

GRAPHTEC

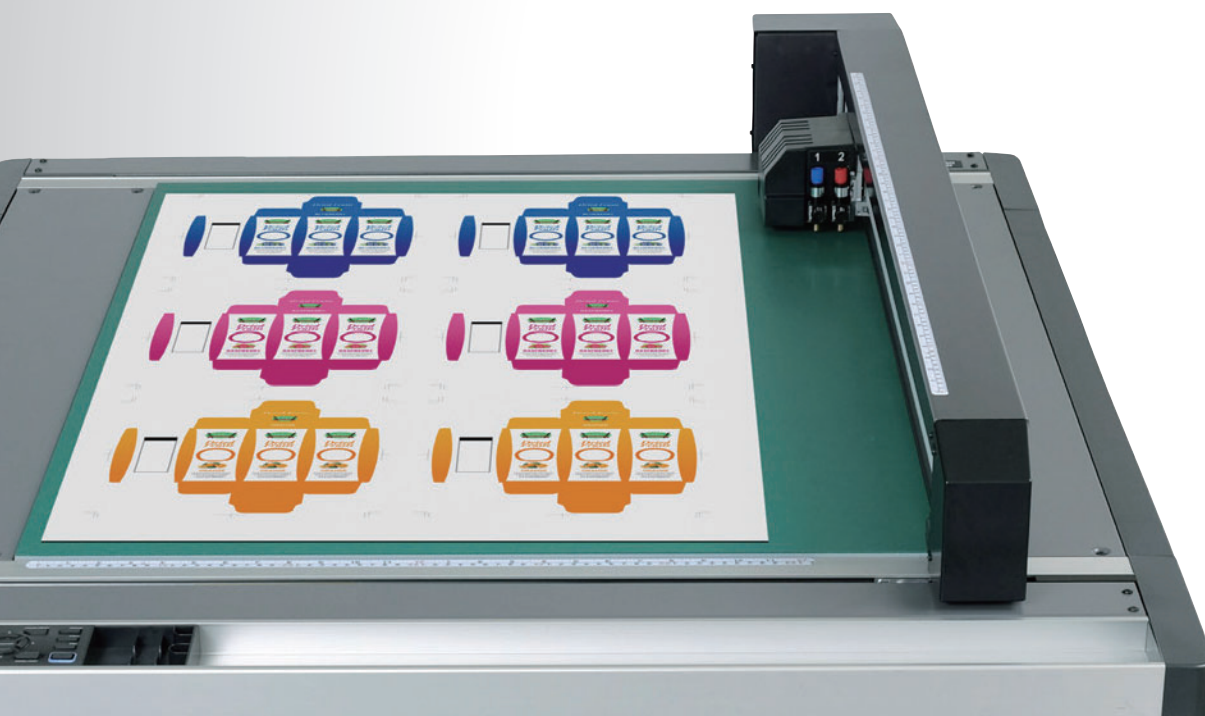
Flatbed Cutting Plotters

FCX2000 & FCX4000

SERIES

Work Smarter, Not Harder.

The Graphtec FCX Series 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.



*FCX2000-60VC shown.

Advanced model with wide variety of tools and highest performance

FCX2000 Series

Max. force
9.8N
(1 kgf)

Speed
400
mm/s



610, 1200, 1800mm width table sizes with choice of vacuum suction, or electrostatic media hold-down methods depending on application.

FCX2000-60VC

FCX2000-120VC

FCX2000-180VC

FCX2000-120ES

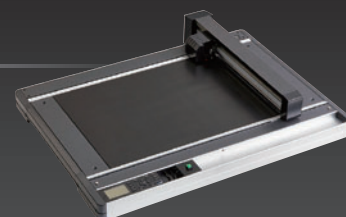
(* FCX2000-120 ES is available in limited region.)

Desktop model offering high performance and cutting speeds up to 750 mm/s

FCX4000 Series

Max. force
5.88N
(600 gf)

Speed
750
mm/s



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.

FCX4000-50ES

FCX4000-60ES

www.graphteccorp.com

Expanded industrial applications

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 creasing / scoring lines. Graphtec flatbed cutting plotters meet the wide variety of applications used in prototyping and short production runs of packaging and industrial materials.

*1 FCX2000 Series only. Cutting accuracy is not guaranteed.



Packaging

Cardboard (up to E flute: 1.5 mm)*1



Packaging / POP

Heavy paper



Sticker

Seal / Magnet sheet



Sandblasting

Sandblast resist rubber

Enhanced functions for higher productivity and work efficiency

Offline operation supported by use of USB flash memory

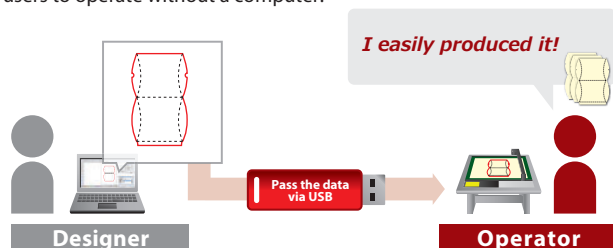
※ The USB flash memory format only supports FAT32. Please note that NTFS and exFAT are not supported. The file name must be in half-width alphanumeric characters.

