

GRAPHTEC

The Imaging Specialists

FCX SERIES
Flatbed Cutting Plotter

Work Smarter, Not Harder.

The Graphtec FCX2000 is the ultimate solution.

The Graphtec FCX2000 is the ultimate solution for prototyping and small production runs of rigid materials without the use of a cutting die. Reduce media waste/ processing time with Graphtec's precision cutting and dedicated software. Added offline (USB) operation* | enables users of all skill levels to easily process materials.



Expanded industrial Applications

Precision cutting.

Precision cutting is achieved by enhancements to the rigidity of the moving mechanism that reduces deflection due to pressure during cutting. This has enabled new functions such as curved crease or score lines. Graphtec flatbed cutting plotters meet the wide variety of applications used in prototyping and short production runs of packaging and industrial materials.



Packaging

Cardboard
(up to E flute)



Packaging/POP

Heavy Paper



Sticker

Lexan™, Seal/ Magnet sheet



Sandblasting

Sandblasting
Sandblast resist rubber



Garment pattern

Compressed foam sheet



Traffic Signage

High-intensity reflective film



Industrial goods

Highly-functional film



Window display

Self-adhesive marking film



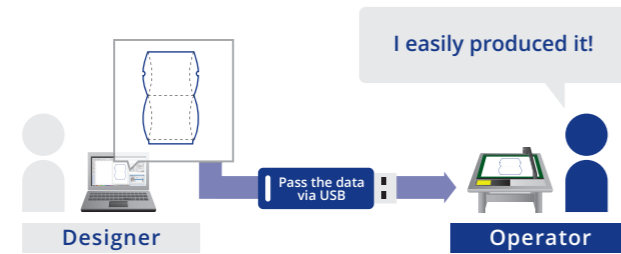
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Enhanced functions

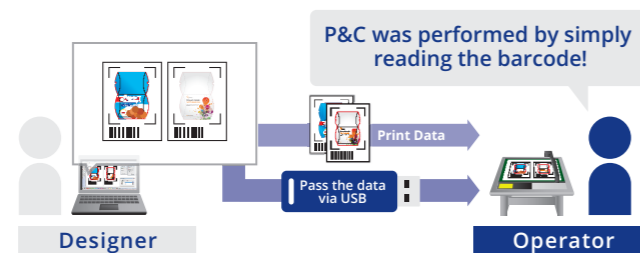
Enhanced functions for higher productivity and work efficiency.

Offline operation supported by use of USB flash memory (FCX2000 Series Only)



Offline operation using USB flash memory

Plot data is created from the design by using Cutting Master 4 or Graphtec Pro Studio, then the data is saved to USB flash memory. The plot data file can be selected from the USB by menu operation on the plotter, then cutting is performed. This simplified workflow enables users to operate without a computer.



Data management using barcode function with usb flash memory

In Print & Cut (referred to as "P&C") operation, the cutting data is automatically selected from USB flash memory by scanning the barcode printed on the media then performs contour cutting. This prevents the usage of incorrect data, and improves work efficiency.

Enhanced ARMS

Advanced Registration Mark Sensing system for improved productivity of P&C applications.



Four point compensation
- Precise cutting even of distorted printed graphics.

This feature compensates for any skewing or distortion in printed graphics to ensure precise contour cutting.



Expanded cutting area
(FCX2000 series only)

This function expands the cutting area to include objects outside of the area enclosed by registration marks. Productivity efficiency is enhanced by reducing media waste.



Automatic ARMS
sensitivity adjustment

Marks are detectable when there is reasonable contrast against the background. For example, a white mark on a coloured background.



Supported by standard crop marks
(FCX2000 Series only)

Special marks are not required for cutting. P&C is performed by printing the industry standard crop marks. Adding special marks with Graphtec software isn't necessary. Operation is simple when crop mark information is entered within **Cutting Master 4** software.



ARMS copy
function

After data is sent the first time, it can be copied multiple times without a PC. In the FCX2000 series the first four marks are scanned on the first sheet, and only the first mark in subsequent sheets. This improves productivity by shortening scan detection time.

