

# Performance vinyl and contour cutters

## SUMMACUT® SERIES

Since 1996, the SummaCut Series has evolved to become the world's most advanced performance-price leader. The new SummaCut Series is the product of decades of Summa's brilliant European engineering.

Numerous refinements have been made, such as the OPOS X technology, which is known from our most advanced S Class 2 cutting plotters. The OPOS X technology is now integrated into a newly designed drag knife cutting head.

The SummaCut Series is capable of reading registration marks for contour cutting on standard materials but also on reflective, holographic or mirroring materials, and on the many different types of laminates being used today.



D60  
D60FX



D120



D140  
D140FX



D160

# Vinyl cutters that set the industry standard for performance and value

The SummaCut cutter features highly complex algorithms to compensate for any deformation of the print, using the world's most reliable sensor technology. This makes the SummaCut cutter a winning contour cutter for any sign or print shop.

Summa engineers know there is not a more important vinyl cutter feature than tracking. This is why every cutter we build starts with our exclusive and patented MicroSprocket™ grit roller.

Milled from the finest materials in a unique process assuring each roller has an exacting diameter, we then specially coat each roller to eliminate the risk of wear and oxidation which could degrade tracking over time.

Quality craftsmanship is about more than low price. It is about value. With cutting performance that rivals other top-of-the-line cutters, it doesn't come by surprise that the affordably priced SummaCut D60 is one of the most popular vinyl cutters ever built.

## FEATURES & TECHNICAL SPECIFICATIONS

- 1 The large, easy-to-use control panel** allows you to quickly and easily change settings such as speed, pressure and plot mode in order to perform test cuts.
- 2 Our high-speed cutting head** features the utmost accuracy for exceptionally reliable and effortless vinyl cutting.
- 3 Integrated media rollers and roll flanges** load your vinyl straight and keep your media on track, even when cutting at top speed.
- 4 OPOS X contour cutting alignment** means you can die-cut valuable printed vinyl graphics with complete confidence and reliability.



Intuitive control panel



Accurate OPOS X contour cutting



FlexCut feature



Legendary tracking



Model	D60 (FX)	D120	D140 (FX)	D160
Dimensions	100 x 35 x 30 cm	160 x 68 x 112 cm	175 x 68 x 114.5 cm	198 x 68 x 114.5 cm
Media Width	7 to 66 cm	12 to 126 cm	18 to 141 cm	18 to 164 cm
Cutting Area** extended mode	60 cm x 50 m** 63 cm	120 cm x 50 m 123 cm	135 cm x 50 m** 138 cm	157.5 cm x 50 m 160.5 cm
Tracking Performance	Within +/- 0.1 mm on plots: up to 8 m long on rolls up to 760 mm wide* up to 4 m long on rolls over 760 mm wide*			
Accuracy	0.2 % of movement or 0.25 mm, whichever is greater*			
Speed	Up to 113 cm/sec diagonal			
Acceleration	Up to 3 G diagonal			
Knife Pressure	0 - 400 grams, in 5 gram increments			
Connectivity	USB; RS232 (serial)			
Included Software	Cutter Control software; Winplot™ & MacSign™ Cut cutting software			

\*For complete specifications, please visit [www.summa.eu](http://www.summa.eu)

\*\* SummaCut FX series differ from the regular series, please see the next page for the SummaCut FX series specifications

# Features of both the S Class 2 & the SummaCut Series

## DRAW KNIFE TECHNOLOGY

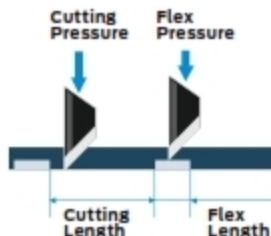
Its simplicity has made Drag Knife (or swivel knife) technology the most commonly used.

An offset parameter defines the distance between the knife tip and the rotating center.

In order to know the position of the freely rotating knife inside the knife holder, a drag movement is made, assuming the knife tip will follow accordingly.

Summa cutters include enhanced methods to optimize this drag movement in order to obtain the best possible cutting quality.





## CUTTING THROUGH WITH FLEXCUT

Summa's FlexCut feature enables you to cut simple designs completely through the material.

Alternately, one length is cut completely through the material, and one length is cut halfway through. This way a kind of tear-off line is created, ensuring the material keeps a certain rigidity during transportation through the Summa cutter, while remaining easy to remove from the design afterwards.

## CONTOUR CUTTING WITH OPOS

The automated contour alignment system OPOS stands for Optical Positioning System. The OPOS X sensor technology senses marks on a wide range of materials. Some of its features include a fully-automated workflow using **OPOS barcodes**, enabling you to contour cut multiple jobs without intervention.

