F Series™

Professional flatbed finishing systems

www.**summa**.eu

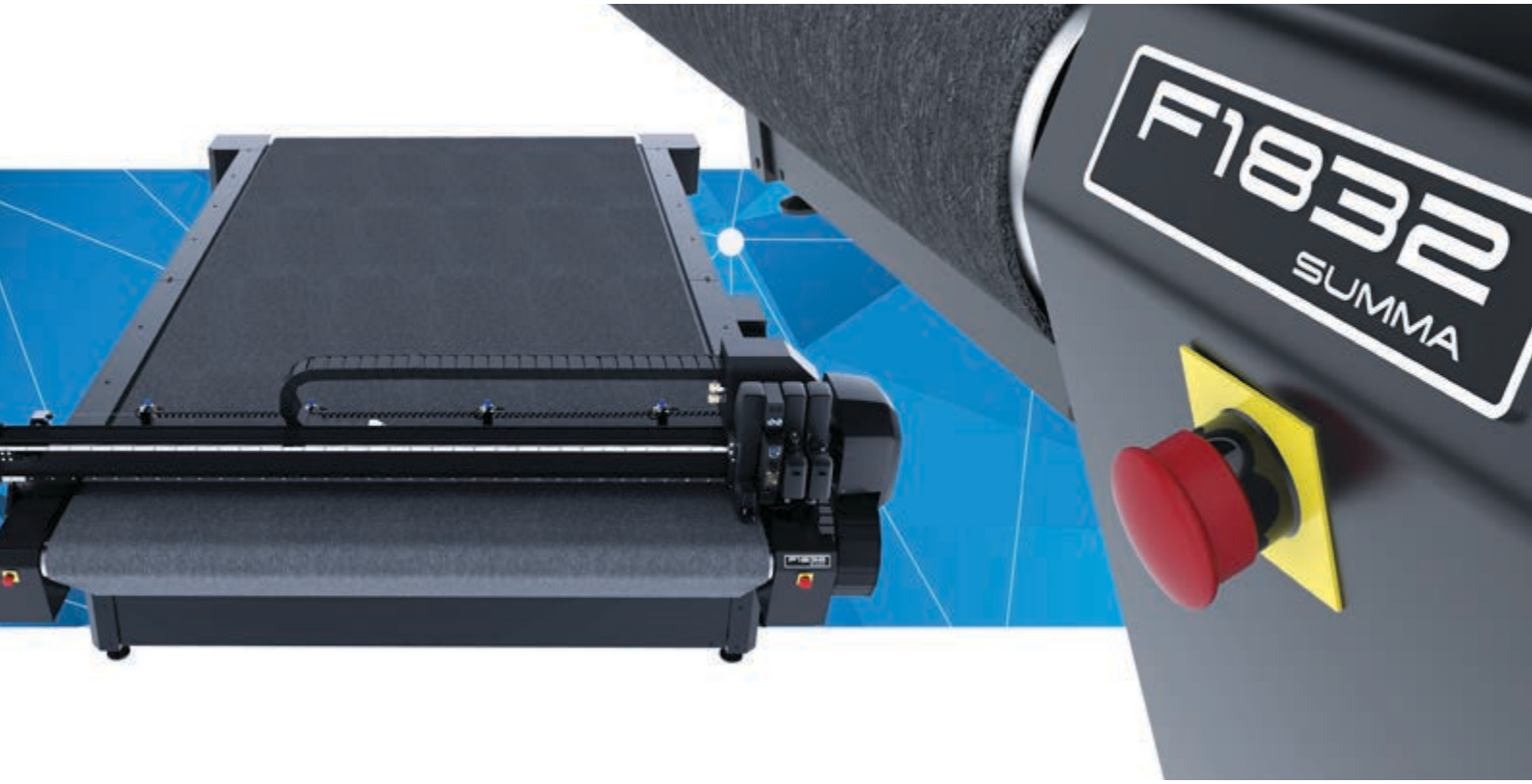
F SERIES™

With the F Series, Summa offers a cutting product line based on 30 years of expertise building the world's very best cutting plotters. These advanced engineered flatbed cutting tables are capable of cutting sheet and rigid materials as well as roll stock.

The multi-functional head can hold up to three tools at once. Changing tools can be done quick and easy. Automatic tool recognition, combined with digital and mechanical depth and/or pressure control, ensures precision cutting on a wide variety of materials.

The F Series base unit comes standard equipped with the Drag Knife Module and Summa's revolutionary optical camera marker recognition system for unbeatable contour cutting accuracy. Multiple material-handling options assure optimal efficiency, whether cutting printed, flexible or rigid substrates.

An ever-increasing arsenal of optional add-ons further expand the capabilities of the F Series, allowing for a custom-tailored machine to fit your specific workflow perfectly.



MEET THE F1832

Introducing the new F1832 grand format flatbeds cutting and finishing systems from Summa, the latest addition to the F Series is now available in a size designed to expand your capabilities and to seriously increase productivity.

With a media width acceptance of 190 cm, this flatbed system now bring affordable market potential to the world of large format cutting.

ONE MACHINE, COUNTLESS POSSIBILITIES

MULTI-FUNCTIONAL HEAD

The multi-functional head holds up to three modules at once. The central unit houses a LED pointer and an integrated camera system for fast and accurate contour cutting mark recognition.

Drag Module (1)

The Drag Module is a module which allows you to make notations with pens (A) or kiss cut a wide range of materials with a pressure up to 600 grams of downforce, using a drag knife (B).

A 

B 

Tangential Module (2)

The powerful Tangential Module offers a vertical force of 10 kg and corresponds to a wide range of matching tools. Each of the many and varied tools has a barcode ID, which ensures automatic recognition and parameter settings.

Routing Module (3)

The Routing Module is capable of milling most widely-used solid boards in the graphic and sign industry, such as hard foam PVC, acrylic and aluminum covered boards.
The Routing Module also includes a vacuum cleaning kit to remove the chips and dust.
Note: the vacuum cleaner is an optional accessory.

Rotary Module (4)

The Rotary Module has a controlled, decagonal, tangential knife and is capable of cutting all kinds of thin materials. The main focus, however, is on textiles because most fibers are difficult to cut with other knife types. After each job, dust is removed from the knife with compressed air.

1 

2 

3 

4 

Tools available for the Tangential Module

For each application, a corresponding tool can be installed.

