
- Select wing size by rider weight
- One in every quiver
- It's a big wing so not suitable for a very small person

Seek / Seek Air / Horizon

- Floater – around rider kg in litres



MA1200-2100v2 / SF1080-1230 / HA1150-1450 / DW1100-1400

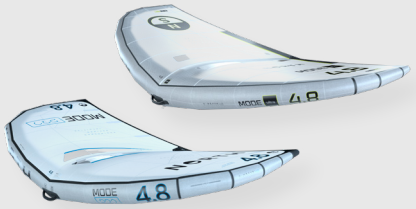
- A larger-sized front wing needs less speed to lift onto the foil so can be used with a smaller wind wing
- Smaller-sized front wings are easier to manoeuvre but require more wind speed

CF85 / AF85 Edition

- 650-700cm Fuse
- S210-320 Freeride Stabs
- HM85-105 Mast

HIGH SPEED / RACE

Recommended setup



Mode Pro / Mode Ultra

- Mode Pro for High-Speed Freeride
- Mode Ultra for Race
- Choose the biggest wing you can hold down for maximum speed

Seek

- Floater
- Longer water line comes up to speed faster and lifts onto foil faster

HA550-1150

- Size is wind speed dependent
- In lighter wind an average sized rider might select an HA750 for racing
- In stronger wind an HA550
- Heavier riders might size up or pair with a larger hand wing

CF85 / AF85 Edition

- C600-700cm Fuse - shorter fuse more manoeuvrable, longer fuse will track better
- S178-208 High-Speed Stabs faster turning with a looser feel
- HM85-105 Mast = more angle for powered riding
- Longer mast prevents rail from touching water or front wing breaching

FREESTYLE / BIG AIR

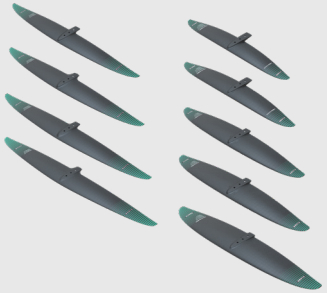
Recommended setup

Nova Pro / Mode Pro

- Nova Pro with Hybrid Materials for more forgiving landings. Ideal for Freestyle.
- Mode Pro has a stiffer airframe and canopy, for Big Air boosts and hangtime.

Seek / Swell

- The smaller Seek is our recommended Freestyle / Big Air choice
- Some riders prefer the more traditional surf outline of the Swell



HA750-1050 / MA500-1050v2

- High Aspect wings enable more speed for bigger boosts
- Mid Aspect are faster turning and more agile at low speeds

CF85 / AF85 Edition

- 600-700cm Fuse
- S210 / S178 / 208 Stabs
- HM85 Mast

FOIL LINEUP

Boat Foil

SEEK AIR / SENSE
MA1200-2400v2
SF830-1230
AF72

Prone Surf

VERT / SWELL
CF72 EDITION
SF530-1230
MA500-850v2
HA650-1050
C600-700 FUSE
HM80-85 MAST
C600-700 FUSE
S185-S215 / S178-S208 /
S142-S192 STAB

Downwind

HORIZON
DW750-1400
C600-700 FUSE
HM80-85 MAST
S208 / S238 / S142 /
S192 STAB

Pump

VERT / SCOOP MINI
P1800-P2050
C600-700 FUSE
HM80 MAST
S215 / S238 /
S142 / S192 STAB

Tow

VERT / SCOOP / SWELL
HA550-750
SF530-830
C600-700 FUSE
CF85 EDITION
HM80 MAST
S178 / S208 / S185 STAB

Wake

VERT / SCOOP MINI /
SCOOP / SWELL
MA500-1500v2
SF530-1230
C600-650 FUSE
CF72 / HM80 MAST
S185 / S215 / S238 /
S270 STAB

LEARN TO FOIL BEHIND A BOAT

Start your foiling journey being towed behind a boat or jetski. We call this boat foiling.

Seek Air / Sense

- Foilboard size depends on rider kg and stability. For floating starts, first-timers will need about 10-20L more volume than their weight in kg.
- The Seek Air is a durable ding-resistant option ideal for boating.
- The Sense is a negative buoyancy board for water-starts, and is ideal for riders with a wakeboarding or kite background. We recommend using with footstraps to help you get started.

