



**CadCam**Technology  
Laser division of Summa

# FB SERIES

---

**Laser cutting systems  
for highly specialised and  
industrial applications**



# ABOUT SUMMA

---

Summa is a manufacturer of innovative cutting equipment that helps companies and people to finish their applications to the highest standards. Delivering outstanding quality conforming these high standards, has secured the Summa reputation for legendary performance.

Companies from all over the world use Summa cutting solutions for products in the printing, signage, display, apparel and packaging industry. With the cutting solutions from Summa your business is future-proof for many years to come.

[Summa.com](http://Summa.com) | [#SummaFinish](https://twitter.com/SummaFinish)





# LASER CUTTING SOLUTIONS

---

Many industries are now finding that laser technology is far superior to other cutting methods. The possibilities with laser cutting are therefore numerous with many applications that have specific equipment requirements. For these specific requirements it is worth looking into Summa's Laser Cutting Solutions with the FB laser cutters, developed by the laser division of Summa, CadCam Technology.

Thanks to the configuration of these laser cutters, Summa is able to respond to the great differences in production processes and application requirements.



## Superior laser cutting

The FB Laser cutters have proved to be successful in all types of markets from automotive to textiles. The cutting systems demonstrate the precision to cut a wide variety of materials at speeds suitable for mass production. The fine control of machine parameters combined with a large array of options allow us to tailor each system to your application requirements.

### Key features

The laser cutters of the FB Series are built to deliver high quality at great speeds suited to high production volumes in industrial environments.

#### Optimal results with Camera Recognition

At the core of the productivity lies a high-quality camera recognition system. It detects registration marks quickly to ensure a precise and perfect cut.

#### Quality control with Distortion Compensation

The camera system combined with the software also automatically compensates for any distortions or stretches on fabrics or textiles.

#### Large-format cutting thanks to Bite Feed

Large-format cutting is easy thanks to the continuous feed of the material, one part after the other, which keeps the cutters' footprint considerably small.

#### Accurate cuts at high speeds

Equipped with best in-market laser sources, accurate cuts are delivered at high speeds, over and over again, saving you both time and money.

#### Straight feed with Motorized de-reeler

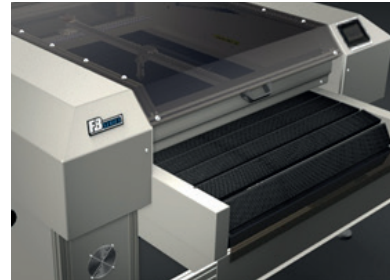
The more straight and relaxed the material, the better the quality of the cut. This is achieved with a motorized roll handling system, creating a loop in the material for a tensionless feed.

#### Enhanced productivity with optional Vision System

The Vision System takes productivity to the next level. It can be used to *Trace & Cut*, quick scanning of the material and automatic creation of a cut vector. Also *Cut-on-the-fly* belongs to the fundamentals of the cutter, to scan, feed and cut simultaneously, which saves the operator lots of time.

#### Operation control with ApS-Ethos Software

Speeds of 1000 mm/sec combined with the ApS-Ethos control software make the FB Series the complete production unit. In co-ordination with the optional roll handling system, large quantities of production can be achieved with minimal user interaction.



# FB SERIES

The FB Series has proved to be successful in all types of markets from automotive to textiles. The laser cutters demonstrate the precision to cut a wide variety of materials at speeds suitable for mass production.

It is thanks to the fine control of machine parameters, combined with a large array of options, that each system can be tailored to your specific application requirements.

## Key Benefits

- Bespoke cutting solution
- Small footprint
- Fast and precise cutting
- Safety Class 1

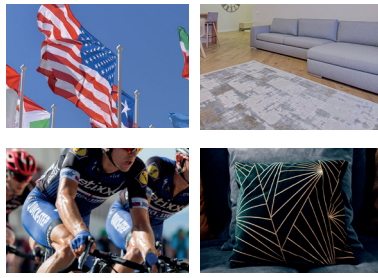
## Cutting Possibilities

### Materials

- Stretchable materials (lycra, spandex, elastane)
- Polyester fabric
- (Technical) textiles
- Acrylic
- Many more...

