

Swift Racing Order Info

Racing Shells

Ver. 2.15



Moulds & Standard Rigging

* = "Wing rigger only"

1s

Mould #	121-*	109L-	122-*	109H-	123-*	127-*	124-*	125L-*	125H-
Boat type	1x	1x	1x	1x	1x	1x	1x	1x	1x
Crew weight - kg	50-65	55-65	60-75	65-75	70-85	75-85	75-90	85-100	95-110
Crew weight - lb	110-143	121-143	132-165	143-165	154-187	154-187	165-198	187-220	187-220
Length - cm	745	790	802	790	805	789	804	826	826
Waterline Beam -cm	25	25.1	25.8	25.8	25.8	26	26.5	28.3	28.3
Span - sweep	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Work height - sweep	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Lateral pitch - sweep	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Bow 1/2 span - scull	795	795	795	795	795	795	795	795	795
Stroke 1/2 span - scull	795	795	795	795	795	795	795	795	795
Bow Work height - scull	165	165	175	175	175	175	175	175	175
Str Work height - scull	155	155	165	165	165	165	165	165	165
Bow Lateral pitch - scull	0	0	0	0	0	0	0	0	0
Str Lateral pitch - scull	0	0	0	0	0	0	0	0	0

125H- is a modified version of 125L-. The whole boat is made 10mm deeper, the seat deck and rigger are 10mm higher, making it comfortable for crews up to 110kg. The "rowing space" is increased from 142cm to 150cm, so it is the best boat for rowers over 190cm tall, regardless of weight.

2s

Mould #	221-*	211L-	222-*	211H-	223-*	224-*	225-*	226-*
Boat type	2x/-	2x/-	2x/-	2x/-	2x/-	2x/-	2x/-	2x/-
Crew weight - kg	50-65	55-65	60-75	65-75	70-85	75-90	85-100	90-105
Crew weight - lb	110-143	121-143	132-165	143-165	154-187	165-198	187-220	198-231
Length - cm	926	940	943	940	958	970	978	995
Waterline Beam -cm	29.5	32.1	32.6	32.5	34.5	34.5	35	36
Span - sweep	850	850	850	850	850	850	850	850
Work height - sweep	150	160	170	170	170	170	170	170
Lateral pitch - sweep	0	0	0	0	0	0	0	0
Bow 1/2 span - scull	790	790	790	790	790	790	790	790
Stroke 1/2 span - scull	790	790	790	790	790	790	790	790
Bow Work height - scull	165	165	175	175	175	175	175	175
Str Work height - scull	155	155	165	165	165	165	165	165
Bow Lateral pitch - scull	0	0	0	0	0	0	0	0
Str Lateral pitch - scull	0	0	0	0	0	0	0	0

4s

Mould #	421A-*	422-*	423A-*	426-*	424-*	408-	425*-
Boat type	4x/-	4x/-	4x/-	4x/-	4x/-	4x/-	4x/-
Crew weight - kg	50-60	60-75	65-80	70-85	80-95	90-105	90-105
Crew weight - lb	110-132	132-165	143-176	154-187	176-209	198-231	198-231
Length - cm	1143	1175	1175	1185	1194	1260	1272
Waterline Beam -cm	39.6	42.5	42.7	41.5	43.5	45	45
Span - sweep	840	840	840	840	840	840	840
Work height - sweep	160	160	170	170	170	170	170
Lateral pitch - sweep	0	0	0	0	0	0	0
Bow 1/2 span - scull	785	785	785	785	785	785	785
Stroke 1/2 span - scull	785	785	785	785	785	785	785
Bow Work height - scull	165	175	175	175	175	175	175
Str Work height - scull	155	165	165	165	165	165	165
Bow Lateral pitch - scull	0	0	0	0	0	0	0
Str Lateral pitch - scull	0	0	0	0	0	0	0

Mould #	423A+*	426+*	424+*	408+	425+*
Boat type	4x/+	4x/+	4x/+	4x/+	4x/+
Crew weight - kg	50-65	55-70	65-80	75-90	75-90
Crew weight - lb	110-143	121-154	132-165	165-198	165-198
Length - cm	1175	1185	1194	1260	1272
Waterline Beam -cm	42.7	41.5	43.5	45	45
Span - sweep	840	840	840	840	840
Work height - sweep	160	160	170	170	170
Lateral pitch - sweep	0	0	0	0	0
Bow 1/2 span - scull	785	785	785	785	785
Stroke 1/2 span - scull	785	785	785	785	785
Bow Work height - scull	165	165	175	175	175
Str Work height - scull	155	155	165	165	165
Bow Lateral pitch - scull	0	0	0	0	0
Str Lateral pitch - scull	0	0	0	0	0

