GRAPHTEC
PRECISION CUTTING SOLUTIONS

FLATBED CUTTERS

FCX4000 SERIES

FCX2000 SERIES

OPTIMA V250
The Graphtec FCX2000 is a versatile, high-power flatbed for in-house package prototyping and specialized production. Finish jobs faster without switching tools with the dual tool holder for Graphtec blades, creasers, and pens. Unique to the FCX2000 is an adjustable tool head which allows extra room for thick substrates, and a roll media stocker for efficient processing of roll media.

### FCX2000 SERIES
- **IN-HOUSE PROTOTYPING**
- **SPECIALIZED PRODUCTION**

#### Vacuum Media Hold-down
The improved cutting table features reduced vacuum hole spacing that provides stronger, more consistent hold.

### ARMS 6.0
Graphtec’s renowned Advanced Registration Mark Sensing system swiftly reads registration marks printed from any printer to accurately contour cut and crease down to the smallest details. ARMS automatically compensates for media skew, print shrinking, and determines the optimal cutting order of objects. The sophisticated LED sensor also reads marks printed on challenging materials such as high-gloss, laminates, glitter, metallic, and high intensity reflective.

<table>
<thead>
<tr>
<th>Effective Cutting Area</th>
<th>FCX2000-60VC</th>
<th>FCX2000-120VC</th>
<th>FCX2000-180VC</th>
</tr>
</thead>
<tbody>
<tr>
<td>24” x 36”</td>
<td>47.2” x 36”</td>
<td>70.8” x 36”</td>
<td></td>
</tr>
<tr>
<td>Unit Dimensions (includes stand)</td>
<td>W 52.9 x D 55.4 x H 36.6 in</td>
<td>W 76.1 x D 55.4 x H 36.6 in</td>
<td>W 99.7 x D 55.4 x H 36.6 in</td>
</tr>
</tbody>
</table>

### Specifications
- **Max. Cutting Speed**: 16 in/s (1 to 40 cm/s in 16 steps), in all directions
- **Cutting Force**: Tool 1: Max. 500 gf, Tool 2: Max. 1000 gf, Tool 1 & 2 Settings: in 40 steps
- **Media Hold Down Method**: Vacuum suction
- **Interface**: USB2.0 / Ethernet / RS-232C
- **Distance Accuracy**: Max. 0.1% of the distance moved or 0.1 mm, whichever is larger (in plotting mode)*
  * When operated with Graphtec specified media and conditions.
- **Power Source**: 100 to 240 V AC, 50/60 Hz (auto switching), Max. Consumption 140 VA
- **Control Panel**: 3.7” Graphical LCD
- **Software**: • Cutting Master 4 Plugin (Win/Mac) • Graphtec Pro Studio (Win) • Graphtec Studio (Mac)
- **Compatible OS**: Win 10/8.1/8/7, Mac 10.7-10.13.1
- **Warranty**: 2-Yr parts & labor warranty
- **Stand**: Included with all models

### Compatible Media
- Self-adhesive marking film (vinyl, fluorescent, reflective)
- Heavy paper/board (pattern paper, oil board)
- Compressed foam sheet
- Sandblast resist rubber
- Microflute board (F/G grades)
- Magnet
- Cardboard (E-Flute)
- Clear sheet for plastic boxes
- High-intensity reflective film

### Applications
- Packaging mock-ups
- Traffic & commercial signage
- POP displays
- Garment & shoe patterns
- Decals & labels
- Monument stencil
- High-function film protectors
- Industrial / electronic components
- Coating plates & offset blankets

### For more information and tutorials visit www.graphtecamerica.com
The Graphtec FCX4000 is a high-speed, compact solution for low-to-medium size print-on-demand production. Offered as a tabletop cutter with optional stand, the FCX4000 easily fits within the constraints of most workspaces. Finish jobs faster without switching tools with the dual tool holder for Graphtec blades, creasers, and pens.

**Effective Cutting Area**

<table>
<thead>
<tr>
<th>Model</th>
<th>Effective Area</th>
<th>Unit Dimensions (includes stand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCX4000-50ES</td>
<td>25.98” x 19.21”</td>
<td>W 42.87 x D 35.31 x H 8.03 in</td>
</tr>
<tr>
<td>FCX4000-60ES</td>
<td>38.42” x 25.98”</td>
<td>W 55.31 x D 42.08 x H 8.03 in</td>
</tr>
</tbody>
</table>

**Media Hold-Down Method**

Electrostatic

The FCX4000 utilizes electrostatic generated by electrodes inside the panel to hold down media. This method is best suited for lightweight materials, however thicker materials may also be used.

