

GRAPHTEC

Flatbed Cutting Plotters

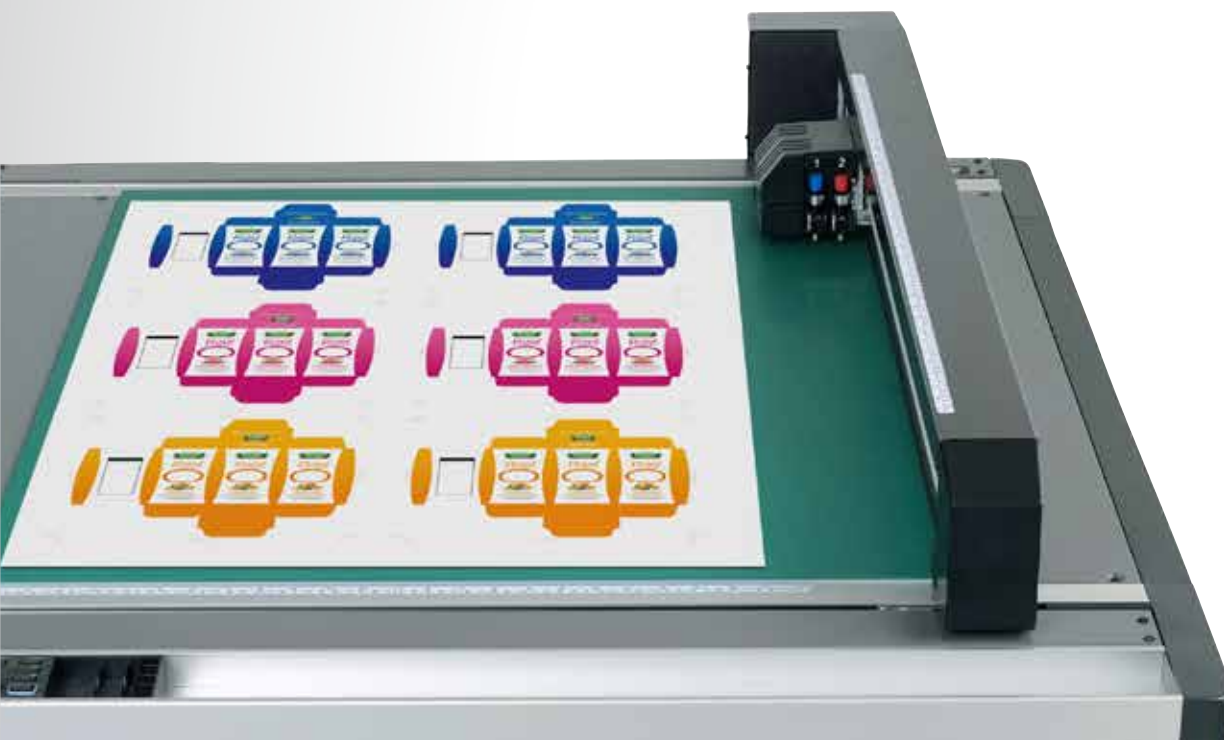
New

FCX2000 & FC4500

SERIES

Work Smarter, Not Harder.

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*1 enables users of all skill levels to easily process materials.



*1: FCX2000 series only.
*FCX2000-60VC shown.

Advanced model with wide variety of tools and highest performance

FCX2000 SERIES

New



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

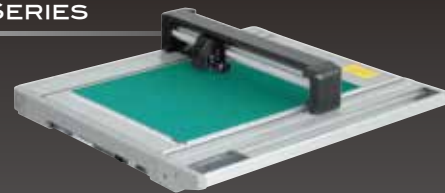
FCX2000-180VC

FCX2000-120ES

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

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

FC4500 SERIES



Max. force
5.88N
(600 gf)

Speed
750
mm/s

A2 size FC4550-50 and A1 size FC4510-60 can be installed anywhere.

FC4550-50

FC4510-60

www.graphteccorp.com

Expanded industrial applications

Precision cutting is achieved by enhancements to the rigidity of the moving mechanism, which reduces deflection due to pressure during cutting. This has enabled new functions such as 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.



Packaging
Cardboard (up to F flute :1.1 mm)



Packaging / POP
Heavy paper



Sticker
Seal / Magnet sheet



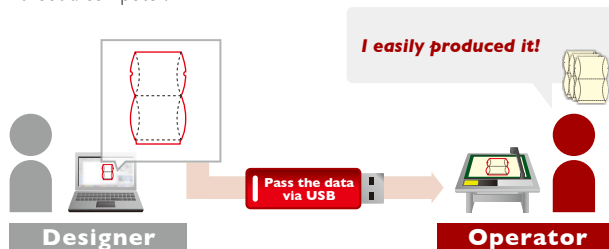
Sandblasting
Sandblast resist rubber

Enhanced functions for higher productivity and work efficiency

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

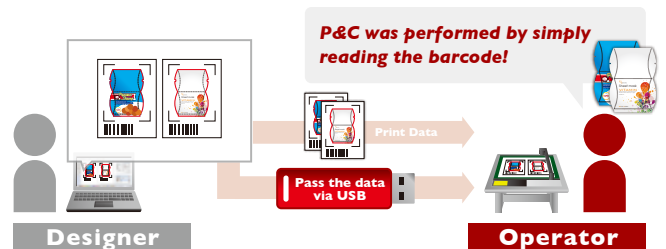
Offline operation using USB flash memory

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

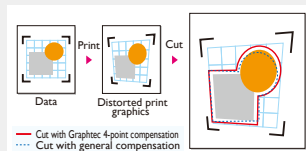
In Print & Cut (referred to as "P&C") operation, the cutting data is automatically selected from USB flash memory by scanning the barcode printed on the media then performs contour cutting. This prevents the usage of incorrect data, and improves work efficiency.



