

The Augusta Series

F150R PRO

F1R² PRO

F50R PRO



SD HYBRIDIZING
CUT

THE UNFAIR
ADVANTAGE

graphco
print. finish. communicate.



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 also 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 Italy 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 signed SD**. With attention and presence on the territory, 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 RMGT, Foliant, Horizon, Kodak, SD-Italy, Petratto, SCS Automaberg, 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 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. Kiss-Cut label stock, and rout out 6" dense foam on the same platform, and change tools automatically to speed production and reduce skill-level requirements.

- 6 Inch material thickness handles jobs that competing cutter/routers cannot touch
- 1.2G Acceleration, for maximum throughput
- Up to 13 kW routing electro-spindles, to handle the toughest jobs
- Radial cutting of Honeycomb and dense foam at full 4.92 Feet Per Second production speed
- Intelligent vacuum zones (up to 48 zones), to securely position and hold substrates



Augusta
F150R PRO



Augusta
F50R PRO

Our F50R PRO Hybrid Routing & Cutting Solution is our most productive platform for 2" thick materials with cutting speeds up to 6.5 Feet Per 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
- 6.56 Feet Per Second cutting speed
- 2.3G Acceleration, for maximum throughput
- Up to 3.6 kW routing electro-spindles to handle medium-duty applications quickly
- Intelligent vacuum zones (up to 48 zones), to securely position and hold substrates

The new SD-Italy 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
- 4.65 Feet Per 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
F1R2 PRO

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 with G3 MSK connection for maximum product removal.

Automatic tool change

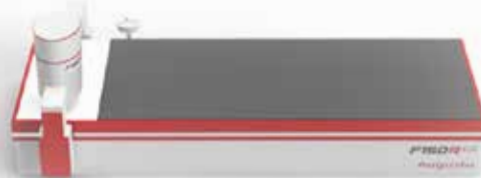
- Up to **13 positions** for tool change management (5 blades and creasers+ cutters).
- As Optional: lateral revolver tool magazine with extra **12 positions**.

Worktop sizes:

(K) 80.7 in x 63 in x 5.9 in



(L) 177 in x 80.7 in x 5.9 in



(F) 120 in x 80.7 in x 5.9 in



(XL) 300 in x 80.7 in x 5.9 in



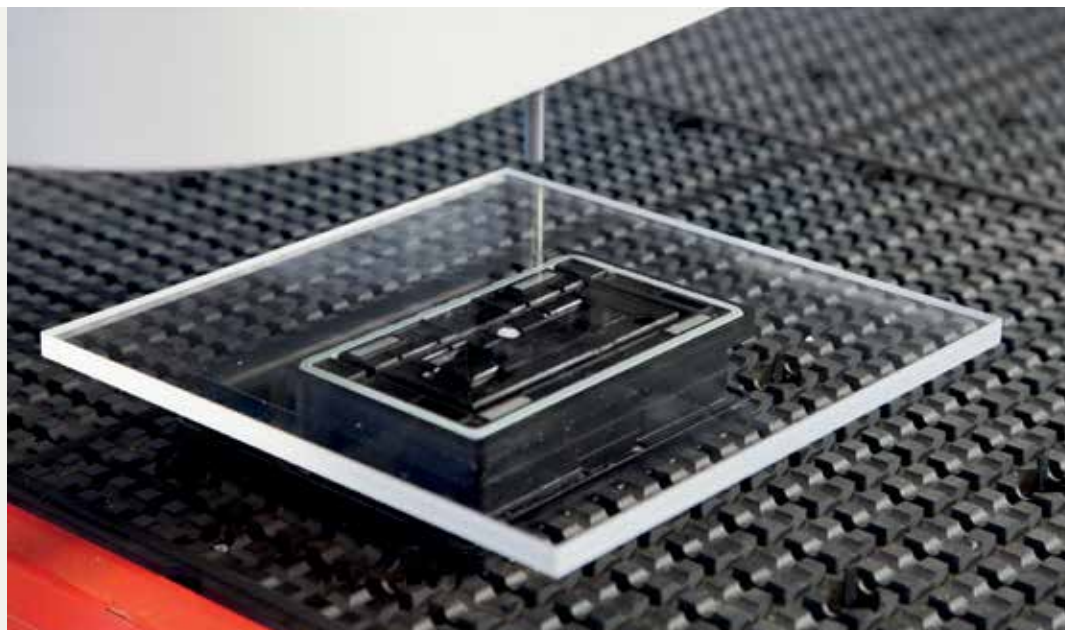


Multi-placement application of materials

Our experience, combined with our technical offices, has created a unique system that allows, 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.

