

PACER Series

AXYZ[™]
CNC ROUTERS AND KNIFE SYSTEMS



PACER

The Pacer Series of CNC routers are designed for applications requiring precision, reliability and high quality machining. Its robust construction and high standard specification are normally found only on much more expensive machines.

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 Pacer machine can be specified in thousands of 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 the latest news, information and specifications visit: www.axyz.com

Process Areas

The state-of-the-art Pacer Series CNC routers are available in a wide variety of standard and custom sizes.

With process widths from 60 to 103 inches wide by 20ft long and beyond, there is always a solution to suit your exact application requirements and budget.

60 Inches



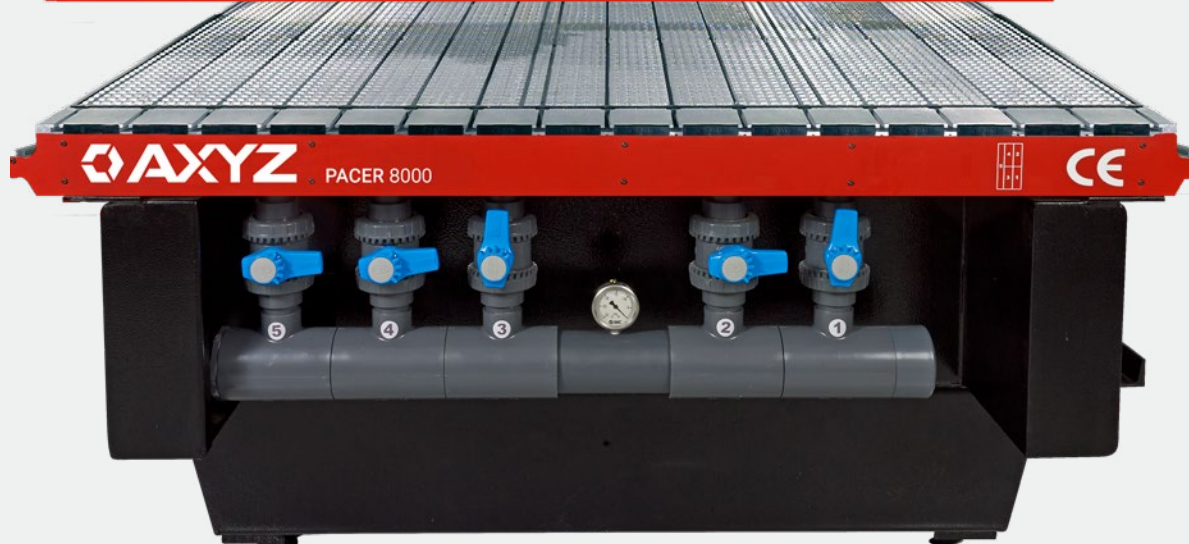
72 Inches



85 Inches



103 Inches

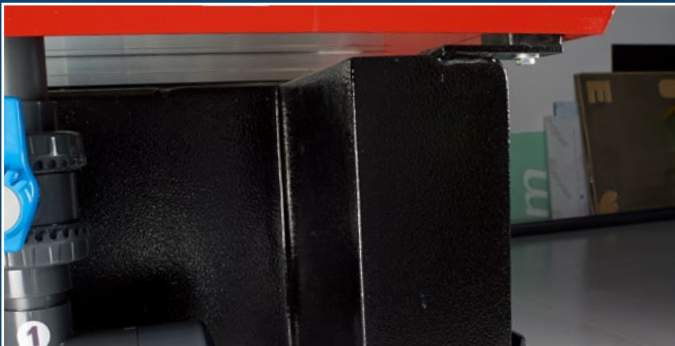


High-Quality, High-Accuracy, Heavy-Duty Routers

Built on a single-piece, heavy-duty steel frame, Pacer routers are designed to provide superior high-speed performance and ease of use while delivering precision, smooth cutting and quiet running.



The steel gantry runs on high-quality linear bearings and is driven on both sides by servo motors coupled through planetary gearboxes. This provides a strong transmission for quality high-speed machining and auto-squaring of the gantry for precise alignment at all times.



All Pacer series machines are built on a heavy duty steel base which is a single piece welded and stress relieved component. This provides the perfect platform for high speed, vibration free processing of even the toughest materials.



