

# Top tapering, step by step

**Seldén has invested in the most advanced manufacturing methods for tapering aluminium spars. Starting with the highest grade 6082 aluminium alloy extrusion, our automated four-step process ensures not only the best performing mast, but also an unparalleled level of consistency in every tube.**

## 1. Plasma-cut taper

Our investment in CNC controlled technology has allowed us to produce the most consistent tapered masts available. The plasma cutting process ensures a smooth edged perpendicular cut that is 100% accurate time after time, reducing the inconsistencies that are common with a manually prepared spar.

This process also provides us with the ultimate product development tool. The dimensions of the mast taper can be adjusted to suit high-end performance requirements simply by modifying the CNC program.

## 2. Automated welding

The automated welding process joins either side of the taper together in one continuous and controlled sweep. This helps eliminate weld variation and localised hotspots, keeping excess heat out of the taper. This provides greater consistency and performance from the mast taper.

The weld produced is so perfect there is no need to mechanically grind the weld, again reducing the possibility of creating inconsistencies in the mast section.



### 3. Heat treating and bead peening

All masts are heat treated in our purpose-designed oven. This hardening process ensures that you get maximum performance from the tapered section.

Our purpose-designed bead peening machine provides a uniform cleaning process and does away with hand cleaning or grinding, further guaranteeing consistency from mast to mast. This process also improves the fatigue-resisting properties of the mast, providing longevity and giving the Seldén spar its distinctive satin finish.

### 4. The finished, anodised product

Tapered, anodised, and ready to be assembled using Seldén's custom-designed fittings. Ready to win!

