



Technical Product Brief

In-Mast Battened Furling Mainsail

Overview:

The Neil Pryde Sails in-mast battened furling mainsail adds a more 'classic' look to the visual aesthetics of the mainsail while improving the aerodynamic efficiency and increasing the area of the mainsail. In working to develop this mainsail our goal was to provide improved performance without the loss of handling ease, which makes in-mast, furling systems so popular. Neil Pryde Sails had built this type of furling mainsail for many years, but generally for sailing dinghies. It wasn't until recently that consumer demand for better performance from today's cruising yachts spurred us to investigate, design and test these new and exciting mainsails for larger yachts

Details:

In-mast furling mains are generally about 18-20% smaller than the classic mainsails and the these new mainsails gain back 50% of this lost area. The performance gains due to increased area are obvious, but we also gain an improvement in upwind performance due to the increased leech area, which makes dramatic improvements to the foil efficiency. The result is better airflow and increased pointing ability over the conventional furling mainsail. These sails are designed fairly flat to ensure ease of mechanical furling and with a specific amount of clew "rise" also to help facilitate smooth furling. Each mainsail is equipped with 4 vertical battens that are inserted with an internal Velcro tensioning system. In addition an external U.V. clew cover to protect the exposed sail surface from sunlight when furled is standard.

All Neil Pryde Furling mainsails are equipped with a safety clew ring that can be used in the unlikely chance of clew block failure. Patch styles include reefing 'buffer' patches at head and tack that help to disperse sail loads when reefed.

Use:

In testing, this sail responds well to all normal trim inputs; traveler, mainsheet and foot tensions. Reefing is infinitely adjustable and the roach fully supported by all the battens when reefed to a deep 'first' reef. Furling is easy and controlled. The sail is fitted with a leechline and tells-tails at the upper battens. This system and sails were originally developed with [US Spars](#) and [Beneteau Yachts USA](#). The sails were exhaustively tested on their boats and mast sections with great success. With other sections careful analysis of the spar is required prior to building any new and custom sail.