Another feature automates the contour cutting of multiple sheets with repeating graphics. During this workflow, the OPOS sensor will start to look for marks, immediately after a new sheet is loaded.



Without  
OPOS



With  
OPOS

## MULTIPLE STRENGTHS

One of the strengths of OPOS is the unique ability to register multiple marks: a minimum of 4 and a maximum of 128 marks along a job and an OPOS XY-line in front of the job. The OPOS XY-line makes it possible to compensate deformations along the width of the machine as well.

This combination allows our system to contour cut large jobs more accurately.



## INTERNAL INTELLIGENCE

Summa cutters are loaded with intelligent routines, optimizing the cutting data.

All Summa cutters use an advanced vector look-ahead technology that cuts complex images and lettering with improved efficiency.

The benefits are extensive. The cutting time is reduced considerably, curves are smoother, and the motors are less loaded, which increases the lifetime of the plotter.

Other intelligent features include:

### Overcut

OverCut extends the vector at the beginning and at the end of a curve. This ensures the design is cut through completely. Without the OverCut function, the cut line may not be completely closed, causing difficulties when weeding.

### OptiCut

OptiCut, a function specially developed for drag knife cutters, simulates tangential cutting. Due to performance of complex movements, the OptiCut feature compensates for changes in the blade offset, caused by wear and tear. The OptiCut feature makes sure the knife is orientated correctly. This revolutionary technology gives you optimal quality during your blade's lifetime.



without OptiCut with OptiCut  
3 mm character

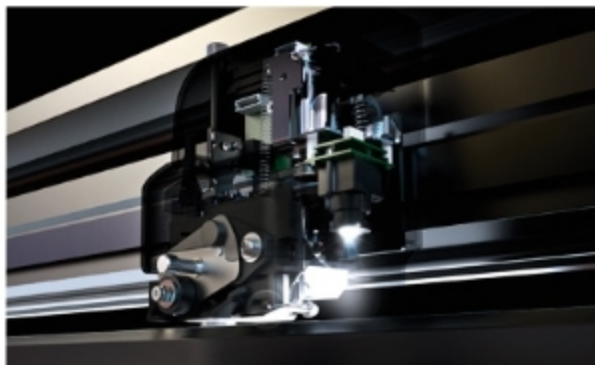


## OPOS CAMERA

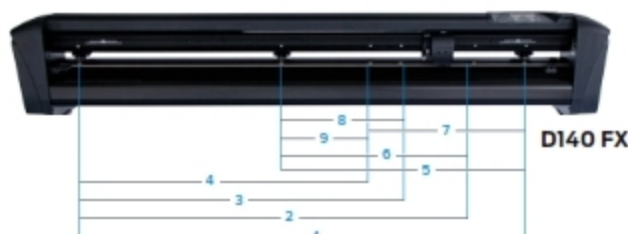
With OPOS-CAM, Summa delivers yet another amazing innovation with the printing industry's first camera recognition alignment solution for friction-driven vinyl drum cutters.

Summa customers in volume-driven workflow environments will now be able to excel against the competition with extremely fast precision and accurate cutting of short or long run contour cutting jobs.

OPOS-CAM is a factory upgrade option now available on all new Summa S Class 2 S75T, S140T and S160T vinyl cutting plotters.



## Features specifically for the SummaCut series



D140 FX



D60 FX

## SUMMACUT FX SERIES

### Price Breaker

Benefit from all the features of the SummaCut Series at an affordable price.

With pinch roller positions handling most common sizes and an extended cutting mode, the SummaCut FX Series is optimized for most common media sizes.

	1 1324 mm	2 1174 mm	3 954 mm
<b>D140 FX Working Area</b>	4 864 mm	5 720 mm	6 570 mm
	7 454 mm	8 350 mm	9 260 mm
	1 1372 mm	2 1220 mm	3 1000 mm
<b>D140 FX Target Media Width</b>	4 914 mm	5 762 mm	6 610 mm
	7 508 mm	8 406 mm	9 297 mm
	1 575 mm	2 470 mm	3 375 mm
<b>D60 FX Working Area</b>	4 270 mm	5 190 mm	6 95 mm
<b>D60 FX Target Media Width</b>	1 610 mm	2 500 mm	3 400 mm
	4 297 mm	5 210 mm	6 115 mm

## MEDIA BASKET

(OPTIONAL D60, D60FX & D140FX)

As the media advances, the output will be neatly collected in a textile basket, optional on D60, D60FX and D140FX models, preventing dust and debris from collecting onto the media.

This eliminates the problem of media coming in contact with dirty floors, which could contaminate work surfaces and result in particles being trapped between the vinyl and substrate. The basket also neatly organizes vinyl and other media when processing multiple jobs.