### Applications

- Sportswear & Apparel
- Carpet, matting
- Seat covers and belts
- (Fishing) nets
- Many more...

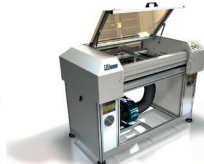


Contact  
Summa

Technical Specifications					
Model	FB500	FB700	FB1500	FB1800	FB2400
<b>Laser Power</b>	30, 50 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts
<b>Dimensions</b> (H x W x D)	1025 x 1380 x 810 mm (40.3 x 54.3 x 31.8")	1025 x 1505 x 1260 mm (40.3 x 59.3 x 49.1")	1025 x 2060 x 1260 mm (40.3 x 81.1 x 49.1")	1025 x 2460 x 1260 mm (40.3 x 96 x 49.1")	1060 x 3200 x 1570 mm (41.7 x 126 x 61.8")
<b>Max Roll Width</b>	840 mm (33.1")	840 mm (33.1")	1590 mm (62")	1980 mm (77.2")	2450 mm (96.5")
<b>Max Cut Width</b>	725 mm (28.5")	725mm (28.5")	1450 mm (57.1")	1850 mm (71.1)	2400 mm (94.5")
<b>Axial Speed</b>	Axial Speed 0.2mm/s up to 1000mm/s				
<b>Camera Recognition</b>	OPOS marks Advanced Vision system				
<b>Features</b>	Optional visible red pointer Cutting bed type: Steel honeycomb or aluminium blade Software: ApS Ethos - Cutting composer				
<b>Standard Solution Includes</b>	Air assist nozzle with compressed air port Area mapping Motion system - Loop servo motors with hardened ground steel rails CE Mark Class 1 interlocked laser for safe use				



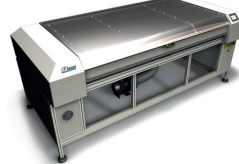
FB500



FB700



FB1500



FB1800



FB2400

# MEDIA HANDLING OPTIONS

---

## Conveyor Unit

---

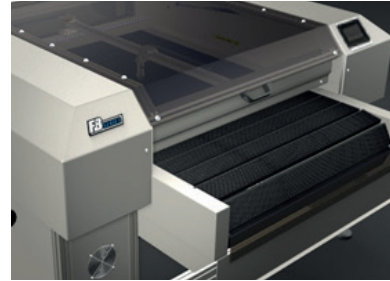
A metal moving bed designed for a variety of rolled and sheet materials. (With Vacuum option)

### Conveyor system

Our conveyors allow continuous production of rolled material and transport cut parts out of the machine automatically. The honeycomb cutting bed allows extraction from underneath, which not only provides a clean cut, but also vacuums the material down for precise movement through the cutting field.

It is possible to cut parts larger than the cutting area by using the bite feed option. Once the first part of the cut is completed the conveyor moves, then cuts the next part, and so on. A compressed air knife system is located under the end of the conveyor which blows a thin jet through the honeycomb slats to remove the cut parts clear of the machine.

Our conveyors are encoder driven and use endless wedgetooth belts for precise movement. Stainless steel honeycomb slats and anodised aluminium parts are corrosion resistant to ensure longevity.



## Motorised Dereeler

---

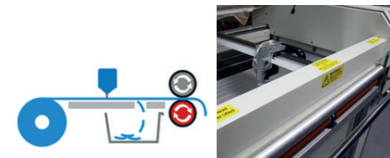
Material is presented to the conveyor using our motorised roll handling system. As the roll unwinds, a loop is created in the material. This loop is kept constant with the use of a light sensor. As material is taken up by the conveyor, the motorised dereeler automatically feeds the material out. This loop also relaxes the material so all fabric tension is removed before cutting, reducing distortion and ensuring an accurate cut.



## Feed Tray System

---

Allows loading and unloading of material while the laser continues to cut.



## Automatic Roll Feed Unit

---

Material is fed through the cutting bed. A tray beneath catches the cutouts.