MA Series / SF Series

- Lighter riders choose a smaller front wing
- Heavier riders choose a larger front wing
- The large Prime construction MAv2s are a durable and cost-effective option

AF72 Edition

- The AF72 comes with an 72cm Mast, Board Adaptor, A700 Fuse and S270 Stab.
- For a higher performance lighter weight option choose a Carbon Edition, CF/HM Masts or Carbon Fuselage.

Tow Rope

- Premium Braided Floating Tow Rope with handle
- Large diameter rope with non-slip braided knots
- Safe, comfortable, lightweight EVA handle
- Adjustable length from 35’ (10.65m) to 20’ (6.1m)

PRONE SURF - SMALLER WAVES

Recommended setup for under head-high smaller waves

Vert / Swell

- Vert 4’2 (25L) Prone riders under 75kg
- Vert 4’5 (30L) Prone riders over 75kg
- Swell 4’4 (35L) Prone riders over 70kg
- Swell 4’6 (45L) Prone riders over 80kg

SF830-1230

- Slow stall speed
- Up on foil early
- Longer glide

Sonar Foil

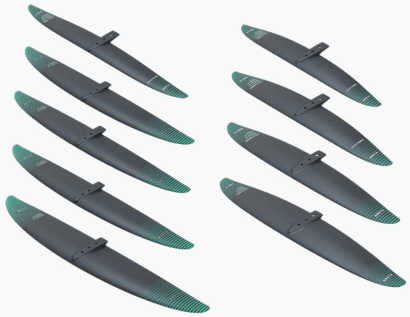
- 600-700cm Fuse
- S185-S215
- S238 / S192 Stabs
- HM80 / CF72 Mast

PRONE SURF - LARGER WAVES

Recommended setup for over head-high big slower mushy waves

Vert / Swell

- The Vert Prone Surf board is constructed in our lightweight yet durable Carbon Technology
- The Swell 4'4 / 4'6 is a Crossover Prone Surf / Wing Board for riders >80kg
- The Swell has footstrap inserts



SF530-1080 / MA500-850v2

- MA is faster for larger waves
- SF is more maneuverable at slower speeds

Sonar Foil

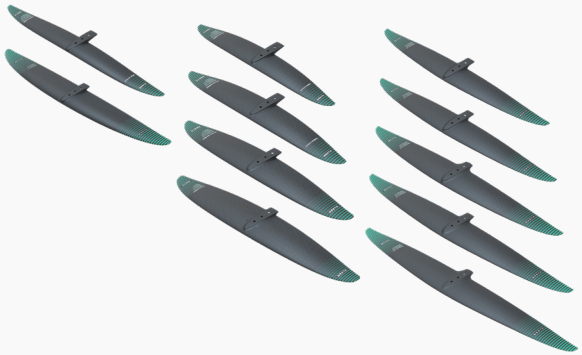
- 600-700cm Fuse
- S185-S215
- S178 / S208
- S142-S192 Stabs
- HM80-85 Mast

PRONE SURF

Recommended setup for over head-high big fast walling waves

Vert / Swell

- The Vert is a prone-specific board designed for efficient paddling into waves
- The Swell 4'4 / 4'6 has more volume for riders >80kg



SF530-680 / MA500-850v2 / HA650-1050

- HA is the fastest, but with less low end pump
- MA is medium speed with some low end pump
- SF is slowest with a lot of low end pump

Sonar Foil

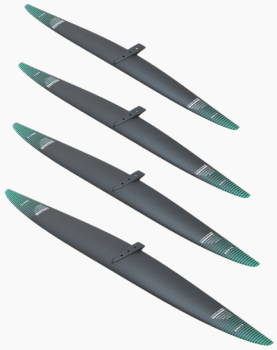
- C600-700cm Fuse
- S185 / S178 / S208 / S210
- S142 / S192 Stabs
- HM80-85 Mast

DOWNWIND

Recommended Setup

Horizon

- 6’10” / 95L Rider <70kg
- 7’5” / 105L Rider 70-75kg
- 7’10” / 115L Rider 75-85kg
- 8’4”/ 125L Rider >85kg



DW750-1400

- Smaller sizes for lighter riders / locations with strong wind and larger, fast-moving swell
- Pair with S192/S142 for maximum glide and increased turning responsiveness

Sonar Foil

- C600-700cm Fuse
- S142 / S192 / S208 / S238
- HM80-85 Mast

PUMP / DOCKSTART

Recommended Setup

Vert / Scoop Mini

- Vert will crossover from Surf to Pump, no strap inserts
- Scoop Mini will crossover to boat and kite, has strap inserts

