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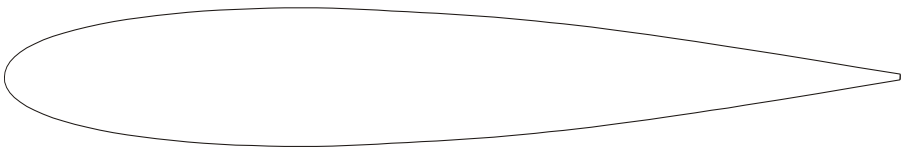
FOIL PREPERATION

Rudder blades and daggerboards really matter. Badly prepared foils will adversely affect a boats performance far more than the hull (although the very back of a boat has a pretty big effect).
In an ideal world they should be stiff, light and a perfect aerofoil shape with a nicely shaped elliptical front, an even curve that flattens out towards the back and finishes in a squared off trailing edge perhaps 2mm wide. Topper foils will never be ideal but then we have all got the same foil so it doesn't really matter too much.
You are allowed to 'repair' foils and you should spend a lot of time on them:

- Re-produce the shape of the bottom of both foils if they have been damaged. This may include the use of a blade acting as a scrapper, file and rough glasspaper followed by ever decreasing grades of wet and dry paper until it is very smooth.
- Check the front edges are chip free and as elliptical as they were first intended.
- Smooth out any damage on the sides by using abrasive paper wrapped around a long flat piece of wood – thick MDF is great. Finish with 1200 grade wet and dry with lots of soapy water to wash away the particles being removed.
- On no account round off the back edge. As produced it is already too rounded.
- Some sailors have found they need to repair the dips in the mouldings on the side. This would seem to be a good idea if yours is badly damaged.

This 'perfect' shape is impossible to achieve but at least you know what to aim for!



Of the two foils the rudder blade is more important. It is more likely to stall out because it is asked to work through bigger angles when the boat is being steered. A perfect shape diminishes stalling.

Dave Cockerill