Supported Software

• Cutting Master 5
• Graphtec Studio 2

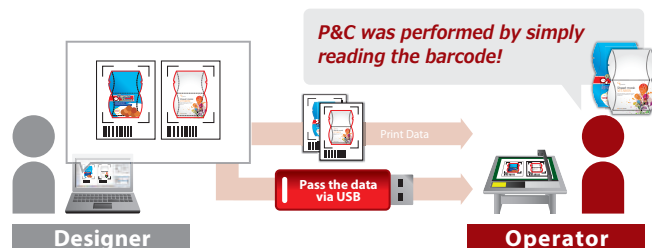
Offline operation using USB flash memory

Plot data is created from the design by using Cutting Master 5 or Graphtec Studio 2, 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

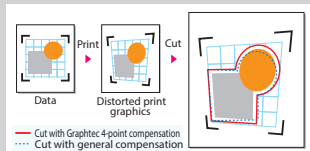
In Print & Cut operation, the cutting data is automatically selected from USB flash memory by scanning the barcode printed on the media then performs contour cutting. This prevents the usage of incorrect data, and improves work efficiency.



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.



Reverse side Cutting/Creasing using ARMS

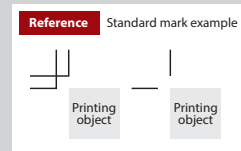
Cutting and creasing of printed graphics is possible even on the reverse side of the media. This prevents any scratches or damage to the printed graphic. On the FCX Series, operation is simple using Cutting Master 5 or Graphtec Studio 2.

Automatic ARMS Sensitivity Adjustment

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

Supported by standard crop marks - special marks are not required for cutting

P&C is performed by printing the industry standard crop marks. Adding special marks with Graphtec software is not necessary. Operation is simple when crop mark information is entered within Cutting Master 5 software.



ARMS Copy function

After data is sent the first time, it can be copied multiple times without a PC. In the FCX 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.

Expanded cutting area

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

Flatbed Cutting Plotters

FCX2000 Series & FCX4000 Series



Garment / Shoe Pattern
Cardboard / Compressed foam sheet



Traffic Signage
High-intensity reflective film



Industrial Goods
Highly-functional film



Window Display
Self-adhesive marking film

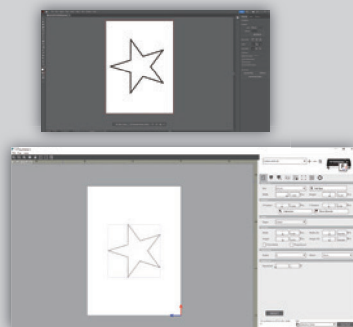
Improved Standard Software

These standard softwares can be downloaded and used upon purchasing cutting plotters.

Adobe Illustrator / CorelDRAW plug-in software

Cutting Master 5

Cutting Master 5 is Graphtec plug-in software for Adobe Illustrator and CorelDRAW. This software has variety of useful functions in cutting operation, including the function to set the cutting condition to be applied to cutting plotters. It allows users to make the best use of Graphtec's cutting plotters, working with major graphic design softwares users are familiar with.



Supported OS (*3)	Windows 11 (Home / Pro / Enterprise / Education), Windows 10 / Windows 10 x64 Edition (Home / Pro / Enterprise / Education) macOS 10.13 (High Sierra) ~ 14 (Sonoma) *Supported for 64 bit PC only
Software (*3)	Adobe Illustrator CorelDRAW (Windows Ver. Only)
	CC2015 / CC2017 / CC2018 / CC2019 / CC2020 2021 / 2022 / 2023 / 2024 *Supported for Windows CC2015 only X7 / X8 / 2017 / 2018 / 2019 / 2020 / 2021 / 2022 / 2023 *Please update X7 to versions newer than X7.6

Graphic design software

Graphtec Studio 2

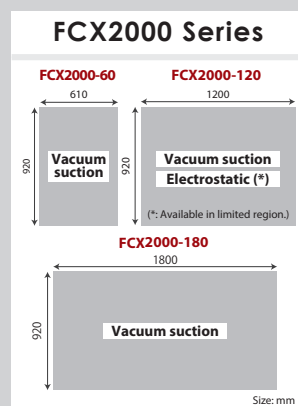
This software is for creating, editing and outputting cutting data. Anyone can use this software easily as it is equipped with design creating tools that can be used intuitively.