## Electronic Optical System

---

Ideal for cutting designs which have been woven, embroidered or preprinted. Sophisticated software uses a camera to find registration marks to enable cutting with compensation for stretch and distortion.



# APPLICATIONS & MATERIALS

---

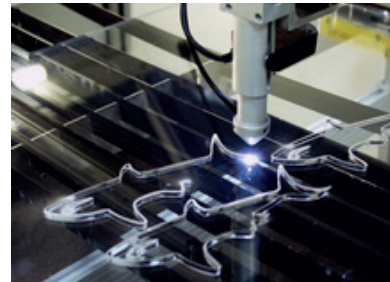
## Cutting plastic

---

One of our latest innovations is our new system developed solely for laser cutting acrylic. This machine has been designed to laser cut plastic of any depth up to 25 mm in thickness.

Using a Rofin laser, and our specially manufactured motion systems, optics and bespoke software package, you can create a smooth, clean and polished edge.

A ball slide motion system has been added to our laser cutting acrylic machine with multiple pre-loaded rolling elements for a maintenance - free perfectly straight movement. This is important for creating flat, clean edges like those demanded when laser cutting acrylic. These machines are fitted with locking mirror mechanisms that maintain beam path accuracy which is crucial when laser cutting plastic.



## Cutting printed textiles

---

Inkjet printing onto large format textiles is now very popular for producing sportswear, flags and banners, due to the printers becoming faster and more cost effective. The only issue remaining is how to cut out the printed parts.

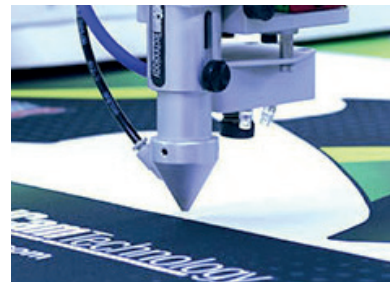
Manually cutting each part is too slow, inconsistent and labour intensive.

'Contour Cut' by CadCam Technology Ltd, automates the process of cutting out inkjet printed pieces of fabric or textile both quickly and accurately, automatically compensating for any distortions and stretches that occur in unstable or stretchy textiles that are used in sportswear for example.

Material is automatically unrolled and transported onto the laser cutting machine using our next generation conveyor system. State-of-the-art camera recognition is used to pinpoint registration marks printed on your material. The marks can be accurately read by our laser system and the position, scale and deformation of the printed material will be compensated due to the intelligent analysis of the registration marks. This means that when the laser cuts your fabric, all the pieces will exit the laser cutting conveyor exactly the correct size and shape with a sealed edge.

As laser cutting is non-contact, there is no drag on the material and no blades to change. High speed loop servo motors ensure precise camera mapping and accurate cut lines with minimal user interaction. Simply collect the pieces as they exit the machine, this gives the 'Contour Cut' system a major advantage over traditional garment cutting methods.

In addition, once cut, synthetic textiles gain a sealed edge, meaning they will not fray. Yet another excellent advantage over traditional textile cutting methods which will always require overlocking.



# SOFTWARE

---

## Software Aps-Ethos

---

Our laser machines are enhanced by the functionality and quality of the ApS-Ethos Cutting Software. ApS-Ethos is developed in-house by our own team of engineers and includes the following features.

Imports a wide range of vector formats

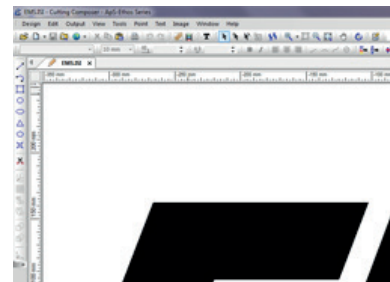
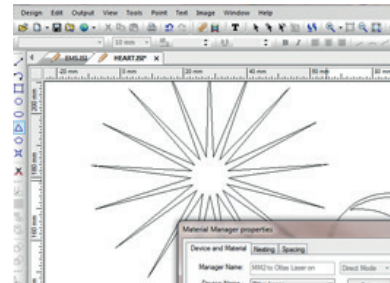
- Organises the layout of designs prior to cutting
- Uses material effects to ensure accurate cutting
- Provides powerful control over output to the laser
- Keeps a complete record of each design and its history

A radical new approach to output control makes certain that you gain maximum productivity from the FB Laser System. Material effect tools are used to control every aspect of the system set up.