PUMP SERIES

- Super-efficient
- Minimum effort to stay up on foil.
- P1800 suits riders <85kg
- P2050 suits riders >85kg or novice riders
- A shorter fuse = a faster cadence
- A longer fuse = more relaxed cadence

Sonar Foil

- C600-700cm Fuse
- S215 / S208 / S238
- S142 / S192 Stabs
- HM80 Mast

THE DOCKSTARTER

Inflatable Foilboard Launching Platform

We've engineered the inflatable Dockstarter to hold your board and foil in the ideal position for stationary starts, then quickly release it when you jump on. The Dockstarter provides a secure floating platform between the dock and foil, ready for take-off.

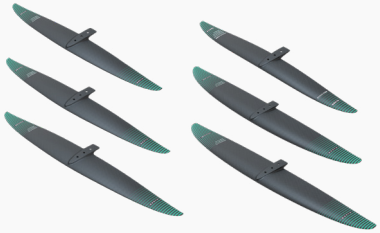
- Buoyant inflatable drop stitch technology
- Deflates for convenient transportation and storage
- Holds any foil with mast length >65cm
- Can be attached/secured to a dock or boat transom
- Inflatable board pump sold separately

TOW-IN SURF

Recommended Setup

Vert / Scoop / Swell

- Vert has the least amount of drag when touching down, designed to be ridden strapless.
- Scoop is ideal for riding with straps on bog waves.
- Swell is a crossover board into tow, has the most volume.



HA550-750 / SF530-830

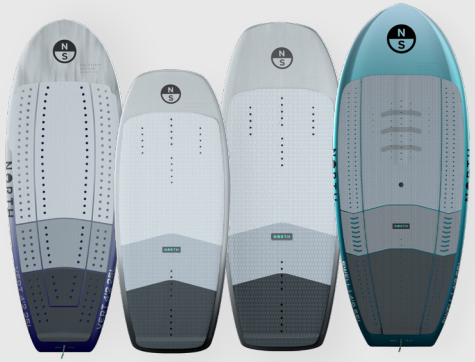
- The HA Series are faster and more suited to bigger, higher-speed surf
- The Surf Series are slower with more pumping capability

Sonar Foil

- C600-700 Fuse
- CF85 Edition
- HM80 Mast
- S178 / S208 / S185 Stab

WAKE SURF

Recommended Setup



Vert / Scoop Mini / Scoop / Swell

- All these boards work well behind the boat, depending on your style.

SF530-1230 / MA500-1500v2

- All the wings work, but the pump on the SF is the most efficient at low speeds and the MA's is most efficient at higher speeds.

Sonar Foil

- C600-650 Fuse
- CF72 / HM80 Mast
- S185 / S215
- S178 / S208
- S210 / S270 Stab

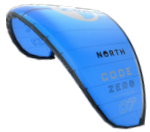
KITEFOIL LINEUP

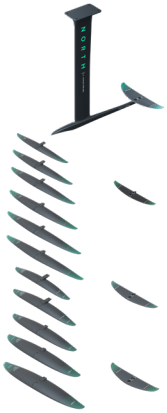
As you progress, upgrade to a smaller foil, lighter fuse, and lower volume board to suit your preferred foil style and feel.

Novice

CODE ZERO / REACH
SCOOP / SENSE
MA700-1200v2
AF85 / CF85 EDITION
HM85 MAST

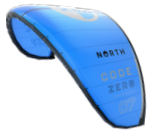
Intermediate

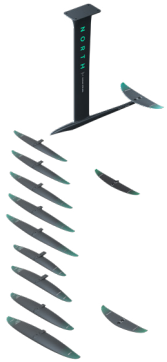




CODE ZERO
SCOOP / SCOOP MINI / SENSE
HA550-1050
MA500-1050v2
CF85-CF95 / HM85-95 MAST
C600-700 FUSE
S178 / S208 / S210 STAB

Advanced





CODE ZERO
SCOOP MINI
HA550-950
MA500-850v2
CF85-CF95 / HM85-95 MAST
C600 FUSE
S178 / S210 STAB

NOVICE

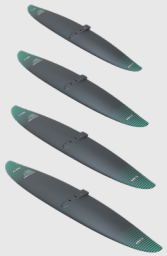
Recommended Setup

Code Zero / Reach

- Code Zero is the foil and light wind specific one strut kite
- Reach is your all round freeride kite, ideal for all disciplines

Scoop / Sense

- Scoop comes in two sizes - 135 offers a bigger platform
- Sense is a low volume board designed for easy waterstarts



MA700-1200v2

- MAs are our go-to learn to foil setup. The larger sizes are suited to lighter conditions.

