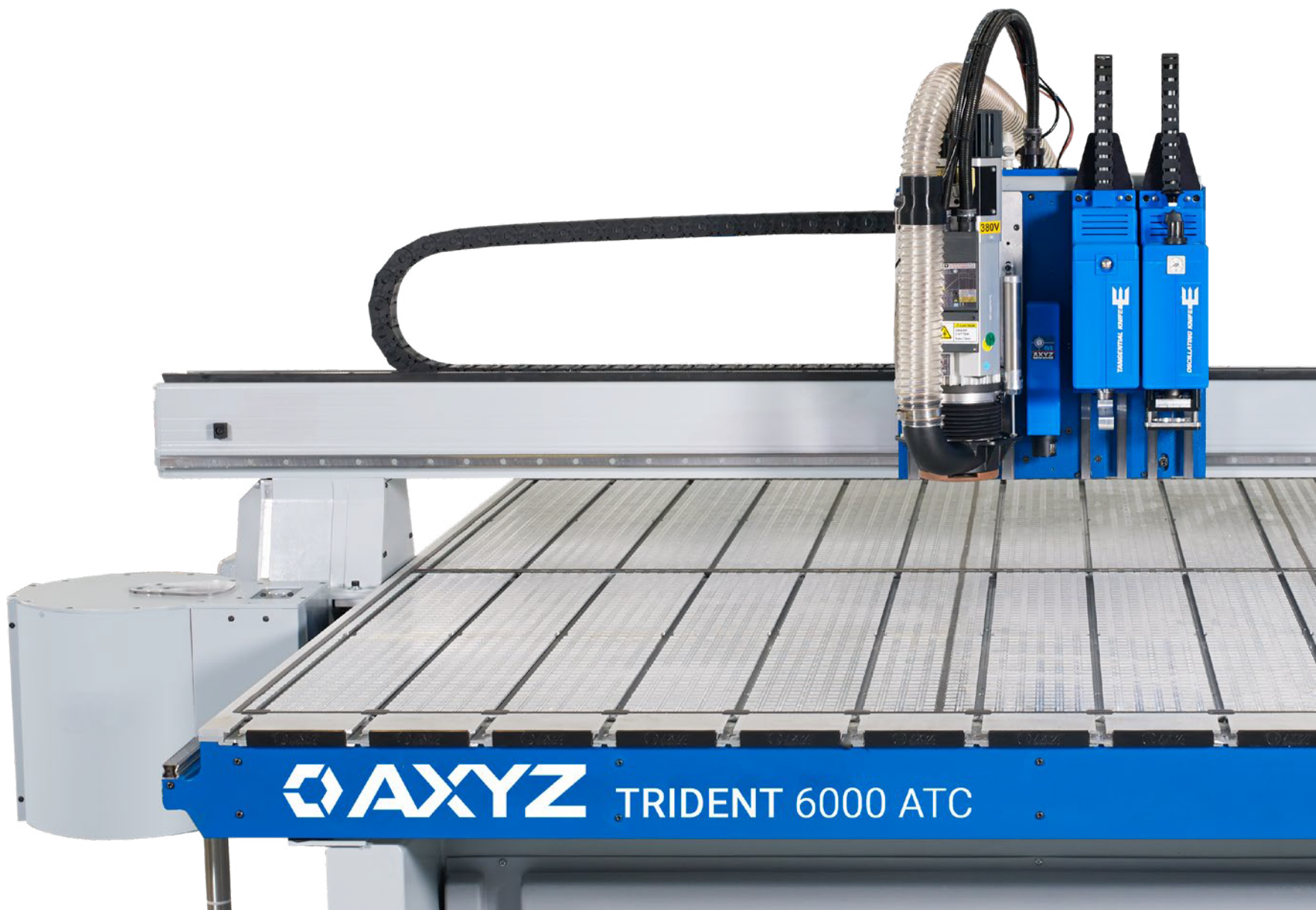


Trident Series



TRIDENT

Designed for digital print finishing, signs and graphics, point of sale and foam processing applications, Trident Series CNC routers provide a best-in-class production solution that offers flexibility, versatility and a powerful performance.

Fast

XYZ manufacturing lead times are among the shortest in the industry. Even custom machine systems can be engineered, manufactured and delivered to meet your exacting timescales.

Flexible

The standard XYZ Trident machine can be specified in many different configurations to meet almost any application requirement. Despite this flexibility there is no compromise on quality. Components are sourced from top manufacturers such as HSD and Elte (spindles), THK (bearings) and Teknic (servo motors and drives).