The comprehensive design database keeps a complete history of each design. Jobs can also be categorised as an aid to retrieval and organisation.

With the added advantage of an in-house development team we are able to offer even more versatility by adapting the software to specific application needs. Shown below are a few of the specific software applications we have developed.

- Auto engraving
- Auto nesting of complex shapes (lay-planning)
- Optical recognition software
- Cutting on moving material
- Auto design personalisation
- Automatic bite feeding (completing designs bigger than the bed size)





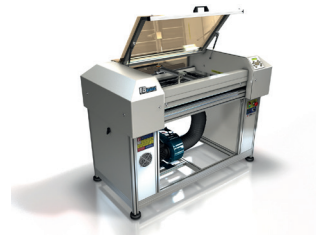
# TECHNICAL SPECIFICATIONS

Model	FB500	FB700	FB1500	FB1800	FB2400
<b>Laser Power</b>	30, 50 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts	30, 50, 100 or 200 Watts
<b>Dimensions</b> (H x W x D)	1025 x 1380 x 810 mm (40.3 x 54.3 x 31.8")	1025 x 1505 x 1260 mm (40.3 x 59.3 x 49.1")	1025 x 2060 x 1260 mm (40.3 x 81.1 x 49.1")	1025 x 2460 x 1260 mm (40.3 x 96 x 49.1")	1060 x 3200 x 1570 mm (41.7 x 126 x 61.8")
<b>Max Roll Width</b>	840 mm (33.1")	840 mm (33.1")	1590 mm (62")	1980 mm (77.2")	2450 mm (96.5")
<b>Max Cut Width</b>	725 mm (28.5")	725mm (28.5")	1450 mm (57.1")	1850 mm (71.1)	2400 mm (94.5")
<b>Axial Speed</b>	Axial Speed 0.2mm/s up to 1000mm/s				
<b>Camera Recognition</b>	OPOS marks Advanced Vision system				
<b>Features</b>	Optional visible red pointer Cutting bed type: Steel honeycomb or aluminium blade Software: ApS Ethos - Cutting composer				
<b>Standard Solution Includes</b>	Air assist nozzle with compressed air port Area mapping Motion system - Loop servo motors with hardened ground steel rails CE Mark Class 1 interlocked laser for safe use				

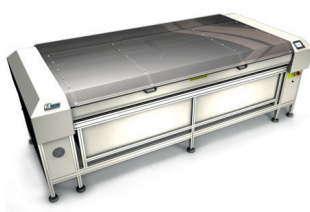
Please contact your dealer for more information



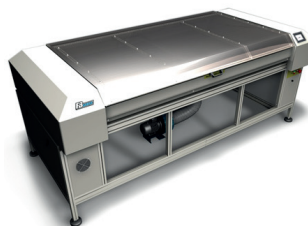
FB500



FB700



FB1500



FB1800



FB2400

# FB SERIES™

---

**Laser cutting systems for  
highly specialised and  
industrial applications**



Summa nv  
Rochesterlaan 6  
8470 Gistel  
Belgium

[www.Summa.com](http://www.Summa.com)

Summa America  
100 Cummings Center  
Suite #151-G  
Beverly MA 01915  
USA

Laser Division of Summa  
CadCam Technology Ltd.  
5 Crocus Street  
Nottingham / NG2 3DE  
United Kingdom

**Follow us on LinkedIn | Facebook | Twitter | YouTube | #SummaFinish**

---

Copyright 2022© Summa nv. Marketing Communications. Summa nv believes that all illustrations and specifications contained in this catalogue are correct at the time of publication. Summa nv reserves the right to make changes at any time, without notice. RevEN22.01 / All rights reserved / Digital copy only