Suction cups setting

Thanks to the use of suction cups, it is possible to raise the work surface in order to perform internal or external profiling of the various types of rigid material.



Automatic Tool Change

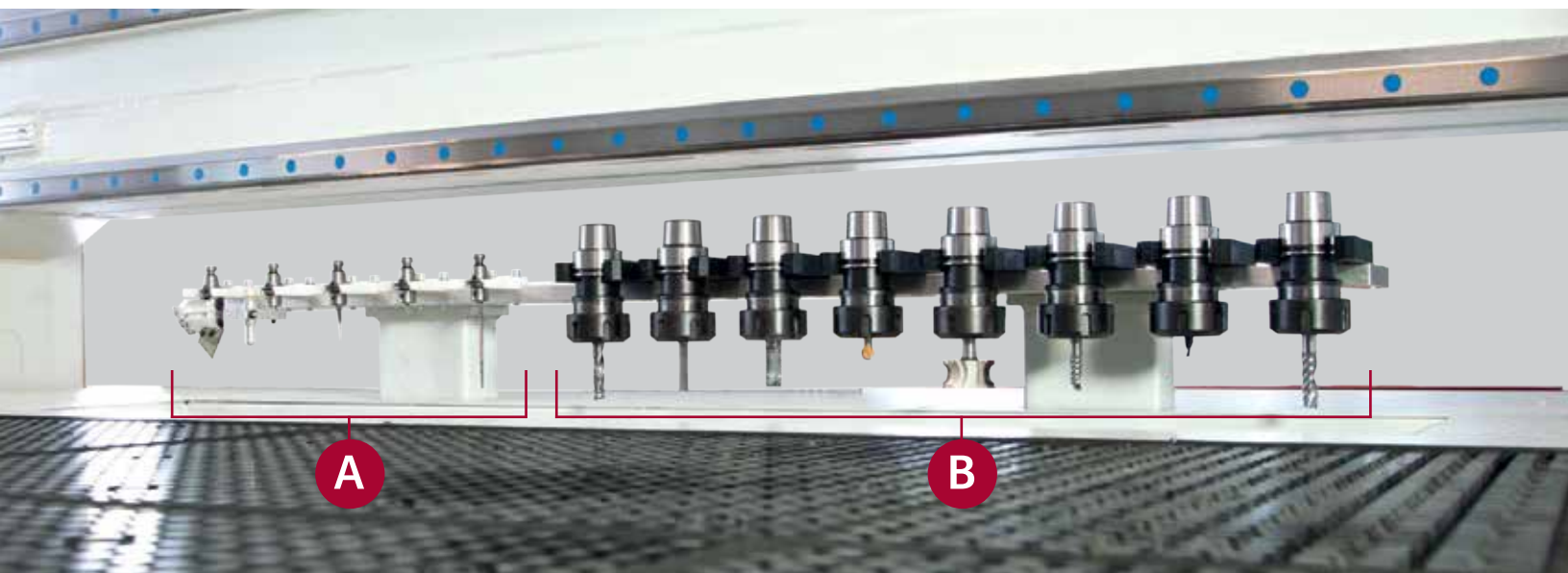
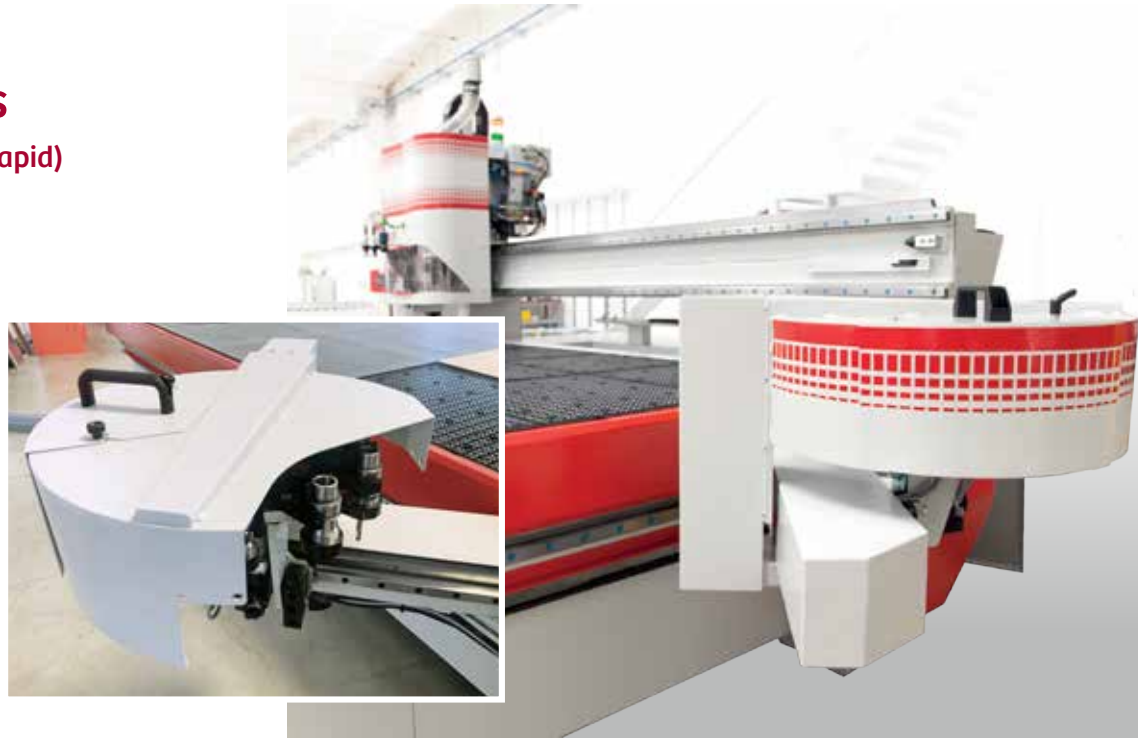
The first automatic tool change that completely reduces the setting time. Thanks to the automatic tool change times of setting and errors in the processing of orders are reduced.