Pacer Series CNC routers achieve high-accuracy motion and cutting performance through their helical rack drive systems and high-tolerance components. They are ideal for aluminum fabrication, aerospace component manufacturing, plastic fabrication and many other demanding situations.

Cutting Edge Configurability



Choose a single, double or even triple-head carriage for multiple tasking operations that typically require only two or three tooling processes. Rout, profile, trim and drill in a seamless sequence. HSD router spindles feature a simple and powerful quick-release tool-change system. The manual tool-change Elte spindles provide a conventional collet and covernut alternative.



The versatility of the oscillating and tangential knife cutting units allow processing of an expansive range of materials with ease and precision. Combine a routing spindle with an automatic tool-change and add one or more knife tools for maximum flexibility to process a massive range of rigid and semi-rigid sheet materials.

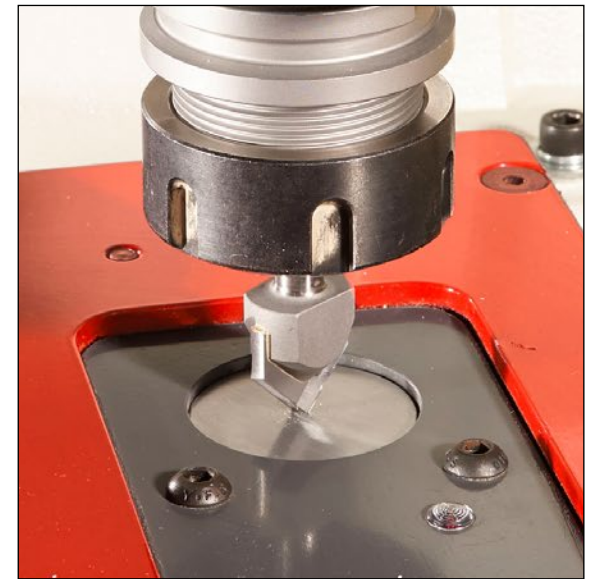
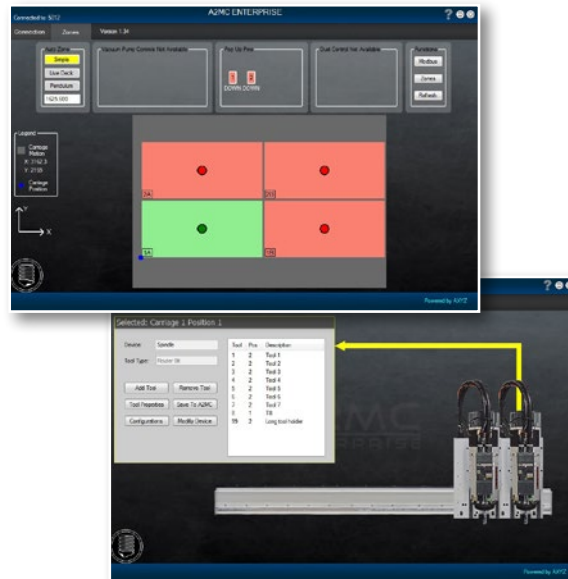


The twin-carriage option allows two parts to be cut simultaneously, effectively doubling production capacity and enabling faster job turnaround.



A2MC Machine Controller

The A2MC is a next generation of machine control systems and is standard on all Pacer 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.

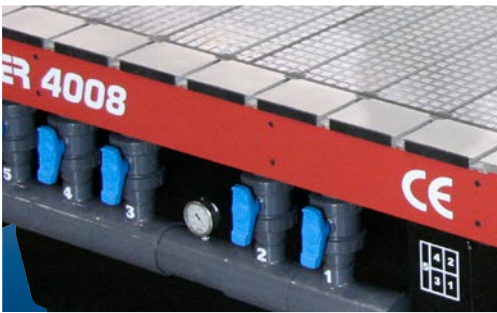
The A2MC Enterprise provides a powerful and easy-to-use graphical interface for setting up and monitoring the machine. Using a series of Windows-based apps, it has been designed to achieve optimum performance with your CNC router.

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 also ensures precise and consistent cutting depths with all tools.