Supported OS (*3)	Windows 11 (Home / Pro / Enterprise / Education), Windows 10 / Windows 10 x64 Edition (Home / Pro / Enterprise / Education) macOS 10.13 (High Sierra) ~ 14 (Sonoma) *Supported for 64 bit PC only
Supported Import Format (*4)	File Format Extension
	Adobe Illustrator, Corel DRAW, Portable Document Format Auto CAD Interchange Format AI, CDR, PDF, DXF

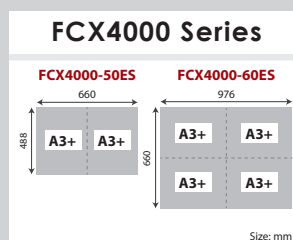
(*3) For more information about compatibility of the latest OS application software, please check the Graphtec website or contact your local representative of Graphtec.
(*4) Images can be traced.

Table size and Media hold-down method



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.



Electrostatic adsorption system
In the FCX4000, assuming use in offices and small shop, The electrostatic adsorption system is adopted for both model, which makes less noise than other method such as vacuum suction system during the operation.

Cling mat system
Further, By using the optional cling mat, it is also possible to cut media that can not be securely fixed by the electrostatic adsorption system.

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.

* For FCX2000 Series

For curves on heavy paper (PM-CT-002)



For heavy paper (CP-002)



Loupe for cutting blade

The Loupe is a standard accessory used to easily adjust extruded blade length with the PHP33 and PHP35 blade holders.



Specifications						
Model name	FCX2000-60VC	FCX2000-120VC	FCX2000-180VC	FCX2000-120ES (*1)	FCX4000-50ES	FCX4000-60ES
Configuration	Digital servo system, Flatbed					
Media hold-down method	Vacuum suction			Electrostatic panel	Electrostatic panel	
Effective cutting area	610 mm x 920 mm	1200 mm x 920 mm	1800 mm x 920 mm	1200 mm x 920 mm	660mm×488mm	976mm×660mm
Mountable media (Y-axis)	950 mm (37.4 inch)				536 mm (21.1 inch)	708 mm (27.9 inch)
Roll media support	Roll media stocker (manual feeding), supported media; width: up to 950 mm, weight: up to 5 kg				N/A	
Maximum cutting speed	400 mm/s (1 to 40 cm/s in 16 steps), in all directions				750mm/s(1 to 75 cm/s in 23 steps), in all directions	
Cutting force	Tool 1: Max. 4.9 N (500 gf), Tool 2: Max. 9.8 N (1 kgf)				Tool 1:Max. 5.88 N (600 gf), Tool 2:Max. 5.88 N (600 gf)	
Cutting force settings	Tool 1: in 40 steps, Tool 2: in 40 steps				Tool 1: in 48 steps, Tool 2: in 48 steps	
Minimum character height	Approx. 3 mm square(Approx. 0.12 inch) (varies with character font and media) Under conditions specified by Graphtec					
Programmable resolution	GP-GL mode: 0.1/0.05/0.025/0.01 mm, HP-GL™ : 0.025 mm					
Distance accuracy(*2)(*11)	Max. 0.1% of the distance moved or 0.1 mm, whichever is larger (Value after distance correction)					
Perpendicularity(*11)	Max 0.5 mm / 900 mm				Max 0.3 mm / 430 mm	Max 0.4 mm / 610 mm
Repeatability (*2)(*11)	Max 0.1 mm					
Display	Graphic type LCD (240 dots x 128 dots), supports Japanese, English and Chinese					
Standard interfaces	USB2.0 / RS-232C / Ethernet(10BASE-T/100BASE-TX)					
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 Cutting blade (supersteel), Pens (Water-based fiber-tip pen), and Creasing/scoring tool(*10)					
Power source	100 to 240 V AC, 50/60 Hz (Auto switching)					
Power consumption	Max. 140 VA				Max. 120 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	1089 x 897 x 204 mm	1405 x 1069 x 204 mm
[W x D x H] (Approx.)	(Including stand)	(Including stand)	(Including stand)	(Including stand)		(1405 x 1097 x 895 mm including stand)
Weight (Approx.)	76 kg (Including stand) (*3)	99 kg (Including stand) (*3)	116 kg (Including stand) (*3)	93 kg (Including stand)	29kg	38kg (including stand : 55kg)
Compatible OS (*4)	Windows 11 /10 / 8.1 , macOS 10.13(High Sierra) ~ 13(Ventura)					
Supported software (*5)	Graphtec Studio2, Cutting Master5, Windows Driver					
Compatible	Safety	UL/cUL, CE marking				
Standards	EMC	FCC Class A , CE marking, VCCI Class A				