Tool Change up to 25 positions

TOP FLEX system (Series + Rapid)

First system in the digital sector with two simultaneous tool changes for a complete machine tooling:

14 tools per unit *electrospindle milling machine* HSK 40 of which 8 fixed tool change and 6 rapid. 11 tools for AFT units, knife/cord cutting and 45° fixed-vibrato cut unit ISO 10 connection of which 5 fixed tool change and 6 rapid.

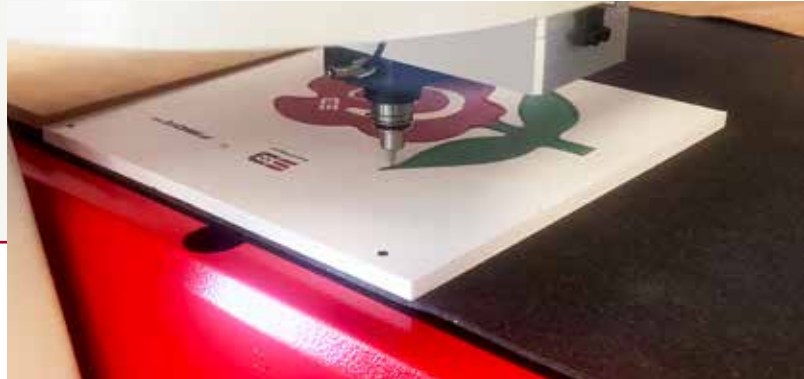


Semi-automatic tool management

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.

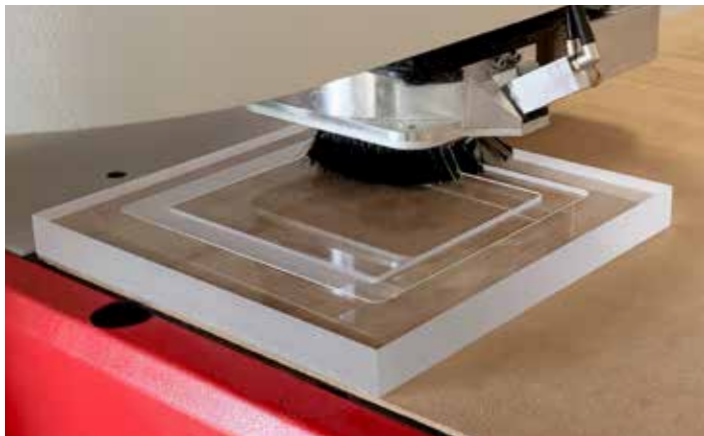
Standard system

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.