■ 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.



Reverse side Cutting/Creasing using ARMS

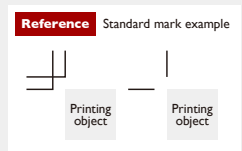
Cutting and creasing of printed graphics is possible even on the reverse side of the media. This prevents any scratches or damage to the printed graphic. On the FCX2000 Series, operation is simple using **Cutting Master 4** or **Graphtec Pro Studio**.

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 (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 is not 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.

Expanded cutting area (FCX2000 Series only)

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.

ions

that
such as curved
applications

Flatbed Cutting Plotters FCX2000 SERIES & FC4500 SERIES



Garment / Shoe Pattern
Compressed foam sheet



Traffic Signage
High-intensity reflective film



Industrial Goods
Highly-functional film



Window Display
Self-adhesive marking film

Improved application software

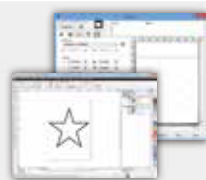
The cutting plotter is ready for use with the supported software, with other advanced features available via plug-ins and optional software.

**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

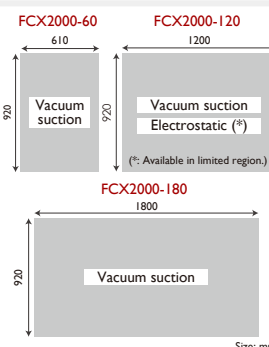
Option **Graphtec Pro Studio Plus**

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



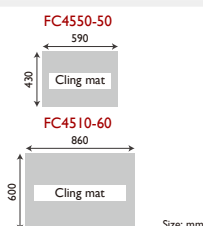
■ Vacuum suction system

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.

FC4500 SERIES



■ Cling mat system

For holding a wide variety of media, there are two types of cling mat available. CM-0004 holds film based media. CM-0005 is used for paper based media. CM-0005 is made with soft plastic, which creates better creasing lines compared to our existing models.



CM-0004



CM-0005

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 curves on heavy paper (PM-CT-002)

NEW

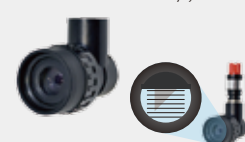
• For heavy paper (CP-001)

• For heavy paper (CP-002)

• For cardboard (CP-003)

■ 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 standard accessory.)



Specifications						
Model name	FCX2000-60VC	FCX2000-120VC	FCX2000-180VC	FCX2000-120ES (*1)	FC4550-50	FC4510-60
Configuration	Digital servo system, Flatbed					
Media hold-down method	Vacuum suction			Electrostatic	Cling mat / Adhesive sheet	
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	590 mm x 430 mm	860 mm x 600 mm
Mountable media (Y-axis)	950 mm				500 mm	666 mm
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				750 mm/s (1 to 75 cm/s in 23 steps)	
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. 2.94 N (300 gf)		Tool 1, 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 30 steps		Tool 1, Tool 2: in 48 steps
Minimum character size	Approx. 10 mm square (varies with character font and media)				Approx. 5 mm square (varies with the 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 0.1 mm, whichever is larger (*2)	
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)				Max. 0.1 mm (*2)	
Standard interfaces	RS-232C, USB2.0 (High-Speed), and Ethernet (10BASE-T/100BASE-TX)				RS-232C and USB2.0 (High-Speed)	
Buffer memory	2 MB					
Command sets	GP-GL and HP-GL™ emulation (set by menu, or selects automatically by received data)				GP-GL and HP-GL™ emulation (set by menu)	
Number of tools	Two 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 (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				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 [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)	857 x 780 x 200 mm	1172 x 968 x 200 mm (Not including stand)
Weight (Approx.)	76 kg (Including stand) (*3)	99 kg (Including stand) (*3)	116 kg (Including stand) (*3)	93 kg (Including stand)	19 kg	27 kg (Not 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)					
Compatible Standards	Safety	UL60950-1/cUL, CE marking (Low voltage and EMC)				
	EMC	FCC-A, EN55032-A			FCC-A, EN55022-A	

Media type			FCX2000 Series				FC4500 Series	
Type of media	Thickness	Support cutting blade	60VC	120VC	180VC	120ES	4550-50	4510-60
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	○	○	○	○	○	○
Compressed foam sheet	up to 1.0 mm	CB30UC	○	○	○	○		
Sandblast resist rubber	up to 0.8 mm	CB15U-K30	○	○	○		○	○
Cardboard (F/G flute)	up to 1.0 mm	CB15U-K20	○	○	○	○	○	○
	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	○	○	○		○	○

○ : Available

Supplies					
Item	Part number	FCX2000 Series	FC4500 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
	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 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
	KF700-BL	○	○	Water-based fiber-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 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

○ : Available

*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 Graphtec website.

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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 safe operation of equipment

- Before use, please read the user manual and operate properly in accordance with the description.
- To avoid malfunction or an electric shock by current leakage or voltage, please ensure a ground connection and use according to the specification.

GRAPHTEC

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 RoHS compliant product



JE10254 GR Vol.3P