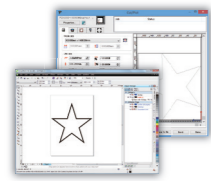


Reverse side cutting/creasing
using ARMS

Cutting and creasing of printed graphics is possible even on the reverse side of the media. This prevents any scratches or damage to the printed graphic. On the FCX2000 Series, operation is simple using **Cutting Master 4** or **Graphtec Pro Studio**.

Improved application Software

The cutting plotter is ready for use with the supported software, with other advanced features available via plug-ins and optional software.

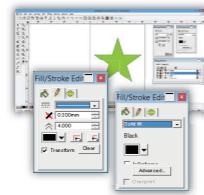


Cutting Master 4

Cutting Master 4 is a Graphtec plug-in software for Adobe Illustrator and CorelDRAW Graphics Suite. It sends cut data to the plotter and includes a variety of functions such as: preview, registration mark creation, tool conditions, cut job settings and more. Cutting Master 4 is easy to use and enables you to get the best performance from your plotter.

Plug-in software

Win | Mac



Graphtec Pro Studio

Easy-to-use application software for creating original designs. It has enhanced functions such as auto-shapes, shading, and editing functions. It can also configure the cutting conditions and other settings on the plotter. Importing of EPS, Ai*, CMX*, and PDF* file types are supported. Graphics created with other popular design software can be imported into the software.

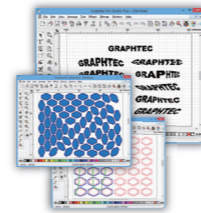
*It is supported on the Graphtec Pro Studio

For MAC OS user (included):

Graphtec Studio

Graphics - design software

Win



Graphtec Pro Studio - Plus

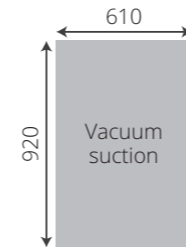
Graphtec Pro Studio Plus is the enhanced edition of Graphtec Pro Studio. It is optional software with functions for improving productivity and advanced design. Additional functions include: transformation of characters and graphics, automatic sequence number insertion, barcode creation, templates for rhinestone creation, nesting, directional change of cutting lines, changing cutting order, and more.

Graphics - design software

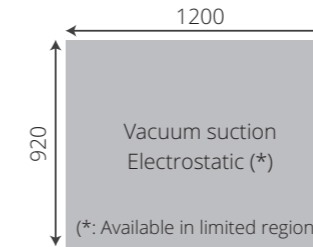
Win

Table size and media hold-down method

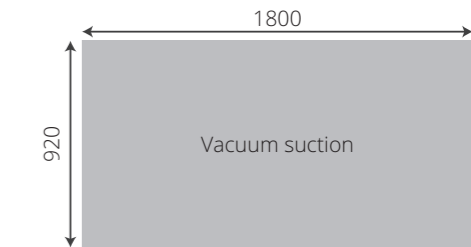
FCX2000-60



FCX2000-120



FCX2000-180



Size: mm

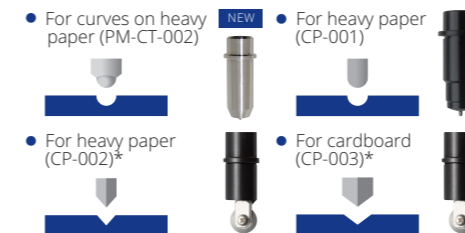
Vacuum suction system

Holds media using external pump (blower). This option is most suitable for heavy or thicker materials.

Electrostatic adsorption system

Holds media by electrostatic that is generated by electrodes arranged inside the panel. This option is most suitable for cutting light weight materials.

Provided tools suitable for many applications



Creasing / scoring tool

PM-CT-002 is a new tool. This reduces peeling and cracking on the printed surface during the creasing/ scoring process compared to our existing models.



Loupe for cutting blade

The loupe is a standard accessory used to easily adjust extruded blade length with the PHP33 and PHP35 blade holders. (It is attached to the FCX2000 as a standard accessory.)