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.



MDF paneling setting

It allows you to take advantage of the worktop for extremely precise pantograph or knife cutting operation without damaging a carpet top.

- MDF paneling is a cost-effective base material
- Best-in-class Becker vacuum pumps allow use of this affordable base
- Auto milling mode allows many cycles before MDF paneling needs to be replaced
- Concealed mechanical references with automatic activation
- Possibility to insert mechanical locks to restrain small pieces or strips

Save Energy Systems

Thanks to the Save Energy package, which operates in fully automatic mode, energy savings and significant management recovery are achieved; this module is distributed over several 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.

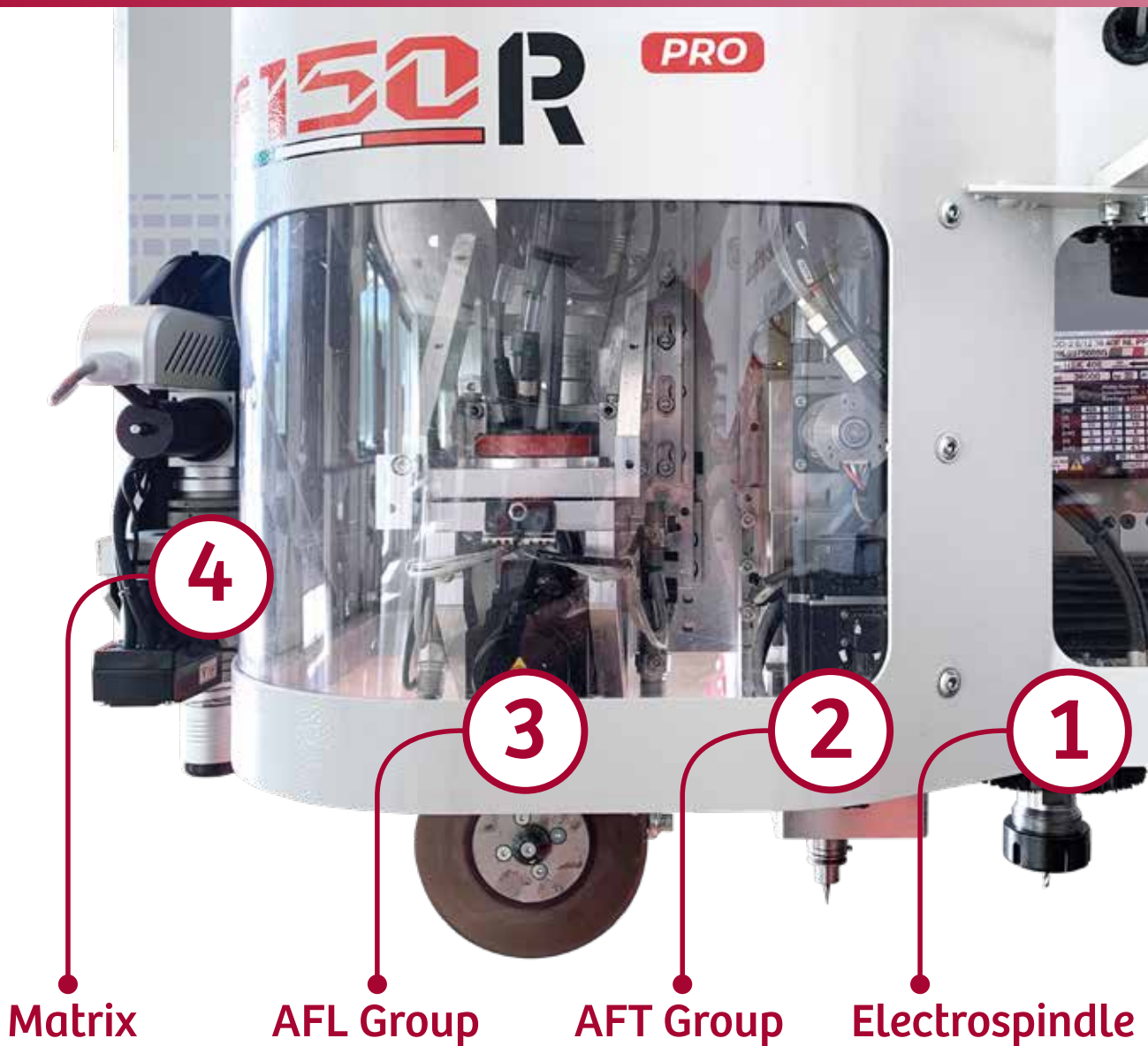
ELECTROSPINDLE UNIT

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 and 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 new power of the AFT Power group (vibrating or fixed knife cutting managed directly by the CNC), combined with the high flexibility of the automatic tool change, allows to manage heights and types of different materials without any waste of time. In addition to the management of blades/cords and heads automatically, it is possible to switch from fixed to vibrato cutting with a simple click of the mouse.



3 AFL circular rotary blade