1 The **Kiss-Cutting Tool** is able to kiss cut the most demanding roll materials with incredible force and accuracy.

2 The **Single Edge Cutout Tool** is designed for detailed cutting through materials up to 6 mm thick.

3 The **Double Edge Cutout Tool** ensures minimal wear when cutting through rigid materials up to 5 mm thick.

4 The **Heavy Duty Cutout Tool** is suitable for cutting through thicker material up to 15 mm thick.

5 The **Creasing Tools** are designed in several radius sizes and depth configurations to create folds in a variety of materials.

6 The **V-Cut Tools** are designed in several angles to allow a V-shaped groove to be cut out of thick material.

7 The **Electronic Oscillating Tool** is designed for cutting through material up to 10 mm thick and light weight material up to 18 mm thick.

8 The **Pneumatic Oscillating Tool** is designed to cut through thicker, stronger and more rigid material up to 25 mm thick.

ONE MACHINE, MANY FUNCTIONS

No other machine can match the versatility and adaptability of the Summa F Series. Its heavy duty construction, accuracy and multi-functional head allows you to install up to three tools simultaneously from a wide range of options, making countless applications possible. Since the tools and modules can be added at any time, upgrades are easy and cost-effective.

TANGENTIAL MODULE

The powerful Tangential Module offers a vertical force of 10 kg and a horizontal force of 20 kg and corresponds to a wide range of matching tools. Each of the many and varied tools has a barcode ID, which ensures automatic recognition and parameter settings. Also, multiple Tangential Modules can be added into the multi-functional head to allow multiple jobs to be assigned to a single machine, such as creasing and cutting, without having to remove modules.

1 Kiss-Cut Tool

With mechanically-controlled knife pressure, this tool is specifically designed for kiss-cutting material down to its liner up to 1.2 mm thick. This tool also includes an adjustable nose piece for precise depth control.

Ideal for cutting

1. Paper < 200 gr
2. Adhesive vinyl / Sandblast material
3. Window film
4. Magnetic material
5. Adhesive PVC banner vinyl

Blades

390-534 - Tangential Knife 36°
Max cutting thickness - 0.25 mm

390-550 - Tangential Knife 60°
Max cutting thickness - 1.2 mm

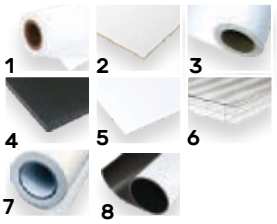
390-551 - Tangential Double Tip Knife 36°
Max cutting thickness - 0.25 mm

390-560 - Tangential Knife 45° wedge 40/25°
Max cutting thickness - 1 mm

2 Single Edge Cutout Tool

The Single Edge Cutout Tool is designed for detailed cutting through material up to 6 mm thick.
A spring-loaded gliding disk allows cutting of very precise details and can be fixed at a set depth.

Ideal for cutting



1. Paper < 200 gr
2. Cardboard 300-500 gr
3. Adhesive vinyl
4. Hard foamboard <= 2 mm
5. Polypropelene <= 1.2 mm
6. Polycarbonate <= 0.6 mm
7. Adhesive PVC banner vinyl
8. Magnetic material

Blades

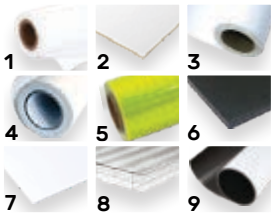
500-9801 - Single Edge Cutout Knife 65°
Max cutting thickness (with gliding disk) - 6 mm
Max cutting thickness (without gliding disk) - 6 mm

3 Double Edge Cutout Tool

The Double Edge Cutout Tool ensures minimal wear when cutting through rigid material up to 5 mm thick.

Again, a spring-loaded gliding disk allows cutting of very precise details and can be fixed at a set depth.

Ideal for cutting



1. Paper < 200 gr
2. Cardboard 300-500 gr
3. Adhesive vinyl
4. Adhesive PVC banner vinyl
5. Reflective sheeting
6. Hard foamboard <= 1.2 mm
7. Polypropelene <= 1.2 mm
8. Polycarbonate <= 0.6 mm
9. Magnetic material

Blades

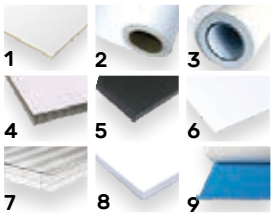
500-9802 - Double Edge Cutout Knife 50°
Max cutting thickness (with gliding disk) - 3 mm
Max cutting thickness (without gliding disk) - 3 mm

500-9803 - Double Edge Cutout Knife 60°
Max cutting thickness (with gliding disk) - 5 mm
Max cutting thickness (without gliding disk) - 5 mm

4 Heavy Duty Cutout Tool

The Heavy Duty Cutout Tool is suitable for cutting through thicker material up to 15 mm thick.

Ideal for cutting



1. Cardboard 300-500 gr
2. Adhesive vinyl
3. Adhesive PVC banner vinyl
4. Corrugated plastic <= 5 mm
5. Hard foamboard <= 1.2 mm
6. Polypropelene <= 1.2 mm
7. Polycarbonate <= 0.6 mm
8. Foamboard with paper <= 5 mm
9. Varnish blankets

Blades

500-9807 - Heavy Duty Cutout Knife 45° - 90 °
Max cutting thickness - 15 mm

5 Creasing Tools

Several Creasing Wheels, designed in different depths and radius sizes, are available for creasing and scoring paper, cartons, polypropylene and PVC material.

1. 500-9325
Creasing Tool D25 R3 W8
corrugated C-B-C Flute (4-7 mm)

2. 500-9326
Creasing Tool D25 R1.5 W8
corrugated B-C Flute (3-4 mm)

3. 500-9327
Creasing Tool D25 R0.75 W1.5
corrugated E-B Flute (1.5-3 mm)

4. 500-9328
Creasing Tool D15 R0.35
W0.7 - 2pt
cardboard 300 - 500 gr m²/
corrugated E Flute (1.5 mm)

5. 500-9329
Creasing Tool D15 R0.17
W0.35 - 1pt
polypropelene sheets <= 1.2 mm

6 V-Cut Tools

The V-Cut Tools are available in 5 angles and are designed to cut a V-shaped groove in rigid sandwich and foam composite boards up to 27 mm thick, depending on the material's density.

