



# AIRBORN FOILER

YOU WANNA SAIL FAST

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The architecture of the Airborn Foiler was developed to offer simple foiling equilibrium and consistent high-quality foiling performance both upwind and reaching between 8 kts and 20 kts of true wind speed. The Airborn takes off in 6 kts of wind, and sustained flight is possible in 5 kts of wind.

It is therefore ideal for all sailing locations including light air locations thanks to the high aspect ratio carbon foils and the sail plan that's defined accurately for each crew weight.

The speed tables provided in the next pages indicate the precise performance offered for the four categories of crew weight, with a peak speed of 33 kts.

A rating system is available to combine all sailors in larger fleets, and for different generations of sailors to race against one another on an equal footing.

The Airborn Foiler is a one-design class, with specific weight and geometric controls during construction ensuring equal and competitive racing, and coastal races capable.

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The performance estimates and rating factors provided are based on ideal conditions, including flat water, optimal boat trim, and experienced crew handling. Actual boat speeds and performance may vary due to factors such as wind variability, sea state, crew weight and skill, sail condition, and local weather conditions. These estimates are intended for comparative and planning purposes only and do not guarantee specific results in real-world racing or sailing conditions.

## **THE AIRBORN FOILER PERFORMANCE IN 5 KEY POINTS:**

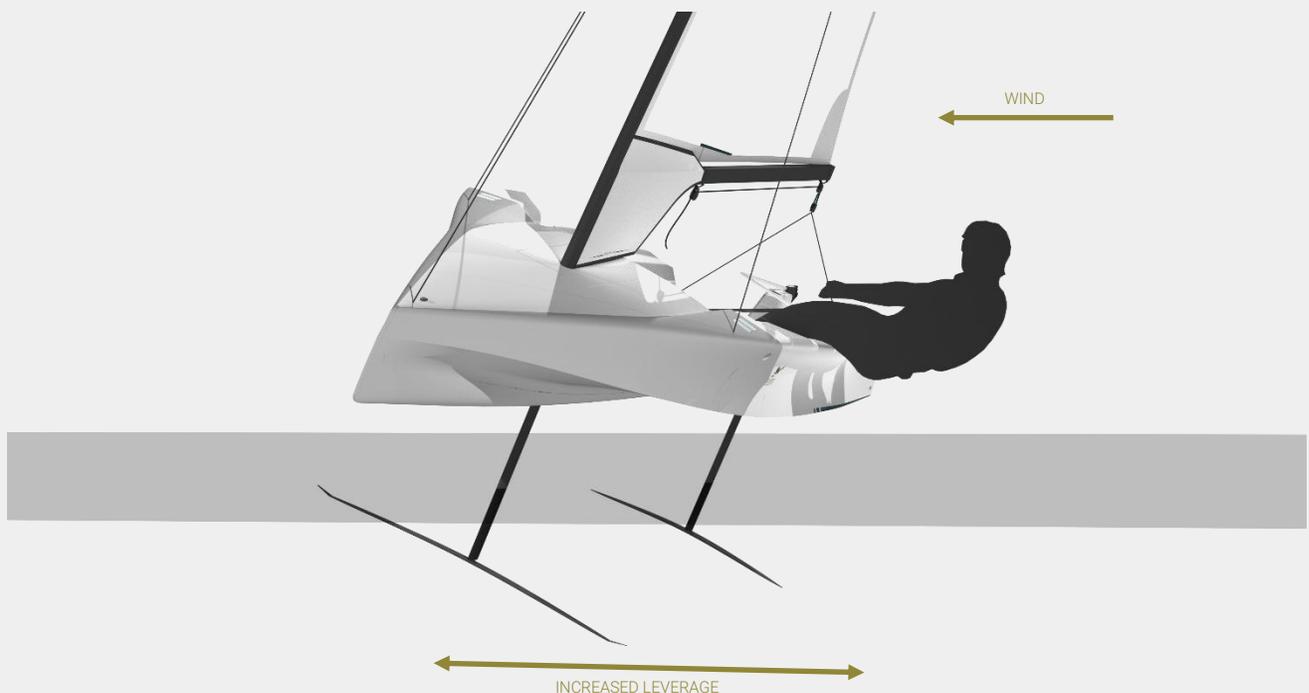
- **CONSISTENT HIGH-QUALITY FOILING PERFORMANCE FROM 8 TO 20 KTS OF WIND**
- **SPEEDS IN EXCESS OF 30 KTS**
- **FOUR SAIL AREAS FOR CREW BETWEEN 40KG AND 95KG**
- **ONE DESIGN CONSTRUCTION**
- **COASTAL RACES CAPABLE**

## FOILING STABILITY

The boat is as stable as a typical single-handed dinghy during take off, making this maneuver easy and predictable.