8s

Mould #	808+	821+*	822+*	823+*
Boat type	8+	8+	8+	8+
Crew weight - kg	50-65	65-80	75-90	85-100
Crew weight - lb	110-143	143-176	165-198	187-220
Length - cm	1600	1685	1700	1760
Waterline Beam -cm	47.3	48.2	53	51
Span - sweep	840	840	840	840
Work height - sweep	150	160	170	170
Lateral pitch - sweep	0	0	0	0
Bow 1/2 span - scull	785	785	785	785
Stroke 1/2 span - scull	785	785	785	785
Bow Work height - scull	155	175	175	175
Str Work height - scull	145	165	165	165
Bow Lateral pitch - scull	0	0	0	0
Str Lateral pitch - scull	0	0	0	0

808+ is only available as Club A, with Ali Back riggers, and will be around 96kg.

Other boats

Mould #	2421AL+*	2421AH+*	3421A-*	5408+	6821+*
Boat type	2+	2+	3x	5x	6+
Crew weight - kg	60-80	70-90	67-80	75-90	85-105
Crew weight - lb	132-176	154-198	147-176	156-183	187-231
Length - cm	1143	1143	1143	1260	1653
Waterline Beam -cm	39.6	39.6	39.6	45	48.2
Span - sweep	850	850	840	840	840
Work height - sweep	160	160	160	170	170
Lateral pitch - sweep	0	0	0	0	0
Bow 1/2 span - scull	790	790	785	785	785
Stroke 1/2 span - scull	790	790	785	785	785
Bow Work height - scull	165	175	165	175	175
Str Work height - scull	155	165	155	165	165
Bow Lateral pitch - scull	0	0	0	0	0
Str Lateral pitch - scull	0	0	0	0	0

2+: use 421A mould, wing rigger only, bow cox or stern cox.

3x: use 421A mould, wing rigger only.

5x: use 408+ mould, with a stern cox (only), heavier than a normal 408+. Choose only sculling as 5x/4x(+), or with sweep riggers too, as 5x/4x/+. Boat is supplied with extra riggers and detachable seat deck to convert from 4x(+) or 4x/+.

6+: use 821+ mould.

Notes for all boats :

For the boats with the quick release system, it adds 10mm extra height for the riggers. If you don't want the extra height, please order the boat with custom riggers.

Grades / Construction

All Swift Racing Shells share these features;

- "Sandwich" construction (ie. A core material such as honeycomb, coremat, or PVC foam is sandwiched between 2 "skins").
- Epoxy resin, cured at high temperature, under vacuum.
- Enclosed seat decks for maximum buoyancy (exceed FISA's requirement).

Carbon Pro

Overview

For when every second counts.

Hull & Saxboards

Honeycomb core with inner and outer skin of prepreg carbon, and prepreg carbon reinforcing.

Canvas Decks & Seat Deck

Honeycomb core with inner and outer skin of prepreg carbon.

Elite Carbon

Overview

For use in top level competition.

Hull & Saxboards

Honeycomb core with inner and outer skin of carbon, and carbon reinforcing.

Canvas decks

Honeycomb core with inner skin of prepreg carbon, outer skins of carbon.

Seat deck

Closed cell PVC foam core with carbon skins.

Elite Plus

Overview

For use in top level competition.

Hull

Honeycomb core with inner skin of mostly prepreg carbon for 2s, 4s and 8s, carbon for 1s, outer skin of prepreg K&C for 2s, 4s and 8s, carbon for 1s, and prepreg carbon reinforcing for 2s, 4s and 8s, carbon reinforcing for 1s.

Saxboards

Honeycomb core with inner skin of prepreg carbon, outer skin of prepreg K&C, and prepreg carbon reinforcing

Canvas decks

Honeycomb core with prepreg carbon skins.

Seat deck

Closed cell PVC foam core with inner and outer skin of prepreg carbon.

Club A

Overview

Mainly for training purposes, although with only a small weight disadvantage over Elite Plus boats, can still be highly competitive.

Hull

Coremat core with inner skin of carbon and outer skin of kevlar, and carbon reinforcing.

Saxboards

Honeycomb core for 2s, 4s and 8s, closed cell PVC foam for 1s, with carbon and kevlar skins, and carbon reinforcing.