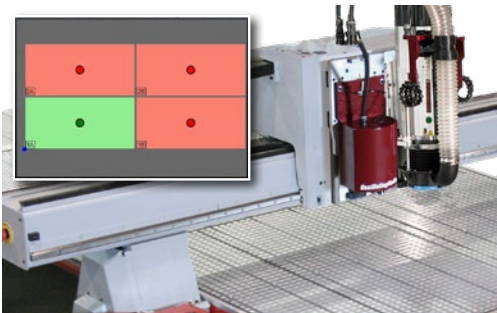
Hold Down Options



The innovative design of the aluminum vacuum deck allows zoned areas to be opened or closed as needed. This allows materials to be held as securely as possible for optimal cutting results.



The vacuum deck can be configured with either standard vacuum zones or they can be customized for specific requirements and part sizes.



Auto-zone management allows the router to operate in Live Deck mode which will automatically activate and deactivate zones according to the live position of the cutting head.

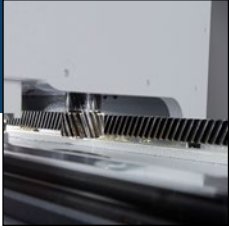
Holding the workpiece securely is an essential machining requirement. Pacer Series machines provide a choice of deck construction, zone configuration and control options.

Choose from a range of pumps and blowers to suit your applications.

Custom hold-down solutions are available for more challenging applications.



Features



Helical Rack

The standard 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.



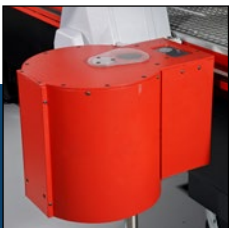
Tool-Length Sensor

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



Zone Controls

Vacuum zones can be activated manually or automatically by the machine controller.



Automatic Tool Changer

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



Knife Tools

Various knife tools are available to process a range of flexible and semi-rigid materials.



Router Spindle

Choose from manual, quick-release, high-power and high-speed spindles for optimum processing of rigid sheet materials.



Pumps and Blowers

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



Steel Gantry

For situations that benefit from the greater mass of a steel gantry, heavy duty steel gantries are standard.



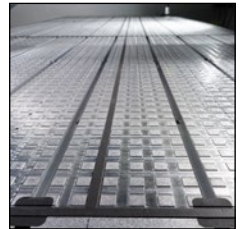
SmartConsole

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



Zoned Vacuum Deck

All Pacer machines have high-pressure aluminum zoned vacuum decks to maximize hold-down and reduce waste.



Heavy-Duty Base

All Pacer Series machines are built on a single-piece, stress-relieved, heavy-duty steel base providing extra rigidity and strength.



08 ATC



CE

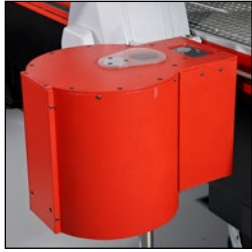
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System Options

The option set that has been developed over more than 25 years is the most diverse in the industry. Through ongoing research and development including input from our industry partners, vendors and customers, AXYZ offers a solution that is easily customized to suit individual requirements.





ATC - Automatic Tool Changer

Combined with an HSD quick release spindle, and using an automatic carousel with 7, 10, 14, 21 or 33 positions, the ATC system is the fastest method of changing tools on a regular basis.



Long-Stroke Carriage

Working in conjunction with the extended-height gantry, the long-stroke carriage allows machining of thin materials with short tools as well as the processing of thicker materials with long-reach tools.



Extended Gantry Height

For applications that need greater vertical clearance such as mold making or three-dimensional carving, extended gantry heights of 8", 10", and 12" are available.



Multiple Tools

For multiple tasking operations that typically require two or three tooling processes, choose a single, double or even triple-head carriage and rout, profile, trim and drill in a seamless sequence.



Auto-Greasing Racks

Designed to make machine greasing easier and more reliable, auto-greasing racks apply a consistent pre-measured amount of grease to ensure operator peace of mind and machine longevity.