AFL Slim Group

The Circular blade unit with rotary management of the "C" axis and automatic positioning at 45° allows for inclined cuts with simple and intuitive programming. A latest generation algorithm manages the performance of the unit in the best possible way by expressing very high speed cuts up to 65 m/min. (maximum speed according to the adopted CE system and processed materials). The Brushless motor guarantees speed and blade rotation, thanks to advanced and automatic programming systems.

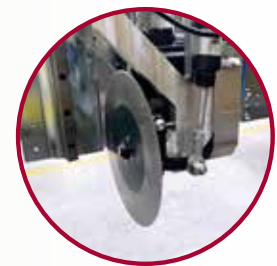
- Linear/orthogonal cuts up to a thickness of 30 mm.
- 45° inclined cuts up to a maximum thickness of 25 mm.

AFL Maxi Group

The Circular blade unit with rotary management of the "C" axis and automatic positioning at 45° allows for inclined cuts.

- Linear/orthogonal cuts up to a maximum thickness of 60 mm.
- 45° inclined cuts up to a maximum thickness of 52 mm.

Thanks to the recent algorithms, precise repetitive cuts are obtained at very high speed. The brushless motor guarantees speed and blade rotation, thanks to advanced and automatic programming systems.



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

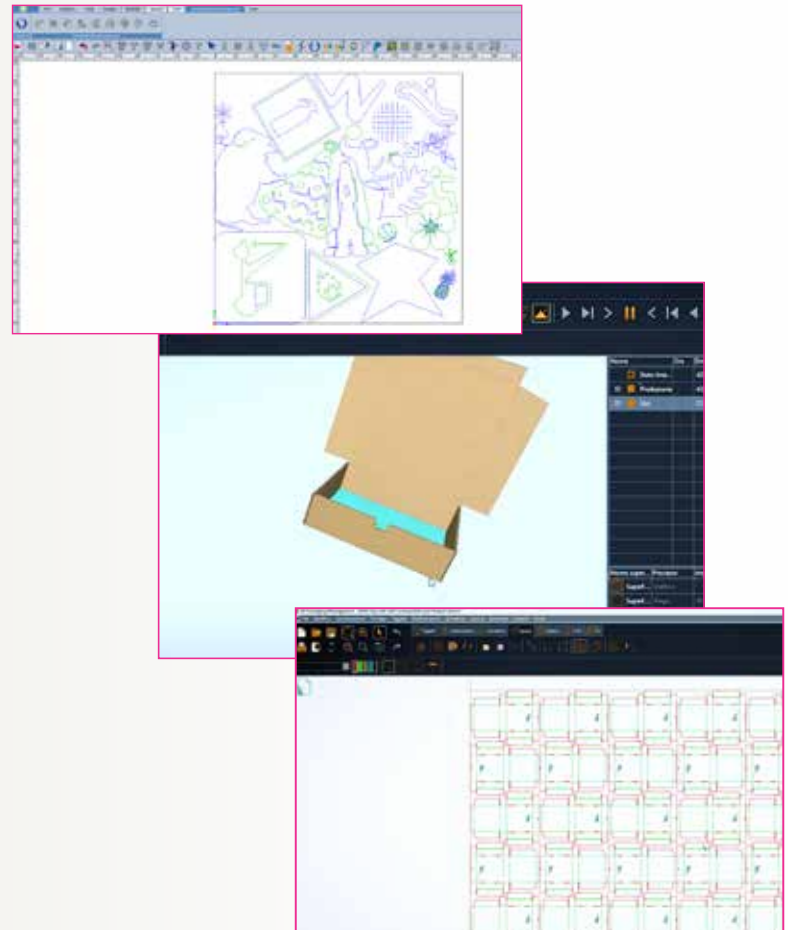
Quality control on workpieces in total safety by requesting access via a software application; the production activity is suspended and resumed after the verification has been carried out without suffering data loss.

