



The Augusta Series

F150R PRO

F50R PRO

F1R² PRO



SD HYBRIDIZING
CUT

graphco

THE UNFAIR ADVANTAGE™

g 50
YEARS

With a legacy dating back to 1976, Graphco has built a reputation for unmatched service and support across the print industry.



Our Company

SD is a well-established and dynamic company operating in the technical/mechanical sector specialized in two production lines: Cutting plotters and machining centers/Integrated handling systems. Our machines, manufactured with reliable and robust mechanical structures, facilitate all types of processing, thanks to the provision of intuitive and advanced software. Each SD product stands out on the reference markets for speed, innovation, and the rigorous selection of 100% Made in the E.U. components.

Constantly engaged in the research and development of new technologies, the company aims to continuously improve the quality of its products. This has led to the creation of new

patents and certifications assigned to SD. With attention and presence on a global level, the company becomes a partner ready to reach every customer for maintenance and technical assistance.

Thanks to the new assistance/spare parts center, SD provides a competent and reliable after-sales service in terms of technical support and spare parts, guaranteeing continuity to your production cycle. Today it is a very important prerogative to always know how to respond to everyone's needs, even in the most challenging conditions.



Powered by Graphco

Graphco is the industry's leading provider of digital, offset and print finishing solutions. We proudly represent the finest brands of equipment including SD-Italy, RMGT, Foliant, Fold Stream, Horizon, Kodak, SCS Automaberg, Konica Minolta, MBM, Graphic Whizard, Sterling-Spiel and many more. These brands are serviced by our technical support team that stands behind these brands with top-notch service that is second to none.

SD HYBRIDIZING CUT

Three Solutions Dozens of Markets

Our Augusta F150R PRO Hybrid CNC Routing & Cutting System is an ultra-high speed solution for wide-format, display, signage and industrial producers who need the flexibility that only a hybrid can provide. SD-Italy users can kiss-cut label stock and route out 6 inch dense foam on the same platform, and change tools automatically to speed production and reduce skill-level requirements.

- Fastest heavy duty router in the market @ 3,543 Inches/Minute (4.92 Feet/Second)
- 6 Inch Material thickness handles jobs that competing cutter/routers cannot touch
- 1.2G Acceleration, for maximum throughput
- 9 kW, 11 kW, and 13 kW Routing electrospindles, to handle the toughest jobs
- Radial cutting of Honeycomb and dense foam at full 4.92 Feet/Second production speed
- Intelligent vacuum zones (up to 48 zones), to securely position and hold substrates



Our Augusta F50R PRO Hybrid Routing & Cutting Solution is our most productive platform for 2 inch thick materials with cutting speeds up to 4,725 Inches/Minute (6.56 Feet/Second) for wide-format, display, signage and industrial producers who need the flexibility that only a hybrid can provide. Our F50R provides a single high-production platform that truly brings the best of both worlds together.

- 2 Inch Material thickness lines up with most wide format printer's output
- 4,725 Inches/Minute (6.56 Feet/Second) cutting speed
- 1.56G Acceleration, for maximum throughput
- Up to 3.6 kW routing electrospindles to handle medium-duty applications quickly
- Intelligent vacuum zones (up to 48 zones), to securely position and hold substrates

Our Augusta F1R2 PRO is the Digital Die-Cutter that fulfills the promise made by other platforms through combining the highest level of speed & quality with the true processing automation needed to take short-run digital die-cutting into the industrial realm.

- Material thickness up to 9mm with full automatic feeding and offloading across the full range
- 3,350 Inches/Minute (4.65 Feet/Second) cutting and creasing speeds
- 2G Acceleration
- Heavy-duty vacuum pumps provide excellent substrate control at high speeds
- Continuous operation per deep-pile vacuum feeder, and overhead plenum down-stacking



Augusta

F150R PRO



Precision

The prismatic guides equipped with 1.18 inch sections and high precision racks with inclined helical teeth guarantee the high speed and precise movement of axes.

Power & Speed

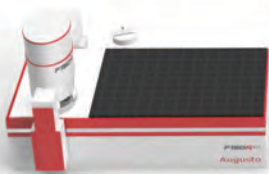
- Super Power 9 kW Electros spindle with HSK 40 connection and speed up to 36,000 RPM
- Ultra Power 13 kW Electros spindle with HSK 63 connection for maximum product removal

Automatic Tool Change

- Up to **13 positions** for tool change management (5 blades and creasers + cutters)
- As Optional: lateral revolver tool magazine with extra **12 positions** brings 25 tools on board

Worktop Sizes:

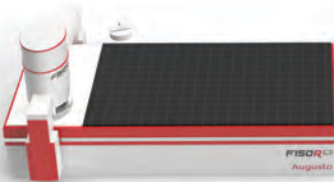
5' 63" x 81" x 6"



15' 177" x 81" x 6"



10' 120" x 81" x 6"



25' 300" x 81" x 6"