Canvas decks

Honeycomb core with Prepreg FG skins.

Seat deck

Closed cell PVC foam core with inner skin of kevlar and outer skin of carbon.

Club B

Overview

Specifically built for training purposes. Quite heavy, but great "work horses" This construction is relatively easy to repair.

Hull

Coremat core with fibreglass skins.

Saxboards

Honeycomb core for 2s, 4s and 8s, closed cell foam for 1s, with fibreglass skins, and carbon reinforcing.

Canvas decks

Honeycomb core with Prepreg FG skins.

Seat deck

Closed cell PVC foam core with fibre glass skins.

Sections (extra cost, except 8s)

If you need a section in a 1x, 2x or 4 for ease of transport, choose this option in the order form.

1s - We can build a section at the forestay (extra 1kg).

2s - We can build a section between bow and stroke seats (extra 1kg).

4s - We can build a section in the stern, just behind the rudder (extra 1kg), or between seats #2 and #3 (extra 2kg).

8s - Choose section position between #4 and #5 , or #6 and #7.

Stretchers

Racing shells are supplied with lightweight carbon and PVC foam sandwich stretchers. There is a choice of shoes and flexfoot:

	PBR shoes	Active shoes	Swift shoes	Flexfoot
Carbon Pro	Standard	Standard	Standard	Standard
Elite carbon	Standard	Standard	Standard	Standard
Elite plus	Standard	Standard	Standard	Standard
Club A	Upgrade	Upgrade	Standard	Standard
Club B	Upgrade	Upgrade	Standard	Standard



Bont Rowing shoes
 Sizes 36-53 available, but they are smaller than normal, so order 1 or 2 sizes larger.



Active Tools adjustable shoes
 2 sizes available: 40-45 and 43-48



Swift Racing shoes
 Sizes 37-54 available



Flexfoot
 Heel restraints and solid heels for safety, rounded heels for a good fit. Approved by USRowing and British Rowing.

Active Tools adjustable shoes cannot be used on RS1x or RS2x/-.

Shoe sizes

For shoes, the order form needs to be completed with European shoe sizes. Please use this chart to help you.

Euro	GB	US	JPN
37	4 1/4	4 3/4	22.75
38	5	5 1/2	23.5
39	5 3/4	6 1/4	24.25
40	6 1/2	7	25
41	7 1/4	7 3/4	25.75
42	8	8 1/2	26.5
43	8 3/4	9 1/4	27.25
44	9 1/2	10	28
45	10 1/4	10 3/4	28.75

Euro	GB	US	JPN
46	11	11 1/2	29.5
47	11 3/4	12 1/4	30.25
48	12 1/2	13	31
49	13 1/4	13 3/4	31.75
50	14	14 1/2	32.5
51	14 3/4	15 1/4	33.25
52	15 1/2	16	34
53	16 1/4	16 3/4	34.75
54	17	17 1/2	35.5

Please note, PBR shoes are small, so we suggest to choose shoes that are 1 or 2 sizes larger than normal.

Stretcher fixing system

Choice of stretcher attachment (new 1x moulds only).



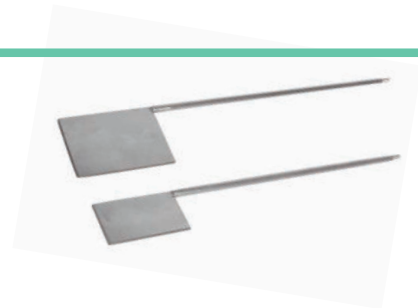
Sax mounted stretcher system
(Only for CPro moulds 121-125)



"Shark tooth" stretcher tracks system

Rudder Type

Rudders are stainless steel, and are available in standard (50x80mm plate) for straight course rowing, or large (80 x 100mm plate) for river rowing.



Colour Option

Standard: main colour is white, trim colour is black

Custom A: main is white, trim is a colour other than black - ask distributor about extra cost

Custom B: Main is NOT white, trim is EITHER black or other colour - ask distributor about extra cost

Custom C: all other combinations, such as white hull, red bow and stern canvas, yellow trim - ask distributor about extra cost



Please note: we use the word "trim" to explain the black parts on the boat (bow only).
All other parts (hull, bow canvas & stern canvas) we call "main".

