Tension Structures

Around the world, a large number of Aeronaut automated cutters are for cutting the specialised fabric for tension membranes, tents, marquees, lightweight and shade structures.

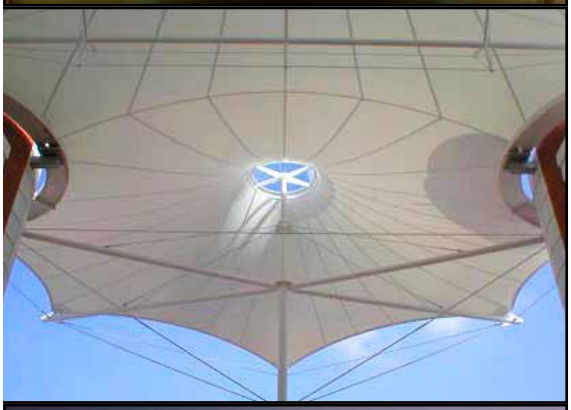
Because of Aeronaut's focus on industrial textiles, the vast majority of the cutters we make are wide span and all of them are heavy duty machines… designed for this type of work. A comprehensive range is available from simple and economical machines normally used with a rotary blade and a marker to highly versatile multi-tool cutters carrying rotary and drag blades as well as drill-punches.

Aeronaut makes machines in a vast range of sizes from 1.2 metres to 10.6 metres wide and up to 45 metres long. The cut widths of machines used in tension membrane work, typically from 2.5 to 4.5 metres, are at the limit for garment based cutters but are standard widths for Aeronaut. As a result, the performance and reliability of Aeronaut wide-span automated cutters is legendary.

Aeronaut cutters have been designed from the beginning to work with technical textiles. They are heavy duty machines and can put enough force down on a cutting blade or drill punch to handle the toughest fabrics. All machines feature 10 second quick-change tooling so you are not limited to the tools you use on each job, even on basic machines.

Aeronaut cutters offer several types of cutting technology, rotary blade, drag blade, reciprocating blade, laser and ultrasonic. The most common method of cutting roll fabric is to use a rotary blade knife. This blade cuts with a rolling action and makes fast, clean and precise cuts. All Aeronaut cutters can take blades in 18mm, 28mm and 45mm diameters.

Drill punches can be fitted to all machines and all are delivered with a marker pen holder able to take almost any marker from pressurised ball pens to paint and felt markers.



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Aeronaut Cutters are available in a range of models from the affordable single steered toolholder Elektron Mono, to the multi-tool Elektron Quattro and Elektron B2 plotters which are the most versatile in the business.

The unique quick-change tooling fitted to all Aeronaut cutters allows rapid blade changing and the use of a much wider range of tools than available with conventional machines. With powered tools such as reciprocating blade cutters and drills, thick materials can be cut with ease from foam to cardboard and carpet, extending the uses of the cutting system.

A key part of any automated cutting system is the software used to drive it. Aeronaut's Tangent program is the most powerful and easy to use nesting and machine control software on the market. Tangent has been designed from the start to work with industrial textiles, and reads all common CAD and fabric based file formats.

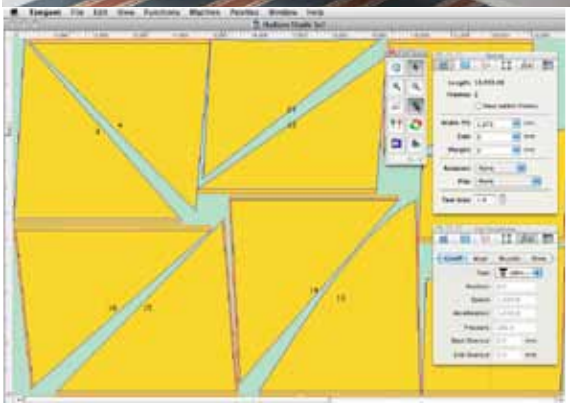
Nesting software allows you to pack your patterns into the smallest space, leaving nesting gaps between patterns and the material edge if required. Tangent has manual, semi-automatic and fully automatic nesting. You can see a read-out for fabric waste and the job length at all times so you get the best material use with the least waste.

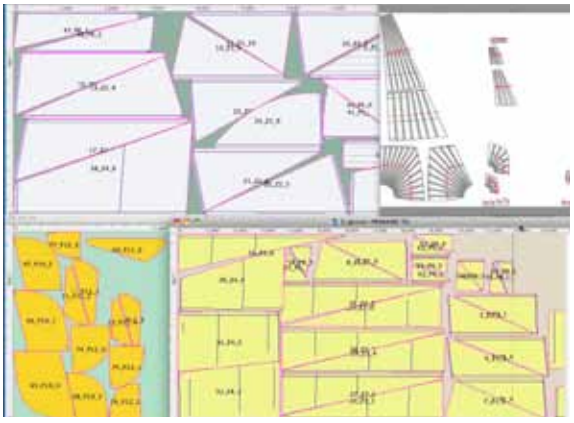
Using Tangent and an Aeronaut cutter with a pen or a laser pointer, you can digitise existing patterns into the computer. You can enter the bounds of scrap fabric on the vacuum table into Tangent, so small pieces of material can be fully used.

Tangent has a powerful set of tools to allow you to manipulate patterns. They can be duplicated, arrayed, split or rotated with just a few keystrokes. Simple shapes can be generated within Tangent without needing CAD skills.

Cut speed, acceleration and cut pressure are all software controlled. You can change tool speeds, cut order etc. using drag and drop with simple controls to let you test cut pieces before starting a complete run. And once your patterns are nested and saved, they can be opened with the complete job setup and re-plotted within minutes.

Automated cutting is the most accurate and profitable way to cut fabric structures and Aeronaut plotter-cutters are the most cost effective machines for cutting roll fabric, and a tool no modern factory can be without.





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