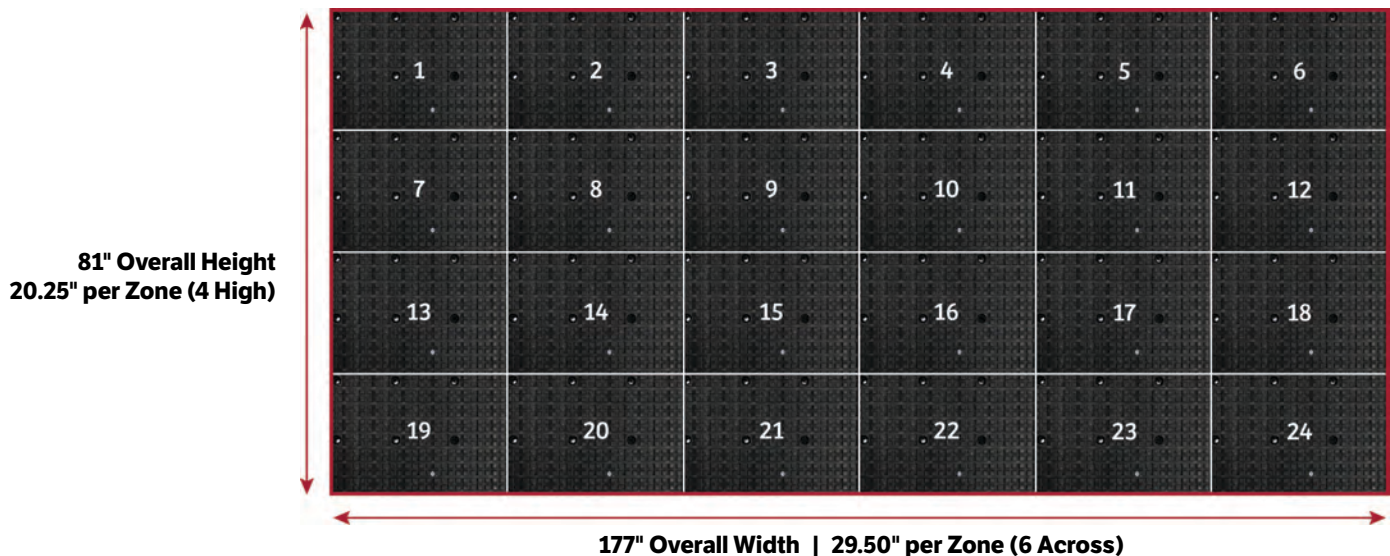




Up to 48 Independent and Automatically Controlled Vacuum Zones & “Free” Materials Placement

Our experience in supporting the world's biggest brands, combined with decades of technical expertise, has created a unique system that allows SD Augusta owners to create “free” placement of up to 11 different materials that can also be different thicknesses. This allows for complex projects to be processed and even assembled on the work surface to save time and money.

81" x 177" Work Surface - 24 Zones (6 x 4)



Ultimate Control of Your Valuable Substrates

Seamlessly integrated to the SD Augusta Operating System, this unique capability maintains maximum vacuum where you need it most; at the area being worked. By closing off the vacuum to the “open” zones that have already been worked, and dedicating the full volume of our best-in-class vacuum pumps to the area that still needs to be processed, substrate shifting becomes a non-factor.

This feature allows SD Augusta users to confidently take advantage of our best-in-class processing speed without worry about material shift. And when less vacuum is required, the SD Augusta Operating System automatically spools down the vacuum pumps to save on energy costs.

Thanks to the brand new application, to create a “free” placement on the worktop of different types of materials (up to a maximum of 11) that can also have different thicknesses. The activation and release of the vacuum will be managed completely automatically, guaranteeing unique flexibility on the work surface with very long recovery times and a completely electronic management of the dynamic vacuum.

