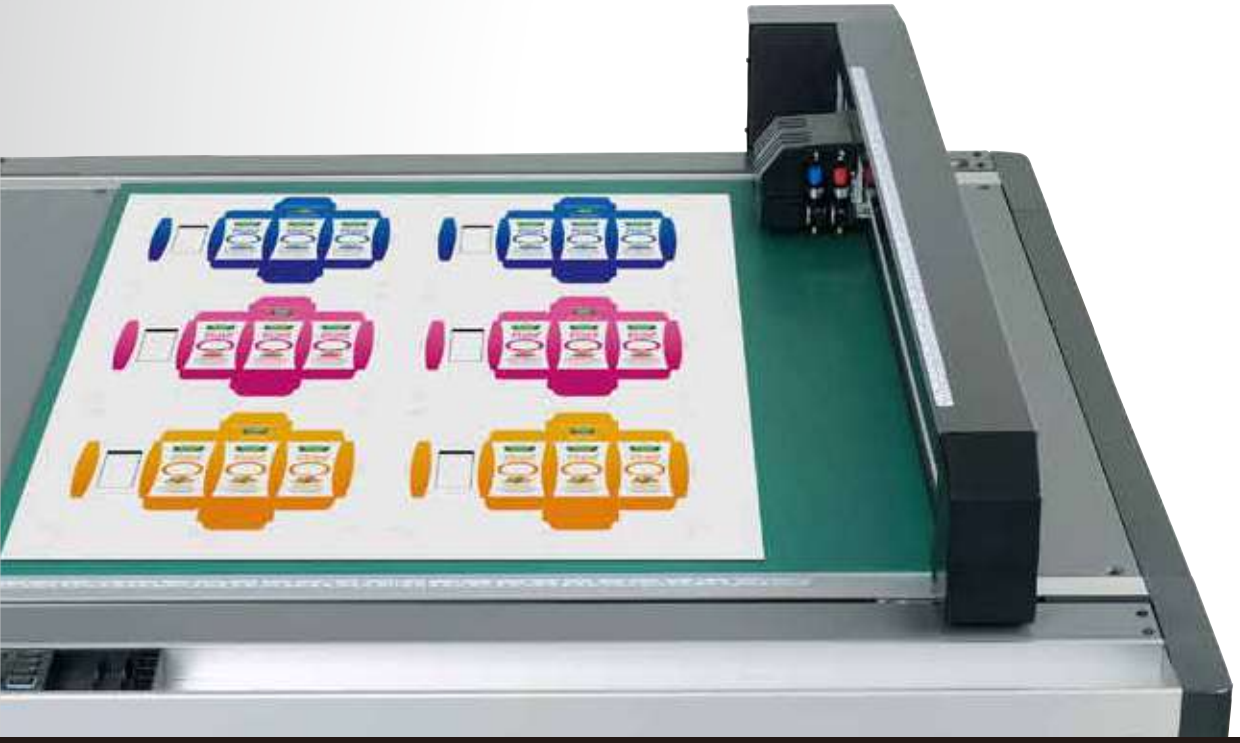
GRAPHTEC

Flatbed Cutting Plotters

FCX2000 SERIES & New 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

New

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

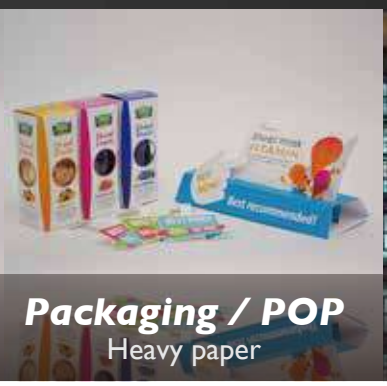
www.graphteccorp.com

Expanded industrial applicat

Precision cutting is achieved by enhancements to the rigidity of the moving mechanism reduces deflection due to pressure during cutting. This has enabled new functions su creasing / scoring lines. Graphtec flatbed cutting plotters meet the wide variety of app 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

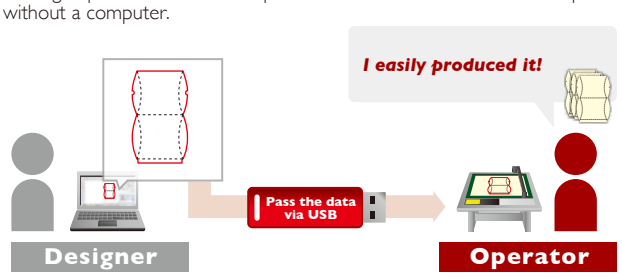
Enhanced functions for higher productivity and work efficiency