Specifications				
Model Name	FCX2000-60VC	FCX2000-120VC	FCX2000-180VC	FCX2000-120ES (*1)
Configuration	Digital servo system, flatbed			
Media hold-down method	Vacuum suction		Electrostatic	
Effective cutting area	610mm x 920mm	1,200mm x 920mm	1,800mm x 920mm	1,200mm x 920mm
Mountable media (Y-axis)	950mm			
Roll media support	Roll media stocker (manual feeding), supported media; width: up to 950mm, weight: up to 5kg			
Maximum cutting speed	400mm/s (1 to 40 cm/s in 16 steps), in all directions			
Cutting force	Tool 1: Max. 4.9 N (500 gf)			
	Tool 2: Max. 9.8 N (1 kgf)			
Cutting force settings	Tool 1: in 40 steps, Tool 2: in 40 steps			
Minimum character size	Approx. 10 mm square (varies with character font and media)			
Programmable resolution	GP-GL mode: 0.1/0.05/0.025/0.01 mm, HP-GL™ : 0.025 mm			
Distance accuracy	Max. 0.1% of the distance moved or 0.1 mm, whichever is larger (in plotting mode) (*2)			
Perpendicularity	Max 0.5 mm / 900 mm (in plotting mode)			
Repeatability	Max 0.1 mm (excluding contraction of media, in plotting/cutting mode) (*2)			
Standard interfaces	RS-232C, USB 2.0 (High speed), and ethernet (10BASE-T/100BASE-TX)			
Buffer memory	2 MB			
Command sets	GP-GL and HP-GL™ emulation (set by menu, or selects automatically by received data)			
Number of tools	2 tools			
Cutting blade, pen, and tool types	Cutting blade (supersteel), Pens (Water-based fiber-tip pen, oil-based ballpoint pen), and Creasing/scoring tool			
Others	ARMS, Reverse side Cutting/Creasing using ARMS, ARMS Copy function, Creasing, Cutting/creasing in multiple passes			
Power source	100 to 240 V AC, 50/60 Hz (Auto switching)			
Power consumption	Max. 140 VA			
Operating environment	Temperature: +10 to +35 °C, Humidity: 35% to 75% RH (non-condensing)			
Guaranteed accuracy environment	Temperature: +16 to +32 °C, Humidity: 35% to 70% RH (non-condensing)			
External dimensions	1344 x 1409 x 930 mm	1934 x 1409 x 930 mm	2534 x 1409 x 930 mm	1934 x 1409 x 930 mm
[W x D x H] (Approx.)	(Including stand)	(Including stand)	(Including stand)	(Including stand)
Weight (Approx.)	76 kg (Including stand) (*3)	99 kg (Including stand) (*3)	116 kg (Including stand) (*3)	93 kg (Including stand)
Compatible OS (*4)	Windows 10/8.1/8/7, Mac OS X 10.6 to macOS 10.12 (graphtec studio: 10.6-10.12, Cutting Master 4 10.7-10.12)			
Supported software (*4) (*5)	Cutting Master 4, Graphtec Pro Studio, Graphtec Studio (for Mac)			
Standards	Safety	UL60950-1/cUL, CE marking (low voltage and EMC)		
	EMC	FCC-A, EN55032-A		

*1 Available in a limited region. Please contact your local representative of Graphtec.

*2 When operated with Graphtec specified media and conditions.

*3 Pump (blower) for vacuum suction media hold-down system is not included.

*4 For more information about Windows and Macintosh compatibility, please check the website or contact your local representative of Graphtec.

*5 The software can be used by downloading from the Graphtec website.

Media type			FCX2000 Series			
Type of media	Thickness	Supported cutting blade	60VC	120VC	180VC	120ES
Self-adhesive marking film (vinyl, fluorescent, reflective)	up to 0.25 mm	CB09UB	●	●	●	●
Heavy paper/board (pattern paper, oil board)	up to 0.5 mm	CB15U, CB15U-K30	●	●	●	●
	up to 1.0 mm	CB30UC	●	●	●	●
Compressed foam sheet	up to 0.8 mm	CB15U-K30	●	●	●	
Sandblast resist rubber	up to 1.0 mm	CB15U-K20	●	●	●	●
Cardboard (F/G flute)	up to 1.1 mm	CB30UC	●	●	●	●
		CB15U-K30	●	●	●	●
Clear sheet for plastic boxes	up to 0.5 mm	CB15U	●	●	●	●
	up to 1.0 mm	CB15U-K30	●	●	●	●
high-intensity reflective film	up to 0.5 mm	CB15UA	●	●	●	
	up to 1.0 mm	CB15UA-K30	●	●	●	