Sonar Foil

- AF85 / CF85 Edition
- HM85 Mast

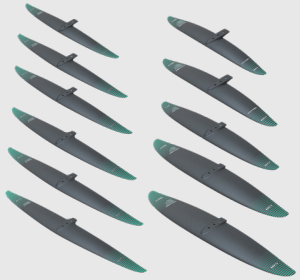
INTERMEDIATE

Recommended Setup

Code Zero / Reach

- Code Zero is the foil and light wind specific one strut kite
- Reach is your all round freeride kite, ideal for all disciplines

Scoop / Scoop Mini / Sense



HA550-1050 / MA500-1050v2

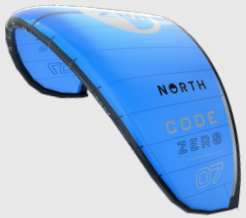
- As you progress, drop down in size for greater manoueverability and speed, or try the HA for high speed performance
- MA ideal for a range of speeds including a better bottom end compared to the HA

Sonar Foil

- CF85-95 / HM85-95 Mast
- C600-700 Fuse
- S178 / S208 / S210 Stab

ADVANCED

Recommended Setup

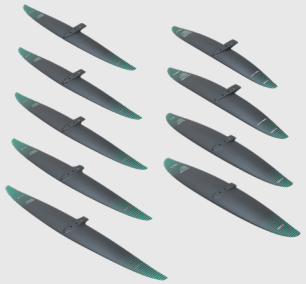


Code Zero

- Code Zero is one of the fastest turning kites in our range, ideal for advanced Freestyle Foiling tricks

Scoop Mini

- Our lightest strapped foilboard, capable of all freestyle maneuvers



HA550-950 / MA500-850v2

- Smaller foils have higher end speeds, but the trade off is that they have less bottom end

Sonar Foil

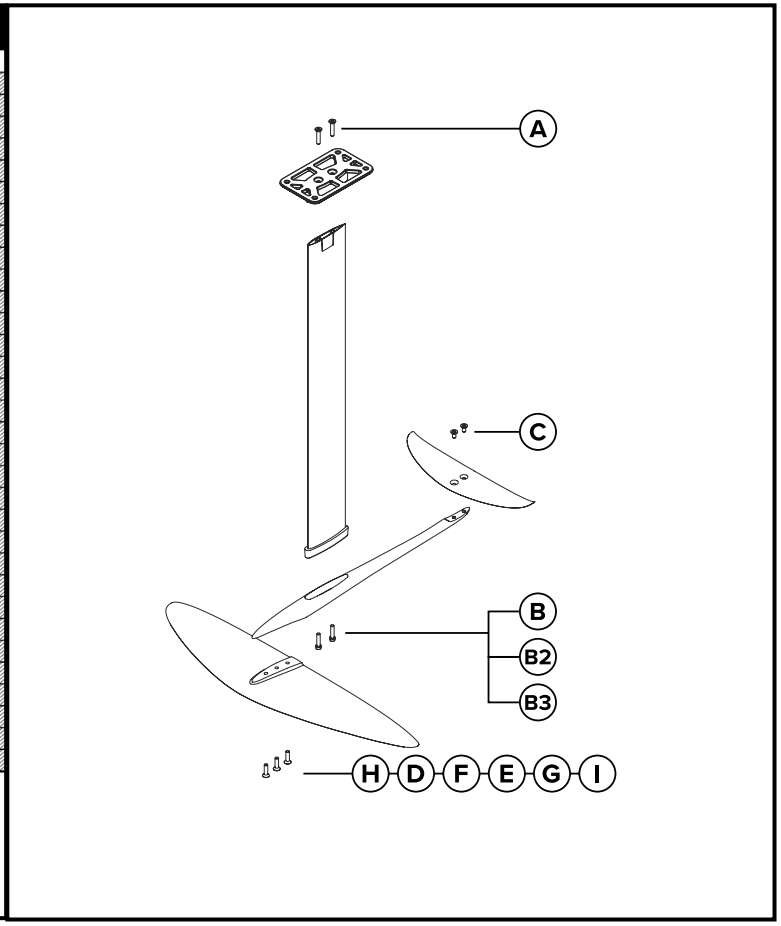
- CF85-95 / HM85-95 Mast
- C600 Fuse
- S178 / S210 Stab