Direct

XYZ interacts directly with more than 90% of our customers. With sales and support offices in Canada, the United States, the UK, Poland and India, we are near you geographically, and only a phone call or email away electronically. So, if you're purchasing a machine, require service, need engineering support or need to buy parts, you'll be dealing directly with XYZ employees.

For More Information visit www.arrow-digital.com

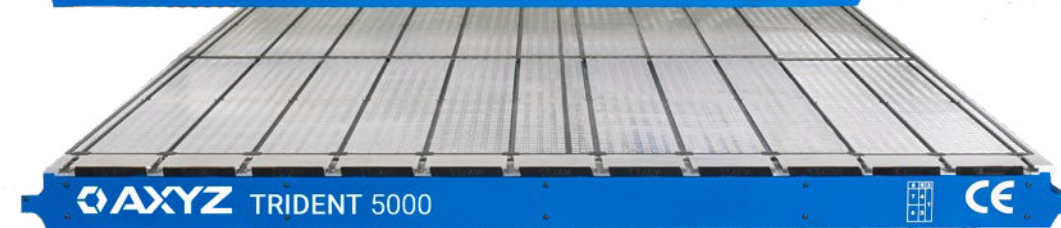
Process Areas

With the most configurable machine base in the industry, the Trident Series provides maximum flexibility of process area, with sizes ranging from 1524mm to 2159mm and the option of virtually any length required.

1524mm



1842mm



2159mm



Digital finishers are being asked to do more. From routing aluminium and acrylic to cutting and trimming paper, vinyl, foam board, coroplast, styrene and rubber, the Trident Series offers unparalleled flexibility, ease of use and precision.

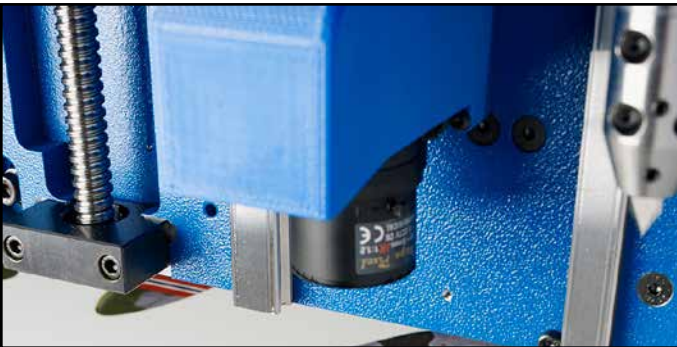


The Most Versatile Router-Knife Combination

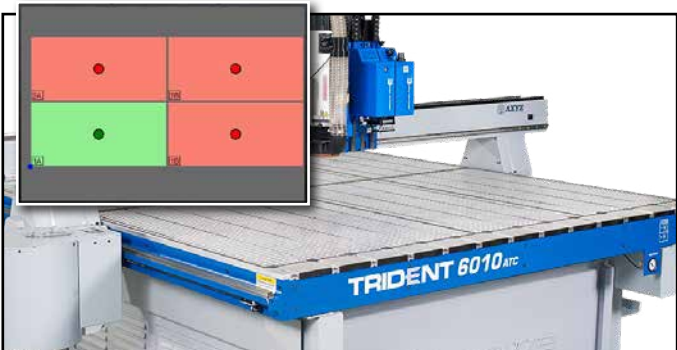
The Trident is designed to meet the traditional demands of the print finishing industry, whilst delivering overwhelming power to take on more demanding projects.



Processing a wide range of materials requires more than one cutting head. The Trident combines three different cutting technologies to provide maximum versatility by offering a choice of routing spindle and two knives which can be either tangential or oscillating, or a combination of both.



Additional options include an auto tool changer and the XYZ AVS camera registration system. The AVS system quickly finds and recognises conventional registration marks to adjust the cutting path, providing exact alignment and 100% accuracy.



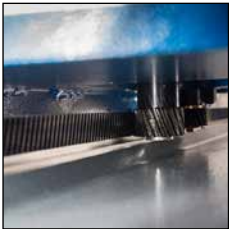
The industry exclusive Live Vacuum Bed technology is standard on every machine with automatic vacuum zone switching to ensure optimal holding power. Auto-zone management allows the router to operate in Live Bed mode, automatically activating and deactivating zones according to the live position of the cutting head.

Features



Router Spindle Options

Choose from manual, quick-release, high-power and high-speed spindles which can operate at speeds up to 40,000rpm.