500-9340
V-Cut 0°

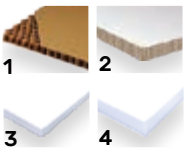
500-9341
V-Cut 15°

500-9342
V-Cut 22.5°

500-9343
V-Cut 30°

500-9344
V-Cut 45°

Ideal for V- groove cutting



1. Honeycomb board
2. Re-board®
3. Foamboard with paper <= 5 mm
4. Foamboard with paper > 5 mm

Blades

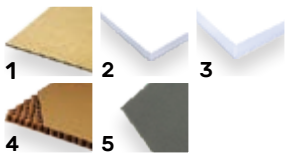
500-9825 - V-Cut Blade 0.9 mm
Max cutting thickness 18-27 mm

500-9826 - V-Cut Hard Metal
Max cutting thickness 18-27 mm

7 Electronic Oscillating Tool

Ideal for cutting soft and medium density materials such as corrugated board and foam up to 18 mm thick.
The Electronic Oscillating Tool is driven by an electric motor, producing up to 12,000 rpm and moves a knife up and down over a stroke of 1 mm.

Ideal for cutting



1. Corrugated B-C-E Flute (1.5-4 mm)
2. Foamboard with paper <= 10 mm
3. Foamboard with paper > 5 mm
4. Honeycomb board < 10 mm
5. Gasket

Blades

500-9800 - EOT L25 Knife 65°
Max cutting thickness (with gliding disk) - 5 mm
Max cutting thickness (without gliding disk) - 5 mm

500-9810 - EOT L25 Knife 65° - 80°
Max cutting thickness (with gliding disk) - 5 mm
Max cutting thickness (without gliding disk) - 11 mm

500-9811 - EOT L25 Knife 65°-85°
Max cutting thickness (with gliding disk) - 5 mm
Max cutting thickness (without gliding disk) - 11 mm

500-9815 -EOT L33 Knife 45°-85°
Max cutting thickness (with gliding disk) - 13 mm
Max cutting thickness (without gliding disk) - 19 mm

500-9813 - EOT L25 Knife 0°-75°
Max cutting thickness (with gliding disk) - 5 mm
Max cutting thickness (without gliding disk) - 6 mm

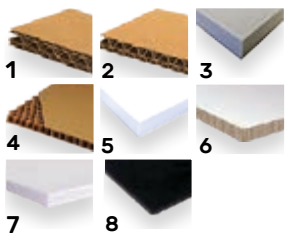
500-9814 -EOT L38 Knife 45°-86°
Max cutting thickness (with gliding disk) - 18 mm
Max cutting thickness (without gliding disk) - 24 mm

500-9812 - EOT L28 Knife 65°-85°
Max cutting thickness (with gliding disk) - 8 mm
Max cutting thickness (without gliding disk) - 14 mm

8 Pneumatic Oscillating Tool

The Pneumatic Oscillating Tool, powered by compressed air, moves a knife up and down over a stroke of 8 mm.
The robust construction of the tool makes it suitable to cut thick material, such as honeycomb board, corrugated board and foam board.

Ideal for cutting



1. Triple walled cardboard
2. Double walled cardboard
3. Packaging Foam
4. Honeycomb board >= 10 mm
5. Foamboard with paper > 5 mm
6. Re-board®
7. Foamboard with plastic
8. Rubber

Blades

500-9830 - POT Knife Flat Point L20 T0.63
Max cutting thickness - 18mm

500-9831 - POT Knife Flat Point L27 T0.63
Max cutting thickness - 25mm

500-9832 - POT Knife Flat Point L20 T1.5
Max cutting thickness - 18mm

500-9833 - POT Knife Serrated L27 T1.0
Max cutting thickness - 25mm

500-9834 - POT Knife Point L20 T1.0*
Max cutting thickness - 16mm
***Extra protective mat recommended**

DRAG MODULE

The Drag Module makes notations with pens or kiss-cuts a wide range of material with a pressure of 600 grams of downforce, using a drag knife.

Identical to the Tangential Module, multiple Drag Modules can be added into the multi-functional head to allow both kiss cutting and drawing without the need to remove modules.

1

Drag Knife Tool

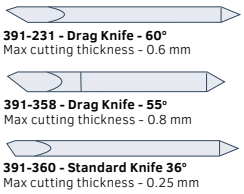
The Drag Knife Tool is specifically designed for fast kiss-cutting a wide range of material.

With 600 g of force, this tool is ideal for cutting through a wide range of adhesive vinyls.

Ideal for cutting

1. Paper < 200 gsm
2. Adhesive vinyl
3. Adhesive PVC banner vinyl

Blades



391-231 - Drag Knife - 60°
Max cutting thickness - 0.6 mm

391-358 - Drag Knife - 55°
Max cutting thickness - 0.8 mm

391-360 - Standard Knife 36°
Max cutting thickness - 0.25 mm

2

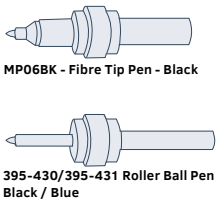
Pen Tool & Universal Pen Holder Tool

Attached to the Drag Module, this fast and accurate tool allows precise drawing on a range of materials, using either our own brand of fiber tip pens or a variety of third-party pencils and pens in a multitude of sizes and diameters, using the Universal Pen Holder Tool.

Ideal for cutting

1. Paper < 200 gsm
2. Adhesive vinyl
3. Adhesive PVC banner vinyl

Pens



MP06BK - Fibre Tip Pen - Black

395-430/395-431 Roller Ball Pen Black / Blue

Pen holder

Universal Pen Holder / Black
accepts pen/pencils from 6.5 mm to 10 mm in diameter

Universal Pen Holder / Copper
accepts pen/pencils from 9.5 mm to 11 mm in diameter

ROTARY MODULE

The Rotary Module on the Summa F Series is driven by an electronic motor and is capable of handling all kinds of thin materials with a main focus on textiles.

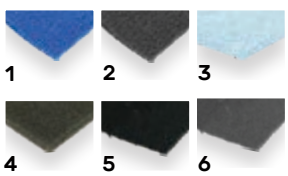
In general, the vacuum table has less grip on textiles. However, the Rotary Knife produces minimal horizontal forces, ensuring the material stays in place.

The module allocates slots 2 and 3 of the head, similar to the Routing tool. Slot 1 remains free for another tool. The module can be dismounted easily, making two slots available again to mount other tools, if necessary. Initial installation requires no assembling or wiring.

The module is compatible with all existing F Series installations.