Automatic Tool Change

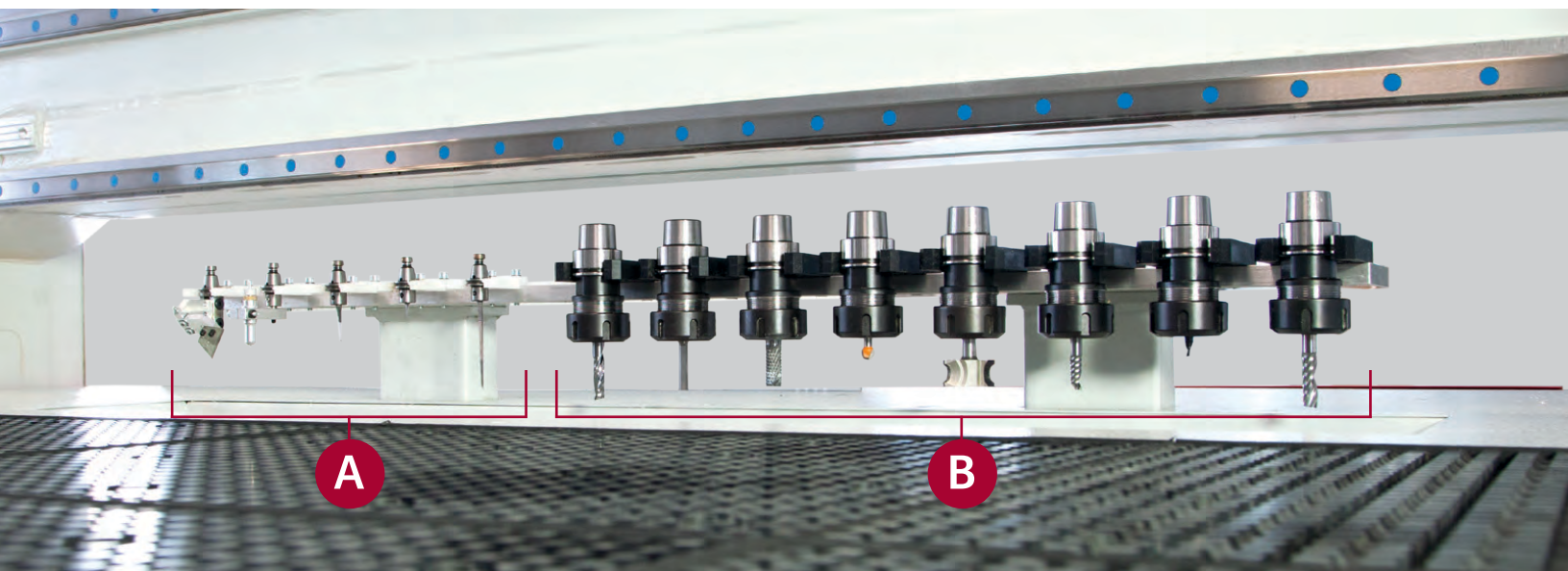
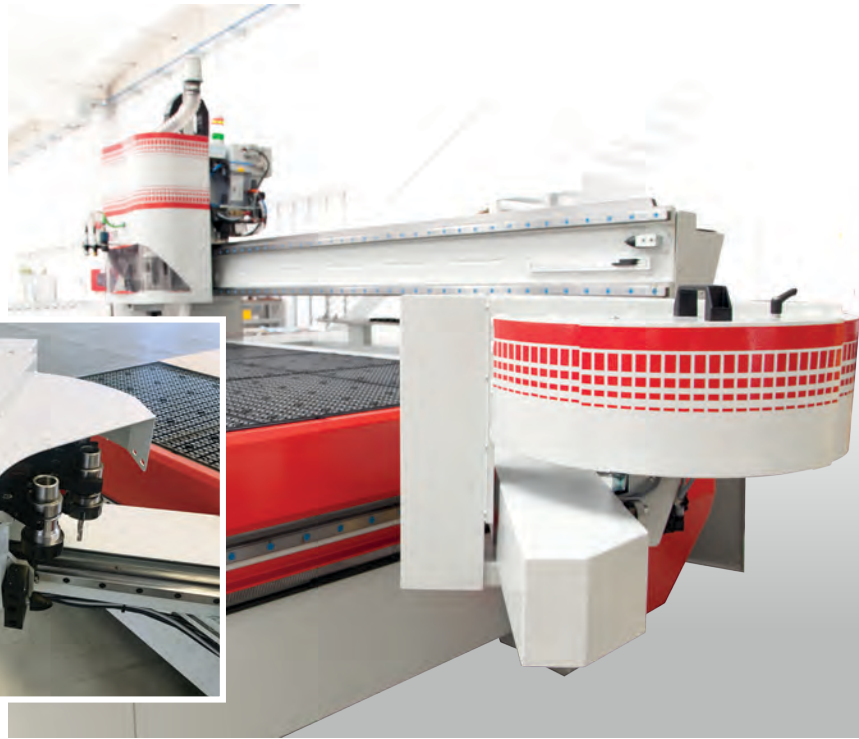
The SD Augusta automatically changes tools from both the standard tool bar and the SD Revolver with seamless integration. This system ensures fast, efficient and highly accurate processing of complex applications.

Up to 25 Routing & Cutting Tools On Board

TOP FLEX System (Series + Rapid)

First system in the digital sector with two simultaneous changers for complete machine tooling.

Mix and match up to twenty end mills mounted in either HSK 40 or HSK 63 collars, and add in up to 11 ISO 10 cutting, creasing, V cutting or kiss cutting tools to configure the perfect system to meet your production needs.