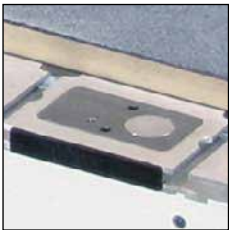
Helical Rack

The helical rack and pinion provides superior high-speed performance delivering greater accuracy, smoother cutting and quieter running.



Servo Motors

For high-volume applications where cycle times need to be kept to a minimum, the powerful servo drives can increase productivity.



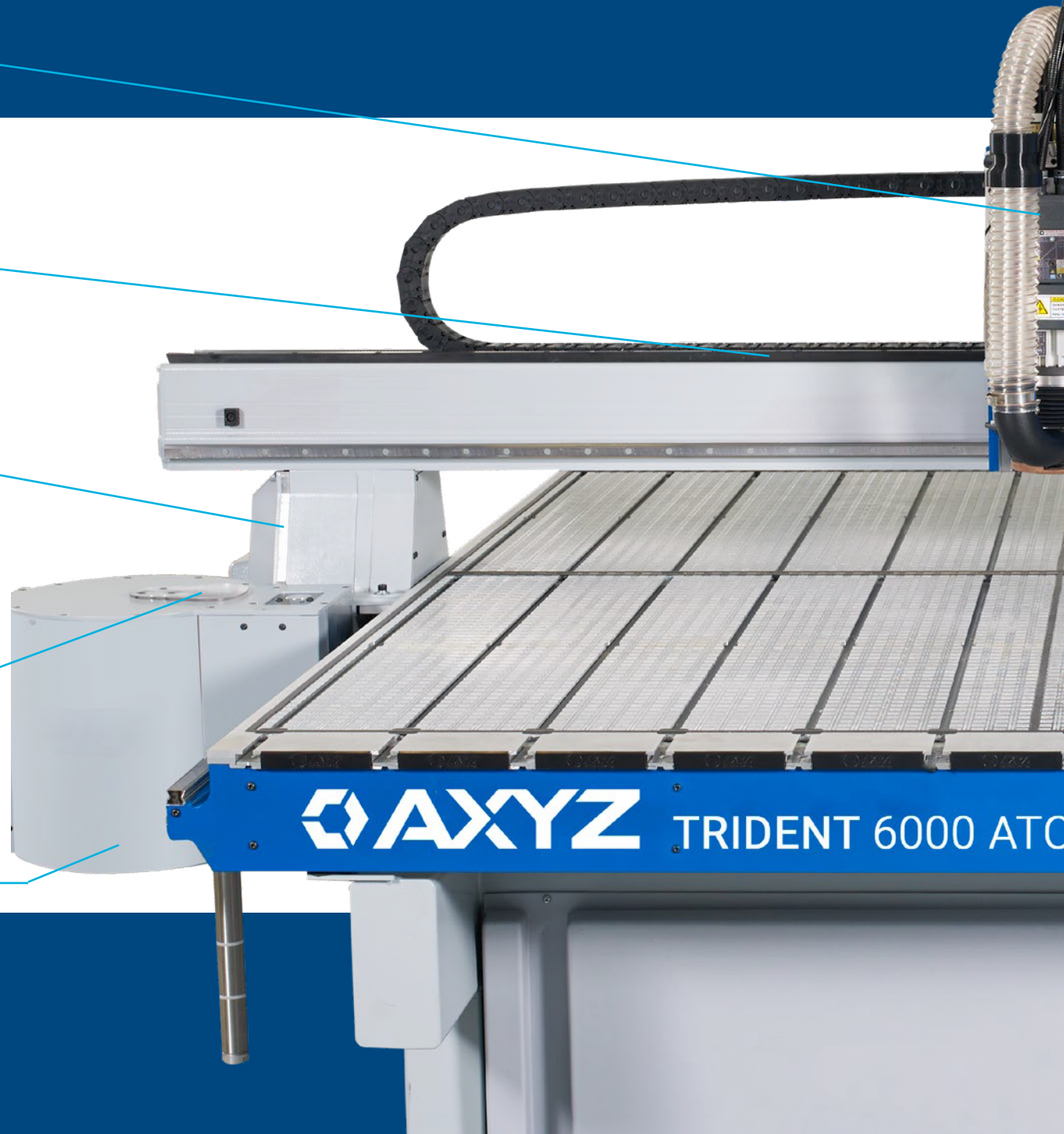
Tool-Length Sensor

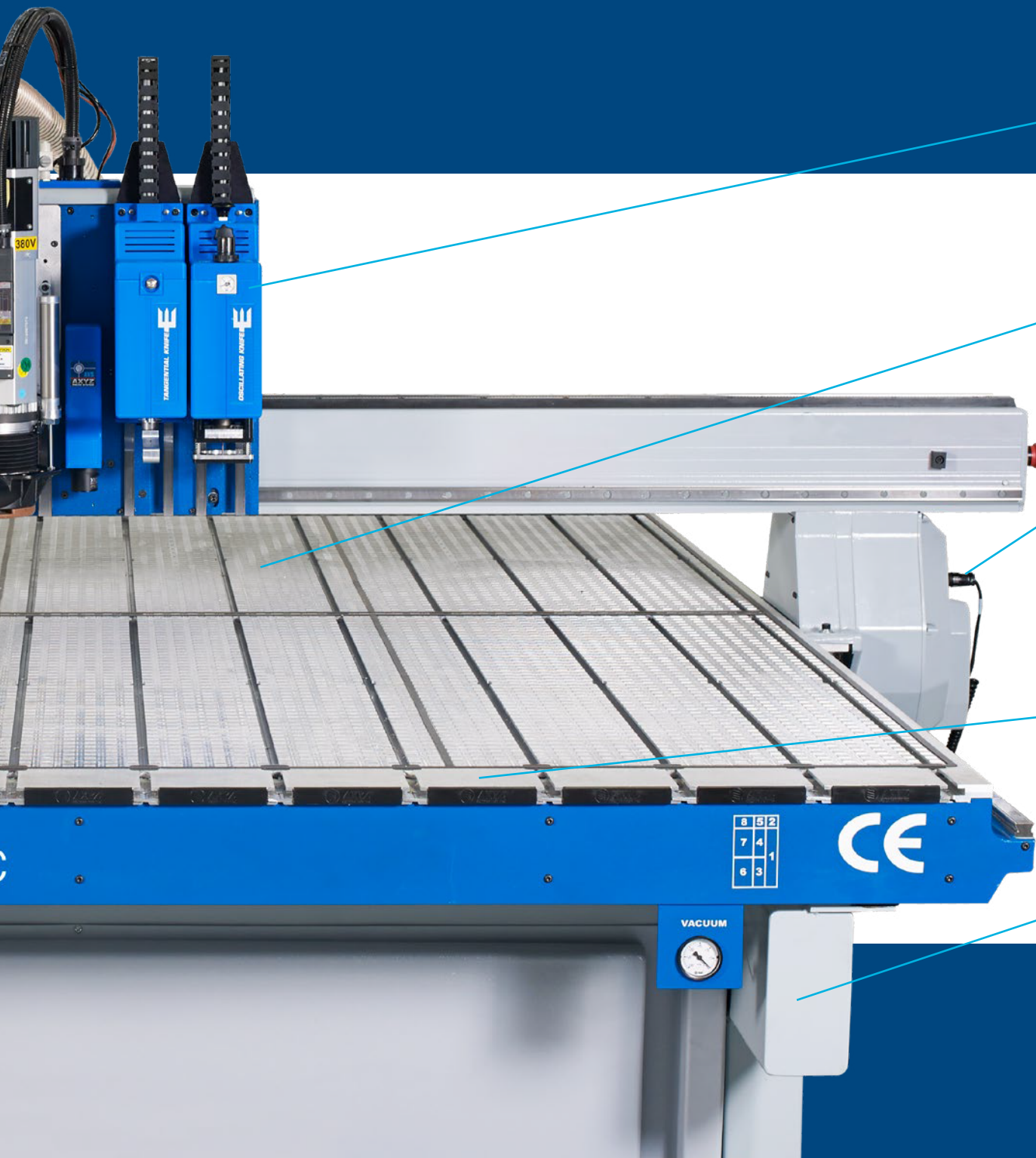
An automatic tool-length sensor which maintains accurate and consistent cut depths and is standard on all Trident machines.



Automatic Tool Changer

The industry's leading automatic tool-change system features a closed, protected design for safe and fast processing of complex jobs.





Knife Tools

The oscillating knife will easily slice material such as soft or hard foam, delivering clean-cut edges. The tangential knife can cut a range of harder, heavier materials.



Pumps and Blowers

Select from a range of high-power pumps or blowers to suit machine size and application requirements.



SmartConsole

Full machine control at your fingertips for fast and easy machine setup in an intuitive and compact package.