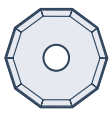
Video available on www.summa.eu/video/rotary

Ideal for cutting

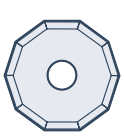


1. Fleece
2. Felt
3. Packaging Foam
4. Foam <= 5 mm
5. Synthetic Textiles
6. Technical Textiles

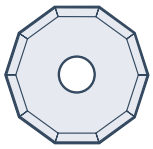
Decagonal Knives



500 - 9860 Decagonal Knife D25
Max cutting thickness - 1.5 mm



500 - 9861 Decagonal Knife D28
Max cutting thickness - 3 mm



500 - 9862 Decagonal Knife D32
Max cutting thickness - 5 mm

ROUTING MODULE

Kress Router

The Kress Routing Module on the Summa F Series has a 1 kW motor, capable of handling most solid boards in the graphic and sign industry. Hard foam PVC, acrylic and aluminum covered foam boards as well as other materials, such as wood and MDF can be processed.

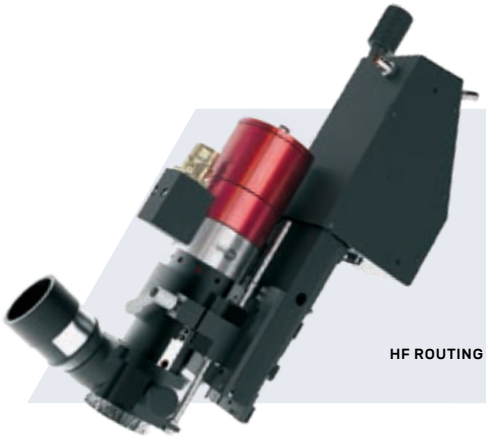
HF Router (High Frequency Router)

The HF Routing Module is equipped with a high-frequency spindle and a higher power output, which allow higher processing speeds. The utmost balanced, high-frequency spindle provides for a much smoother finishing of rigid substrates. The bit is pneumatically controlled and can be replaced manually in a fast and simple way. This maximizes productivity of the cutter when processing, for instance, acrylics, wood and plastics.

The Routing Modules for the F Series allocate slots 2 and 3 of the head. Slot 1 remains free for another tool. Of course, the modules can be easily attached to the mounting pole when not in use, making the two slots available again for other modules and tools. The modules are compatible with existing installations with a 3-phase power connection. SummaFlex Pro can drive the modules without the need to purchase any additional software upgrades.

Video available on www.summa.eu/video/hf-router

KRESS ROUTING MODULE



HF ROUTING MODULE

GANTRY

Routing bits

500-9850 - Routing Bit D3/3 L60/10 1Fl UC

500-9852 - Routing Bit D4/4 L50/12 1Fl UC

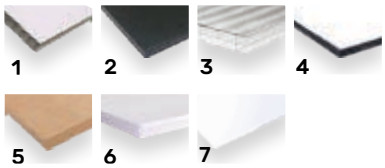
500-9854 - HF Routing Bit D6/3 L50/06 MP 1Fl UC

500-9857 - HF Routing Bit D6/6 L50/12 MP 1Fl UC BAL

500-9856 - HF Routing Bit D6/4 L50/12 MP 1Fl UC

500-9858 - HF Routing Bit D6/6 L58/22 MP 1Fl UC BAL

Ideal for routing



1. Corrugated plastic
2. Hard foamboard
3. Polycarbonate
4. Foamboard with aluminium
5. MDF
6. Foamboard with plastic
7. Plexi

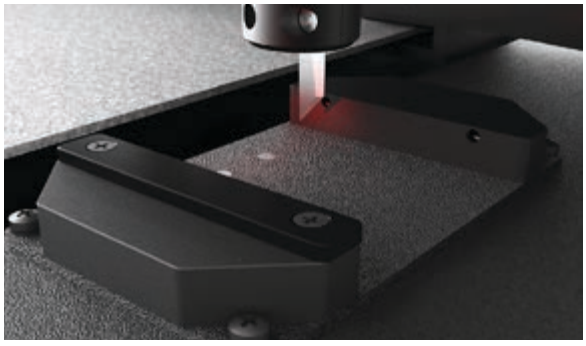
Both Routing Modules come with a vacuum cleaning kit to remove unwanted chips and dust. The kit includes a brush assembly, host and mounting pole (gantry). The vacuum cleaner is an optional accessory.

AUTOMATED DEPTH CONTROL / ADC

The Automated Depth Control (ADC) simplifies tool, knife or bit changes significantly. The ADC measures the tip of the knife or bit accurately and sets the down position of the tool to the level of the table.

When starting up the unit or after a tool change, all installed tools are measured to detect changes and avoid operator errors. The measurement only takes a few seconds and provides for a swift tool change. On all tangential controlled tools, the ADC can also detect the tangential calibration values (Origin, Lat and Long). This ensures the best settings can always be used to get the most optimal cut quality.

Video available on www.summa.eu/video/adc



TOOL APPLICATION OVERVIEW TABLE

Recommended

Alternative

	Drag knife	Kiss Cut + standard knife	Kiss Cut + 390-560 knife	Kiss Cut + 390-550 knife	Single Edge	Double Edge	Heavy Duty	Electronic Oscillating Tool	Pneumatic Oscillating Tool
CARDBOARD MATERIALS									
Paper < 200 gsm		Recommended			Recommended	Recommended			
Cardboard 300-500 gsm					Recommended	Recommended	Recommended		
Corrugated B flute (3 mm)								Recommended	
Corrugated C flute (4 mm)								Recommended	Alternative
Corrugated BC flute (7 mm)								Alternative	Recommended
Corrugated E flute (1.5 mm)								Recommended	
Honeycomb board < 10 mm								Recommended	Alternative
Honeycomb board >= 10 mm									Recommended
Re-board® 10 mm								Recommended	Recommended
Re-board® >= 10 mm									Recommended
ROLL MATERIALS									
Adhesive vinyl	Recommended	Recommended			Recommended	Recommended	Alternative		
Adhesive PVC banner vinyl	Recommended	Recommended							
Banner Vinyl					Alternative	Recommended	Alternative		
Sandblast material				Recommended					
Reflective sheeting			Recommended			Recommended			
Window film		Recommended							
SYNTHETIC MATERIALS									
Corrugated plastic <= 5 mm							Recommended		
Corrugated plastic > 5 mm									Alternative
Hard foamboard <= 2 mm					Alternative	Recommended	Recommended		
Hard foamboard > 2 mm									
Polypropylene sheets <= 1.2 mm			Alternative		Alternative	Recommended	Alternative		
Polycarbonate <= 0.6 mm			Alternative		Alternative	Recommended	Alternative		
Polycarbonate > 1 mm									
Plexi									
FOAMBOARD									
Foamboard with paper <= 5 mm						Alternative	Alternative	Recommended	
Foamboard with paper > 5 mm								Alternative	Recommended
Foamboard with plastic									Recommended
Foamboard with aluminium									
WOOD									
MDF									
SPECIAL MATERIALS									
Magnetic		Alternative			Alternative	Recommended			
Varnish blankets				Recommended			Recommended		
Gasket								Recommended	
Foam									Recommended
Textiles (Coated-Uncoated)									
Rubber									Recommended