**ARMS 6.0**

Graphtec’s renowned Advanced Registration Mark Sensing system swiftly reads registration marks printed from any printer to accurately contour cut and crease down to the smallest details. ARMS automatically compensates for media skew, print shrinking, and determines the optimal cutting order of objects. The sophisticated LED sensor also reads marks printed on challenging materials such as high-gloss, laminates, glitter, metallic, and high intensity reflective.

**USB Operation**

Send jobs at the push of a button, without a PC or internet connection.

**Barcode Generation**

Generate barcodes to automatically load files and cutting conditions for specific projects.

**ARMS Copy**

Reads only 1 registration mark of subsequent copies of the same job, greatly increasing production speed.

**Specifications**

For more information and tutorials visit www.graphtecamerica.com

<table>
<thead>
<tr>
<th>Specification</th>
<th>FCX4000-50ES</th>
<th>FCX4000-60ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Cutting Speed</td>
<td>29.5” / sec</td>
<td>29.5” / sec</td>
</tr>
<tr>
<td>Cutting Force</td>
<td>Tool 1: Max. 600 gf Tool 2: Max. 600 gf Tool 1 &amp; 2 settings: in 48 steps</td>
<td></td>
</tr>
<tr>
<td>Media Hold Down Method</td>
<td>Electrostatic</td>
<td>Electrostatic</td>
</tr>
<tr>
<td>Interface</td>
<td>USB2.0 / Ethernet / RS-232C</td>
<td>USB2.0 / Ethernet / RS-232C</td>
</tr>
<tr>
<td>Distance Accuracy</td>
<td>Max. 0.2% of the distance moved or 0.1 mm, whichever is larger (in plotting mode)*</td>
<td>Max. 0.2% of the distance moved or 0.1 mm, whichever is larger (in plotting mode)*</td>
</tr>
<tr>
<td>Power Source</td>
<td>100 to 240 V AC, 50/60 Hz (auto switching), Max. Consumption 140 VA</td>
<td>100 to 240 V AC, 50/60 Hz (auto switching), Max. Consumption 140 VA</td>
</tr>
<tr>
<td>Control Panel</td>
<td>3.7” Graphical LCD</td>
<td>3.7” Graphical LCD</td>
</tr>
<tr>
<td>Software</td>
<td>• Cutting Master 4 Plugin (Win/Mac) • Graphtec Pro Studio (Win) • Graphtec Studio (Mac)</td>
<td>• Cutting Master 4 Plugin (Win/Mac) • Graphtec Pro Studio (Win) • Graphtec Studio (Mac)</td>
</tr>
<tr>
<td>Compatible OS</td>
<td>Win 10/8.1/8/7, Mac 10.7-10.13.1</td>
<td>Win 10/8.1/8/7, Mac 10.7-10.13.1</td>
</tr>
<tr>
<td>Warranty</td>
<td>2-Yr parts &amp; labor warranty</td>
<td>2-Yr parts &amp; labor warranty</td>
</tr>
<tr>
<td>Stand</td>
<td>Optional (available for purchase)</td>
<td>Optional (available for purchase)</td>
</tr>
</tbody>
</table>

**Compatible MEDIA**

Self-adhesive marking film (vinyl, fluorescent, reflective)
Stiff paper/card (for stencils, etc)
Polystyrene foam
Magnet
Sandblast rubber sheets
Micro flute board (F/G grades)
Clear sheets for plastic boxes
High-intensity reflective film

**APPLICATIONS**

• Decals & Labels
• Packaging mock-ups
• POP Displays
• Traffic & commercial signage
• High-function film protectors
• Monument stencil

**Safety:** UL60950-1/cUL, CE marking (low-voltage and EMC) EMC: FCC-A, EN55032-A, CE mark (EN85032, others)

**Min. Character Size**

Approx. 10 mm square (varies by font & media types)
The Optima V250 4’ x 8’ digital flatbed is the optimal cutting solution for all applications in the digital printing, packaging, and signage markets. Contour & die cut substrates up to ¾” thick including foam board, PVC, and varnishing plates / offset blankets with its dual tool head system and variety of tool options. Each tool head is independently adjustable, ensuring high quality results for every job.

**Tools for twin tool station**

**Creasing Tool** with various wheels to crease folding carton and corrugated cardboard.

**Oscillating Cutting Tool** powerful pneumatic vibrating tool for cutting various strengths of materials up to 20 mm (3/4”).

