

# UltraLight Aircraft

Australia is one of the birthplaces of hang gliding, and one of the best places in the world for hang gliding, paragliding and lightweight aircraft of all types. And it is *the* best place in the world to buy an automated cutter!

Since many of the people at Aeronaut and our contractors who work for us in fields like composites, toolmaking and programming are pilots themselves, we take this industry seriously, and listen carefully to concerns of designers and manufacturers.

It does not matter whether you need a cutter for making prototypes or for use in production, the requirements are the same... accuracy, reliability, speed and repeatability.

An Aeronaut cutter can give you all this, with easy maintenance and a low purchase price too. And unlike many low-cost cutters, Aeronaut cutters have the accuracy required to make sure that one half-wing is the same shape as the other, so the glider flies straight first time.

Automated cutting is faster, more accurate and more economical than hand cutting. In fact one cutter can normally do the work of at least three people, but with zero mistakes and resulting benefits in product quality, reduced waste and improved profitability.

For work on paragliders and parachutes, it's hard to look beyond an Aeronaut laser because of their cutting speed, power, accuracy and remarkably low purchase price. Aeronaut's Elektron Laser Z cutters are available in output powers from 30 to 200 watts in air and water cooled versions and are being used on products from re-entry parachutes to yacht sails and paragliders.

These unique lightweight gantry-mounted lasers were developed specially for working with lightweight synthetic textiles from ripstop nylon to Cordura. The combination of light weight, excellent machine dynamics and cutting power is ideal for work with the fabrics and small pattern details used in these industries.

Aeronaut blade cutters have been designed from the beginning to work with industrial and recreational textiles. They are heavy duty machines capable of working 24 hours a day. Our cutters can put an enormous amount of force down on the cutting blade... far more than most garment industry based machines.



The Elektron Mono LC rotary blade cutter is a development of our legendary Maxis LC which has become the workhorse of sail makers. The Elektron Mono LC features Aeronaut's revolutionary quick change cam-lock tooling which gives operators the ability to use a very wide range of tool options from 18mm, 28mm, and 45mm rotary blade cutters to drag knives, drill punches and creasing tools, extending the uses of the cutting system beyond what's offered on conventional machines.

All Elektron cutters share a stiff, light gantry extrusion, high torque motors and extra-wide drive belts for high speed and acceleration with high reliability and low maintenance. Both machines are a natural choice for use with the wide range of materials found in lightweight aircraft work. You can cut light fabric for the wing structure as well as heavier materials for harnesses, airframes and accessories on the same machine.

**A key part of any automated cutting system is the software used to drive it. Aeronaut's Tangent program the most powerful and easy to use nesting 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.**

Tangent exports in a standard CAD format, so you can design and edit patterns, bouncing patterns to Tangent and back without losing information. Using line colour or layers, you can organise the cut sequence of patterns and control tool speed, acceleration and even cut pressure.

Tangent is perhaps the only low-cost cutter driver and nesting program to feature auto-nesting which you don't pay extra for. You can nest and plot entirely within frames, or nest the full length and plot and cut only the shapes which lie within a frame, or plot the whole queue using alignment marks between frames.

Using Tangent, a bull's eye laser pointer and the cutter's joystick, you can digitise patterns into the system... whether they are wing patterns, or harnesses. Using Aeronaut's Silhouette program, you can even use a digital camera to rapidly scan groups of patterns into the system.

We've worked very hard to develop an automated cutting system which is powerful, flexible and affordable, but one which does not limit your freedom to work with the software, materials and techniques you want. If you'd like to know more about Aeronaut products, please have a look at our web site, email or call the factory for a chat.