V-Cut 0° 500-9340	V-Cut 15° 500-9341	V-Cut 22.5° 500-9342	V-Cut 30° 500-9343	V-Cut 45° 500-9344	Creasing Tool D25 R3 W8 500-9325	Creasing Tool D25 R1.5 W8 500-9326	Creasing Tool D25 R0.75 W1.5 500-9327	Creasing Tool D15 R0.35 W0.7 2pt 500-9328	Creasing Tool D15 R0.17 W0.35 1pt 500-9329	Kress Routing Tool	HF Routing Tool	Rotary Knife

MEDIA HANDLING HAS NEVER BEEN EASIER

VACUUM TABLE

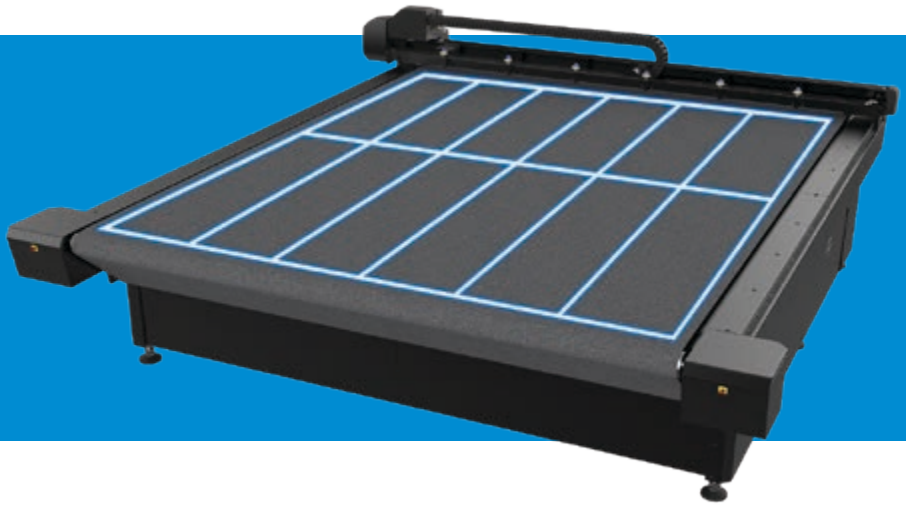
Vacuum Pump / F1612

The Vacuum Pump with sound absorber holds the material in place during the job while the Selector adjusts the vacuum automatically to match the working area.

Zones / F1330, F1832, F2630

The working area of the F2630, the F1330 and the F1832 can be divided into different zones, so the vacuum can be optimized to process smaller jobs, as well.

The F2630 can be divided into12 zones, the F1832 can be divided into 8 zones and the F1330 can be divided into 6 zones. Each zone can be acti-vated and deactivated automatically.



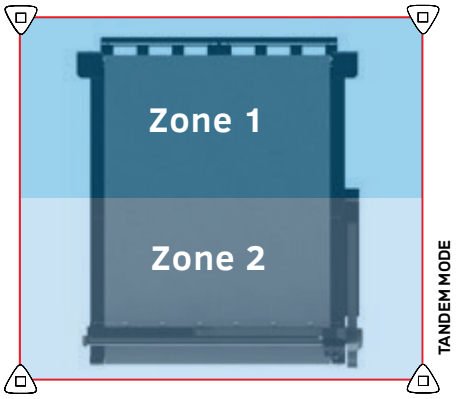
MEDIA TRANSPORT

Conveyor System & Media Advance Clamps

The Conveyor System allow you to cut, crease and annotate large lengths of (flexible) material to large production runs. Pneumatically-driven media advance clamps hold the material down while pulling it forward to work continuously in panels or multiple jobs.

Roll Support System

The Roll Support System of the F2630 consists of two parts, so two smaller rolls can be loaded next to each other to maximize the workload of the machine.
In combination with the Conveyor System and the Media Advanced Clamps, the Roll Support System is ideal for processing roll material on all the Summa Flatbed Systems.

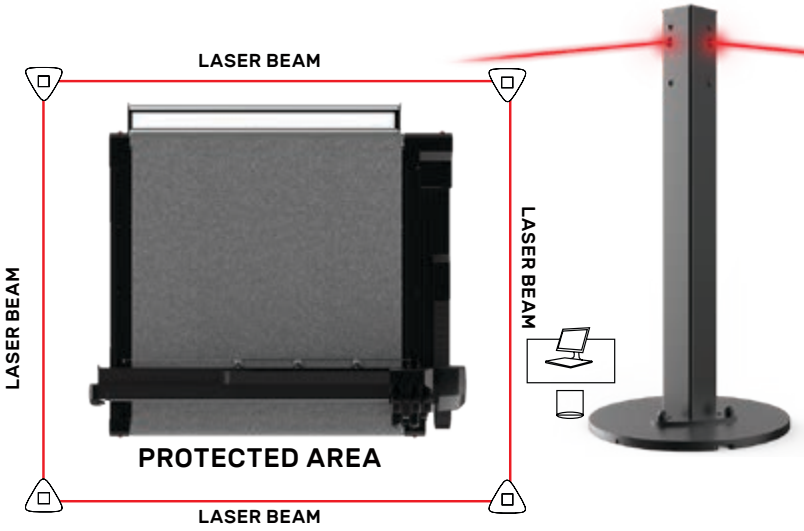


TANDEM MODE / F1330, F1832, F2630

By using the front zones and rear zones alternately, the Tandem Mode leads to significant increases in productivity.

With the Tandem Mode, the active working area on the flatbed can be divided into front and back processing areas, which enables the user to load and unload material on one end of the table while cutting material on the other end of the table. This will avoid idle periods during the processing of material, which will add significant value to the overall workflow.

Video available on www.summa.eu/video/tandem-mode



SAFETY PACK

A laser beam system surrounds the flatbed and controls this defined area for external movement.

When the laser beams are interrupted, either intentionally or deliberately, the cutting process will be paused. By means of a simple action of the operator the cutting process can be resumed without loss of data.

The flatbed is also equipped with four emergency stops, which will fully interrupt the cutting process, if necessary. This guarantees the safety of the operator and bystanders.