High-Performance Option

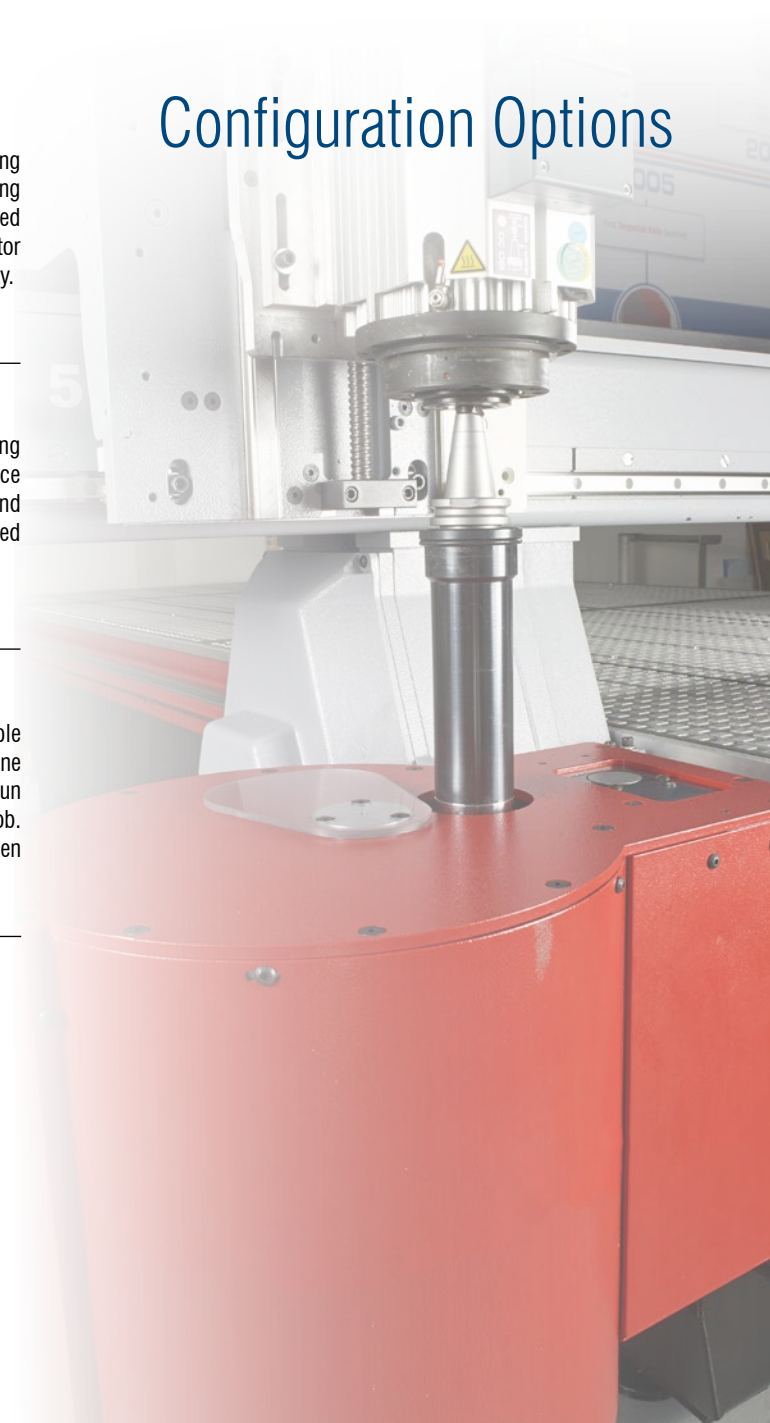
Combined with the auto-greasing racks option, the high-performance option enables faster cycle times and greater throughput with machine feed rates up to 2,000 ipm.



Multiple Carriages

To improve efficiency, multiple carriages can be mounted on one gantry to allow operators to run multiple versions of the same job. Each carriage is independently driven to maintain part accuracy.

Configuration Options



Cutting Options



HSD 40,000 RPM High Speed Spindle

The HSD spindle operates at 6.7HP when running at speeds of 40,000RPM delivering high speed processing, while continuing to deliver excellent edge finish. Ideal for general purpose cutting of woods, plastics and non-ferrous metals.



Kiss Cutting Knife

The Kiss Cutting Knife expands the functionality of XYZ CNC routers allowing them to cut a wider range of materials. The knife offers the same key flexibility as the Vinyl Knife Head but does not need its own Z axis.