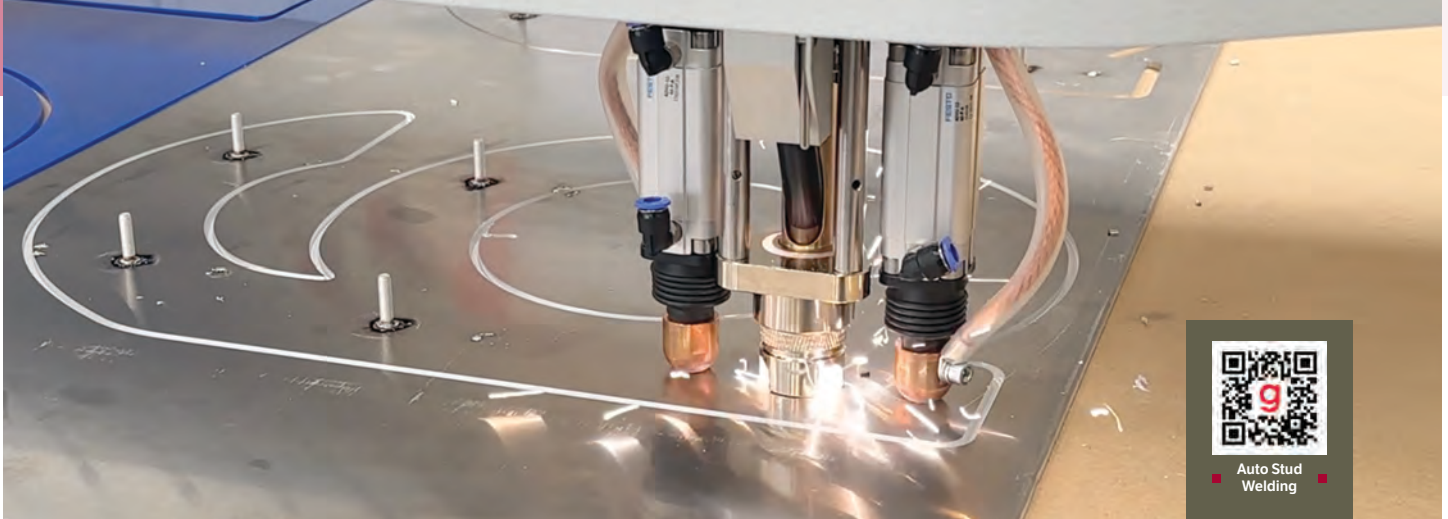


Semi-Automatic Tool Management

Semi-automatic tool management through a selector placed on the mobile upright with easy and immediate access. Automatic insertion of the tool for a complete and safe set-up. Tool calibration is not necessary after initial process due to True 3-Axis operation.

Standard System

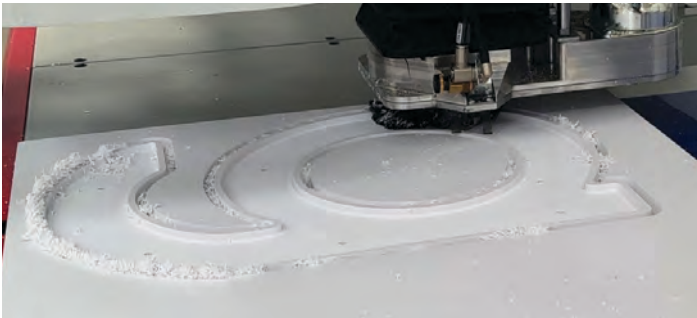
Up to **13 positions** for tool change management: cutters, blades, cords and heads for inclined cuts. **5 positions for blades, cords, pen group and heads with 45° (A), 8 tools for cutters (B)**. The tool change is a *SD patented unit* in the use of blades and cords, which results in much higher throughput.



Auto Stud Welding

The Best Way to Make Signs, Facades, and other Complex Projects
Introducing Auto Stud Welding Technology

Auto Stud Welding delivers precise, flawless welds with zero tolerance, eliminating the need for material repositioning between the routing and welding steps. Achieve faster, more efficient stud welding using the same CNC program for 100% precision. Using computer controlled software, our ASW system ensures repeatable, flawless results on every job. The ASW system ensures perfect adhesion, zero burn-through, and a seamless, reliable process that sets the industry standard.



Synchronized Routing

Experience unmatched precision with our advanced synchronized routing, capable of handling materials up to 6 inches thick. Our cutting-edge Auto Stud Welding technology ensures a seamless transition between welding before cutting and cutting before welding, based on your needs.



.001mm Routing To Stud Welding Tolerance

Every stud is meticulously welded with total precision using the identical CNC program as the rest of the job, ensuring flawless results with zero tolerance, all while keeping the material perfectly stationary from start to finish.

Energy Savings System

The fully automatic Energy Savings System delivers energy savings and major operational efficiencies across multiple sources.

Suction System

When the electrospindle is switched on, the activities related to switching the SD suction system on and off are managed completely automatically, thus generating significant energy and operational savings, such as:

- 1 Drastic reduction of energy consumption and consequent economic savings.
- 2 Production activities optimization.
- 3 Easy management and simplification of the use of the machinery.
- 4 Remote on and off controls on the operator console with timed shutdown after inactivity.

Electrospindle Unit

Fully automatic management of the power required during the milling processes thanks to which the current absorption is constantly monitored and managed according to the related processes for each individual material.

There will therefore be very low absorption, generating enormous advantages from an energy/economic point of view, with consequent lengthening of the life of the unit itself.