Twin™ Workflow

The **Twin**™ Workflow is designed to maximize productivity, with flexibility in the finishing workflow. At the core of this innovating cutting solution is a Summa F Series flatbed (F1612) and a Summa S Class 2 OPOS-CAM roll cutter (S2TC160). The **Twin**™ Workflow has been developed to choose the optimal workflow for your specific job. By using the strength of both machines, productivity will be increased considerably. The **Twin**™ Workflow allows the processing of a job initiated on a Summa S Class 2 roll cutter (kiss-cutting) and to finish the job on an F1612 flatbed cutter (cutting through). Both machines use the same cut-data and read the same marks by utilizing the built-in camera on each of the cutting systems.

With the **Twin**™ Workflow productivity and performance will be brought to a higher level and its smooth integration into the existing workflows will further contribute to the customer's Productivity, Performance and Profitability!

MEDIA OPTIONS / F1612

Basket

The Basket is a handy accessory to reduce the media handling time, optimizing your workflow. In combination with the included conveyor system, the F1612 can automatically process several feet of material while the basket is capturing the cut-out vinyl and/or waste material. Once started, this roll to roll process will keep cutting without operator intervention. In the meantime, the basket is keeping the workspace clean.

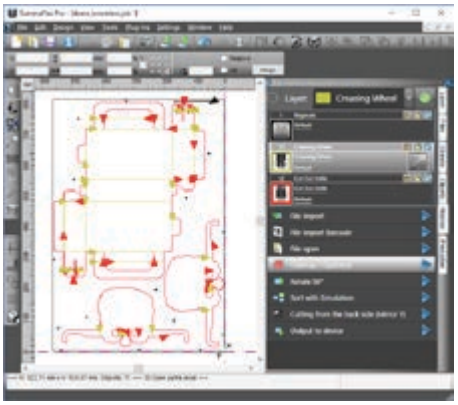
Extension Tables

The sturdy Extension Tables can be placed in front and at the back of the F1612 and can be adjusted to the correct height. This way board material, several times longer than the F1612 working area, can be processed in combination with the Conveyor System. When the tables are not in use, you can fold them to save space.

They will also give you the ability to use the feature, **Continuous Sheet Feed.** With the Continuous Sheet Feed, the flatbed table can transport your material from the loading area to its working area and afterwards in transport the processed material to the waste basket or extension table in front. This enables the user to load and unload material while cutting and can lead to significant increases in productivity.

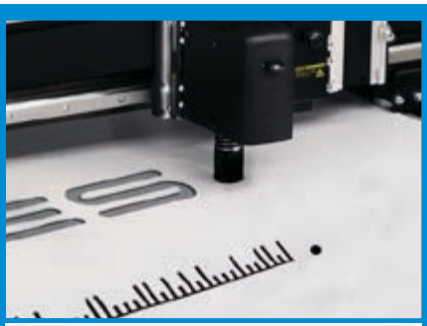
This will avoid idle periods during the processing of material, which will add significant value to the overall workflow.

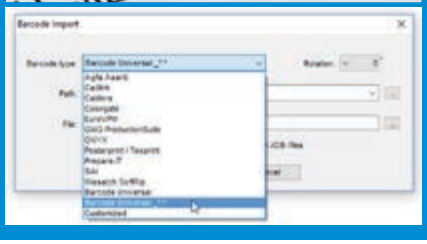
SummaFlex™ PRO



SummaFlex Pro is a front-end application software with job preparation, post processor and import plug-ins for CAD and illustration software (e.g., Illustrator and CorelDRAW). The software integrates the F Series perfectly into your workflow needs. SummaFlex Pro is the ideal link between your design station, RIPstation, printers and cutting devices. Once the workflow is set, macros automate the process. Consequently, the operator's handling before starting the next job is reduced to a minimum. The downtime of the table is also reduced to a minimum.

SummaFlex Pro is standard included and comes with support for optical camera recognition. This ensures maximum flexibility in positioning registration marks with increased accuracy during contour cutting.





Barcode

Certain RIPS offer the possibility to print a barcode with OPOS marks. This barcode can be used to identify the job and to automatically obtain the necessary cut data from the computer.

By scanning the barcode, the operator doesn't need to localise the job himself anymore. Scanning the job happens automatically by the built-in camera of the Summa F Series system or by a handscanner, depending on the selected workflow. Consequently the job will be opened in SummaFlex Pro to be processed immediately.

The biggest advantage of Summa's revolutionary camera system is that as soon as a job is finished, the camera will search for the next job without operator intervention.
When using this workflow, the process will be repeated automatically.
Note: an extra licence for the camera is required.

Video available on www.summa.eu/video/barcode

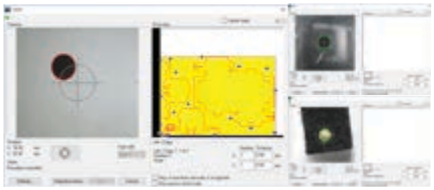
Sorting

In order to minimize output time, the order in which objects are handled is very important. SummaFlex Pro has the capability of determining the start (S) and end (E) of a vector, as well as the order of processing.
The traverse path can be simulated for each layer before the output. The simulation speed can be adjusted continuously.

The aim is to shorten the traverse path. Basic sorting after selection of the main direction is done by SummaFlex Pro itself. Adjustments can be made at any time and can be validated with a new simulation.

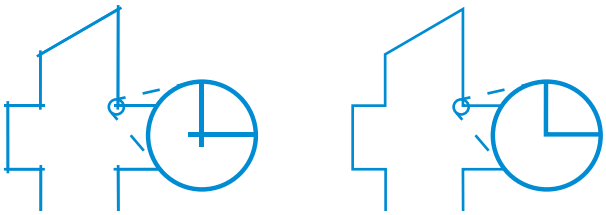
Camera Recognition

The recognition process, localisation of the registration marks and the process itself can be tracked in the camera preview window. All kinds of compensations and marks, which occur in everyday practice, are manageable with SummaFlex Pro – whether they are film, textiles, cardboard, etc.



Overcut Compensation

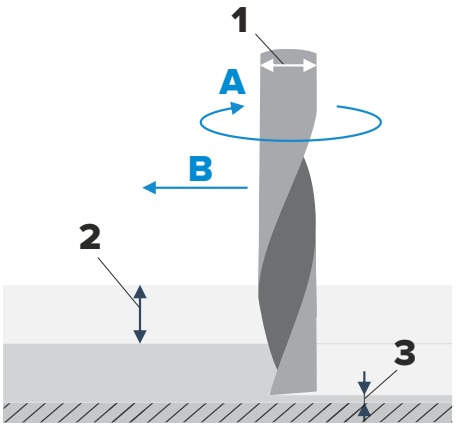
This SummaFlex Pro functionality avoids or minimizes overcuts in the corners.