Zoned Vacuum Bed

All Trident machines have high-pressure aluminium zoned vacuum beds to maximise hold-down and reduce waste.



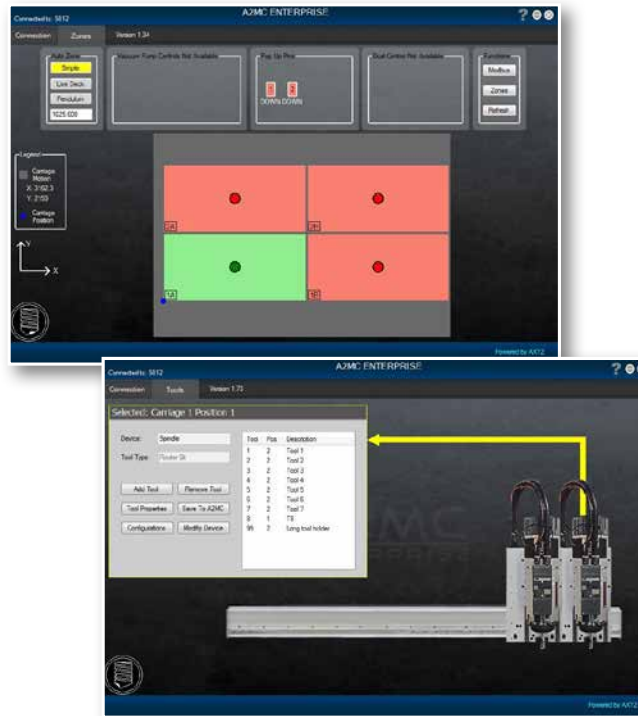
Solid Machine Base

A rigid, welded steel frame, fitted with an aluminium bed, creates a strong structure to support the most demanding processes.



A2MC Machine Controller

The A2MC is a next generation of machine control systems and is standard on all Trident Series machines. With high-capacity, solid-state storage, there is plenty of room for programs which run fast and smoothly on the dedicated motion processor. The A2MC connects the machine to your local area network for instant and error-free program download and also includes a full remote diagnostic capability for fast support, system updates and application training.



The AXYZ SmartConsole brings unprecedented ease of use, context sensitive menus, real-time display of machine status in addition to many more time-saving, functional and productivity features. It provides a graphical preview and current status of a running job and allows program feeds and speeds to be changed without pausing the program.

The A2MC Enterprise provides a powerful and easy-to-use graphical interface for setting up and monitoring the machine. Using a series of Windows-based apps it has been designed to achieve optimum performance with your CNC router.

The tool-length sensor is used to automatically measure the length of a tool and create an accurate tool-length offset. This time-saving feature ensures precise and consistent cutting depths with all tools.

System Options

The most popular optional enhancements to maximise your Trident CNC Router, improve accuracy, flexibility, productivity and quality.

Configuration Options



ATC - Automatic Tool Changer

Combined with an HSD quick-release spindle, and using an automatic carousel with 7 or 21 positions, the ATC system is the fastest method of changing tools on a regular basis.



Auto-Greasing Racks

By applying a consistent pre-measured amount of grease to the rack, the auto-greasing option keeps machine racks in optimum condition and mitigates system downtime due to failed pinions resulting from under-greasing.



High-Performance Option

The high-performance option enables faster cycle times and greater throughput with machine feed rates up to 50m/min.

Vacuum Hold-Down Options



Vacuum Hold-Down Pump

The dry vane vacuum pump is perfectly suited for vacuum hold-down on all Trident Series routers. It is a quiet and reliable source for vacuum hold-down.



Regenerative Blower for Vacuum Hold-Down

The regenerative blower option is a low-cost solution for vacuum hold down. Best used where cut parts are at least 1250 sq cm in size.



Precision Spoil Board

The MDF spoil board is mechanically fixed to the T slot bed and acts as a sacrificial diffuser. It can be skimmed to provide a stable and flat working surface and is easily replaced by the operator.

Cutting Options



Quick-Release Spindles

A 10 HP HSD quick-release spindles are incredibly quiet and robust. With a simple yet powerful pneumatic quick-release feature, they can be operated manually or with our ATC automatic tool changer.



Collet Spindles

The Elite line of collet spindles are precision balanced for fast, clean cutting and ultra-quiet operation. Available in 5 and 10 HP models, their excellent design provides years of trouble-free use.