Vacuum Pumps/Blowers

If not in use, the vacuum pumps/blowers will automatically go into "Standby" mode with a digital timer that can be set by the customer according to its work needs, thus ensuring reduced and optimized energy consumption only during the machining processes of the machinery.



Operating Units

Power & Speed with a Unique Modularity

The four independent units are managed by axes controlled individually and digitally, in order to get the maximum performance and precision of the single units.

① Electrospindle

The Super Power 9 kW Electrospindle group with HSK 40 connection provides the maximum of performance combining power and high speed up to 36,000 rpm. Thanks to the HSK 40 connection and the use of 5 ceramic bearings evenly distributed throughout the preloaded vertical axis, an excellent stability of the tools and a very high quality of the finished product are achieved. The positioning of the unit is done by recirculating screw of balls with brushless motor and support with prismatic guide of strong section. The Electrospindle is also available in the 13 kW version with HSK 63 connection.



② AFT Knife Cut

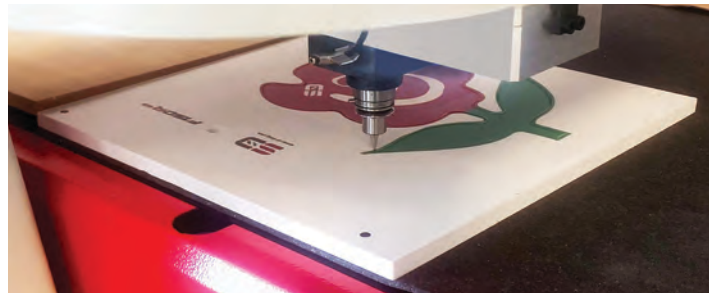
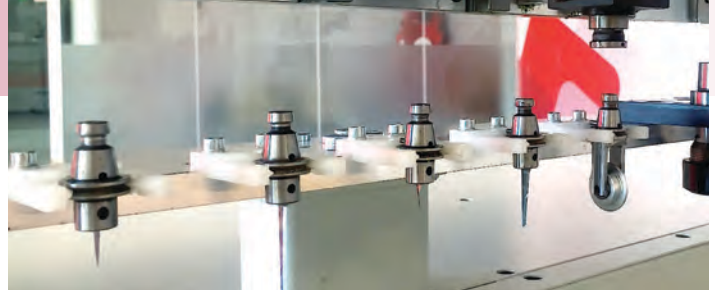
AFT Power Group

The extremely high power, strength and stability of the AFT Power Group (vibrating or fixed cutting or creasing managed directly by the CNC), combined with our patented automatic tool changing, allows SD Augusta users the ultimate in flexibility.

The AFT Power Group is powerful enough to cut up to 10 mm thick expanded PVCs like Sentra at extremely fast speed. Crisp edges, much lower Kerf (waste area) and no chipping of small letters is The Unfair Advantage™ SD customers enjoy.

Silon Carpet Setting

With this modality we can make the best use of the AFT groups (knife cutting and creasing) in an extremely flexible way. The carpet is available in different versions to best adapt to each type of processing.



③ AFL Circular Rotary Cutting Blade

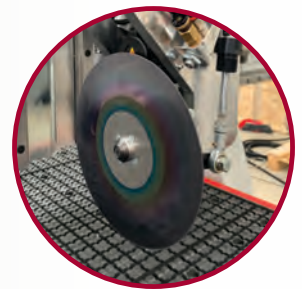
AFL Slim & Maxi Groups

The circular blade unit with rotary management of the “C” axis and automatic positioning at 45° allows for straight and V cuts with simple and intuitive programming. Latest generation algorithm optimizes the performance of Slim and Maxi units at over 2,500 Inches/Minute. Brushless motors guarantee perfect linear speed and blade rotation, and predictive maintenance drives automatic and onboard blade sharpening.



AFL Slim Group

- Linear cuts up to 1.18 inch
- 45° cuts up to 1 inch



AFL Maxi Group

- Linear cuts up to 2.36 inches
- 45° cuts up to 2 inches

④ The Matrix

New Universal Module Matrix

The Matrix module is a carrier module, designed to accommodate many different operating units. The versatility of this module makes it adaptable to many cutting needs.

Thanks to a simple and quick manual clutch, you can easily and quickly replace the chosen operating unit. Matrix can accommodate **8 different and retrofittable operating units and tools**, fully electronic in their use.

Matrix is characterized by a **very high positioning speed combined with an extreme precision**, ideal when dealing with the thinnest materials.



PC Console

27 Inch Curved Monitor

Ultimate personal computer generation with processors and solid state memory as standard on the machine.

Operational Commands

The mobile console with Windows 10 operating system and simple and intuitive user interface consists of immediate operator commands:

- Parking area
- Printing registration ability
- Manual axes movement
- Speed axes movement
- Automatic or manual cycle selection
- Automated positioning for material loading
- Automatic reset of processing after down event
- 5 Programs lists with decreasing counter



Software

PC with interface designed and developed by SD for simple, effective and accessible programming even for those who are unfamiliar with a computer.