Milling

With the interactive milling function, any change in tool diameter and rotation is performed immediately and shown on the working area. The milling objects are displayed with transparent fill and full-colored radius correction. A recalculation is performed at every scaling of the milling objects. Embossing/engraving: the area that needs to be embossed is provided with milling paths in a hatch or an island pattern, or optionally, with pocket connection where the tool is not being raised.

The milling process can occur at multiple depths. All milling paths are automatically created and displayed; the tool diameter is taken into account.



Workflow Compatibility

With the Workflow Compatibility function, SummaFlex Pro can seamlessly fit into existing workflows. SummaFlex Pro offers a very flexible data import and is supported by the following RIP manufacturers.

RIP Manufacturers:

Agfa Asanti	ErgoSoft TexPrint	Prepare-it
Cadlink RIP	GMG Production Suite	SAi
Caldera RIP	IGEPA Master RIP	Wasatch RIP
ColorGATE RIP	ONYX RIP	
EFI RIP	Pjannto RIP	
ErgoSoft PosterPrint	PosterJet	

Packaging Software Compatibility:

Arden	Engview
ERPA	Picador

SummaFlex Pro has a wide variety of file import filters. This means nearly all data can be imported and processed.

Vector/ CAD:

.PDF	.DXF	.HPGL
.AI	.IK	.CMX
.EPS	.GTP	.PS
.WMF	.JTP	.JPG
.EMF	.JOB	

Special Filters:

.Cut / I-Cut Vision (up to Version 6)
.ZCC / Zünd Cut Center
.OXF / Optiscout

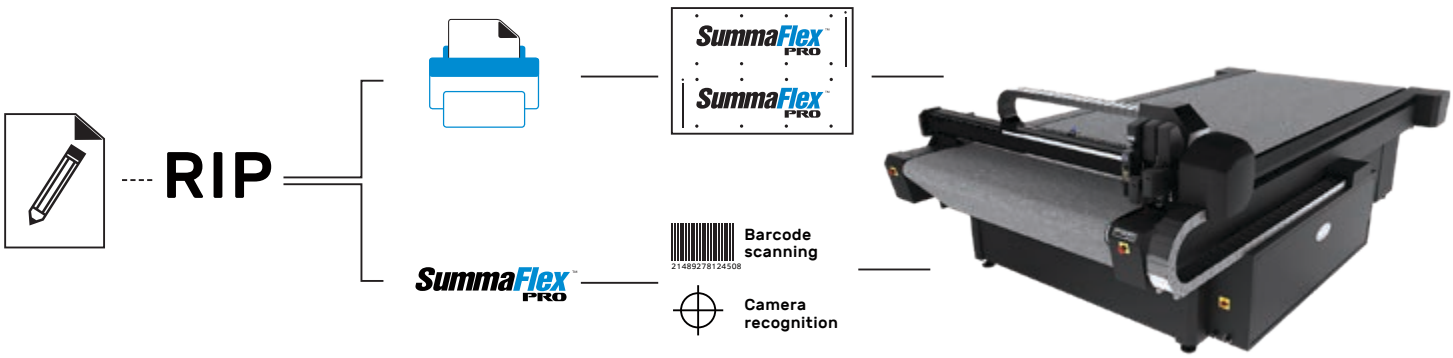
PLM Packlib

The PLM Packlib* for Summa is a library of resizable standard packaging models. The most popular packaging standards FEFCO (corrugated cardboard) and ECMA (folding carton) are included. Also a few POS display designs and solid cardboards (furniture) designs
are available.

Box/designs dimensions and material thickness are parametric. So, within a few clicks the correct cutting and folding lines are generated. These lines can be exported to a layered Illustrator file, ready to put graphics on it. This 'Summa version' also has the option to generate an OXF file, immediately ready to be used by SummaFlex Pro.

**Note: The PLM Packlib is a program from TreeDim, mainly known by the CAD/packaging software 'Picador'*

1 PREPARE DESIGN **2 PRINT & SETUP** **3 FINISH**



AXIS™ CONTROL

Axis Control™ software gives you full control over Summa's cutting table. The optimized design of the touch screen makes Axis Control the optimum interface for the machine operator.

With the supplied wireless controller, the operator is free to move around the table while changing basic settings. The wireless controller is included free of charge with the Summa F Series.

TECHNICAL SPECIFICATIONS

Model	F1612	F1330	F1832	F2630
Dimensions	236 x 214 x 110 cm	214 x 410 x 122 cm	270 x 425 x 122 cm	349 x 410 x 122 cm
Media Width	Up to 165 cm	Up to 134 cm	Up to 190 cm	Up to 270 cm
Working Area	160 x 120 cm	129 x 305 cm	184 x 320 cm	265 x 305 cm
Vacuum	1.3 kW (50Hz) / 1.75 kW (60Hz)	2.2 kW (50 Hz) / 2.55 kW (60Hz)	2 x 2.2 kW (50 Hz) / 2 x 2.55 kW (60Hz)	2 x 2.2 kW (50 Hz) / 2 x 2.55 kW (60Hz)
Vacuum Zones	Variable over width of machine	6 zones (2 rows x 3 columns)	8 zones (2 rows x 4 columns)	12 zones (2 rows x 6 columns)
Speed	Up to 1000 mm/sec	Up to 1000 mm/sec	Up to 1000 mm/sec	Up to 1000 mm/sec
Acceleration	Up to 1 G	Up to 1 G	Up to 1 G	Up to 1 G
Requirements	**Standard:** 3 x 400V + N, 50Hz, max 20A **Or:** 3 x 208V + N, 60Hz, max 30A **Or:** 3 x 230V, 50Hz, max 20A	**Standard:** 3 x 400V + N, 50Hz, max 30A **Or:** 3 x 208V + N, 60Hz, max 30A **Or:** 3 x 230V, 50Hz, max 30A	**Standard:** 3 x 400V + N, 50Hz, max 30A **Or:** 3 x 208V + N, 60Hz, max 30A **Or:** 3 x 230V, 50Hz, max 30A	**Standard:** 3 x 400V + N, 50Hz, max 30A **Or:** 3 x 208V + N, 60Hz, max 30A **Or:** 3 x 230V, 50Hz, max 30A

Standard Solution includes

- F Series Flatbed System
- Conveyor System with Pneumatic Media clamps and Roll Support
- Safety Pack
- Camera System
- Axis Control Software
- Remote Controller with charger and USB Bluetooth
- Drag Module
- ADC Right
- SummaFlex Pro