Offline operation supported by use of USB flash memory

Supported Software	• Cutting Master 4 • Graphtec Pro Studio • Graphtec Pro Studio Plus

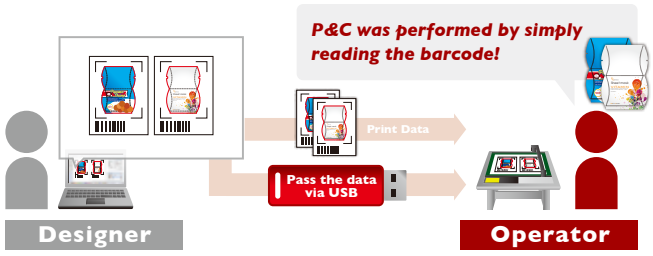
Offline operation using USB flash memory

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

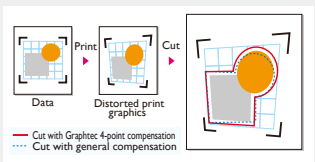
In Print & Cut operation, the cutting data is automatically selected from USB flash memory by scanning the barcode printed on the media then performs contour cutting. This prevents the usage of incorrect data, and improves work efficiency.



Enhanced ARMS (Advanced Registration Mark Sensing system) for improved productivity of P&C applications

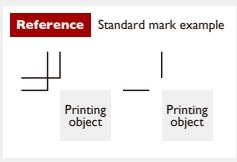
Four-point compensation - Precise cutting even of distorted printed graphics

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



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 4*** software.



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 4*** or ***Graphtec Pro Studio***.

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.

Automatic ARMS Sensitivity Adjustment

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

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.

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 application software

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

plug-in software ***Cutting Master 4*** Win | Mac

Cutting Master 4 is 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.

Graphics design software ***Graphtec Pro Studio*** Win

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 available on the Graphtec Pro Studio.

For MAC OS user

Included ***Graphtec Studio***

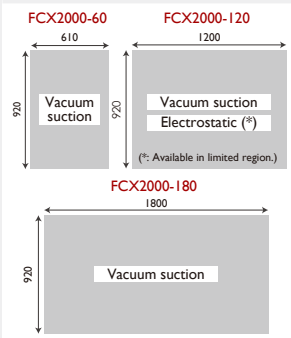
Advanced software

Option ***Graphtec Pro Studio Plus***

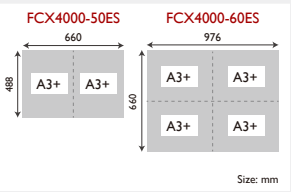
Graphtec Pro Studio Plus is the enhanced edition of Graphtec Pro Studio. It is optional software with functions for improving productivity and advanced design. Additional functions include: transformation of characters and graphics, automatic sequence number insertion, barcode creation, templates for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

Table size and Media hold-down method

FCX2000 Series



FCX4000 Series



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

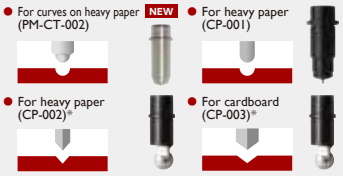
Electrostatic adsorption system
Holds media by electrostatic that is generated by electrodes arranged inside the panel. This option is most suitable for cutting light weight materials.

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



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	1,200 mm x 920 mm	1,800 mm x 920 mm	1,200 mm x 920 mm	660mm×488mm	976mm×660mm
Mountable media (Y-axis)	950 mm				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	
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 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)				Max.0.2% of the distance moved or 0.1mm, whichever is larger	
Perpendicularity	Max 0.5 mm / 900 mm (in plotting mode)				Max 0.3 mm / 430 mm	Max 0.4 mm / 610 mm
Repeatability	Max 0.1 mm (excluding contraction of media, in plotting/cutting mode) (*2)					
Standard interfaces	USB2.0 / RS-232C / 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				Cutting blade (supersteel), Pens (Water-based fiber-tip pen), and Creasing/scoring tool	
Others	ARMS, Reverse side Cutting/Creasing using ARMS, ARMS Copy function, Creasing, Cutting/creasing in multiple passes,USB Off line, Bar-code					
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 ºC, Humidity: 35% to 75% RH (non-condensing)					
Guaranteed accuracy environment	Temperature: +16 to +32 ºC, Humidity: 35% to 70% RH (non-condensing)					
External dimensions [W x D x H] (Approx.)	1344 x 1409 x 930 mm (Including stand)	1934 x 1409 x 930 mm (Including stand)	2534 x 1409 x 930 mm (Including stand)	1934 x 1409 x 930 mm (Including stand)	1089 x 897 x 204 mm	1405 x 1069 x 204 mm (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 10/8.1/8/7, Mac OS X 10.7 to 10.11 / macOS 10.12 (Sierra) to 10.13 (High Sierra) (Graphtec Studio : 10.6-10.13, Cutting Master 4 10.7-10.13)					
Supported software (*5) Standard	Graphtec Pro Studio(Win), Graphtec Studio(Mac), Cutting Master4(Win/Mac)					
Supported software (*5) Optional	Graphtec Pro Studio Plus (Win)					
Compatible Standards Safety	UL/cUL, CE mark					
Compatible Standards EMC	VCCI Class A, FCC Class A, CE mark (EN55032, others)					