When foiling, compared with a more standard dinghy, stability depends primarily on the foil's leverage and less on crew hiking thanks to windward heel.

The Airborn makes full use of this leverage allowing you to carry the sail area comfortably and maintain excellent balance while flying.



## WHICH SAIL AREA IS RIGHT FOR ME?

The choice of sail area depends on your weight, you can find the information in the table below.

<b>RECOMMENDED CREW WEIGHT AND SAIL AREA (METRIC UNITS) FOR OPTIMAL PERFORMANCE</b>				
<b>CREW WEIGHT</b>	40 – 52.5kg	52.5 - 65kg	65 - 80kg	80 - 95kg
<b>RECOMMENDED SAIL AREA</b>	5.90m <sup>2</sup>	6.80m <sup>2</sup>	7.80m <sup>2</sup>	8.50m <sup>2</sup>
<b>TYPICAL AGE</b>	14-16	16-18	16+	16+

<b>RECOMMENDED CREW WEIGHT AND SAIL AREA (IMPERIAL UNITS) FOR OPTIMAL PERFORMANCE</b>				
<b>CREW WEIGHT</b>	88 - 116lbs	116 - 143lbs	143 - 176lbs	176 - 209lbs
<b>RECOMMENDED SAIL AREA</b>	63.6ft <sup>2</sup>	73.2ft <sup>2</sup>	84 ft <sup>2</sup>	91.5ft <sup>2</sup>
<b>TYPICAL AGE</b>	14-16	16-18	16+	16+

Maximum crew weight all up: 120 kg.

**'If you are after the ultimate feeling of speed, close racing, or to share the experience with friends or family, the Airborn Foiler is for you.'**



# PERFORMANCE DATA WITH 5.90M<sup>2</sup> SAIL

## FOR CREW WEIGHT BETWEEN 40KG AND 52.5KG

Maximum speed at 20 kts: 25.85kts

Takes off in 6kts TWS at 75deg of TWA

### MAXIMUM BOAT SPEED TABLE VS TRUE WIND ANGLE AND TRUE WIND SPEED

	TWA	TWS									
		6	8	10	12	14	16	18	20	23	26
<b>UPWIND SPEEDS</b>	40	-	-	-	6.98	7.52	7.73	7.75	7.48	6.54	-
	42.5	-	-	7.61	8.31	8.69	8.90	8.93	8.78	8.34	-
	45	-	7.52	8.61	9.21	9.60	9.85	9.87	9.79	9.48	-
	47.5	-	8.46	9.38	9.98	10.41	10.64	10.71	10.68	10.46	-
	50	-	9.16	10.05	10.68	11.14	11.37	11.48	11.50	11.36	-
<b>DOWNWIND SPEEDS</b>	75	12.08	13.61	14.76	15.71	16.50	17.17	17.72	18.18	-	-
	100	14.11	15.93	17.50	18.88	20.12	21.24	22.25	23.16	-	-
	125	12.05	15.62	18.29	20.01	21.60	23.10	24.51	25.85	-	29.48
	150	-	8.12	9.51	12.78	15.15	17.31	19.37	21.36	24.27	27.11
	175	-	-	-	-	-	-	-	-	-	-

#### RACING ZONE

TWS = True Wind Speed in Kts, provided from 6 to 24 degrees

TWA = True Wind Angle in Degrees, provided from 40 to 175 degrees

Maximum boat speed for each condition is provided in kts, for a middle crew weight, on flat waters with perfect trim.

# PERFORMANCE DATA WITH 6.80M<sup>2</sup> SAIL

## CREW WEIGHT BETWEEN 52.5KG AND 65KG

Maximum speed at 20 kts: 27.50kts

Earliest take off in 6kts TWS at 75deg of TWA

### MAXIMUM BOAT SPEED TABLE VS TRUE WIND ANGLE AND TRUE WIND SPEED

	TWA	TWS									
		6	8	10	12	14	16	18	20	23	26
UPWIND SPEEDS	40	-	-	-	8.13	8.61	8.85	8.94	8.91	8.51	-
	42.5	-	-	8.56	9.26	9.69	9.95	10.09	10.10	9.81	-
	45	-	8.44	9.50	10.16	10.60	10.90	11.09	11.08	10.89	-
	47.5	-	9.31	10.27	10.94	11.42	11.76	11.94	11.98	11.86	-
	50	-	10.01	10.96	11.66	12.18	12.56	12.74	12.81	-	-
DOWNWIND SPEEDS	75	13.02	14.64	15.94	16.97	17.83	18.56	19.18	19.69	-	-
	100	15.14	17.12	18.78	20.25	21.57	22.75	23.83	24.80	26.11	-
	125	13.53	17.18	19.56	21.37	23.05	24.62	26.10	27.50	29.47	31.30
	150	-	9.31	10.61	14.40	16.86	19.13	21.31	23.42	26.51	29.51
	175	-	-	-	-	-	-	-	-	-	-

#### RACING ZONE

TWS = True Wind Speed in Kts, provided from 6 to 24 degrees

TWA = True Wind Angle in Degrees, provided from 40 to 175 degrees

Maximum boat speed for each condition is provided in kts, for a middle crew weight, on flat waters with perfect trim.