For complete specifications, please visit www.summa.eu

PARTS & TOOLS

Order codes: Consumables

Consumables for Drag Module

391-332	Drag Knife Holder for 36° & 60°
391-360	Standard Drag Knives - 36° (5x)
391-231	Drag Knife - 60°
MP06BK	Fibre Tip Pens - Black (4x)
395-430	Roller Ball Pens - Black (5x)
395-431	Roller Ball Pens - Blue (5x)
395-434	Pen Holders

Consumables for Tangential Module

390-534	Standard Tangential Knife - 36° (5x)
390-550	Sandblast Tangential Knife - 60°
390-551	Double Tip Tangential Knife - 36°
390-560	Tangential Knife 45° Wedge 40/25°
390-553	Knife Install Tool
395-348	Nose Piece for 36°
500-9801	Single Edge Cutout Knife - 65°
500-9802	Double Edge Cutout Knife - 50°
500-9803	Double Edge Cutout Knife - 60°
500-9807	Heavy Duty Cutout Knife - 45° / 90°
500-9825	V-Cut Blade - 0.9 mm (5x)
500-9826	V-Cut Blade - Hard Metal
500-3303	Gliding Disk Single Sided Knife
500-3315	Gliding Disk Double Sided Knife

Consumables for Electronic Oscillating Tool / EOT

500-3313	Knife Guide for EOT
500-9800	EOT Knife L25 - 65°
500-9810	EOT Knife L25 - 65° - 80°
500-9811	EOT Knife L25 - 65° - 85°
500-9812	EOT Knife L28 - 65° - 85°
500-9813	EOT Knife L25 - 0° - 65°
500-9814	EOT Knife L38 - 45° - 86°
500-9815	EOT Knife L33 - 45° - 85°

Consumables for Pneumatic Oscillating Tool / POT

500-9830	POT Knife Flat Point L20 T0.63 (3x)
500-9831	POT Knife Flat Point L27 T0.63 (3x)
500-9832	POT Knife Flat Point L20 T1.5 (3x)
500-9833	POT Knife Serrated L27 T1.0 (3x)
500-9834	POT Knife L20 T1.0 (3x)

Consumables for Rotary Module

500-9860	Decagonal Knife D25 (3x)
500-9861	Decagonal Knife D28 (3x)
500-9862	Decagonal Knife D32 (3x)

Consumables for Routing System

500-9850	Routing Bits D3/3 L60/10 1Fl UC (3x)
500-9851	Routing Bits D3/3 L60/20 1Fl UC (3x)
500-9852	Routing Bits D4/4 L50/12 1Fl UC (3x)
500-9853	Routing Bits D4/4 L70/30 1Fl UC (3x)
500-9854	Routing Bits D6/3 L50/06 MP 1Fl UC (3x)
500-9856	Routing Bits D6/4 L50/12 MP 1Fl UC (3x)
500-9857	Routing Bits D6/6 L50/12 MP 1Fl UC BAL (3x)
500-9858	Routing Bits D6/6 L58/22 MP 1Fl UC BAL (3x)
500-0241	3 mm Collet for 1050 Kress
500-0242	4 mm Collet for 1050 Kress
500-0243	6 mm Collet for 1050 Kress
500-0244	8 mm Collet for 1050 Kress

Accessories

500-9347	Vacuum Cleaner Bag for Hercules (5x)
500-9348	Filter for Hercules
500-9349	Carbon Filter for Hercules

Order codes: Hardware

F1612-12 / F1612 Flatbed System

Media Handling Options

500-9120	Basket
500-9121	Extension Table

Mats And Belts

500-9114	Conveyor Belt (F1612)
500-9115	Protective Mat (F1612)
500-9333	Routing Mat (F1612)

F1330-02 / F1330 Flatbed System

Mats And Belts

500-9163	Conveyor Belt (F1330)
500-9164	Protective Mats (2x) (F1330)
500-9336	Routing Mat (F1330)

Miscellaneous Options

500-9165	Kit Pump Connection 12m
500-9166	Kit Pump Connection 25m

F1832-22 / F1832 Flatbed System

Mats And Belts

500-9355	Conveyor Belt (F1832)
500-9356	Protective Mat (2x) (F1832)
500-9333	Routing Mat (F1832)

Miscellaneous Options

500-9155	Kit Pump Connection 12m
500-9156	Kit Pump Connection 25m

F2630-02 / F2630 Flatbed System

Mats And Belts

500-9153	Conveyor Belt (F2630)
500-9154	Protective Mat (2x) (F2630)
500-9336	Routing Mat (F2630)

Miscellaneous Options

500-9155	Kit Pump Connection 12m
500-9156	Kit Pump Connection 25m

F1612-12, F1330-02,F1832-22 & F2630-12

Modules

500-9300	Drag Module
500-9310	Tangential Module
500-9330	Routing System (F1612)
500-9357	Routing System (F1330)
500-9354	Routing System (F1832)
500-9337	Routing System (F2630)
500-9372	HF Routing System (F1612)
500-9371	HF Routing System (F1330)
500-9373	HF Routing System (F1832)
500-9370	HF Routing System (F2630)
500-9360	Rotary Module

Accesories

500-9220	Base for Safety Pole
500-9345	Vacuum Cleaner 3000W: Hercules

F1612-12, F1330-02,F1832-22 & F2630-12

Tools for Tangential Module

500-9311	Kiss Cutting Tool
500-9312	Single Edge Cutout Tool
500-9313	Double Edge Cutout Tool
500-9314	Heavy Duty Cutout Tool
500-9325	Creasing Tool D25 R3 W8 H7
500-9326	Creasing Tool D25 R1.5 W8 H5.5
500-9327	Creasing Tool D25 R0.75 W1.5 H1.5
500-9328	Creasing Tool D15 2pt
500-9329	Creasing Tool D15 1pt
500-9340	V-Cut Tool - 0°
500-9341	V-Cut Tool - 15°
500-9342	V-Cut Tool - 22.5°
500-9343	V-Cut Tool - 30°
500-9344	V-Cut Tool - 45°
500-9320	Electronic Oscillating Tool
500-9350	Pneumatic Oscillating Tool

Automated Depth Control

500-9126	Field **Upgrade**: ADC **Left** (F1612)* *Requires: ADC Right
500-9130	Field **Upgrade**:ADC **Left** (F1330/F1832/F2630)* *Requires: ADC Right

F Series™

Professional flatbed finishing systems

Summa nv
Rochesterlaan 6
8470 Gistel
Belgium

www.summa.eu