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

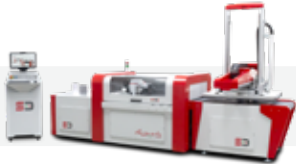


SD-Italy is "Hybridizing Cut". Check our our new video series "Through Thick & Thin" which shows the exact capabilities of the Augusta F150R PRO on every type of material.

Watch the Full Series



Through Thick & Thin
 Video Series



Augusta F1R ² PRO	Augusta F50R ^{PRO}	Augusta F150R ^{PRO}	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 100.000RPM.

Augusta FSOR^{PRO}



Structure

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

Worktop

- The 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.

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.
- 6.56 Feet Per 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 size:

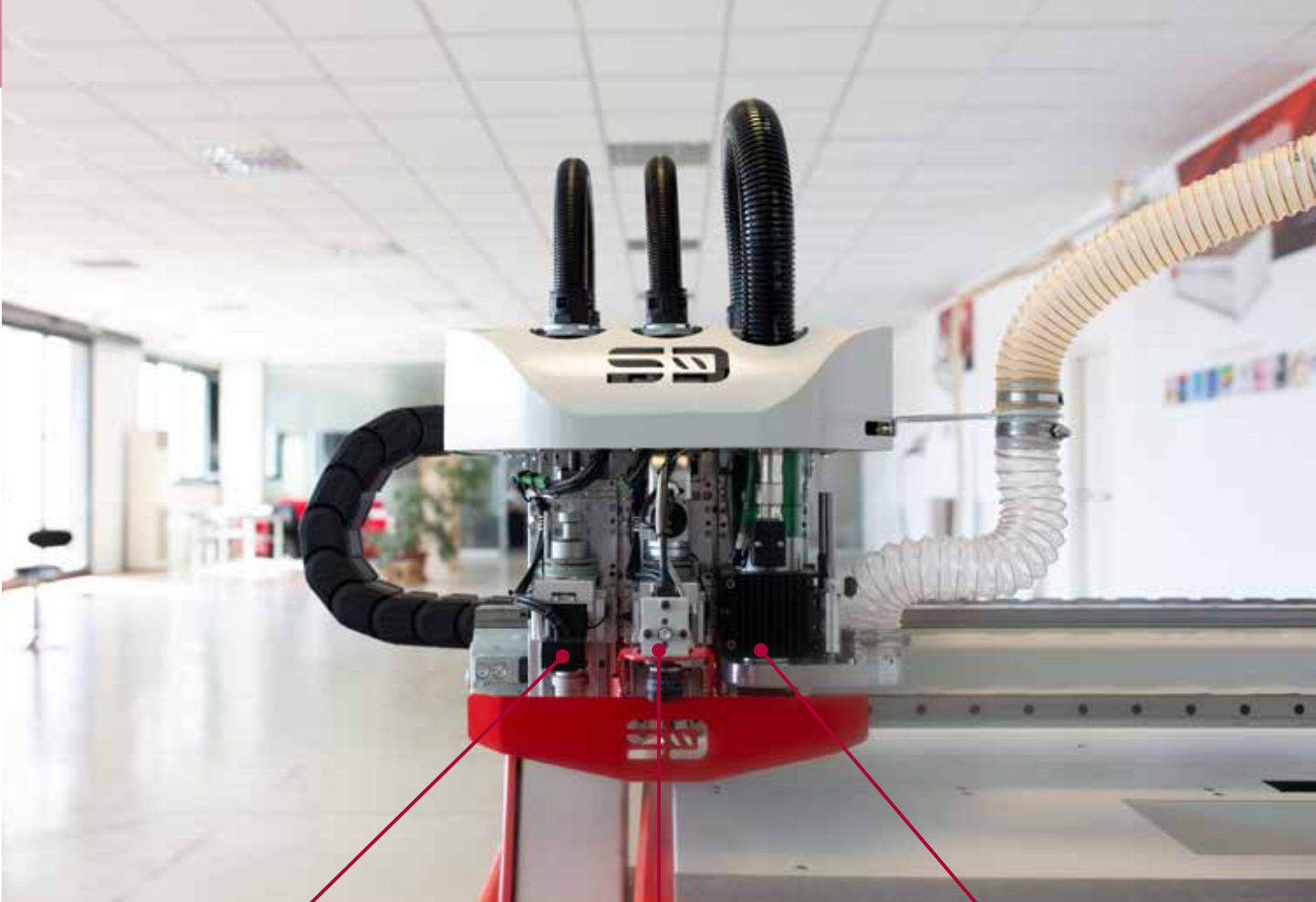
K = 80.7 in x 63 in x 1.9 in

F = 120 in x 80.7 in x 1.9 in

L = 177 in x 80.7 in x 1.9 in

XL = 300 in x 80.7 in x 1.9 in

“5 tools standard and up to 13 tools optional”



Creasing unit



Thanks to this unit, different types of cardboard can be created thanks to the interchangeability of the individual cords according to the thickness of the various materials (interchangeable module).

AFT - Knife cutting



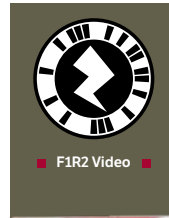
Thanks to this unit it is possible to reach very high cutting speeds (interchangeable module).

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

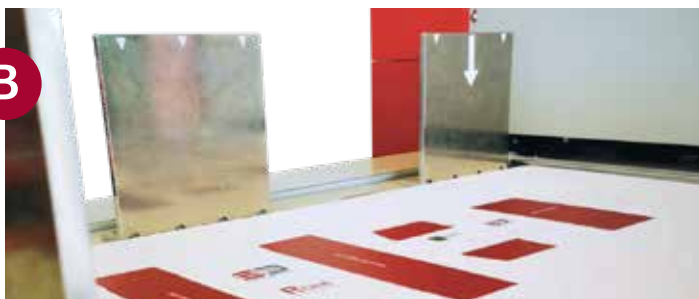
- Prismatic guides with recirculating ball bearings
- High precision racks with inclined helical teeth guarantee handling of all three axes with precision and speed

Standard equipment of worktop:

- Piece passage 0.39 in
- Perfectly ground plane in relation to the wagon "z" of the operating unit
- Homogeneous vacuum distribution system
- Working area: 40 in x 28 in x 0.39 in
- Material thickness up to 9mm with full automatic feeding and offloading across the full range