FOIL ASSEMBLY GUIDE

PART	MODEL	16mm CSK x2 (C)	23mm CSK x3 (H)	25mm CSK x3 (D)	30mm CSK x3 (F)	33mm CSK x3 (E)	35mm CSK x3 (G)	40mm CSK x3 (I)	25mm CAP x2 (B3)	30mm CSK x2 (B2)	35mm CAP x2 (B)	40mm CSK x2 (A)
BOARD ADAPTOR	AK/AF											40mm
ALLOY / PRE 2024 FUSELAGE	CAP								HM		35mm*	
CARBON FUSELAGE	COUNTERSINK									30mm		
STABILIZERS	ALL	16mm										
FRONT WING MAv2 SERIES	700		23mm									
	850			25mm								
	1050			25mm								
	1200				30mm							
	1500					33mm						
	1850						35mm					
	2100						35mm					
	2400							40mm				
FRONT WING SF SERIES	580		23mm									
	680		23mm									
	830			25mm								
	930			25mm								
	1080				30mm							
	1230				30mm							
FRONT WING HA SERIES	550		23mm									
	650		23mm									
	750		23mm									
	850			25mm								
	950			25mm								
	1050			25mm								
	1150			25mm								
	1250				30mm							
	1450				30mm							
FRONT WING PUMP SERIES	1800					33mm						
	2050					33mm						
FRONT WING DW SERIES	750		23mm									
	900			25mm								
	1100			25mm								
	1400				30mm							

*IF USING AN ALUMINIUM OR PRE-2024 CARBON FUSELAGE (CAP SCREW INSERT) WITH AN HM MAST, USE M8X25MM CAP SCREWS SUPPLIED WITH YOUR HM MAST.

It is important to assemble your Sonar Foil and Foilboard properly. Assembling the product correctly will ensure it performs well, is safe for users, and avoids unnecessary damage. Check your User Manual for correct method of assembly.
WARNING: Do not use power tools for installation as this may cause damage (control of torque and power is limited). Doing so will render your warranty void.
WARNING: Over-tightening screws can cause irreversible damage to your Foil. Doing so will render your warranty void.
WARNING: As your foil will be exposed to a harsh marine environment, there is risk of corrosion even with the high-quality materials used.
IMPORTANT: We recommend always using supplied marine grease when assembling your foil system.
IMPORTANT: Over time all tools will rust in a saltwater environment. We recommend using protective grease or spray after washing with fresh water and drying to extend lifespan.

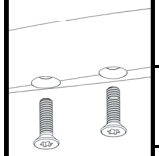
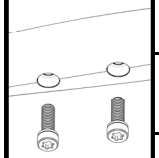


The Sonar Foil System uses M8 T40 Torx screws. From 2024 on, we supply all Sonar Foils with Titanium screws.

Known for its low density, high strength and corrosion resistance properties, titanium is up to 45% lighter than steel of comparable strength.

FOILBOARD ASSEMBLY GUIDE

The screw-lengths for attaching the Sonar Foil System to your Foilboard are board specific.

	CF / AF MAST	HM MAST		X4	 M8x30	 M8x25	 M8x23	 M8x23
SONAR CARBON FUSELAGE **C600** **C650** **C700**	**SCREW PACK B2** M8x30mm THCSK Countersunk Screws	**SCREW PACK B2** M8x30mm THCSK Countersunk Screws	 Sonar Carbon Fuselage Countersunk Screws	**SEEK**	✓			
				SWELL	✓			
				SCOOP	✓			
				SCOOP MINI		✓		
SONAR ALUMINIUM FUSELAGE **A600** **A700** *OR* **SONAR CARBON FUSELAGE PRE-2024** **C600** **C700**	**SCREW PACK B** M8x35mm TH CS Cap Screws + Washers	**SCREW PACK B3** M8x25mm TH CS Cap Screws + Washers	 Sonar Aluminium & Pre-2024 Carbon Fuselage Cap Screws	**SEEK AIR**			✓	
				SENSE				✓
				VERT	✓			
				HORIZON	✓			

Check this table to determine which screws are required for your North Foilboard.

To use your Sonar Foil System on a board not made by North, we recommend that you check with the board supplier for the screw specification.

All North Foilboards use M8 screws and M8 standardised screws T-nuts (excluding Sense, no T-nuts required).

northfoils.com