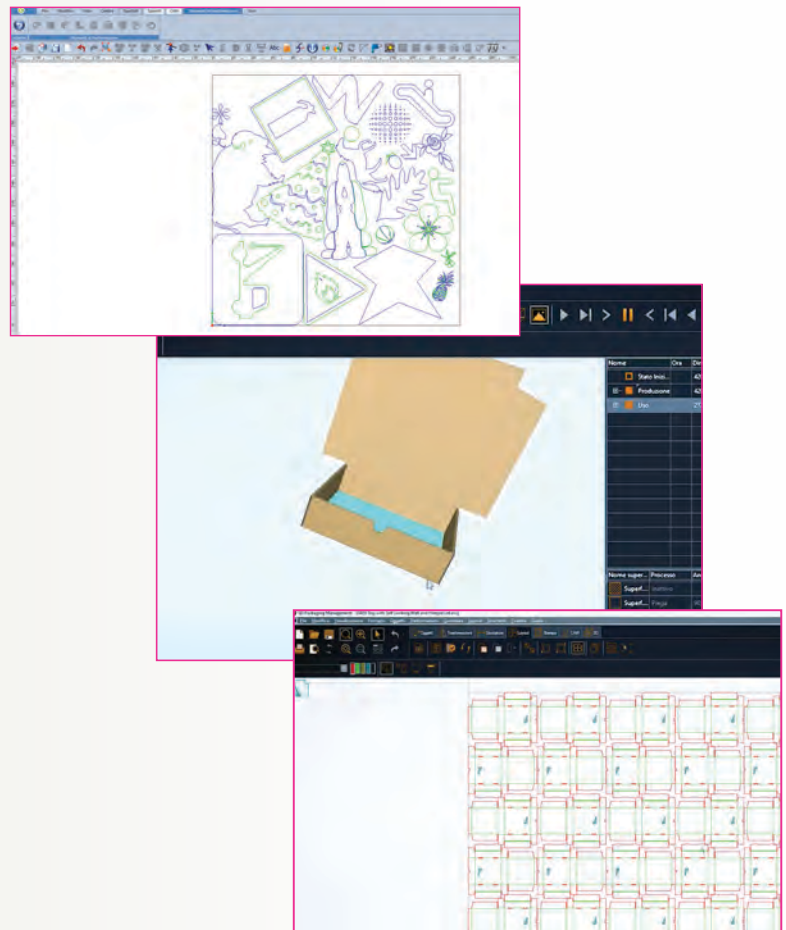
Quality control on workpieces in total safety by requesting access via a software application; the production activity is suspended and resumed after the verification has been carried out without suffering data loss.

Axes Movement

Movement operations (X-Y-Z) and its interpolation are managed through an extreme precise industrial CNC Controller.

SD - Automator

Programming of all operating units: Electrospindle, AFT unit, AFL unit and Matrix. Cad cam with management and import of digital files in various formats. The software allows you to preview the processes to be performed on creasing and milling cuts.



Through **THICK** & **THIN**

SD-Italy is "Hybridizing Cut". Check out our video series "Through Thick & Thin" which shows the exact capabilities of the Augusta F150R PRO on every type of material.

Watch the Full Series



Through Thick & Thin
Video Series

**Augusta
F1R²PRO**



**Augusta
F50R^{PRO}**



**Augusta
F150R^{PRO}**



SD HYBRIDIZING
CUT

TYPES OF MATERIALS

✓	✓	✓	RUBBER
✓*	✓	✓	POLYCARBONATE
✓	✓	✓	PVC
	✓	✓	PTFE
✓	✓	✓	POLYURETHANE FOAM
✓	✓	✓	PAPER, CARDBOARD
✓	✓	✓	LEATHER
✓	✓	✓	GASKETS
	✓	✓	ALUCOBOND
	✓	✓	TRUE 3 AXIS CUTTING
	✓	✓	WOOD
✓	✓	✓	FOAM RUBBER
	✓	✓	DIBOND
✓*	✓	✓	PLEXIGLASS
	✓	✓	ALUMINUM
		✓	SOLID SURFACES
✓	✓	✓	FOREX

(*) With Electrospindle system with maximum power 500W and 100,000 RPM

Augusta FSOR^{PRO}



Structure

The thick steel, well-ribbed and extremely rigid base guarantees stability and quality over time.

Worktop

- Multi-function worktop consists of intelligent independent standard vacuum zones (from 16 up to 48) selectable from CNC
- Multi-placement of materials up to 7 different types even with different thicknesses
- High precision retractable mechanical stops

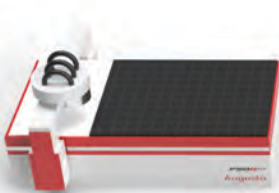
"5 tools standard and up to 13 tools optional"

Precision & Speed

- The prismatic guides equipped with 1.18 inch sections and high precision racks with inclined helical teeth guarantee the movement of axes
- 2 Inch material thickness lines up with most wide format printer's output
- 4,725 Inches/Minute (6.56 Feet/Second) cutting speed
- 2.3G Acceleration, for maximum throughput
- Up to 3.6 kW routing drives to handle medium-duty applications quickly
- Intelligent vacuum zones (up to 48 zones), to securely position substrates