**V Tool (optional) 45˚** for cutting foamboard, cardboard, reboard, and gatorboard.

**Tangential Cutting Tool** precise multi depth cutting tool for materials up to 5 mm (0.196”) in thickness.

**Applications**

With two configurable tool stations, Graphtec Optima V250 is a medium-format professional cutting plotter capable of: cutting, half-cutting and creasing, drawing and oscillating cutting up to 20 mm (3/4”) in thickness.

Optima V250 comes as standard with a camera for crop mark detection. This device, used in combination with software OptiCrop, can perform accurate contour cutting and creasing around pre-printed media even with print-distorted materials.

Independent twin heads can be easily adjusted to various heights depending on the blade length and type. This ensures that you achieve the highest quality and cutting precision for all materials.

**Software**

**V-Studio** (included Software for the PC with Windows OS) is the Operating Software which allows the artwork preparation, file conversion and the .PLT, .SVG (i.e. Illustrator® and CorelDraw®) vector file importation. Provided to the end users specific applications for different industries, a packaging design application and a crop marks detection camera utility. The tools/material database as well as the working process are managed by dedicated apps, all of them designed to make the work flow faster and guide operators step by step.

**OptiCrop** is the easy to use software, to perform Contour Cut on pre-printed image. The software used in combination with ImageCut provides you with diagram to preview your contour cuts. This preview will even assist you in searching registration marks and export the artwork into your machine correctly.

Optima V250 comes as standard with a camera for crop mark detection. This device, used in combination with optional software OptiCrop, can perform accurate contour cutting and creasing around pre-printed media even with print-distorted materials. Supported by included Adobe Illustrator® or CorelDraw® plug-in for Windows OS, along with various RIP manufacturer support including SAI, Caldera, and upcoming ONYX support release.

**m3 (optional)**

is a comprehensive library of parametric components and designs, specially designed for Graphtec Optima V250. It is structured to deliver the capability to edit packaging, display cases and other cardboard based 3D objects, resize & cut.

**m3 Art (optional)**

is a combination of functionalities giving graphic designers the flexibility to work directly in Adobe Illustrator with files from the packaging and POP/POS displays parametric libraries. Native m3 files can be opened in Illustrator without conversion and can be resized.

**Load of Materials**

- Corrugated Board and Folding Cardboard
- Foam Board and Gator Board
- PVC, and Polypropylene
- Cork Board
- Etching & Sandblasting Rubber
- Hand-Comb Cardboard
- Diamond Grade Reflective

**Signage**

Digital Print

Packaging
Features

VACUUM-ASSISTED MACHINE powerful vacuum function perfectly secures the media to the working table.

INTERCHANGEABLE HEADS SYSTEM crease and score (variable thicknesses), emboss, draw, and perform oscillating cutting, half-cutting and V-cutting.

BUTTON CLAMP SYSTEM allows you to trim the material right to the edges, optimizing the material yield and leaves no more marks on your material.

Specifications / Accessories

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>W 72 x D 118.5 x 47.2 in</td>
</tr>
<tr>
<td>Weight</td>
<td>Machine net weight 1,323 lbs (600kg) Machine with package 1,802 lbs (820kg)</td>
</tr>
<tr>
<td>Max. Speed</td>
<td>33”/sec</td>
</tr>
<tr>
<td>Acceleration</td>
<td>39”/s²</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>Single phase 208V/60Hz/16A</td>
</tr>
<tr>
<td>Air Requirements (Pneumatics)</td>
<td>8 Bar*/115 PSI-5.3CFM or 150 l/min</td>
</tr>
<tr>
<td>Connectivity</td>
<td>USB 2.0</td>
</tr>
<tr>
<td>Data Buffer</td>
<td>External PC</td>
</tr>
<tr>
<td>File Formats</td>
<td>SVG, PLT, DXF and CF2</td>
</tr>
<tr>
<td>No. Tools</td>
<td>Dual head configuration</td>
</tr>
</tbody>
</table>
Cutting Master 4 (Included)

Cutting Master 4, the latest plug-in software for Adobe Illustrator and CorelDRAW Graphics Suite. Send cutting data to the plotter, view cut preview, add tool conditions/job settings, and more. This easy to use plug-in enables you to get the best performance from your plotter.

Compatible: Win 10/8.1/8/7 Mac 10.7-10.14
Supported Software: Adobe Illustrator CC14-CC19, CC, CS5-CS6, CS4 (Win only) | CorelDRAW 2017-2019, X4-X8

Graphtec Pro Studio / Graphtec Studio (Included)

Easy-to-use application software for creating and cutting original designs. Includes enhanced functions such as auto-shapes, shading, and editing functions. It can also configure the cutting conditions and other settings on the plotter. EPS / Ai* / CMX*/ PDF* file compatibility allows users to import pre-existing designs.