RAL #	Name	Main colour	Trim colour	Sticker Colour	RAL #	Name	Main colour	Trim colour	Sticker Colour
RAL 9005	Black	No	Yes	White	RAL 7036	Medium grey	Yes	Yes	White
RAL 9003	White	Yes	Yes	Black	RAL 6012	Hunter green	No	Yes	White
RAL 8011	Dark brown	Yes	Yes	White	RAL 6001	Kelly green	Yes	Yes	White
RAL 8002	Medium brown	No	Yes	White	RAL 6017	Light green	Yes	Yes	White
RAL 4008	Purple	No	Yes	White	RAL 3020	Red	from 2018	from 2018	White
RAL 4006	Magenta	Yes	Yes	White	RAL 3001	Red	until 2018	until 2018	White
RAL 5010	Dark blue	Yes	Yes	White	RAL 2008	Orange	Yes	Yes	White
RAL 5015	Light blue	No	Yes	White	RAL 3015	Light pink	Yes	Yes	White
RAL 5012	Aqua blue	Yes	Yes	White	RAL 1016	Light yellow	Yes	Yes	Black
					RAL 1018	Yellow	Yes	Yes	Black

PLEASE NOTE that the colours shown here are only very approximate representations.
If the choice of colour is very important, then you should check the colour using the RAL numbers listed above.
From 2018 we started to use RAL3020 instead of RAL3001 "red".

Clear Carbon Option

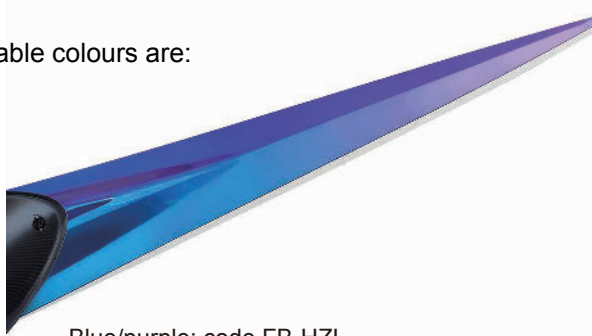
The standard colour for Elite Carbon boats is the same as previous page. However, as an additional option, the hull and canvas decks can be finished in clear UV resistant polyurethane paint, with white trim with white trim and white joint lines - ask distributor about extra cost.



Chameleon Paint

Show the world you mean business with the coolest paint job in rowing! There is now an option to use "chameleon" (iridescent) paint on the bow and stern canvas decks. Chameleon paint is a special paint that creates a visual effect of color change when viewed from different angles. This effect is achieved through the use of unique pigments that reflect light in a way that shifts the perceived color. The color shift can vary between 2 and 4 different colours, or even more, depending on the specific paint and the viewing angle.

The available colours are:



Blue/purple: code FB-HZL



Metallic white/soft pink/purple/gold: code FW-JHZ

Coloured Carbon Cockpit

Customise your boat with coloured carbon cloth in the cockpit, either blue & black, or for more impact, red & black - ask distributor about extra cost.



Coloured Carbon Cockpit & Bow & Stern Canvas Decks

Customise your boat with coloured carbon cloth on the bow & stern canvas decks as well as in the cockpit, either blue & black, or for more impact, red & black - ask distributor about extra cost.



Coloured Carbon Reverse Wing Rigger

Go fast AND look good with our carbon wing riggers in blue & black or red & black carbon.



Chevrons - ask distributor about extra cost

Chevrons need to be ordered on "add notes" page of the order form. All "trim" colours can be used. All chevrons are 80mm wide, and the angle is 45 degrees. Bow chevrons point to bow, stern chevrons point to stern. "Chevron1" is closest to the center of the boat.

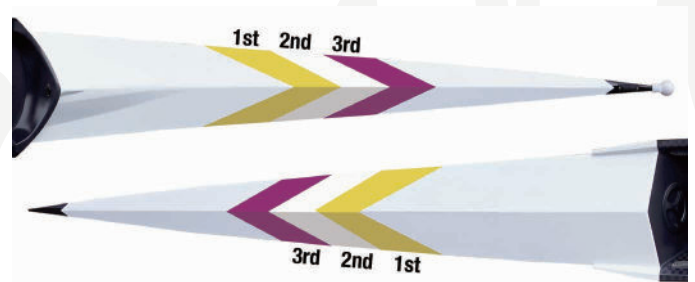
The photo shows 3 chevrons.
Chevron 1 is green, chevron 2 is white,
chevron 3 is purple.

Example of how to request chevrons:

I want 3 chevrons on bow and stern.

Bow: 1st: RAL1016, 2nd: RAL9003, 3rd: RAL4006.