For the S Class 2 Series and SummaCut D120-D140-D160, the media basket is always standard included.



Optional stands for SummaCut D60 (FX)

1 Sturdy Metal Stand on 4 roller casters (#399-050)

2 Sturdy Metal Stand with fabric basket on 4 roller casters (#399-075)

# Two beats one

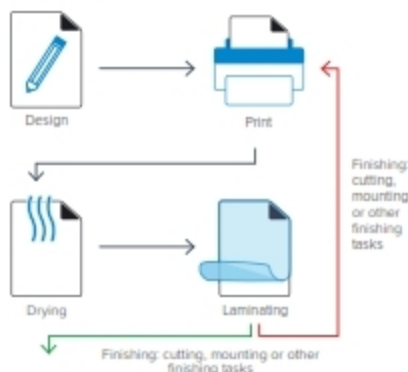
## UNIQUE BENEFITS OF SUMMA'S DEDICATED CUTTING EQUIPMENT

- ✓ Cutters can do things no printer-cutter is designed to do. That is especially true with Summa cutters. Not only do they perform the simple kiss-cutting, needed to contour cut labels and graphics, but they can also **cut completely through** the backing in order to eliminate the need to manually cut individual labels. Or the user can kiss-cut and cut a separate path that goes through the backing in a **single operation** to create sheets of labels or large contour cut graphics that do not need to be sectioned manually by the cutter operator.
- ✓ **Alignment systems** Summa OPOS X can handle up to **128 marks**.
- ✓ Manual tasks are eliminated, which **improves operator productivity** and **reduces job costs**.
- ✓ Professional-grade cutters are far more capable than the light-duty cutting heads on inkjet printer-cutters, and they have **more cutting force** (grams of down force).
- ✓ Summa cutters can handle **very rigid materials**, such as Lexan over-laminate, floor graphic kits and other thick and semi-rigid laminates. But that is merely one aspect of what separates a dedicated cutter from a printer with a cutting head.
- ✓ **Material tracking** in cutters is designed for back-and-forth travel on a sheet of labels. It might go back and forth as many as 50 times. Summa cutters have **heavy-duty** motors, which can handle the weight of large, laminated prints. Moreover, they cut with much **greater consistency**, assuring that every label is cut **precisely** and **weeded easily**.
- ✓ Many print shops evolved from screen printing and still do both printing and cutting. Summa cutters are **optimized** for all types of printing and add value throughout the organization.
- ✓ Cutting involves more than just printed vinyl. **Vinyl graphics** and **lettering** are also commonly produced by shops of all sizes. It makes no sense whatsoever to schedule production of cut vinyl in print production.
- ✓ You are far better-served with a vinyl cutter that can do **all cutting**, whether contour cutting or cut vinyl lettering.

## DISADVANTAGES OF A HYBRID PRINTER & CUTTER

- ✗ Sending jobs back into print production to perform cutting tasks would **delay** other printing and would significantly limit the capacity of the printer.
- ✗ **Alignment systems** are limited to a **4-point** method. Therefore alignment systems and built in print-and-cut units are slow, inaccurate and limited in use with different materials and laminates.
- ✗ The light-duty cutting heads on inkjet printer-cutters have **less cutting force** (grams of down force) and are far less **uncapable** when compared to the professional-grade cutters.
- ✗ The **cutting speed** of integrated printer-cutters is much lower than the one on Summa cutters, which will **reduce** the printing **capacity** even more.
- ✗ With modern print techniques, a great deal of **heat** is used, **deforming** the printed material significantly.
- ✗ Cutting after printing without reloading and aligning generates significant shift between the print and the cut line. Long jobs will **fail** completely.