Heavy-Duty Collet Drag Knife

Designed to cut a wide variety of flexible and semi-rigid materials, the heavy-duty drag knife can easily cut paper, cardboard, thin rubber (up to 10mm), corrugated paper and plastic.



Multi Purpose Tangential Knife

A robust knife intended for heavier, thicker and harder materials than other knives can accommodate. Full directional control of the blade allows straight edges, sharp corners and clean and accurate cutting of all radii.



Oscillating Knife

This essential tool is ideal for any company that processes thin flexible materials including foam core, gator foam, corrugated plastic or cardboard, delivering clean-cut edges without fraying.



Tangential Knife Cartridge for 45° Blades

Specially designed to hold knife blades at a 45° angle and can be used to create 'V' cuts in materials such as Xanita, Reboard and others.



Tangential Knife Cartridge for Box Cutter Blades

Holds straight, multi purpose blades suitable for cutting a wide variety of materials from thin polyester film to thick foam and cardboard.



Tangential Knife Cartridge for Saber Blade

A robust, multi purpose tool ideal for cutting hard materials such as laminates, Styrene, Sintra and similar materials up to approximately 1-2mm in thickness.



Tangential Knife Cartridge for Pizza Wheel

A choice of pizza wheel cartridges are available to accommodate 50 or 100mm in diameter rotary blades. Ideal for cutting tough or abrasive materials such as gasket, fibreglass foams and insulation.



Tangential Knife Cartridge for Creasing Wheels

Designed to fit a range of different sized and profiled creasing wheels for use in sample making applications.

Dust-Extraction Options



Vacuum Arm

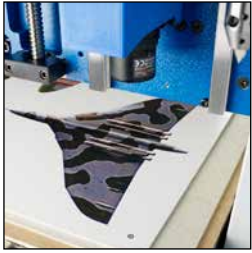
The vacuum hose steel support arm effectively and conveniently provides a third hand in supporting the dust-extraction vacuum hose. The swivelling vacuum arm allows for snag-free, full-process table operation.



HP Swarf Collector

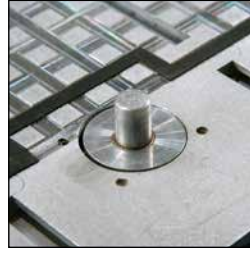
The HP Swarf Collector is an all steel enclosed system, designed for the collection of waste chips generated when cutting materials such as PVC, acrylic, aluminium composites, aluminium and more.

Registration Options



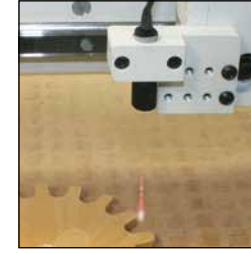
XYZ Vision System

The AVS is a simple, low-cost camera mounted on the head of the machine. When combined with the Trident router and knife system, it enables accurate cut-outs of digitally printed images.



Pop-Up Location Pins

Pop-up location pins are an innovative feature and are pneumatically activated to allow fast and repeatable placement of cutting materials onto the machine.



Laser Digitiser

The laser digitiser is a fast and accurate way of capturing the geometry of any two-dimensional part placed on the table. It can also convert existing templates and fixtures into automated cutting files where original drawings do not exist.

Additional Options



High-Capacity Pressure Foot

The high-capacity pressure foot integrates with any dust-extraction system for efficient debris removal, resulting in faster, safer processing.



Universal 5Y Pressure Foot

The 5Y pressure foot accepts 50mm or 100mm diameter hoses and integrates with any dust-extraction system. It allows contactless, highly efficient swarf extraction.



Vortex Cold Guns

A cost-effective option that utilises filtered, compressed air and a Venturi effect expansion chamber to produce cold air for spot cooling, improved edge finish and longer tool life.



Nose Rider Collar

The nose rider collar sets the protrusion of the cutting tool through the bottom of the foot and is ideal for accurate grooving or slotting applications in materials of inconsistent thickness.



Bellows Seal

The bellows seal significantly enhances the dust-extraction process by helping to create a cyclonic vortex within the pressure-foot chamber.



Blue Glide Donut

The blue glide donut is a unique and highly durable accessory designed for low friction. It reduces friction by up to 90%, allowing smoother and faster cutting whilst minimising the possibility of surface damage.



The Brush Donut

The brush donut avoids any marking of the material whilst at the same time providing an effective solution for the removal of dust and swarf.



Unist Mister

For cutting non-ferrous metals including aluminium, brass and copper, the Unist mister provides a continuous output of a micro-fine lubricant mist, providing improved cut finish and longer tool-bit life.



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