Stern: 1st: RAL1016, 2nd: RAL9003, 3rd: RAL4006.



Name on Boat

50mm tall, arial font, in UPPER CASE & lower case. MUST be ordered at the same time as boat.
Ask Distributor about cost.

Electronics

Wiring and speaker only systems can be sent to all countries.

Complete systems only for countries without a Nielsen Kellerman dealer: <https://nksports.com/dealers>

See NK's website for more details of each product: <https://nksports.com/category-all-products>

Cox Box GPS

Option #5 includes the following:	Part #	Option #	for 4+	for 8+
Harness Module A Audio (No Rate)	0290	4&5	1	1
Harness Module M Speaker Extension	0292	4&5		2
Loudspeaker 2, Bulkhead	0207B	4&5	2	3
Wiring bung	/	4&5	10	20
Wiring fixing Buckle	/	4&5		
Option #12 & #11 includes all parts in option #5, plus the following:	Part #	Option #	for 4+	for 8+
CoxBox GPS	0110G	12	choose 1	choose 1
Cox Box Mini Audio Amplifier (comes with a black dial)	0102	11		
Microphone - R2 Connector	0200	11&12	1	1
CoxBox Standard Charger - US Plug	0202	11&12		
CoxBox GPS/Core Rim Bumper	0111	12	choose 1	choose 1
Cox Box Mini Bumper	0107	11		

Fix wiring bungs on all of 4+ and 8+ as standard part.

Speed Coach GPS & Speed Coach GPS HR

Option 9 includes the following:	Part #	Option #	all boats
SpeedCoach GPS Model 2 with Training Pack	0183T	9	1
SpeedCoach GPS Bumpers	0189	9	
SpeedCoach GPS & StrokeCoach with Surge Rate Strap Mount (no installation)	0286	9	
SpeedCoach GPS & StrokeCoach with Surge Rate T-bracket Dock	0283	9	
Option #10 includes all parts in option #9, plus the following:	Part #	Option #	all boats
SpeedCoach GPS Model 2 Heart Rate Belt (*Compatible w/ 0183T ONLY)	0127	10	1

Stroke Coach Surge

Option 6 only	Part #	Option #	all boats
StrokeCoach with Surge Rate (includes quick wrap dock)	0125	6	1
Stroke/SpeedCoach Bumpers (order minimum one per Coach unit)	0159	6	
SpeedCoach GPS & StrokeCoach with Surge Rate Strap Mount (no installation)	0286	6	
SpeedCoach GPS & StrokeCoach with Surge Rate T-bracket Dock	0283	6	optional

Seat Type

All boats are supplied with lightweight carbon seat tops (Sea33B-c).



A. Single action type with bearings, height adjustable (Sea33B-c).



B. Double action type (add extra 220g per seat)(SeaD7B)

Rigger Type

See following page for a full explanation of different rigger types:

<https://swiftracing.com/racing-shells-riggers/>

Notes about riggers

Our riggers are made from high grade aluminium, welded to the optimum design and hard anodised for a long lasting finish.

All are adjustable for span, work height and pitch.

We guarantee the accuracy of our span, work height and pitch, see website for details.

“Ali Back” riggers

A lightweight 2 stay design with a C bracket to hold the pin, very efficient at transferring power to boat speed. Side mounted.

Aluminium stern wing riggers

Scull and sweep riggers using aerofoil profiles, for use with backstays, mounted over the foot stretcher.

Aluminium stern wing riggers – heavy duty

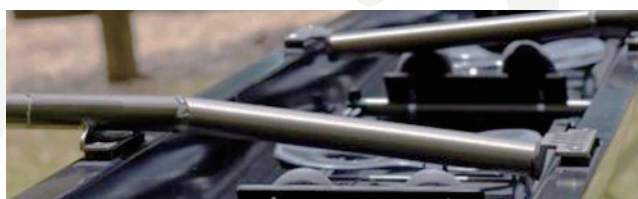
Scull riggers using a heavy duty aerofoil profile, for use without backstays, ideal for lower ability crews and recreational rowing, mounted over the foot stretcher.

Aluminium reverse wing riggers

Scull and sweep riggers using aerofoil profiles, with C bracket to hold the pin, mounted behind the rower.



For all 2s, the sweep rigger cross pipes are horizontal, to give space for shoes.



For all 4s and 8s, the sweep rigger cross pipes are sloping into the cockpit.

Carbon reverse wing riggers - ask distributor about extra cost

Scull and sweep riggers using aerofoil profiles, with C bracket to hold the pin, mounted behind the rower.