### Workflow



## MORE THAN JUST CONTOUR CUTTING

Greater productivity  
More accurate

More cutting modes  
More material choices

# Consumables & Software

## SUMMACUT & S CLASS 2 D SERIES

**MP06BK Black fiber-tip**  
(4 pcs/0.3 mm pens)



**395-595 Pouncing Kit**  
SummaCut



**395-313 Pouncing Kit**  
S Class 2 D Series



**395-430 Roller Ball** (5 pcs-Black)



**395-431 Roller Ball** (5 pcs-Blue)



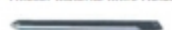
**395-592 Pouncing Pin**



**391-332 / Dia 1.5 mm**  
**Standard Drag Knife Holder**



**391-363 / Dia 2 mm**  
**Thicker Material Knife Holder**



**391-360 / Dia 1.5 mm**  
**36° Drag Blade** (5 pcs)



**391-231 / Dia 1.5 mm**  
**60° Drag Blade** (1 pc)



**391-358 / Dia 2 mm**  
**55° Drag Blade** (5 pcs)



**395-434 Universal Pen Holders** (2 pcs)  
Black/Copper  
Not compatible for extra pen position with dual heads



## S CLASS 2 T SERIES

**395-348 Standard**  
**Nose Piece**



**395-347 Low**  
**Nose Piece**



**395-330 Dummy**  
**Nose Piece**



**390-553 Blade Install Tool**



**395-315 Pouncing Kit**  
S Class 2 T Series



**395-592 Pouncing Pin**



**395-376 Fiber-Tip Pen**



**395-324 Holder for Ballpoint**



**395-325 Ballpoint**



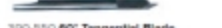
**390-534 36° Tangential Blade** (5 pcs)



**390-551 36° Double Tip Blade**



**390-560 45° Double Wedge**



**390-550 60° Tangential Blade**



**395-322 Tangential Knife Holder**



**395-323 Tangential Drag Knife Holder**



## GENERAL



**395-385 Cutting Strip** (1 Pc)  
Models: 500 > 760

**395-888 Cutting Strip** (1 Pc)  
Models: 1000 > 1300 &  
52 75 & 52 120



**395-290 Cut-Off Knife**

Without trackbase



**391-140 Replacement Blades**

(10 Pack)



**395-510 Core Holders**

(2 Pc)

## Cutter knife guidelines

When you choose a knife to cut your material, always use the lowest degree knife (shallowest angle), assuming the thickness of the material did not exceed the maximum listed for that knife.

Recommended	Alternative	D Series	391-360 36° Drag Blade (5 pcs)	391-231 60° Drag Blade (1 pc)	391-358 55° Drag Blade (5 pcs)	T Series	390-534 36° Tangential Blade	390-551 36° Double Tip	390-560 45° Double Wedge	390-550 60° Tangential Blade
<b>Standard Vinyl</b>										
<b>Engineering Reflective</b>										
<b>Sandblast (Aluminum)</b>										
<b>Shishstone</b>										
<b>Heat Press (Pp/pp)</b>										
Material thickness is the first specification to determine which knife to use. If the material thickness is unknown, please use the following recommended chart.										
<b>Max. Thickness [mm]</b>			0.25	0.60	0.80		0.25	0.25	1.00	1.20
<b>Max. FlexCut Thickness [mm]</b>			0.50	0.60	0.80		0.25	0.25	1.00	1.20
<b>391-332 / Dia 1.5 mm Standard Drag Knife Holder</b>										
<b>391-363 / Dia 2 mm Thicker Material Knife Holder</b>										
<b>391-231 Tangential Knife Holder</b>										
<b>391-322 Standard Nose Piece</b>										
<b>391-321 Low Nose Piece</b>										
<b>391-320 Dummy Nose Piece</b>										
is used for Ballpoint and Holder for Drag Blades										

## WINPLOT™ & MACSIGN™ CUT

### WinPlot

WinPlot is a cutting software utility for the Microsoft Windows operating systems, which is delivered free of charge with every new Summa cutter.

**Compatibility:** WinPlot supports all Summa cutting devices, including SummaCut and S Class 2. Supported communication ports: USB, serial (RS 232), ethernet, centronics parallel and any printer port installed on your operating system which enables networked printing.

**Input:** Includes plug-ins for CorelDRAW and Illustrator and imports simplified eps, ai and pdf files from other applications.

**Edit:** Allows scaling, mirroring and rotating of the design or parts of the design.

### Output:

- **Nesting with support of multiple copies:** WinPlot automatically rotates and positions different designs as well as multiple copies in order to optimize the use of material.
- **Paneling:** Jobs larger than the media width will be split in panels.
- **Integration of OPOS:** Using Summa's Optical Positioning System has never been easier.
- **Weeding Box:** Automatically generates weeding boxes around cut images.
- **Cutting by color**

### MacSign Cut

MacSign Cut is a "bridge" application that imports artwork saved by popular desktop publishing applications (e.g., Illustrator, Freehand, Canvas, CorelDRAW, and so on) and sends them to Summa vinyl cutters. Imported artwork is displayed on the worksheet before processing and can be resized, positioned, mirrored, turned, distorted, duplicated, etc. The tiling feature separates a design into two or more pieces, with user-specified overlaps, and allows you to cut designs larger than the cutter width.

After a 30-day trial, free registration is required. MacSign Cut is included with every Summa cutter. Compatible with: Mac OS X (10.5 - 10.11), Mac OS 9

# WinPlot™







# SummaCut Series<sup>™</sup> S Class 2 Series<sup>™</sup>

World renowned  
vinyl and contour cutters

[www.summa.eu](http://www.summa.eu)