Worktop Sizes:

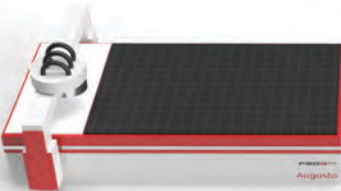
5' 63" x 81" x 2"



15' 177" x 81" x 2"

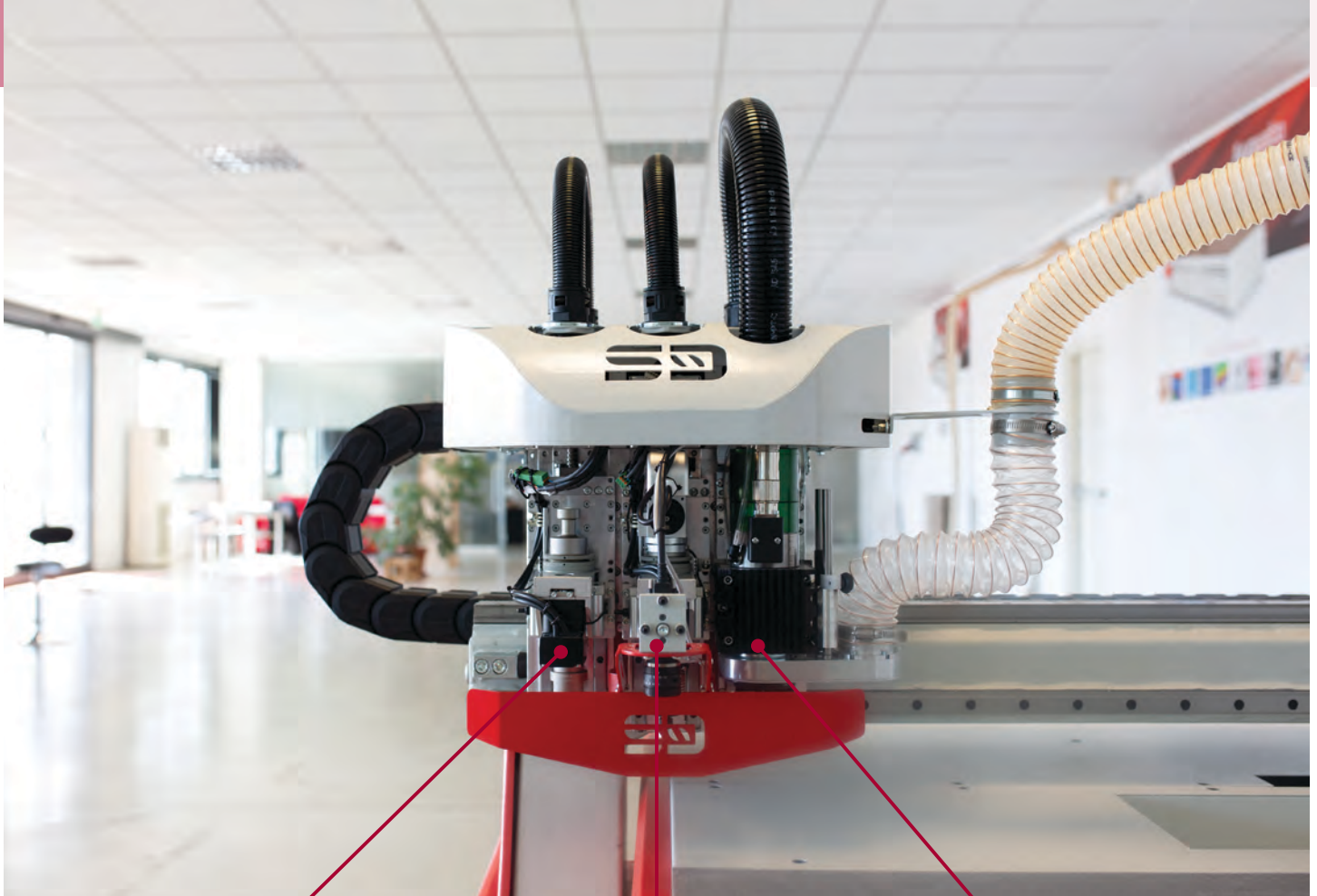


10' 120" x 81" x 2"



25' 300" x 81" x 2"





Creasing Unit



Different types of cardboard can be creased thanks to the interchangeability of the individual cords according to the thickness of the various materials (interchangeable module).

AFT - Knife Cutting



Thanks to this unit it is possible to reach very high cutting speeds (interchangeable module).

Electrospindle



The High Speed Electrospindle unit with pneumatic tool attachment system guarantees excellent performance by combining high power and number of revolutions up to a Max of 50,000 rpm.