Carbon reverse wing riggers can only be used on new Racing Shell moulds (middle number is 2, such as 121-).

All measurements are in millimeters or degrees. $\pm 3\text{mm}$, ± 0.3 degrees is the margin of error we work to. Span and work height are calculated:

- From the boat's center line, when the pin is in the MIDDLE position of the rigger block
- When the oarlock is vertically in the MIDDLE position of the pin.
- When Ali Back riggers are fixed to the boat in the MIDDLE of the 2 possible positions.
- From the curve around the hole in the seat top to the sill of the oarlock.

All rigger types are adjustable for work height and span.

	Work height adjustment				Work height adjustment Total	Span adjustment per rigger
	by pin washers	by 10mm spacers	by rigger height	by height wedge		
Ali wing scull with backstay	$\pm 18\text{mm}$	+10mm			+28, -18mm	$\pm 40\text{mm}$
Ali wing scull heavy duty	$\pm 18\text{mm}$	+10mm			+28, -18mm	$\pm 40\text{mm}$
Ali wing sweep	$\pm 18\text{mm}$	+10mm			+28, -18mm	$\pm 20\text{mm}$
Ali reverse wing scull	$\pm 18\text{mm}$	+10mm			+28, -18mm	$\pm 38\text{mm}$
Ali reverse wing sweep	$\pm 12\text{mm}$	+10mm			+28, -18mm	$\pm 19\text{mm}$
Carbon reverse wing scull	$\pm 18\text{mm}$	+10mm			+28, -18mm	$\pm 38\text{mm}$
Carbon reverse wing sweep	$\pm 12\text{mm}$	+10mm			+22, -12mm	$\pm 19\text{mm}$
Ali back scull	$\pm 18\text{mm}$		$\pm 6\text{mm}$	$\pm 20\text{mm}$	$\pm 34\text{mm}$	$\pm 38\text{mm}$
Ali back sweep	$\pm 12\text{mm}$		$\pm 6\text{mm}$	$\pm 20\text{mm}$	$\pm 28\text{mm}$	$\pm 19\text{mm}$

Ali Back riggers have some work height adjustment by changing the height that rigger is attached to the boat.

Ali Back riggers have some work height adjustment using Swift's "Rigger height wedges", Prod# Rig11.

Wing riggers have +10mm extra work height adjustment with Swift's "10mm spacers", Prod# Rig33 (1 set supplied as standard).

The Ali Back, Ali Reverse Wing and Carbon Reverse Wing riggers are adjustable for lateral pitch.

For Ali Wing, the lateral pitch can be easily adjusted with our pin wedges, Rig10A (1 degree wedges supplied as standard).

Quick release (for ali wing riggers)

Our wing rigger quick release system is precision made, easy to use and reliable.



Quick Release (QR) parts are the same height as our standard 10mm spacer. Therefore when QR parts are used adjustability of work height is reduced by 10mm.

Wrapping

Clear plastic wrapping is available, but help us to reduce the negative impact of our sport by choosing not to have this on your boats.

Trestles



Steel trestles
(small for 1s & 2s, large for 4s & 8s)



Steel trestles
(simple for 1s & 2s)



Aluminium trestles
(small for 1s & 2s, large for 4s & 8s)

Boat Weight

- Carbon Pro with Carbon Reverse Wing Riggers are guaranteed at or below FISA minimum weight.
- Carbon Pro with Aluminium Reverse Wing Riggers are at or below FISA minimum weight, except 1x at 14.3kg maximum.
- Elite Carbon and Elite Plus are at or near FISA minimum weight.
- Club A is APPROXIMATELY heavier than Elite Plus by 2kgs (4.4lbs) for 1s, 2.5kgs (5.5lbs) for 2s, 4kgs (8.8lbs) for 4s, 8kgs (17.6lbs) for 8s.
- Club B is APPROXIMATELY heavier than Club A by 1.5kgs (3.3lbs) for 1s, 1.5kgs (3.3lbs) for 2s, 3kgs (6.6lbs) for 4s.

Fore more details contact your Distributor.

- For all sculling boats that are underweight, we provide enough steel weights to meet World Rowing minimum weights for sculling. We do not provide extra steel weights for sweep boats that are underweight.
- CPro or Elite Plus grade Pairs (2-) and Straight Fours (4-) will normally be less than World Rowing minimum weights. If customer want the boat to be built at the WR minimum, they need to mention this clearly in the Additional Notes page of the Order Form.