Supplies			
Item	Part number	Description	Package
Cutting blade holder	PHP33-CB09N-HS	For CB09U series blade	1 set/pack
	PHP33-CB15N-HS	For CB15U series blade	1 set/pack
	PHP35-CB09-HS	For CB09U series blade	1 set/pack
	PHP35-CB15-HS	For CB15U series blade	1 set/pack
	PHP34-CB30-HS	For CB30UC cutting blade	1 set/pack
Cutting blade	CB09UB-5	0.9mm dia. 45°, Supersteel	5 Blades/pack
	CB09UB-K60-5	0.9mm dia. 60°, for thin film	5 Blades/pack
	CB15U-5	1.5mm dia. 45°, for thick film	5 Blades/pack
	CB15U-K30-5	1.5mm dia. 30°, for sandblast resist rubber	5 Blades/pack
	CB15U-K20-2SP	1.5mm dia. 20°, for sandblast resist rubber	2 Blades/pack
	CB15UA-5	1.5mm dia. 45°, for high intensity reflective film	5 Blades/pack
	CB15UA-K30-5	1.5mm dia. 30°, for high intensity reflective film	5 Blades/pack
	CB30UC-1	3.0mm dia. 45°, for cardboard	1 Blade/pack
Loupe	PM-CT-001	Checking blade length, for PHP33 and and PHP35 series	1 set/pack
Creasing/scoring tool	CP-001	Stick type, for heavy paper	1 set/pack
	CP-002	Roller type (R0.2), for heavy paper	1 set/pack
	CP-003	Roller type (R0.6), for cardboard	1 set/pack
	PM-CT-002	Ball on tip of stick, for heavy paper	1 set/pack
Fibre-tip pen, pen holder	KF700-BK	Water-based fibre-tip pen, black	10 pens/pack
	KF700-RD	Water-based fibre-tip pen, red	10 pens/pack
	KF700-BL	Water-based fibre-tip pen, blue	10 pens/pack
	PHP31-FIBER	Pen holder for KF700 series pen	1 set/pack
Ballpoint pen, pen holder	KB700-BK	Oil-based ballpoint pen, black	10 pens/pack
	PHP34-BALL	Pen holder for the KB7000-BK pen	1 set/pack
Adhesive sheet, cling mat	CM-0003-R1A	Adhesive sheet, supplying in roll (size 545 mm x 20m)	1 set/pack
	CM-0004	Cling mat for film based materials, size 435 x 610mm	2 sheets/pack
	CM-0005	Cling mat for paper based materials, size 435 x 610 mm	2 sheets/pack

Standard accessories		
Item	Qty	Description
Power cable	1 pc.	The type of cable is different bt destination
Cutting blade holder	1 set	PHP35-CB15-HS
Cutting blade	1 set	CB15U (2 blades), CB15U-K30 (5 blades)
Loupe	1 pc	PM-CT-001, for checking blade length
Fiber-tip pen	1 set	KF700-BK (Black) and PHP31-FIBER (pen holder)
Heigh adjustment tool	1 set	For adjusting position of the tool (plate, key wrench)
USB cable	1 pc.	Length 2.9m
Roll media stocker	1 set	Loadable media: width up to 950mm, weight up to 5kg
Stand	1 set	Legs of the stand (connecting bar is packed with main unit)
DVD-ROM	1 pc.	User's manual, Windows driver
Printed document	1 set	Quick guide, Safety manual
Durable flexible hose	1 pc.	For VC models only, 1.5 to 5m (shrinked/extended) Connection bore diameter: 50mm
Hose band	2 pcs	For VC models only, to fix the hose

Option		
Item	Part number	Description
Panel for VC model (*)	OPH-A35	10mm vacuum hole pitch for 60v
	OPH-A36	10mm vacuum hole pitch for 120v
	OPH-A37	10mm vacuum hole pitch for 180v
Application software	Graphtec Pro Studio Plus	Advanced edition of Graphtec Pro Studio
Stand	ST0032	For FC4510-60

(*Factory installed option)

FCX4000 Series

Suitable for the post-processing of Print on Demand.

Low-cost, Die-free cutting and processing

The Graphtec FCX4000 series cutting plotter achieves high quality cutting by utilizing an electrostatic hold-down method that eliminates media movement. This enhances the quality and accuracy of the cut. The FCX4000 is a great solution for customers looking to finish those difficult to cut media types.

