

## Swift Racing – Sculling oars guidance note

There are 3 lengths of Swift PARA scull oars:

	<b>A2 (Smoothie2)</b>
Long - Length	268-280
<i>Long PARA - Outboard</i>	193-208
Medium - Length	256-268
<i>Medium PARA - Outboard</i>	190-205
Short - Length	244-256
<i>Short PARA - Outboard</i>	181-196
Length adjustment	12

The sleeve is positioned so that they are only useful for PARA rowing, where very heaving gearing/loading is wanted, such as with internationally competitive PARA rowers.

**The following is our guide to choosing scull oars and deciding rigging for PARA rowers and will be suitable for most PARA rowers.**

Rowers with a very short range of movement, such as Arms & Shoulders rowers, should have narrow rigger spans, to help achieve a longer rowing stroke/arc. Range of movement is also determined by height, arm length and flexibility.

Most PARA rowers have little or no overlap (of handles).

The Outboard measurement, which is simply the total oar length minus inboard, when divided by inboard determines the level of gearing/loading (that is, how heavy the stroke is/feels).

For example, if span is 140cm, inboard will be around 70cm.

With oars that are 260cm long, outboard = 190cm, so gearing =  $190/70 = 2.7$

With oars that are 245cm long, outboard = 175cm, so gearing =  $175/70 = 2.5$

Stronger and more experienced rowers can have higher gearing and beginners and weaker rowers need lower gearing to maximize performance and reduce injury.

	<b>Span (cm)</b>	<b>Inboard</b>	<b>Length (cm)</b>	<b>Outboard (cm)</b>	<b>Gearing</b>
AS beginner	130-140	About ½ of span	230-250	160-185	2.3-2.7
AS	125-140	About ½ of span	240-270	170-200	2.5-3.2
TA beginner	140-155	About ½ of span	245-270	165-190	2.3-2.5
TA	135-155	About ½ of span	260-285	180-205	2.4-2.8
For comparison					
Sliding seat 1x	157-160	87-90	286-291	198-202	2.2-2.3

These figures are based on rowing the FISA design 1x and 2x, which with their wide shapes are significantly heavier to pull through the water than a fine racing shell.