- 4.65 Feet Per 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" (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

New



Automatic bridge unloader with conveyer bench

It combines 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 the processed sheets which are deposited in a first conveyer 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”).

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 new interface, designed and developed by SD-Italy with a 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 new Step and Repeat over the layout directly in Illustrator®, designers can generate production files with high resolution images.

The new 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 high production Offset Presses, Digital equipment along with Finishing equipment of all kinds. Our customers rely on us to guide them to maximum returns on their sizable investments. Graphco offers a full complement of technical service 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 and finishing production equipment.

Print. Finish. Communicate

For nearly 50 years, Graphco has developed a reputation as the innovative Total Solutions Provider for Commercial, Digital, Packaging and In-plant Printers and Finishing companies of all kinds. We built our business around Service and Knowledge in Offset, Prepress and Finishing. We provide value by helping you expand business opportunities while lowering production costs. Our Customers expect, and we will always provide, superior technical services and leading edge products.

Watch SD and Graphco "Hybridizing Cut"



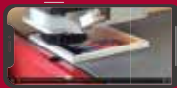
DOWNLOAD

Download Zappar app onto your smartphone or tablet.



SCAN

Scan the zapcodes to watch our SD machines run live.



LEARN

Watch our "Hybridizing Cut" CNC Routing & Cutting Solutions!

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