2 different table size are available.

The effective cutting area of the 50ES model is expanded for supporting 2 sheets of A3+ size, and the 60ES model supports 4 sheets of A3+ size. It is more suitable in the use of post-processing of Print On Demand.



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Specifications

Item	FCX4000-50ES	FCX4000-60ES
Configuration	Digital servo system, Flatbed	
Media hold-down method	Electrostatic panel	
Effective cutting area	660 mm × 488 mm	976 mm × 660 mm
Mountable media (Y-axis direction)	536 mm	708 mm
Maximum cutting speed	750 mm/s (1 to 75 cm/s in 23 steps)	
Cutting pressure	Tool 1: Max. 5.88 N (600 gf) Tool 2: Max. 5.88 N (600 gf)	
Cutting force settings	Tool 1: in 48 steps, Tool 2: in 48 steps	
Minimum character size	Approx. 10 mm square (varies with character font and media)	
Mechanical resolution	0.005 mm (5µm)	
Programmable resolution	GP-GL mode: 0.1/0.05/0.025/0.01 mm, HP-GL™ (*1): 0.025 mm	
Distance accuracy	Max.0.2% of the distance moved or 0.1mm, whichever is larger (excluding contraction of media, in plotting/cutting mode) (*2)	
Perpendicularity	Max 0.3 mm / 430 mm (excluding contraction of media, in plotting/cutting mode)	Max 0.4 mm / 610 mm (excluding contraction of media, in plotting/cutting mode)
Repeatability	Max 0.1mm (excluding contraction of media, in plotting/cutting mode) (*2)	
Standard interfaces	USB2.0 (Full Speed) / RS-232C / Ethernet (10BASE-T/100BASE-TX)	
Buffer memory	2MB	
Command sets	GP-GL / HP-GL™ / AUTO (Automatic switching in GP-GL and HP-GL™)	
Number of tools	2 tools	
Cutter blade, pen, and tool types	Cutter blade: supersteel Pen: water-based fiber-tip pen Creasing/scoring tool	
Operating panel	3.7-inch graphical LCD (same LCD as the FCX2000)	
New features	Dual configuration, Creasing in the curve, Perforation cutting (performed by the force control), Data management using the bar-code, Offline cutting operation using the USB memory, Display the degree of wear for the cutting blade, Confirming the cutting object size, Draft mode (higher throughput in arc)	
Power supply	100 to 240 V AC, 50/60 Hz (Auto switching)	
Power consumption	Max. 120 VA	
Operating environment	Temperature: 10 to 35 degree C, Humidity: 35 to 75% RH (non-condensing)	
Guaranteed accuracy environment	Temperature: 16 to 32 degree C, Humidity: 35% to 70% RH (non-condensing)	
External dimensions (*3) (W x D x H)	1089 x 897 x 204 mm	1405 x 1069 x 204 mm (including stand : 1405 x 1097 x 896 mm)
Weight	approx. 29kg	approx. 38 kg (including stand : 55 kg)
Compatible OS (*4)(*5)	Windows 10 (Home / Pro / Enterprise / Education) - Windows 8.1 (Windows 8.1 / Pro / Enterprise) - Windows 8 (Windows 8 / Pro / Enterprise) Windows 7 (Ultimate / Enterprise / Professional / Home Premium) Mac OS X 10.7 to 10.11 / macOS 10.12 (Sierra) to 10.14 (Mojave)	
Supported software	Cutting Master 4 (*6), Graphtec Pro Studio (*6), Graphtec Studio for Mac, Windows Driver	
Compatible	Safety	UL/cUL, CE mark
Standards	EMC	VCCI Class A, FCC Class A, CE mark (EN55032, others)

*1 HP-GL™ is registered trademark of the Hewlett-Packard Corporation of the United States.

*2 When operated with Graphtec specified media and conditions.

*3 Tolerance: +/- 5 mm

*4 Graphtec does not support software/driver used with operating systems that have become obsolete and are no longer supported by the OS developer.

*5 For more information about Windows and Macintosh compatibility, please check the website or contact with your local representative of Graphtec

*6 It requires an Internet connection in order for activation or registration when starting the software for the first time.



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