Augusta F1R² PRO



Worktop

- Aluminum worktop with countersunk micro-holes
- Uniform vacuum distribution system
- Ensures flatness and high stability of the material to be processed

Precision

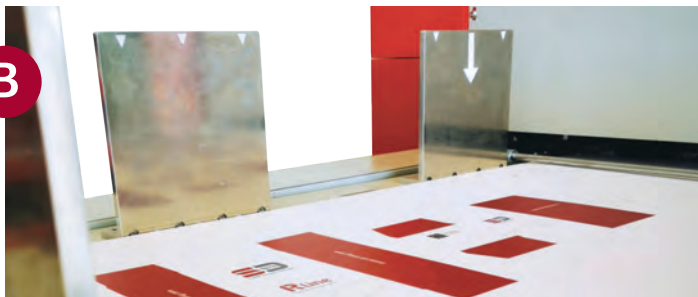
- Prismatic guides with recirculating ball bearings
- High precision racks with inclined helical teeth guarantee handling of all three axes with precision and speed

Standard Equipment of Worktop

- Piece passage 0.39 inches
- Perfectly ground plane in relation to the wagon "z" of the operating unit
- Homogeneous vacuum distribution system
- Working area: 40" x 28" x 0.39"
- Material thickness up to 9mm with full automatic feeding and offloading across the full range
- 3,350 Inches/Minute (4.65 Feet/Second) cutting and creasing speeds
- 2G Acceleration
- Heavy-duty vacuum pumps provide excellent substrate control at high speeds
- Continuous operation per deep-pile vacuum feeder, and overhead plenum down-stacking



Sheet feeder with suction cups



Stop system

Automatic Sheet Feeder

Automatic sheet feeding bench with maximum stack height of 10 inches (250 mm).

Through this unit, the sheets to be processed will be picked up automatically thanks to a special suction cup system (A) that picks up and deposits the sheet on the work surface.

The feeding bench can accommodate sheets of different sizes thanks to a system of fixed stops and 2 magnetic references (B) that can be easily removed and positioned in the chosen format.

Top Configuration

Automatic Bridge Unloader with Conveyor Bench

Combining the Loading System of the FLEX Configuration with a Latest Generation Automatic Unloader

SD responds to market demands by designing a completely automatic system in the unloading phase of processed sheets which are deposited in a first conveyor bench station and subsequently picked up by a bridge unloader equipped with a suction table and then automatically stacked on a pallet (maximum stack height 28 inches).

The sheet is unloaded in total safety and ensuring complete long autonomy to the cutting machine, without being manned, thus reducing the burden of operator costs and ensuring a high production capacity with a completely flexible and integrated system.

By restacking both finished product and the waste/skeleton, the *welding* process can be completed separately from the cutting.



Software

PC with interface, designed and developed by SD-Italy with simple, effective and accessible programming even for those who are unfamiliar with computer operation.

SD - Packaging (Standard)

SD Automator provides a wide range of tools that speed up and automate the day-to-day jobs of structural designers, graphic designers, diemakers and sales people involved in the creation, communication and production of packaging and displays.

Its versatile modular structure lets you configure the packaging software for your own needs.

The SD Automator Library of resizable packaging standards has accumulated over 1,500 parametric designs for folding carton, corrugated board, grey board and PVC.

The CAD / CAM software is integrated with Adobe® Illustrator® helping professionals visualize the 3D model of packaging with the product inside and apply graphics to the structure. With the Step and Repeat over the layout directly in Illustrator®, designers can generate production files with high resolution images.

The Augusta F1R² PRO with SD Automator optimizes every aspect of the packaging design and pre-production workflows.

Graphco Tech Service

The Graphco Technical Service Team ensures smooth, consistent operation of both Offset and Digital presses and related Prepress and Finishing equipment. Our customers rely on us to guide them to maximum returns on their sizable investments.

Graphco offers a full complement of technical services to Offset, Digital, and Finishing Houses. Our knowledgeable team of professionals is the key to your success. When you do business with Graphco, you get the benefit of factory-trained service technicians with decades of experience in the repair and proper maintenance of print production equipment.



Print. Finish. Communicate.



For 50 years, Graphco has developed a reputation as the Innovative Total Solutions Provider dedicated to Commercial, Packaging, and In-Plant Printers along with Architectural Signage and Print Finishing Companies. Our sales approach, backed by industry-leading Technical Service and Sales Teams, ensures comprehensive support for our customers. We continually deliver value by helping clients grow their business through reduced manufacturing costs, enhanced product quality, and the use of the most durable equipment available.

Our customers gain a competitive edge that we call **The Unfair Advantage™** in their respective markets, thanks to our cutting-edge products, superior technical service, and sound business advice. Graphco remains committed to our core principles: integrity, technical expertise, and a customer-first approach. Whether you're investing in new technology, optimizing workflows, or exploring sustainable pressroom solutions, Graphco is your trusted partner in printing excellence.

graphco

THE UNFAIR ADVANTAGE™

Office: 440.248.1700 | Toll Free: 800.258.2769
graphco.com | graphco@graphco.com
6563 Cochran Road, Solon, OH 44139