Media type		○ : Available		△ : Limited		FCX2000 Series				FCX4000 Series	
Type of media	Thickness	Support cutting blade		60VC	120VC	180VC	120ES	50ES	60ES		
Self-adhesive marking film (vinyl, fluorescent, reflective)	up to 0.25 mm	CB09UB, CB09-P		○	○	○	○	○	○		
Heavy paper/board (pattern paper, oil board)	up to 0.5 mm	CB15U-5, CB15U-K30		○	○	○	○	○	○		
	up to 1.0 mm	CB15U-5, CB30UC		○	○	○	○	△(*9)	△(*9)		
Compressed foam sheet	up to 0.8 mm	CB15U-K30		○	○	○	○	○	○		
Sandblast resist rubber	up to 1.0 mm	CB15U-K30		○	○	○	○	○	○		
Cardboard	E flute	up to 1.5 mm CB30UC (*6)		○	○	○	○				
	F/G flute	up to 1.2 mm CB15U-K30		○	○	○	○	○	○		
Rubber sheet	up to 2.0 mm	PM-CB-001 (*6)		○	○	○					
	up to 1.0 mm	CB15U-5		○	○	○	○	○	○		
Clear sheet for plastic boxes	up to 0.5 mm	CB15U-K30		○	○	○	○	○	○		
	up to 1.0 mm	CB15UA		○	○	○		○	○		
High-intensity reflective film	up to 0.5 mm	CB15UA-K30		○	○	○		○	○		

Supplies						○ : Available	
Item	Part number	FCX2000 Series	FCX4000 Series	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	
	PM-CH-001	○		For CB30UC / PM-CB-001 cutting blade		1 set / pack	
Cutting blade	CB09-P	○	○	0.9mm dia. 45°, Supersteel		5 blades / pack	
	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	
	CB15UA-5	○	○	1.5mm dia. 45°, for high intensity reflective film		5 blades / pack	
	CB15UA-K30-5	○	○	3.0mm dia. 30°, for high intensity reflective film		5 blades / pack	
	CB30UC-1 (*6)	○		3.0mm dia. 45°, for cardboard (E flute)		1 blade / pack	
	PM-CB-001 (*6)	○		3.0mm dia. 30°, for rubber sheet		2 blades / pack	
	PM-CT-001	○	○	Checking blade length, for PHP33 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	
	KF700-BK	○	○	Water-based fiber-tip pen, Black		10 pens / pack	
Fiber-tip pen, pen holder	KF700-RD	○	○	Water-based fiber-tip pen, Red		10 pens / pack	
	PHP31-FIBER	○	○	Pen holder for KF700 series pen		1 set / pack	
	CM-0003-R1A	○	○	Adhesive sheet, supplying in roll (size 545 mm x 20 m)		1 roll / pack	
Adhesive sheet, Cling mat	CM-0004	○	○	Cling mat for film based materials, size 435 x 610 mm		2 sheets / pack	
	CM-0005	○	○	Cling mat for paper based materials, size 435 x 610 mm		2 sheets / pack	
	PM-CM-001	○	○	Cling mat for film based type material, size 660 mm x 488 mm		2 sheets / pack	
	PM-CM-002	○	○	Cling mat for paper based type material, size 660 mm x 488 mm		2 sheets / pack	
	PM-CR-002A		○	For FCX4000-50ES. Transparent vinyl, thickness 0.3 mm.		1 sheet / pack	
Protect Sheet	PM-CR-003A		○	For FCX4000-60ES. Transparent vinyl, thickness 0.3 mm.		1 sheet / pack	
	PM-CR-004A	○		For FCX2000-120ES. Transparent vinyl, thickness 0.3 mm.		1 sheet / pack	

*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 Please check the website or contact your local representative of Graphtec.
Graphtec does not support software/driver used with operating systems that have become obsolete and are no longer supported by the OS developer. In the Windows 7, edition of Ultimate, Enterprise, Professional and Home Premium are supported.
*5 The software can be used by downloading from Graphtec website. *6 Cutting accuracy is not guaranteed. Be sure to try it before use it. *7 Factory installed option. *8 For requests of installing a Warning Light on your FCX2000, please contact local representative of us.
*9 CB30UC is not available for FCX4000 series.*10 Recommend to use with Adhesive sheet or Cling mat.*11 excluding contraction of media, in plotting/cutting mode.

- Brand names and product names listed in this brochure are the trademarks or registered trademarks of their respective owners.
- Items mentioned are subject to change without notice. For more information about product, please check the web site or contact your local representative.

**For using equipment in correctly and safely**

- Before using it, please read the user manual and then please use it properly in accordance with the description.
- To avoid an occurrence of malfunction or an electric shock by leakage, please ensure ground connection and use it in specified power source.