Media type ○ : Available

Type of media		Thickness	Support cutting blade	FCX2000 Series 60VC	120VC	180VC	120ES	FCX4000 Series 50ES	60ES
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	E flute	up to 1.5 mm	CB30UC (*6)	○	○	○	○		
	F/G flute	up to 1.2 mm	CB15U-K30	○	○	○	○	○	○
			CB30UC	○	○	○	○		
Rubber sheet		up to 2.0 mm	PM-CB-001 (*6)	○	○	○			
Clear sheet for plastic boxes		up to 1.0 mm	CB15U	○	○	○	○	○	○
		up to 0.5 mm	CB15U-K30	○	○	○	○	○	○
High-intensity reflective film		up to 1.0 mm	CB15UA	○	○	○		○	○
		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 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	○	○	3.0mm dia. 45°, 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
Loupe	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
Fiber-tip pen, pen holder	KF700-BK	○	○	Water-based fiber-tip pen, Black	10 pens / pack
	KF700-RD	○	○	Water-based fiber-tip pen, Red	10 pens / pack
	PHP31-FIBER	○	○	Pen holder for KF700 series pen	1 set / pack
Adhesive sheet, Cling mat	CM-0003-R1A	○	○	Adhesive sheet, supplying in roll (size 545 mm x 20 m)	1 roll / pack
	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
Protect Sheet	PM-CR-002		○	For FCX4000-50ES. Transparent vinyl, thickness 0.3 mm.	1 sheet / pack
	PM-CR-003		○	For FCX4000-60ES. Transparent vinyl, thickness 0.3 mm.	1 sheet / pack
	PM-CR-004	○		For FCX2000-120ES. Transparent vinyl, thickness 0.3 mm.	1 sheet / pack

Standard accessories

FCX2000 series

Item	Q'ty	Description
Power cable	1 pc.	The type of cable is different by 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)
Height adjustment tool	1 set	For adjusting position of tool head (plate, key wrench)
Protect Sheet	1 pc.	PM-CR-004 for ES models only
USB cable	1 pc.	Length 2.9 m
Roll media stocker	1 set	Loadable media: width up to 950 mm, weight up to 5 kg
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 5 m (shrinked/extended) Connection bore diameter: 50mm
Hose band	2 pcs.	For VC models only, to fix the hose

FCX4000 series

Item	Q'ty	Description
Power cord	1 pc.	The type of cord is different by destination
Cutting blade holder	1 pc.	PHP33-CB15N-HS
Cutting blade	1 pc.	CB15U-1 (1 pc/pack)
Loupe	1 pc.	PM-CT-001 (for checking the extruded length of blade)
Pen holder	1 pc.	PHP31-FIBER
Fiber-tip pen	1 pc.	KF700-BK (Black)
Protect Sheet	1 pc.	PM-CR-002 for FCX4000-50ES / PM-CR-003 for FCX4000-60ES
USB cable	1 pc.	Length 2.9 m
DVD-ROM	1 set	User's manual (PDF), Windows driver (OPS662), Cutting Master 4 (plug-in software for Illustrator/CorelDRAW in Windows, Illustrator in Mac), Graphtec Pro Studio (design software for Windows), Graphtec STUDIO (Design software for Mac)
Printed documents	1 set	Quick guide, Usage Precautions,Cutter Blade Manual

Option

Item	Part number	Description
Panel for VC model (*7)	OPH-A35	10 mm vacuum hole pitch for FCX2000-60VC
	OPH-A36	10 mm vacuum hole pitch for FCX2000-120VC
	OPH-A37	10 mm vacuum hole pitch for FCX2000-180VC
Application Software Software	Graphtec Pro Studio Plus	Advanced edition of Graphtec Pro Studio
Stand	ST0113	For FCX4000-60ES

*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.

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• 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.

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RoHS compliant product

CE

FCX2000-4000_JE10361_1P