Compatible: Win 10/8.1/8/7
Graphtec Studio for Mac 10.5-10.14

FCX4000 SERIES

Standard

- Printed docs: quick guide, safety & cutting blade manual
- Blade: CB15U-1 (1 pc/pack)
- Blade-holder: PHP35-CB15-HS
- Loupe: PM-CT-001, for checking blade length
- Fiber-flip pen: KF700-BK (Black) & PHP31-FIBER (pen-holder)
- Power cable, USB cable 2.9 m
- Protection sheet*: PM-CR-002 for FCX4000-50ES, PM-CR-003 for FCX4000-60EA
  Transparent vinyl, thickness 0.3 mm

* Protection sheet prevents damage to the writing panel of the FCX4000 when cutting without a backing sheet. Electrostatic absorption can be used even if a protective sheet is installed to the plotter.

Optional

Blade 
- CB09UB-5, CB15U-5, CB15U-K30-5, CB15UA-5, CB15UA-K30-5
- Blade-Holder 
  - PHP33-CB09N-HS, PHP33-CB15N-HS, PHP35-CB09-HS, PHP35-CB15-HS
- Fiber-Tip Pen
  - KF700-BK (black), KF700-RO (red), KF700-BL (blue)
- Pen Holder
  - PHP31-FIBER, for KF700 series
- Creasing Tool
  - CP-001: stick style, 1 mm tip
  - PM-CT-002: ball on tip of stick style, 1.5 mm dia
- Loupe
  - PM-CT-001 for checking the length of the extruded blade tip
- Cling Mat
  - PM-CM-001 [TBA] for film based type material, size 26” x 19”
  - PM-CM-002 [TBA] for paper based type material, size 26” x 19”
- Adhesive Sheet
  - CM-0003-R1A, adhesive sheet (double-sided adhesive coated sheet), size 21.4” x 65.7” (supplying in roll)
- Protect Sheet
  - PM-CR-002 for FCX4000-50ES transparent vinyl, thickness 0.3 mm
  - PM-CR-003 for FCX4000-60ES transparent vinyl, thickness 0.3 mm

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- Items mentioned are subject to change without notice. For more information about product, please check the website or contact your local representative.

FCX2000 SERIES

Standard

- Printed docs: quick guide, safety manual
- Blade: CB15U (2 blades), CB15U-K30 (5 blades)
- Blade-holder: PHP35-CB15-HS
- Loupe: PM-CT-001, for checking blade length
- Fiber-flip pen: KF700-BK (Black) & PHP31-FIBER (pen-holder)
- Power cable, USB cable 2.9 m
- Durable flexible hose: for VC models only, 1.5-5 m
- Hose band: Zpc, for VC models only, to fix the hose
- Others: power cable, height adjustment tool, USB cable, roll media stock, stand
- Optional
- Blade
  - CB09UB, CB09UB-K60, CB15U, CB15UA, CB15U-K30, CB15UA-K30, CB30UC-1, PM-CB-001
- Blade-Holder
  - PHP31-FIBER, PHP33-CB09N-HS, PHP33-CB15N-HS, PHP35-CB09-HS, PHP35-CB15-HS, PHP35-CB15N-HS, PHP71-SHARPIE
- Fiber-Tip Pen
  - KF700-BK (black), KF700-RO (red), KF700-BL (blue)
- Pen Holder
  - PHP31-FIBER, for KF700 series
- Creasing Tool
  - PM-CT-001: stick style for heavy paper
  - CP-002: roller type for heavy paper
  - CP-003: roller type for cardboard
  - PM-CT-002: ball on tip of stick style for curve on heavy paper
- Ballpoint Pen
  - KB700-BK, oil-based ballpoint pen (black)
- Pen-Holder
  - PHP34-ball, for KF700-BK pen
- Cling Mat
  - PM-CM-004 [TBA] for film based type material, size 26” x 19”
  - PM-CM-005 [TBA] for paper based type material, size 26” x 19”
- Adhesive Sheet
  - CM-0003-R1A, adhesive sheet (double-sided adhesive coated sheet), size 21.4” x 65.7” (supplying in roll)

Tech Support / Service Centers

Get help on parts and services, please find Graphtec Authorized Service Centers near you at:
www.graphtecamerica.com

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 offers Extended Warranty for up to 5 years on specific models
Upgrade within 90 days of your purchase date at:
www.graphtecamerica.com