Oscillating Knife

This is an important tool for any company that needs to process thin flexible materials including foam core, gator foam, corrugated plastic or cardboard delivering clean cut edges without fraying.



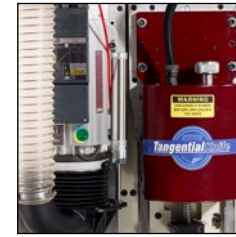
Quick Release Spindles

5 HP and 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.



Vinyl Knife

Used primarily for large format vinyl cutting, cutting paper mask on acrylic sheets for painting, and for cutting paint grip with standard vinyl cutting blades and blade holder. It also doubles as a pen plotter for creating patterns.



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 all radii to be cut cleanly and accurately.



Collet Spindles

The Elite line of collet spindles are precision balanced for fast, clean cutting and ultra-quiet operation. Available in 3, 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, rubber up to 1/2" (10mm), corrugated paper and plastic.



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 card and foam board.



Tangential Knife Cartridge for Saber Blade

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



Tangential Knife Cartridge for Pizza Wheel

A choice of pizza wheel cartridges are available which can accommodate 2" (50mm) or 4" (100mm) diameter rotary blades. Ideal for cutting tough or abrasive materials such as gasket, fiberglass 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.



Pneumatic/Electric Drills

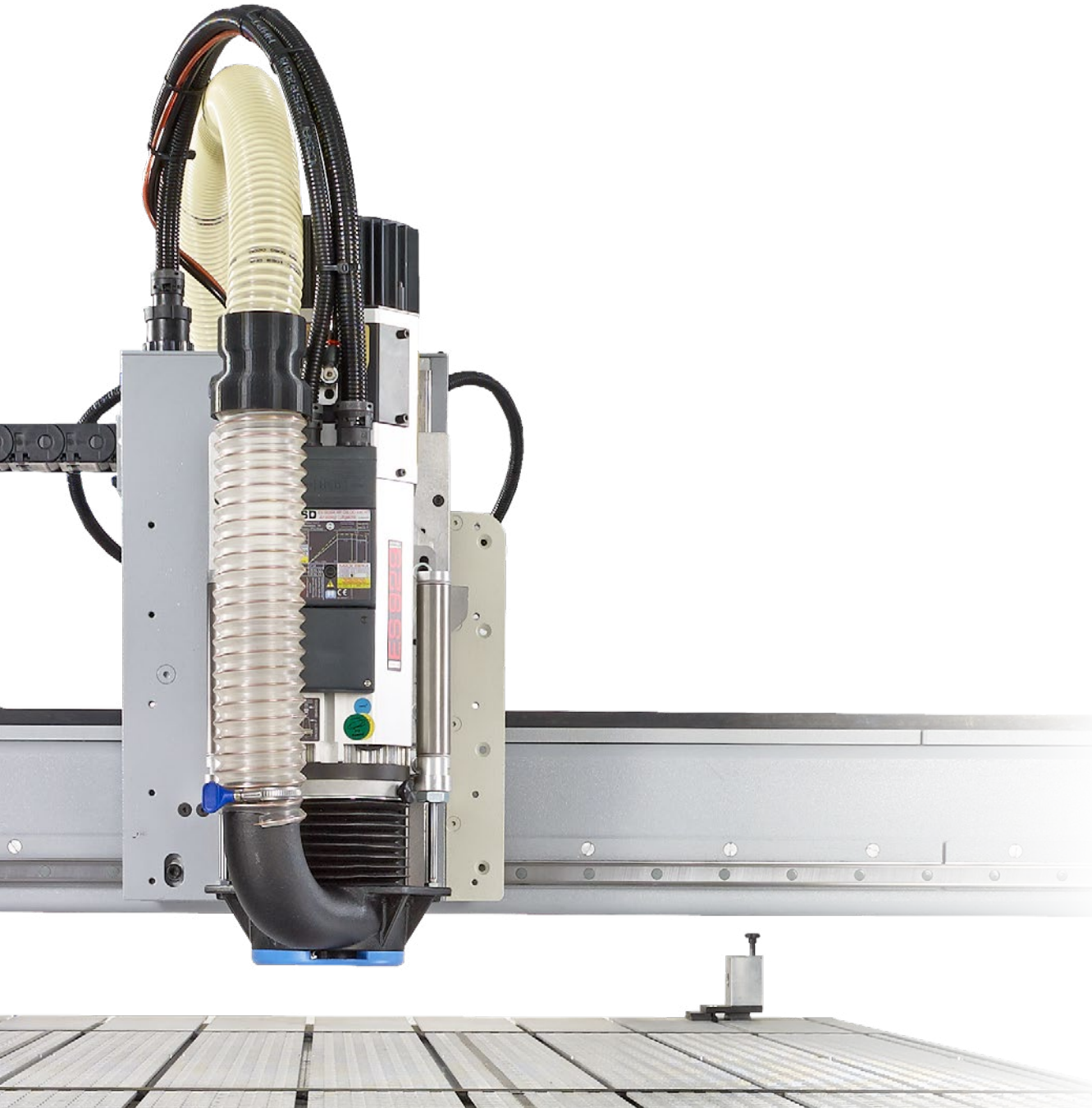
Fixture mounted tools that combine linear feed and rotation for drilling operations. Available with pneumatic feed and either pneumatic or electric rotation.