# PERFORMANCE DATA WITH 7.80M<sup>2</sup> SAIL

## FOR CREW WEIGHT BETWEEN 65KG AND 80KG

Maximum speed at 20 kts: 29.05kts

Earliest take off in 7kts TWS at 85deg of TWA

### MAXIMUM BOAT SPEED TABLE VS TRUE WIND ANGLE AND TRUE WIND SPEED

	TWA	TWS									
		6	8	10	12	14	16	18	20	23	26
UPWIND SPEEDS	40	-	-	7.83	8.91	9.43	9.74	9.90	9.93	9.81	-
	42.5	-	-	9.28	10.03	10.53	10.85	11.05	11.14	11.05	-
	45	-	9.11	10.23	10.95	11.46	11.82	12.07	12.21	12.13	-
	47.5	-	9.99	11.03	11.76	12.31	12.71	13.01	13.14	13.12	-
	50	-	10.72	11.75	12.51	13.10	13.55	13.86	14.00	-	-
DOWNWIND SPEEDS	75	13.85	15.57	17.00	18.13	19.07	19.87	20.55	21.12	-	-
	100	16.07	18.21	19.97	21.52	22.92	24.17	25.32	26.36	27.75	-
	125	14.89	18.61	20.74	22.63	24.39	26.04	27.58	29.05	31.11	33.02
	150	-	11.28	12.58	15.89	18.49	20.90	23.19	25.41	28.63	31.73
	175	-	-	-	-	-	-	-	-	-	-

#### RACING ZONE

TWS = True Wind Speed in Kts, provided from 6 to 24 degrees

TWA = True Wind Angle in Degrees, provided from 40 to 175 degrees

Maximum boat speed for each condition is provided in kts, for a middle crew weight, on flat waters with perfect trim.

# PERFORMANCE DATA WITH 8.50M<sup>2</sup> SAIL

## FOR CREW WEIGHT BETWEEN 80KG AND 95KG

Maximum speed at 20 kts: 30.41kts

Earliest take off in 7kts TWS at 85deg of TWA

### MAXIMUM BOAT SPEED TABLE VS TRUE WIND ANGLE AND TRUE WIND SPEED

	TWA	TWS									
		6	8	10	12	14	16	18	20	23	26
<b>UPWIND SPEEDS</b>	40	-	-	8.24	9.47	10.09	10.46	10.69	10.79	10.77	-
	42.5	-	-	9.79	10.65	11.22	11.61	11.87	12.03	12.09	-
	45	-	9.56	10.80	11.61	12.19	12.62	12.92	13.13	13.22	-
	47.5	-	10.50	11.64	12.46	13.07	13.54	13.89	14.15	14.24	-
	50	-	11.27	12.39	13.24	13.89	14.41	14.81	15.06	-	-
<b>DOWNWIND SPEEDS</b>	75	14.54	16.35	17.87	19.14	20.16	21.03	21.78	22.42	-	-
	100	16.85	19.09	20.99	22.63	24.10	25.43	26.64	27.75	29.24	-
	125	15.75	19.52	21.73	23.71	25.55	27.26	28.88	30.41	32.55	34.55
	150	-	12.10	13.48	16.99	19.71	22.22	24.60	26.90	30.21	33.35
	175	-	-	-	-	-	-	-	-	-	-

#### RACING ZONE

TWS = True Wind Speed in Kts, provided from 6 to 24 degrees

TWA = True Wind Angle in Degrees, provided from 40 to 175 degrees

Maximum boat speed for each condition is provided in kts, for a middle crew weight, on flat waters with perfect trim.

## RATING SYSTEM

### MORE SAILORS, MORE FUN

The following ratings are provided to allow classes to race simultaneously. The time based correction ratings vary depending on wind speed and are calculated with the 7.8 m2 sail size as reference.

	<b>5.9 m2 Sai size</b>	<b>6.80 m2 Sail size</b>	<b>7.80 m2 Sail size</b>	<b>8.50 m2 Sail Size</b>
<b>8- 12 kts of established wind</b>	1.3	1.2	1	0.95
<b>10 - 14 kts of established wind</b>	1.25	1.16	1	0.95
<b>12 - 16 kts of established wind</b>	1.22	1.13	1	0.93
<b>14 - 18 kts of established wind</b>	1.22	1.12	1	0.93
<b>16 - 20 kts of established wind</b>	1.22	1.12	1	0.93