Multi-Spindle Drilling Head

A key productivity tool for cabinet makers, case good manufacturers, custom millworkers, exhibit and display manufacturers streamlining your production process dramatically.

Registration Options



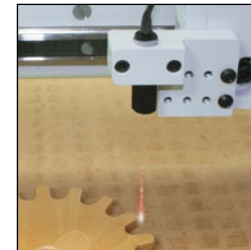
XYZ Vision System

For digital print finishers, the AVS camera system combined with a router or knife system enables operators to cut out digitally printed images with the highest accuracy available.



Pop-Up Location Pins

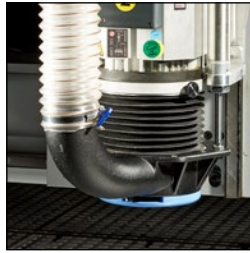
Pop-up location pins are an innovative feature and are pneumatically activated to allow fast and repeatable placement of cutting materials onto the machine.



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.

Pressure Foot Options



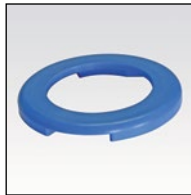
Nose Rider Collar

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.



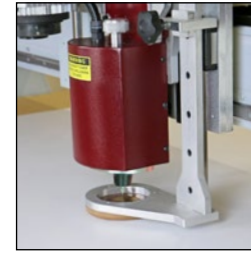
Blue Glide Donut

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 while minimizing the possibility of surface damage.



The Brush Donut

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



Knife Pressure Foot

Used in conjunction with the oscillating knife system, the knife pressure foot prevents soft material from lifting during the cutting process. Adding the brush donut will also avoid marking any delicate surfaces.



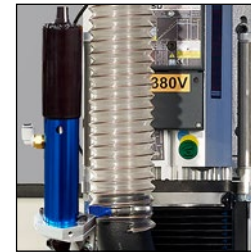
Universal 5Y Pressure Foot

The 5Y pressure foot accepts 2 inch or 4 inch diameter hoses and integrates with any dust-extraction system. It allows contactless, highly efficient chip extraction.



Spray Mister

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



Vortex Cold Gun

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

Vacuum Hold-Down Options



Busch Mink Rotary Claw Pump

The Busch Mink rotary claw pump is an ideal high-performance solution for powerful vacuum hold down. It delivers a constant vacuum and is therefore suitable for use in a variety of applications.



Precision Spoil Board

The moisture-resistant MDF spoil board is mechanically fixed to the T slot deck 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.



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 200 in2 in size.



Auto Zone Management

Operate the zoned vacuum system in Live Deck, Pendulum Processing or independent switching modes. Live Deck will automatically activate and deactivate zones according to the position of the cutting head.

Dust Extraction Options



Vacuum Manifold

An automated solution for multi-head machines allowing focused debris collection at the active head. It eliminates the need to run multiple vacuum-extraction lines to the table or manually open and close vacuum hose valves.



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 Chip Collector

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


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For clarity, some images may not show all safety devices, material clamping or dust extraction systems.